Digital Dots

Spindrift

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

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...Intoxicating The Graphic Arts Industry Since April 2003

Blue flower, red thorns! Blue flower, red thorns! Blue flower, red thorns! Oh, this would be so much easier if I wasn't colour blind!

– the Donkey in *Shrek*

Dear Reader,

Our UV-curing printer test project is wending its slow way towards completion. The test includes a check on colour gamut and one on resolution. We're looking to see what the maximum colour gamut is for several UV-curing printers, using a standard IT8 colour chart. Most people can see something like 2.4 million different colours, so the idea with this is to provide a repeatable metric for comparing the different colour gamuts of these printers.

At the very least the colour gamuts should match or exceed those of competing technologies. This includes offset and screen analogue output and solvent-based digital engines. However as the industry continues to move more work to digital devices, comparisons with digital offset presses such as the Kodak Nexpress might also prove interesting.

We'll let you know where we are with this once evaluations are complete. We're on track to publish the full report in October, and intend to make it available as a free download.

Enjoy!!

Laurel, Nessan, Paul and Todd

In This Issue

Regular & Special

News Focus

Xeikon has launched a brand new label press, the 3050, and upgraded its original 3000 model to the entry-level Xeikon 3030, giving Xeikon four label printers in all. The 3050 has a maximum web width of 516mm, resolution of 1200 dpi, runs at 9.6m/min and can be upgraded to a 3500 model.

Roland has launched three new smaller versions of its VersaCamm VS640 – a print and cut wide format printer with metallic and white ink capabilities. They use the Eco-Sol Max metallic and white inks plus CMYKLcLm which, combined with the specially configured print-head array, output stunning results based on Roland's library of more than 500 metallic shades. Designated the VersaCAMM VS-540, VS-420 and VS-300, the 1.37 m, 1.07 m and 0.76 m printers utilise the same dedicated feed and print-head mechanism as the 1.62 m version

CGS has already announced that its Oris Color Tuner will support the new VersaCamms and their Metallic Silver and White Eco-Sol Max inks.

Roland has also launched a wider version of its VersaUV wide format printer, now available in a 1370mm width. Boasting maximum resolution of 1,440 x 1,440 dpi and the ability to support thicker/rigid materials up to 1 mm, the VersaUV LEC 540 also has a refined LED curing system for long life high production, and a new ink circulation system for lower running costs.

Mimaki will start shipping metallic eco-solvent inks for its JV33 and CJV30 wide format printers in October. These inks can be combined with full colour ES3 ink for metallic effects such as gold or bronze as well as other colour shades. The white ES3 ink will also ship at the same time.

EFI has launched an inkjet label printing system with full LED UV curing technology for printing on flexible packaging materials. The Jetrion 4830LED UV Inkjet System together with a newly developed, flexible ink set allows printing on unsupported and heat sensitive materials, including shrink sleeve. Current Jetrion 4830 users can retrofit their systems with the new LED lamp technology to use the flexible ink set.

The Pacific Area Newspaper Publishers' Association is to produce the Daily Digital newspaper in Sydney, Australia as a technology demonstration. Printed on an Océ JetStream colour inkjet press, it will have 16 pages of stories and advertisements, which readers select according to their preferences.

Axaio has launched its MadeToPrint Server PlanSystem4 for Adobe InDesign Server CS3/CS4, developed in conjunction with Van Gennep. This permits the automated output of InDesign layouts directly from the publishing database. Based on Adobe's AIR and Flex technologies, it gives InDesign Server a visual presence and enables users to overcome the limitations of command line program control by providing a clear and user-friendly design.

Enfocus has set up a new Certified Solution Integrator programme, a consultancy service in the UK and Ireland around its Switch workflow tools. While Switch is relatively simple to implement for smaller automation projects, customers often need help to integrate this automation into larger, more complex workflows.

Tecom Paper has launched its TIJ 2048C/400, the first high-performance UV-curable inkjet digital label printer from the Czech Republic. It uses the Konica-

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Minolta KM1024 printhead with GEW lamps for drying. Maximum speed is 50m/min but speed varies according to the image being printed. Maximum media width can be up to 400mm and the machine is equipped with an automatic tension control on both unwind and rewind sides.

EFI has launched its latest version EX Fiery print server for the Xerox iGen4 press. This is based on the new Fiery System 9 R2 platform and EFI claims a 35 percent increase in RIP speed over the previous generation. It includes the newest version of Fiery Color Profiler Suite, with integrated profile making, and supports Adobe's PDF Print Engine 2.

EFI has also introduced an entry-level RIP for Xerox's wide format printers. EFI eXpress 4.1 is based on Colorproof XF, BESTColor and Fiery technologies.

Mimaki has introduced 2 litre bags of ink for its JV33 and JV5 printers which its claims is both good for the environment in terms of less packaging and a cheaper way to buy inks. The 2 litre sacks fit into the optional bulk ink system.

Extensis has brought out a new version of its font management program, Suitcase Fusion. Version 3 has new plug-ins for InDesign and Illustrator CS5, a QuickMatch facility for finding similar fonts and Snapshots for saving preview text to PNG files. It also integrates with the new WebInk service covered on p23.

InfoPrint has rebranded its workflow tools, including ProcessDirector, Manager and Productivity Tracker, under the family name Software Advantage. The branding is also extended to a number of third party applications such as DocPath, GMC PrintNet and Mapping solutions. Apart from InfoPrint's own hardware, these programs will also work with other vendors' kit including the likes of Kodak, Xerox and Pitney Bowes.

Océ released v5.1 of its PrismaAccess print management software. This includes email integration to process jobs that arrive as email attachments. It also incorporates core functions of Enfocus Pitstop Pro for preflighting PDFs, and can produce a job cost quotation.

Unibind, a specialist in binding systems for photobooks, is to launch a number of new products at Photokina, including Photos & Sounds, a photobook that combines images with music and voice recordings. There's also the HardCoverMaker 650M, an easy-to-use and cost-efficient solution for producing personalised photobook covers in-store and the Foil Xpress digital printer, which enables quick and simple one colour foil printing onto photobooks.

Océ has published an interim financial report for the six months ending 31 May this year which show a net loss of -€100.8m as against a profit of €1m for the same period in 2009. However, this includes €103m integration costs following Océ's acquisition by Canon.

Xerox has reported a rise in profits in its figures for the second quarter of this year. Revenue of $5.5 billion was up 48 percent including a 1-point negative impact from currency. Total install activity for Xerox equipment was up 45 percent, reflecting strong demand across all segments including a 56 percent increase in entry-level printers and multifunction devices.

Punch Graphix, owner of Xeikon and BasysPrint, has published its 2010 half-yearly report, showing that sales rose during the first half by 18% to €66 million. Net profit for the first half was €1.6 million, including the negative result from the stake in Accentis of €3.7 million, a marked improvement over the first half of 2009, which saw a loss of €11.0 million.

The **Agfa-Gevaert** group reported revenues up by 8.7 per cent over the same period last year to €736 million, mainly driven by the Graphics division. Profits for the Graphics division rose to €391 million, up 19.9 per cent over last year's figures.

Agfa's joint venture with Shenzhen Brothers, known as Agfa Graphics Asia, has formally started operations, combining both companies' Greater China and ASEAN activities.

Manroland has extended its portfolio with an agreement to distribute Tensor's single-width newspaper presses. This is designed to service high-growth emerging markets

in Central and South America as well as Southeast Asia, and Southern Africa. Tensor is based in Illinois, USA.

Fujifilm UK is to distribute Duplo's finishing kit alongside its digital offerings following a successful partnership at IPEX.

Global Imaging Systems, itself owned by Xerox, has acquired Georgia Duplicating Products of Macon, Georgia. GDP, an independent office equipment dealer, will immediately begin offering Xerox's full range of office printing products.

Micha Moses has joined **GMG** as Vice President Strategic Alliances where he will be responsible for specifically strengthening and expanding the company's strategic partnerships with the main global players of the graphic arts industry and other potential strategic partners. Moses has previously worked for Adobe, XMPie and Mimotek.

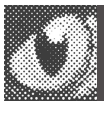
Quark has named Gavin Drake as vice president of marketing, reporting directly to Quark President and CEO, Ray Schiavone. Relocating from London to Denver, Drake will oversee Quark's global marketing efforts, including corporate communications, creative services, online marketing, events, and direct marketing.

Canto has updated its Cumulus Sites feature with an option that sends email links to enable users to download requested files at a time of their choosing. The 8.1.2 update also improves file sharing with links to collections which can be viewed, edited and reused and with embargo dates so files are shared at specific times, as well as options to post files to social networking sites including Facebook, Flickr and Twitter.

CtrlLayers launched v1.1, a plug-in for InDesign CS5 for better management of layers, so that multiple users can work on different layers of document and integrate them at a later stage.

Dalim has released its first App designed to run on Apple's iPhone and iPad devices. Dialogue Touch is the mobile approval client for ES - Dalim Software's streamlined online environment to produce, manage, transform and share digital content - over a WiFi or 3G connection from practically anywhere.

YouTube has become the latest high profile website to turn to HTML5. Google, which owns YouTube, says this is due to the dramatic increase in people using mobile devices to watch videos. This in turn suggests that Adobe is losing the battle to persuade people to stick with Flash, highlighted by Apple's decision to ban Flash altogether from its mobile devices.



News Analysis

Mark Hurd, CEO of technology giant HP, has been forced to step down after an internal investigation revealed that he had filed false personal expenses claims to cover up a "close personal relationship" with a woman hosting executive events.

The issue came to light when the woman, Jodie Fisher, accused Hurd of sexual harrassment, a charge that HP investigated and cleared him of – he settled privately with Fisher. However, the company did find that Hurd had made multiple false expenses claims of several thousands of dollars to cover up payments that he made to Fisher. He has since offered to repay the expenses.

On the face of it this is a simple case of a large corporate moving to dismiss an employee who embezzled large sums of money, and in truth, had Hurd been a lower ranking worker then HP would have had little option.

We'd like to think that this was simply about morals and that Hurd suffered the consequences of breaking HP's Standards of Business Conduct, not to mention betraying the trust of the shareholders and his own wife. But

business is business and large corporates are rarely that bothered about morality.

Hurd was widely credited with refocussing HP's sprawling business empire, and regaining its leadership position in the computer business, having nudged Dell into second place. Under Hurd's five-year watch HP's stock market value went up by $44.6 billion to $108.1 billion and shares in the company dropped ten per cent when the news broke though they've bounced back since.

The incident leaves several questions unanswered, not the least of which is why HP was hiring former porn stars as hostesses for executive parties – and how come we never get invited to these sort of parties, which sound like a lot more fun than some of the HP press conferences we've sat through? [Speak for yourself! – Ed.]

It's not really clear what went on between Hurd and Fisher, since Fisher has claimed that there was no personal relationship between them, though Hurd's expenses claims were supposedly to cover up a relationship between them.

More seriously, there is the suspicion that this incident was used in a boardroom coup to oust Hurd. Hurd, after all, has become unpopular at HP after cutting tens of thousands of jobs, and it's possible that the board simply wanted a new face to lead the company now that the dirty work has been done.

But Hurd has also made bold acquisitions including Electronic Data Systems, a technology services provider, 3Com, maker of computer networking kit, and Palm, a mobile phone maker. These acquisitions may well take the company in a new direction and other members of the board may have been concerned over the strategy for the future.

For now, Cathie Lesjack, HP's chief financial officer has succeeded Hurd but says that she intends to stand down as soon as a successor is found. Among the possible candidates is Vyomesh Joshi, the popular head of the Imaging and Printing Group within HP.

Hopefully Lesjack can avoid any problems of her own – not an easy thing for those at the top of HP. Hurd's predecessor Carly Fiorina resigned after an argument about restructuring the company. In 2006 Chairwoman Patricia Dunn left amid a scandal about spying on board members to find the source of leaks to the press

And of course it's not all bad news for Hurd who stands to receive $12.2 million severance pay and still has a substantial number of HP shares.

Heroes & Zeros

Zero

This month we have a two-for-the-price-of-one offer with not one, but two zeroes.

Our first zero is Mark Hurd, exCEO, president and chairman of HP. This man, generally acknowledged as being tough, autocratic, greedy, super stingy etc etc, was said by HP's General Counsel to have "demonstrated a profound lack of judgement that seriously undermined his credibility".

Jodie Fisher, erstwhile erotic actress, marketing support assistant and all round glamour puss is our second Zero for her apparently unsubstantiated accusations against Hurd. Fisher went on to say that she was sorry that Hurd lost his job, but just what did she think would happen when she had her lawyer contact HP to allege that Hurd had sexually harassed her?

Hero

Larry Ellison, CEO of Oracle, is our Hero of the hour for his very vocal and robust support of Mark Hurd. Usually,

when you're down everyone turns on you, but Ellison has chosen to stand by his friend, and after all, isn't that what we would all expect of our mates?

Of course, there could be a touch of the 'there but for the grace of God go I' about it, but in a letter to the New York Times Mr Ellison has called the HP board's decision to accept Hurd's resignation "the worst personnel decision since the idiots on the Apple board fired Steve Jobs many years ago."

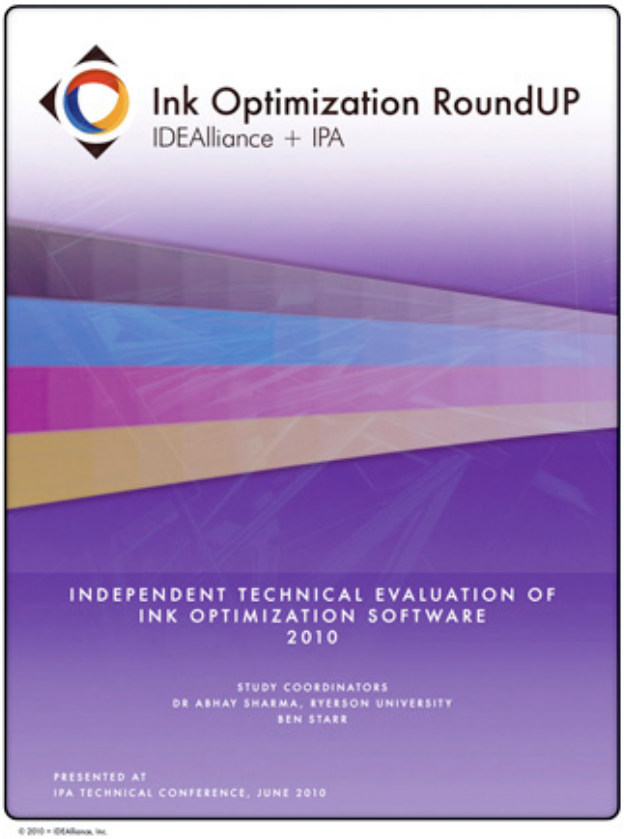
Reviews

Ink Optimising systems tested

This summer saw the conclusion of a large project testing ink optimisation systems. The test was conducted by SGC (School of Graphic Communication) at Ryerson University, Canada, in cooperation with the American organisation IPA (Association of Graphic Solutions Providers) and IDEAlliance (International Digital Enterprise Alliance), an educational and research organisation that, among other things, hosts the work on printing standards according to GRACol (roughly the American equivalent to ISO and FOGRA printing standards). From Ryerson University Dr Abhay Sharma was acting as project manager, with the assistance of Ben Starr, a Premedia Colour Specialist. Abhay Sharma is the author of the book "Understanding Colour Management", and co-author of the book "Color Management Handbook: A Practical Guide".

In all 11 systems were tested: Agfa Apogee InkSave, Alwan CMYK Optimizer, CGS Oris InkSaver, FineEye ICEserver Litho, Founder EcoInk, GMG InkOptimizer, Kodak ColorFlow, MPX Colorserver, One Vision PlugINKsaving, ppi Media InkReduction and TGLC PerfX. The results are presented in the report "Ink Optimization RoundUP", as well as a couple of seminars.

Among the general findings is that ink savings of about 20% in general, can be made for the type of test form used (a mix of older non-optimised ICC profiles), and the colour deviation between the non-optimised file and the printed file in most cases is well below a Delta E of 1, when



In all 11 systems for ink optimization were tested by SGC (School of Graphic Communication) at Ryerson University, Canada. The results are presented in the report "Ink Optimization RoundUP".

using the formula from year 2000, ΔE00. Sharma and Starr also introduced a visual evaluation, and in most cases the printed result matched the proof and reference prints.

Another aspect was evaluated during the test – whether an ink optimisation solution also made the printing process more stable. The answer was 'most likely', even if this perhaps needed to be investigated more carefully.

So which system was best in the test? While several vendors have claimed to come out on top in this test, the results are a little complex to evaluate. Different systems have different strengths, and do better on different parts of the test. But getting the report, and analysing the results more carefully, should make it possible for

someone who is about to invest in such an system, to see if their favourite did well in the test. The authors of the report warmly recommend printers to invest in a system like this – the ROI can be as short as 3-6 months, and the benefit of a more stable printing process is priceless.

As the observant reader might remember Digital Dots set out to conduct this type of test some two-three years ago, but couldn't allocate the time and resources necessary for such a big project. We congratulate Sharma, Starr and the Ryerson University for having pulled this off – well done!

Adobe Lightroom 3 – and more

One of the most important enhancements to digital photography is the ability to process and manipulate image data in its raw form – the Camera RAW format (though different camera manufacturers use their own names). When you buy a new mid-range to high-end

digital camera, it will normally come with some software for viewing these raw files and while you should expect to get a good result using the camera manufacturer's offering, there are plenty of third party alternatives that may yield even better results. These include Apple Aperture, Adobe Lightroom, Bibble from Bibble Labs, Capture One from Phase One, SilkyPix from ShortCut Software, just to mention a few. In this article we will focus on Adobe Lightroom 3, since it has been released in a substantially enhanced version, most importantly with a new RAW engine.

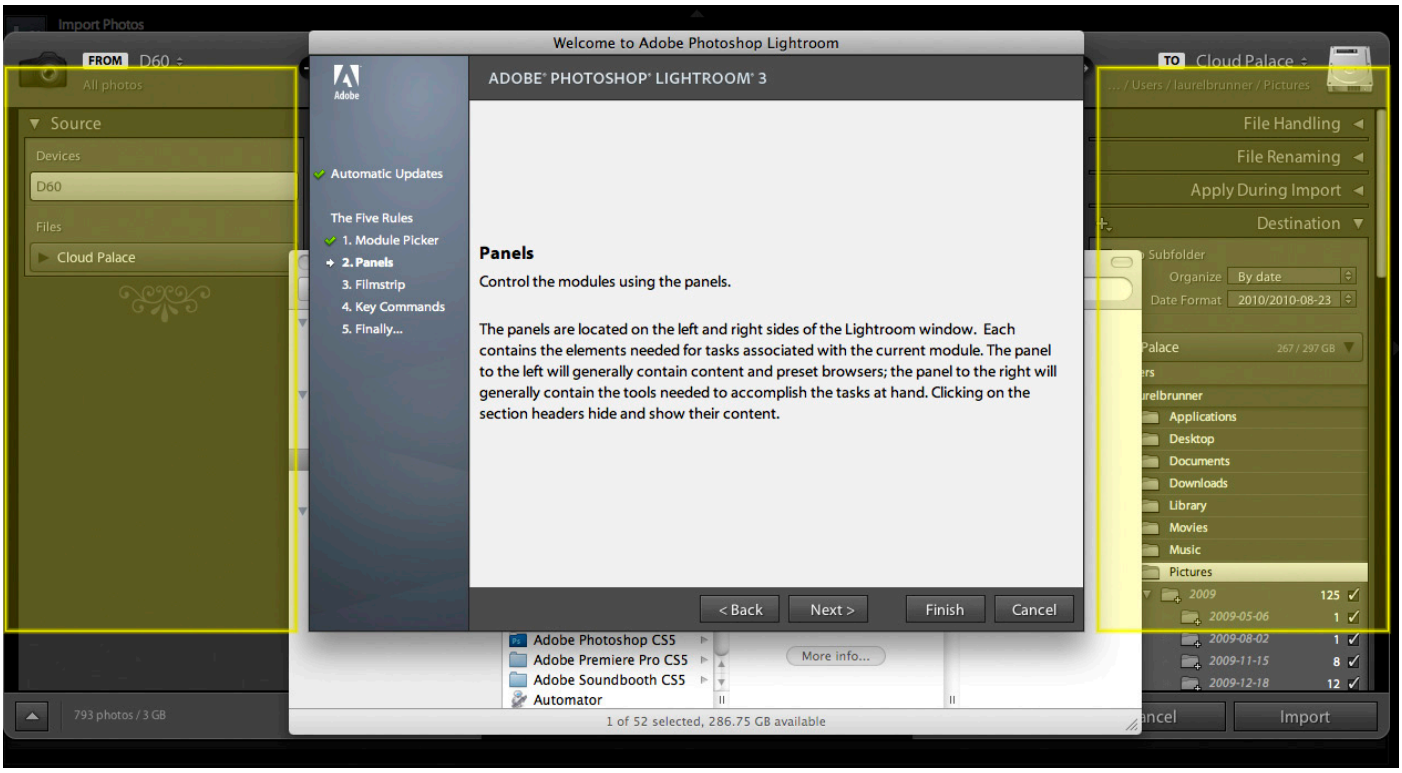
Lightroom comes hot on the heels of Adobe's release of Creative Suite 5, and Lightroom, which is not part of the CS portfolio, shares its RAW conversion engine with CS5's Camera RAW 6 module. You can send files to Photoshop as Adobe Smart Objects and preserve any adjustments to exposure and so on within the file. In addition, Lightroom 3 shares Photoshop CS5's Automatic Lens Correction (fixing both vignetting, lens distortion and chromatic aberration in one tool). If your lens isn't included in the database you can build your own correction tables, or install a lens profile kindly provided by another user or perhaps the vendor.

But the similarities with Photoshop are limited. Lightroom 3 has more options and functions than Photoshop (otherwise there wouldn't be much point for Adobe in having a special software for image processing), and the goal for Adobe is that for many images there shouldn't be any need for manual touch-up in Photoshop afterwards, unless they are of an artistic nature.

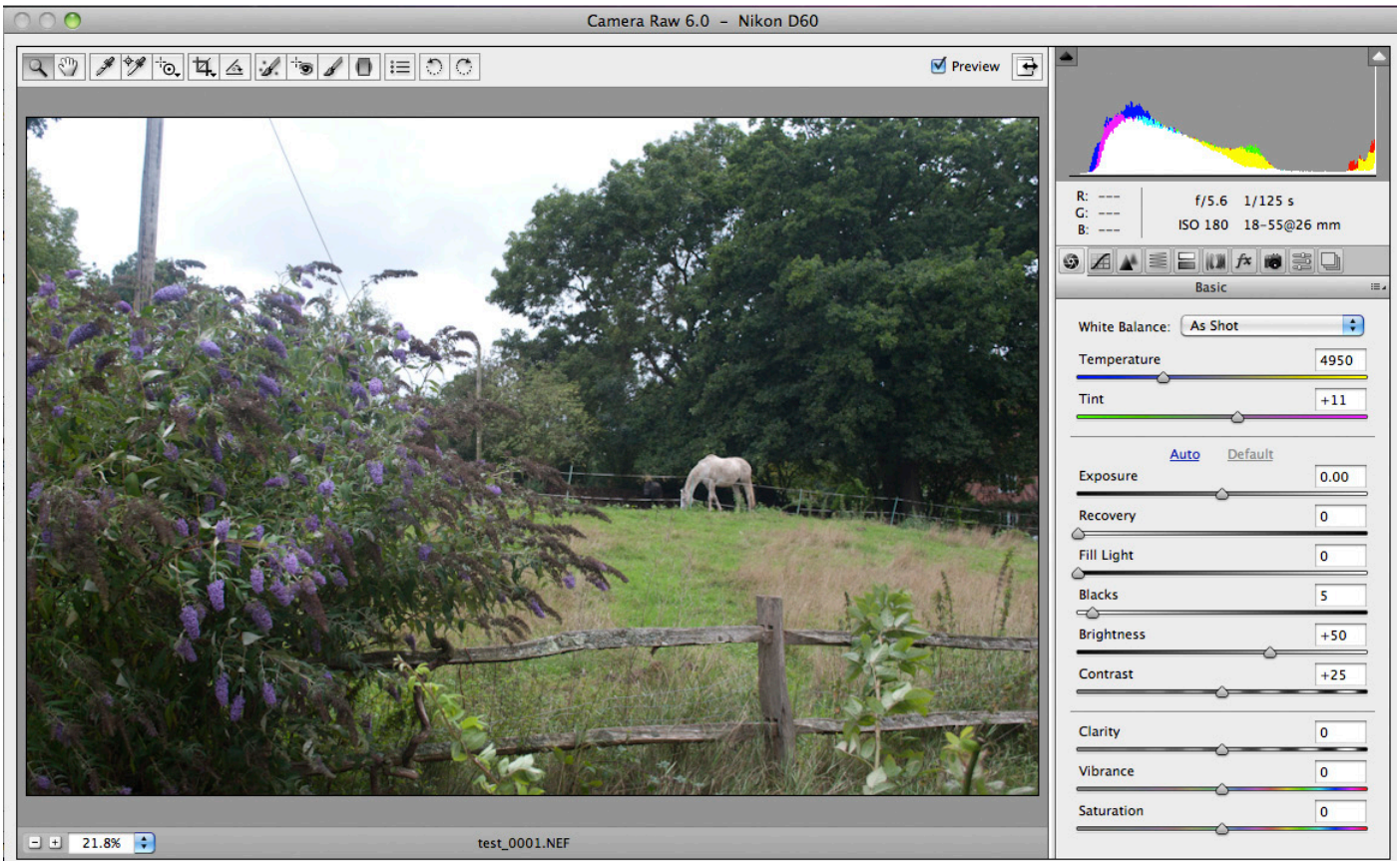
A much longed for feature among professional photographers is the Tethering mode, which lets the user control the camera directly from the software. Well, not all camera models can be fully controlled, but it's a good step forward.

There's also a noise reduction feature, which should be much appreciated when using very high ISO settings. Lightroom 3 offers better control of luminance, edge detail and colour noise than LR2.

But Lightroom 3 is more than a lightroom; it also helps with organising and managing images after processing the raw data. Improved features related to creating slide shows, as well as extended support for different print scenarios and better handling of watermarks, makes Lightroom 3 a much more efficient workflow tool than LR2. The improved interactive help also reduces the steepness of the learning curve somewhat – it is a complex software



Above: Since this is an advanced tool for a complex task, the interactive help is probably much appreciated, even for somewhat experienced users. Below: Lightroom 3 shares its new colour engine with the Camera RAW import and processing function in Photoshop 12 (part of CS5). So while image results should be similar or even identical, Lightroom 3 has many more workflow related features than the Photoshop import module.



for advanced image processing, but an important one for the ambitious user, and certainly for the professional photographer.

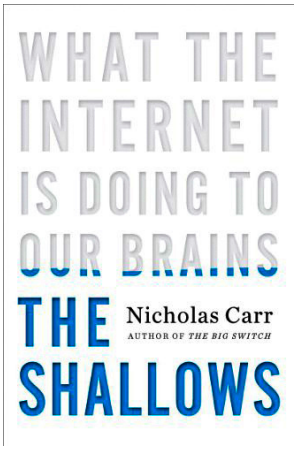
So what's missing? Perhaps face recognition and geo-tagging? Since we take an awful lot of images nowadays, it would be good to be able to find images based on geometric search criteria, or colour schemas. And the same goes for geo-tagging (an Apple Aperture feature). It's more and more popular to embed location data in an image so it can be mapped geographically. But we'll have to wait for this until the next release. The most important improvement in Lightroom 3 compared to the previous version is a better colour engine, which seems to produce more vibrant and crisp images, with less distortion and noise. That alone suggests that it's well worthwhile investing in.

Is the Internet reprogramming our brains?

This summer we picked up a book that looked interesting, Nicholas Carr's The Shallows – What the Internet Is Doing To Our Brains. It's a follow up to his article from 2008 in the journal The Atlantic with the even more provocative headline 'Is Google Making Us Stupid?'. Nicholas Carr is an IT-journalist and writer of several books within media and communications development.

Carr's standpoint for his article and book is his own anxiety that lately he finds it hard to concentrate for longer periods of time, and to read longer articles, or books. When discussing this with friends and colleagues, he found that there were many among them that had observed the same phenomena in their own life.

One early reference in The Shallows is to Marshall McLuhan, with Carr not only subscribing to the McLuhan phrase "the medium is the message", but stressing that what McLuhan actually tried to point out is that the medium, the communication tools we use, will actually change the user, for good or for worse. While it's good that we learn how to multitask, and how to make rapid decisions on which hyperlinks are worth following up and which ones to quickly ignore, we are reprogramming our brains to rely mainly on short term memory and fragments of information, rather than using contemplation and deep reading to digest data as knowledge, stored in long term memory.



Nicholas Carr, IT journalist and author of several books about media development, argues that intense use of different internet applications, quickly reprograms our brain.

While the book is rich on references, some critics have pointed out that they are mainly selected to prove Carr's point, a classic mistake in formal research. Others suggest that Carr fails to point out all the benefits of the Internet, and focuses too much on the possible risks. While we tend to agree on the first point, we must say he actually shows a lot of examples on how useful and attractive the Net is. This is the core of the problem. We are tempted to check our email inbox every minute, follow up discussions on Twitter and blogs, comment on comments from friends on Facebook, surf Wikipedia and the Internet in general for interesting stuff – there is an enormous pull from the Internet, and we spend more and more time in front of the computer because of this. And it affects us. It reprograms our brain, and we should at least be aware of it.

You may or may not agree with Nicholas Carr, but his book is definitely well worth reading. That is if you can focus long enough to indulge in a 250-page book for several hours! If not – perhaps you have proved Carr correct, involuntarily.

Did You Know?

HDR images

As any photographer will know, amateur or professional, choosing the correct aperture for a certain scene is often a matter of compromise. However, an alternative is to use HDR techniques (High dynamic range) which is now easier than ever. The basic and brilliant idea is to combine several exposures into one perfect final image. This technique goes back to photo pioneers like Ansel Adams, but while the early adopters had to struggle with analogue photography and painstakingly cumbersome copying processes, the digital photographer of today can achieve stunning results almost effortlessly.

While Photoshop has an automated function to merge HDR images into one final picture (and the result from that is mostly better than a compromise of only one exposure) there are other programs better suited for the job – and they are not very expensive.

One such software that we have tried and can recommend warmly is Photomatix Pro from the French company HDR Soft. It costs €75 – not very much money for a very feature rich software.

When starting to shoot pictures with HDR processing in mind, you enter a new stage of creative photography. Images from HDR data often look amazing (in our view), almost surreal – in a positive way.

This photo of the Golden Gate bridge is the final result of merging 9 different exposures. Photo from the "HDR Photographic Survey", a project involving, among others, the Chester F Carlson Center for Imaging Science at RIT.

While it's possible to merge JPEG images, the technique lends itself more naturally to high quality photography, using the Camera RAW format and 16-bit processing.

Typically you need three exposures to get a clearly enhanced image, but you can combine 5, 7 or even 9

The 9 different exposures used to produce the image on the previous page. The images are processed using the Photomatix Pro software.

An amazing magical image by Trey Ratcliff, using the HDR technique. It looks almost artificial, but all components in the picture come from the original scene. Even the sun, touching one of the towers of the Wat Arun temple in Bangkok, Thailand, is original – not placed there from some other image. (Image courtesy of Trey Ratcliff through Flickr)

exposures to get an extremely high dynamic range in your input image data. Combining heavily under-exposed images with one 'normal' exposure, and then adding heavily over-exposed image versions, is the trick. The results will astound you, we think. Look at what photographers like, for example, Trey Ratcliff have achieved using this technique, and we think you'll agree!

Say What?

Our grateful thanks to Jeff Hayzlett for lightening an otherwise wet and dreary August and allowing us to reprise our old friend Say What.

Hayzlett, formerly chief marketing officer for Kodak, is due to speak at the BAPC's annual conference in Essex, UK, this November. In a press release for the event he describes himself as "a change agent, thought leader and sometimes cowboy".

Do, please, send us any suggestions as to what a 'change agent' might be. It sounds suspiciously like it might be marketing speak – a strange and curious language which uses many words to say absolutely nothing. Hopefully the thought police will catch up with whoever was responsible for proof reading the press release.

As for cowboy, well we doubt if Hayzlett spends any time tending cattle, and according to the Oxford English dictionary, the other meaning is "unscrupulous or incompetent business person".

Once the giggles had subsided we did try to read the rest of the release but only got halfway as the writer went on to describe Hayzlett as 'The big American'. We're pretty sure that Hayzlett hasn't dallied too long in the pie shop and we certainly wouldn't want to comment on America's love affair with the Big Mac but [our lawyers deleted the rest but you get the idea - ed].

Green Shoots

How do you measure the recycling efforts of computer manufacturers? *Dell* has proposed the assumption of a seven year product lifetime, and measuring the percentage of the total weight recycled each year compared to the total weight of what was sold seven years prior. Apple supports this model and is aiming for a 30% recycling rate for 2010. That means though that 70% of its output of iPhones, iPods and Macs ends up not being recycled. However let's hope people are hanging on to their kit for longer than seven years.

Meech International has invented a new way of cleaning bottles and glass, or indeed anything that is a preformed package. The new IonRinse system uses fan-driven ionised air rinsing to clean containers instead of water rinsing. Meech claim it is the next step towards a less energy intensive way to reuse containers. IonRinse incorporates AC ionisation, inline filtration and a special airflow distributor. Filtered ionised air is shot from the IonRinse head via the distributor under precise control. It functions in cooperation with neutralisation of static charges so that anything stuck to the interior surface of the container is dislodged. It is then extracted by a vacuum airflow and captured in the inline filter unit. Far better than wasting water and requires a lot less energy.

A line of new wet-strength bright white poster papers, especially suitable for billboard printing has been introduced for use with HP's Latex inks. Created by *Sihl*

Paper based in Germany, the multi-purpose Post-2-Cure Papers coupled with HP's Latex inks provide weather and water resistant prints equivalent to solvent-based ink equivalents. The developers claim their new papers provide an environmentally friendly alternative to using solvent inks, and that prints based on Post-2-Cure provide photo-realistic quality, without surface cracking or vulnerability to scratching. The papers are suited for both indoor and general outdoor advertising.

A UK company is promoting dry ice cleaning as a greener alternative to conventional cleaning for printing presses and printing plates. *Ice Edge* claims that cleaning with dry ice avoids damaging surfaces, is faster and more thorough than cleaning by hand, and is completely safe around electrical components because it's dry.

Ricoh is ahead of its long-term target to reduce lifecycle environmental impacts by 87.5% compared to 2004 levels by 2050. When originally setting the target several interim milestones were also set for 2007, 2010, 2020 and 2030. The 20% goal for 2010 was reached in 2009 through a variety of measures including a chemical substance monitoring system, green procurement policies, accelerated product collection and recycling programmes, and a green partnership programme. This programme involves all manufacturing suppliers in an attempt to improve overall environmental impacts.

For more green news, check out *The Verdigris Project*:

Verdigris

http://verdigrisproject.com

Managing expectations

Just as print companies are having to adapt to changes in technology and the way that people buy media, so Management Information Systems are evolving to play a bigger role in running a company.

One of the long term trends in the printing industry is the transition from mostly small traditional craft-based shops to leaner, more efficient manufacturing plants. Much of this has been achieved through acquisitions with large print groups becoming more prevalent. But there is still plenty of room for smaller printers, many of whom have invested heavily in digital technology, workflow and business management, such as MIS and web-to-print.

This move to a more efficient manufacturing model has been reflected by the expectations placed on those MIS that serve the print industry. Dan Crnarich, director of product marketing for EFI, notes: "Customers are saying that the MIS is beyond just doing estimating and job planning and that it really needs to help in the overall process."

There are two aspects to this: the first is tighter integration into the production workflow for more automated production; the second is extending the MIS into other aspects of a printing company. The first point, integrating the MIS into production, should have been achieved through using JDF, but anecdotal evidence indicates that only a small number of printers have MIS, and an even smaller number have end to end JDF production.

Part of the difficulty is that JDF assumes that a job will be produced in the same way that it has been estimated. Steve Richardson, sales director at Optimus, says: "A lot of print companies estimate in one way and then at production the guy on the shop floor does it a different way, but JDF doesn't allow for that. You need to have production orientated skill sets further up the supply chain so that you know at the start of the process how you are going to produce a job." He adds: "Customers change their mind and you have to reflect that and that's the next evolution of JDF, managing that change."

Another problem is that while the prepress and press rooms are normally up to date with JDF, the bindery is usually not. In part this is because many printers still have older legacy postpress equipment. Stefan Reichart, managing director of Hiflex, says that the printer also needs to be using the MIS to generate the imposition: "If you're just doing an estimate and you don't care about sheet layout and position then you don't have anything to feed to the postpress devices so that means the specification of the product, whether it's stitched or folded or glue-bound, the format, number of pages, paper information like grammage and then the system can give you an automatic imposition for the prepress and the same data, position of the trim sizes and the folding marks will then also be sent to the Polar cutter or MBO folder and so on."

Many workflows still use dedicated imposition programs, but Reichart points out: "The idea is that the MIS is the leading information system in the company and if there is a job change then you effect this change in the MIS and hit the update button and it updates the prepress and you are sure that the folding positions and trim sizes are correct for the postpress."

A lot of companies get around the lack of JDF-compliant equipment by using direct machine interfaces to feed information back to the MIS. However, Lance O'Connell, business manager for Heidelberg's Prinect workflow, is adamant that JDF is the best way to link an MIS to the production equipment. He notes: "If you are writing a direct machine interface into a press console then if you open up the back covers you are faulting any warranty agreement with Heidelberg. Our route into press feedback is through the Prinect architecture and that is JDF by definition."

But, he adds: "We do have people putting counter boxes and so on onto old folders and stitchers and it's not the official route and we would always go down the Prinect route but for people that want to just monitor machine feedback they can do that through a DMI but we don't get involved in that."

Lance O'Connell, business manager for Prinect and CTP for Heidelberg UK.

Extending the MIS

The other part of our equation is the increasing tendency to extend MIS beyond the production systems, as Reichart describes: "MIS used to be only calculating, estimating and making an invoice but CRM has become more important, a good stock management and real time management for just in time delivery of material into the factory has become important, as is anything that will streamline the process."

Some printers are also looking at ways to reach beyond the systems to have better connections with their suppliers. For example, Crnarich says: "We have integrated our PrintSmith into xpedx paper distribution so they can do online ordering and real-time stock check and purchases with the paper supplier, so we can go that route as well rather than the traditional software applications but with other service providers."

However, even though MIS vendors are generally confident that they can link their systems to any other, someone still has to sit down and make this happen, which can be easier said than done. Richardson says: "Our architecture has been modelled to be open for integration but you do need to write the code, test it and maintain it and people don't always want to pay for that."

Latest developments

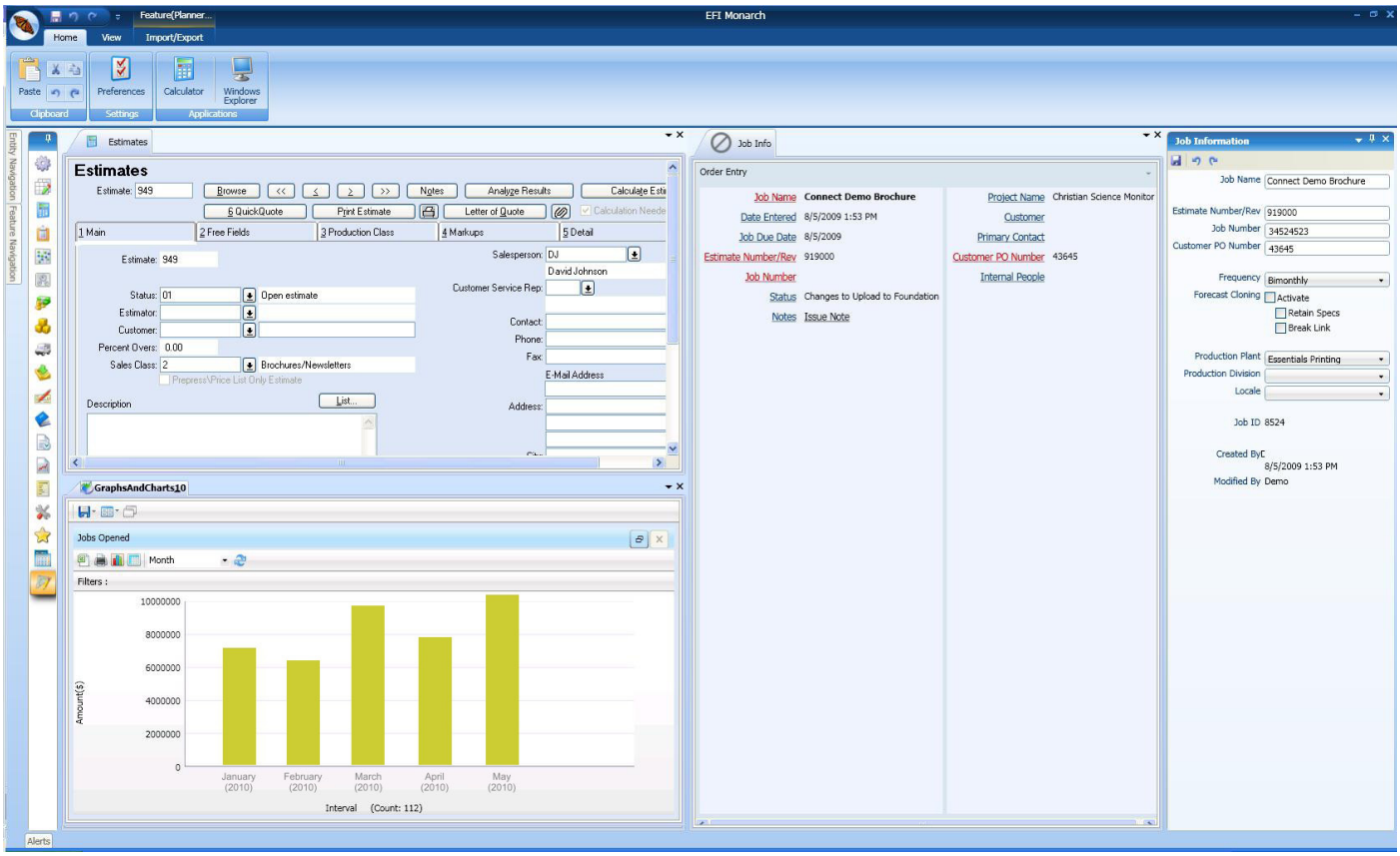
EFI segments its MIS for different users, having four different systems. It recently acquired Radius and has now renamed its Pecas Vision MIS as EFI Radius. Crnarich explains: "Radius was a strong player in the packaging market and it fits our technology," adding, "EFI has had a commitment in that space with the Jetrion unit."

EFI's other offerings cover different aspects of the commercial print market: Monarch is aimed at large companies including multi-site operations; PrintSmith is for the print for pay and small commercial area; Pace is a browser-based solution that targets the general commercial printer, as well as speciality areas like wide format.

Heidelberg continues to sell its Prinance MIS but earlier this year it introduced a Perfect Partner program to highlight its relationship with five external MIS developers. O'Connell explains: "Worldwide we have 49 different MIS relationships around the world including with the Prinance developer, AGT in Germany. That makes it very difficult for us to manage and have perfect integration for all of those products from an R&D and integration point of view. They are all at completely different levels, with some partners spending a lot of time on very high level JDF links and then you can have the most basic level one link which is just job name and job number and maybe quantity. It's not to say that we won't work with other partners but we will put our first and strongest efforts in to these partners."

At the start of October Tharstern will launch its next generation MIS, Primo, based around an SQL platform. It boasts a new interface, similar to that of Windows 7, which makes it easier to navigate around the system. There's also a library of dashboards that can be customised so that users can better choose how to prioritise the way that information is summarised and presented.

Ross Edwards, Tharstern's marketing manager, says that one of the big features of Primo is its ability to integrate with other systems. "We've introduced a Tharstern



EFI's Monarch is a fully featured MIS aimed at large printers.

integration manager module and that takes advantages of new technologies like CXML and XML and with that we can quite easily develop a plug-in to integrate with other software and it's not overly complicated to do that."

He adds: "There's also a job ganging facility so that you can take the headache and the effort out of having to gang jobs together of different work sizes and quantities to put them all onto one sheet and make more production efficiencies and then at the end you can split them back out to different invoicing and deliveries and capture the individual costs."

Tharstern has also worked with EskoArtwork for better integration with its Artios CADx program so as to allow for estimating for carton packaging.

Optimus used Ipex to launch a new module for its MIS. Dash is a very flexible front end that sits on top of the Optimus job system. Richardson explains: "We have shifted our process from being print specific to manufacturing processes. With Dash we have a very malleable, configurable front end that can take in a number of processes that you can define. We have stripped out processes that don't have value, because we realised that some of our ways of doing things were very rigid and we wanted more flexibility and that means that we can deal with more substrates such as flags, or printing to school uniforms, because we can define it and then the job system, which is the core of Optimus, can take that data and present a job order with all the processes and tasks to produce it."

Technique also launched a number of new modules at Ipex. This includes a new CRM Community Feeds module, which delivers real time information from various web sources. There's also a Mobile CRM optimised for a variety of devices including Apple's iPhone and iPad, Google Android and Blackberry, and a complaints management module. There's a commercial sheetfed module to calculate appropriate sheet sizes and gang jobs together, and one for estimating for book production.

Conclusion

It is generally accepted that a large number of print companies do not use a recognised MIS, but these

The Hiflex MIS presents information in a clear format, as here showing the relation between estimates in green to orders in blue, as well as the value of order entries and the credit status of the customer.

companies do have some form of management information, typically a combination of spreadsheets and Microsoft Access. Home grown solutions can be perfectly adequate for providing estimating, invoicing and general business information.

But it's almost impossible for any printer to continuously upgrade and expand such a system to integrate fully into all the other systems for a truly automated operation. Of course, it all depends on the type of work each company is doing but ultimately, a fully integrated system is the only way to cope with a large number of short runs and that means not only investing in an MIS, but being willing to finance whatever bespoke integration is necessary to have the MIS run all the other systems in the business.

- Nessan Cleary

Married with Children: HP & CPI

When we visited CPI subsidiary Firmin Didot's facilities at Mesnil-sur-l'Estrée near Paris earlier this year, we expected to see HP's web press in action and to get the usual data deluge. We didn't expect frank and intimate details into the way in which CPI expects to grow, and the role HP is playing to facilitate this growth.

The relationship between the two companies isn't just about money and wafer thin page costs. The trip to Paris for us underscored the fact that the business model is far more important than the technology, and that a mutual cooperation for the good of both businesses is a central tenet of the client/supplier relationship. Obviously the technology choice fundamentally shapes the business model, not least because of who's behind the press, but the willingness of both sides to reach for a common goal is the difference between a stellar market position and the rest. In the case of CPI's Firmin Didot, which was acquired in 1999, and HP, the goal was Quantum, one of the world's most advanced book production lines.

CPI & Firmin Didot

Quantum is the latest in a long history of innovation at Firmin Didot, one of sixteen CPI production sites in Europe. CPI itself is the largest book manufacturer in Europe. Firmin Didot has been based at its current site, which was originally a paper mill, since the 1920s. The Didot family has a three-centuries old tradition of innovation including the didot dot, stereotyping and, along with Giovanni Bodoni, being in the vanguard of modern typography.

Today around 120 people produce over 20 million books per year at Firmin Didot, 98% of it monochrome. The company works in all book sectors from trade books to very short run special editions and since 1995 has doubled the number of book titles it prints. Originally Firmin Didot was a long run printer, because of the need to get a viable return, say €1 per book, on high fixed costs. Inkjet printing using a mainstream technology has the capacity for high volumes along the lines of the same model, but as run lengths started to fall, the need was clear for new economics better suited to short runs.

Set up of the Quantum began last year with the first title produced with the system on the 10th of November 2009 for Gallimard Jeunesse, a French publisher of children's books. Today Quantum is fully tested and fully operational. Bernard Kieffer, technology and supply chain director for CPI, says "The idea is to make hundreds of thousands of books per week".

Bernard Kieffer, technology and supply chain director for CPI.

Today this division of CPI produces "from one to one million books" and is a one-stop shop. The number of products leaving the factory gates has remained steady throughout the recession and today is up around 10%, despite falling run lengths. In 1982 Firmin Didot averaged 20,000 books per run and today the figure's around 10,000, excluding pocket books. Paperbacks average 7,500 copies per run and Firmin Didot is seeing its orders for runs of less than 3,000 to 4,000 books growing at a rate of 15% per annum.

Bernard Kieffer, sees a "bipolarisation where the market is focused on short runs" and wanted a technology that "gave us a very linear cost/run length curve". The company developed Quantum in cooperation with HP in order to achieve the lowest possible cost for 800-3,000 copies. At its heart Quantum is an HP T300 inkjet web press optimised for the monochrome output Firmin Didot needs, with a Magnum FlexBook slitter and accumulator, which assembles the book blocks inline with final finishing on a Müller Martini binding line. Firmin Didot prints its colour book covers on an HP Indigo 7000.

Pierre François Catté, chairman of CPI's executive board.

One third of its output for the European market is hardbacks and two-thirds soft covers. According to Kieffer: "Quantum fits perfectly into CPI's value proposition". This is just as well because CPI has taken a bit of a leap of faith with this project, as Pierre François Catté, chairman of CPI's executive board, admitted: "I was pretty scared when I started this adventure". He was seeing "30-40% overcapacity in the printing industry, so we need to differentiate ones business … to invest in something that can give you a 30-40% competitive advantage otherwise you'd better not do it". But that was then and this is now.

Of the 250,000 plus titles per year CPI prints for over 2,000 customers at its 16 plants in five countries, the company intends to shift 20% to digital. However, he emphasised that even with such an expansion of its digital printing facilities, digital production would still make up a relatively small percentage of the 600 million books a year currently produced.

Although the current percentage is small, "100 million books were printed here in 2009/2010, but we have doubled the number of jobs". CPI is making investments that it expects to last for fifteen years. Mr Catté explains: "We really have to think twice because you have to consult your board, your bank, customers and employees before you make such an investment" so it's very important that the press lasts fifteen years even though it's based on technologies that have a much shorter lifespan. This is where the relationship with HP becomes so significant: this is about technology and business development evolving in tandem over time.

Catté says that so far customers have been impressed with Quantum's output quality and quietness. Firmin Didot has been able to double the size of runs and cut turnaround in half because of optimisation throughout the supply chain. Catté adds: "Frankly I think we can buy ten of these machines in the next five years", a sentiment repeated verbatim by Kieffer at Interquest's Digital Book Publishing Conference, in London last June.

A Quantum Hop, Skip, Jump or Leap?

So why is Quantum purported to be the world's most advanced book production line? It has some significant competitive advantages, such as the prefused book blocks unique to Quantum, which provide the flexibility to do perfect binding or casing. Print quality is equivalent to offset with clear, sharp text and minimal show through. The system provides considerable format flexibility from pocket books (six pages across the web width) to A4 (three across the web) and higher. And Quantum can print on equivalent papers to offset or the Cameron (an ancient flexo press used for high volume book printing).

Quantum also gives wide finishing scope and the flexibility for making on-the-fly changes from fat to thin book blocks without missing a beat. The only limitation is on the range of substrates it can work with, currently limited to around twenty. This is something that Firmin

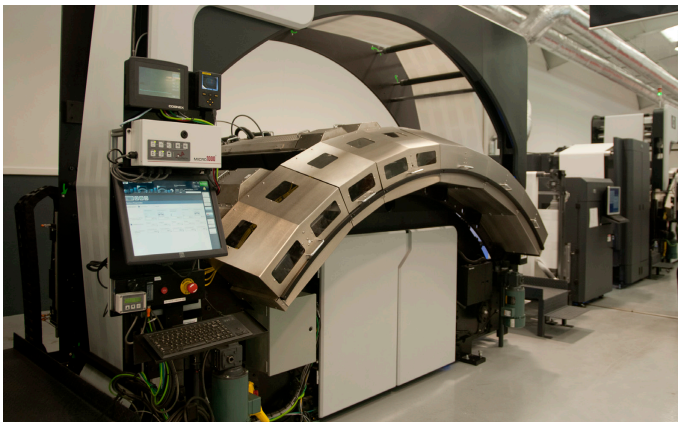
Didot would like to see improved. Kiefer doesn't want to limit customers' substrate choice but currently has no option: "I have made all the tests and it's clear with the black you cannot reach the 140 level". He is referring to density of 1.4, which is what is required for a true optical black, difficult to achieve on all substrates without show through or the risk of smearing.

Quantum Values

But the press is only one element of the Quantum system, which depends, of course, on software to fully function. The SmartStream Ultimate DFE processes data to the Quantum engine at a rate of 128MB per second, which is enough to feed the press printing monochrome at full speed. SmartStream can process up to 1 GB per second, so there is plenty of scope to grow here, either when Firmin Didot increases its colour volume or when further workflow automation beckons.

HP's Plan

HP now has nine T300 systems installed and in full operation. Five of these were installed this year and customers are producing rising volumes of work. At O'Neil Data Systems in Los Angeles for instance the



The T300 installed at CPI is unusual in that it is a monochrome version.

T300 operates 24/6. In 2009 at peak season the company produced over 3.2 million personalised insurance welcome kits, over 90 million letter sized pages. Consolidated Graphics, the closest thing the printing industry has to a megacorp (70 printing companies in 27 US states and the Czech Republic and HP Indigo's largest press user with 65 presses), printed 20 million pages of educational books in three weeks during its most recent peak season. Strategic Content Imaging (SCI), King Printing, Tabs Direct and Courier Corporation also in the US, Rotolitho Lombarda in Italy, and Communisis in the UK, plus Firmin Didot are all churning out digital pages with this technology. Who says book printing is dead?

HP's strategy now is to leverage its Scaleable Print Technology and IT expertise to populate its product portfolio for different printing and publishing sectors. Speaking at Firmin Didot, Dr Ross Allen, HP's Senior Technology Specialist sums it up thus: "This site is one of different versions of the web press technologies promised last May at O'Neil Data Systems." He added that "it costs $1,000 per kilo!"

So, assuming you wouldn't prefer a kilo of truffles, of Kobi beef or of cocaine what do you get for your $1,000 per? The T300 combines image processing, print heads and media transport, to create a factory that prints in one pass. The arched paper path stabilises the paper, ensures readiness for the print bars and helps minimise cockle. Print head cleaning takes place during web changes or when the press is stopped for maintenance using automatic disposable printhead service units that look like little web units. User replaceable cassettes wipe clean the printhead orifice plates. An inline process monitoring module synchronises with the print engine controller to check individual nozzle health according to the appearance of a test pattern.

Allen has found that HP blade and print technologies are both following Moore's Law: "the performance of HP's inkjet technology has doubled every eighteen months in terms of drops laid down". And presumably the relative manufacturing cost is also dropping.

HP is configuring its technology for narrower and wider widths, the first iteration of which is the T200, and for different inks and substrates. They can assemble heads across the web, using seven for instance in the 30" machine down to one for a 5" web printing black only on untreated papers. Allen says "The press is designed for many factors about 400 ft/m … technologically we have a lot of headroom in this design". In tests with more than

nine heads across a 40" plus width, Allen has measured 21µm accuracy across the web. Using seven printheads and ten print bars provides 140,000 nozzles per colour and 70 printheads per writing module on the T300. Thus far the replacement rate for heads has been lower than expected, around one every third shift. HP also has a huge advantage in that this technology leverages massive manufacturing economies of scale.

Bonding Agent, a substrate treatment, expands the range of stocks the T300 can print on. It's not needed on ColorPro or HP coated papers but is required on low cost uncoated papers. It's only laid down where an ink droplet

CPI's plans for the T300 revolve around the Quantum production line which converts the printed web into bound book blocks.

will land and immobilises pigments at or near the paper surface, controls penetration and dot spreading, and facilitates de-inking. The full influence of the bonding agent on de-inkability is being investigated.

Driving the Data

Keeping the print heads busy requires some hulking electronics that parallel process RIP'ing and writing data. The scaleable architecture draws RIP power according to the demands of the print job, with the fewest number needed for monochrome print and more for full colour. The architecture is a grid computing application, controlled by the DFE and based on HP Proliant blade servers.

PDFs are disassembled into their component parts, each of which the RIPs concurrently processes. Thus data is extracted from the data stream and processed independently for each print stage: Bonding Agent and KCMY. Slice hardware repeats the process across and down the web for final output at 600 dpi and printing at 122 metres per minute (2400 A4 pages per minute). A simplified hardware design and common design rules are used for all processing components to ensure processing consistency now and in the future.

Digital Book Printing

The printing industry is steadily embracing digital technologies, in book printing as elsewhere. Technology developers and printers keep a weather eye on the market for on-demand books, and particularly for run lengths of single copies. Interest is fast rising, for instance, in companies such as Lulu which helps authors to create and market their work, produces customised and personalised titles, and limited editions with run lengths of 1, 2, 10, 50 or whatever copies, and volume short run (50-3,000) work.

HP has solutions specifically developed for each of these areas, and has defined the best business model and technology for each. The company predicts for 2011 production volumes of 900 billion pages, with run lengths of between 1,500 and 5,000 the area of highest growth. According to HP's market data there has been a decline of 6.1% in the number of analogue pages printed. The company estimates however that the volume of digital pages worldwide is growing by 2.2% and in 2009 saw growth in colour pages across applications of 22.8%, a trend which is accelerating.

Overall HP sees a massive market opportunity in digital print:

- Print & Publishing $663 billion
- Digital Graphics Applications $108 billion
- Publishing $164 billion
- Digital Publishing $6 billion

HP is tackling digital publishing with a combination of options based on Indigo and the Inkjet Web Press technologies. Although the Indigo technologies were initially positioned only for commercial applications, presses such as the 7000 and the 7200 are now positioned for publishing alongside the inkjet web presses for high volume applications, in the same HP management blob. Technology choice is based on requirements such as

output quality, coverage, substrates and volume, and HP has identified prospective customers with whom it can work long term for mutual benefit. During the Firmin Didot press conference François Martin, marketing director for the European bit of HP's graphic arts business, explained that HP is "Merging the two into one single product portfolio [making] HP the only supplier with such a wide product portfolio for a specific industry".

Martin is pleased with what the company has achieved thus far. The total output of HP's T300 at its seven customers is over one billion books per year. This is low considering the T300 is rated for up to 70 million A4 pages per month: the total capacity of the installed base is nearly six billion pages. However, Martin enthuses: "We are proud to lead the transformation of the industry and all that that implies". But he takes a sanguine view of the digital publishing sector: "It will come when technologies continue to evolve". This is a crucial point for HP in terms of future revenues, but also for customers willing to be in a partnership of trust and cooperation that extends over fifteen years.

Industry analysts might argue that by 2025 e-books will have replaced print and they might be right. Trends in the printing industry have been downward for many years, ever since the Internet downpour started thoroughly drenching us. However, despite early predictions of its demise, print still hasn't died. There may even be signs that paper based communications aren't being completely overwhelmed. According to American Forest & Paper Association data, US paper and paperboard production volumes rose 2.8% in November 2009. This was the first time that output was higher than the previous year's total and continued the trend of monthly gains. It included a 1.9% year-to-year gain for printing and writing papers. How much of this the book business accounts for we don't know, but that printing papers are seeing a rise in production in the US, where 14% of people are functionally illiterate, is probably of some comfort to printers and, of course, to manufacturers of digital presses.

Conclusion

HP's strategy for its graphic arts division and for its customers assumes that e-readers will not overtake print in a world where media fragmentation is a fact of life. This fragmentation however reflects an increasingly fractured relationship content consumers have to all forms of media delivery, including books. Short attention spans, readiness to be distracted, the click and move on mentality of the Internet are reshaping the nature of this connection. Where that leaves traditional book publishing is uncertain, although it suggests the need for more short runs of shortish books, increased modularity of content and greater flexibility in content delivery.

François Martin, marketing director for the HP's graphic arts business in Europe.

Competition from e-books and e-reading forces paper books to compete with electronic devices and media dilettantism. But books are different. They engage us differently and can absorb us absolutely, and even if they don't get read, they are still desirable to own. It seems to us that the digital world of on-demand now-ness can help drive book publishing and production to new models, where the route to final delivery is uncertain, the options for high quality production are proven and clear. HP et al's numbers for the growth in book printing may look over-egged, but we believe digital delivery combined with luscious output will create a new excitement and enthusiasm for books.

– Laurel Brunner

Asset Management – Fonts

For someone who has worked with typography for a good part of his professional career, it's nice to see that fonts and typography still seem to capture the interest and fascination of so many.

I don't know how many times I have had to suggest to my daughter that she should perhaps finish the text for her report before she puts too much time into the design of the report, choosing the right typeface for the headline. And we can all put too much time into fiddling with fonts – especially if we have a lot of them on our system, and some of them misbehave.

And for a company there are legal issues – it's very easy for employees to try out different fonts found on the Internet or kindly provided by friends. But when used in corporate material, the right to use that particular font has to be cleared. As Chuck Weger puts it in his case study on font management: "Although some IT managers don't realize it, fonts are licensed software assets. . ." For a serious publisher, printer or industrial corporation it's important to centralise and control the font usage.

For practical reasons, if not for legal ones, central font management makes sense. Anyone who has been involved in heavy-duty layout and design of a wide array of printed material knows that there are many ways that fonts can jinx up the processes. Fonts that refuse to be embedded in the final PDFs, font families that refuse to open properly in the layout application, fonts that seem to be embedded in the document, but refuse to RIP correctly on the printer side – the list goes on. Not to mention different versions of a font with the same name – Helvetica is a popular font that has an almost infinite number of versions. Too much time is wasted on fixing, or trying to fix, font related problems, in too many companies.

To some extent good house keeping can fix many of these font related problems. But when starting such a house cleaning, the brave soul volunteering to do this encounters quite a lot of challenges.

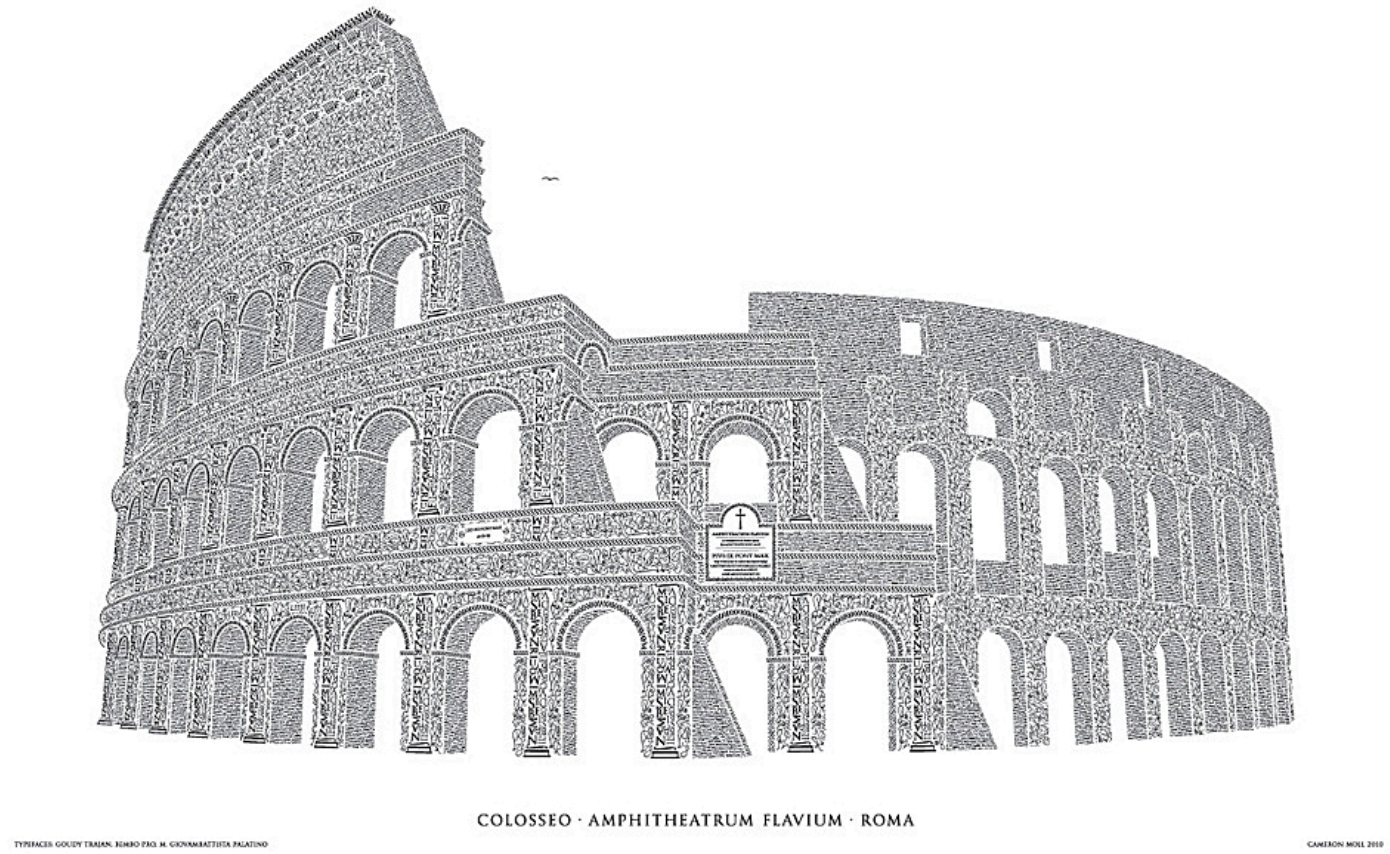
A brief history of fonts

First there were bitmap-based fonts, and it was a nightmare. Then came Adobe Postscript, and for a while the professional designers could be quite safe, as long as they used PostScript Type 1 fonts. But Apple and Microsoft found Adobe's font licensing fees a bit too steep, and developed the TrueType fonts. Not all of them could be considered professional in their design or function, but they spread like, well, weeds. To be fair they eventually met a demand that Adobe had ignored for too long, becoming platform independent, with all the information needed to render them inside a single file (which was not the case with PostScript Type 1 fonts).

Then came OpenType, with both cross platform support and extended support for language specific characters. An OpenType font uses 16 data bits to store the font information, so can describe up to 65,535 characters (or glyphs as they are often referred to in font terminology). This is because this font technology supports the Unicode character encoding scheme. On top of this the OpenType font technology supports both PostScript based fonts (.otf) and TrueType based fonts (.ttf). An obvious starting point for a font cleanup is to replace older fonts with the new version, based on the OpenType font technology. But there is a cost involved in this, so many companies stick to the older fonts that they have invested money in, and hope that they don't cause too many problems. But in a cross platform environment they probably will.

Where to store the fonts?

If you do go down the route of replacing your older fonts with the new OpenType versions, then there is still the matter of where to store your fonts. Some users have no idea where the fonts are placed on their computer, and it can be confusing to look for them. On a Mac, for example, they seem to be everywhere! Mac OSX is a server-oriented operating system, even with a single user, so there are at least two levels where the fonts will reside. With more users sharing the same computer from time to time, each user will have copies of some of the fonts. On top of this the software vendors often place application specific



This is an illustration made up entirely by letters using handcrafted characters from the Goudy Trajan and Bembo Pro typefaces. It's beautifully printed on a letterpress, and demonstrates that typography is still alive and much loved. The artist is Cameron Moll, and the artwork is called "Colosseo". Below right is a zoom of a section of the illustration.

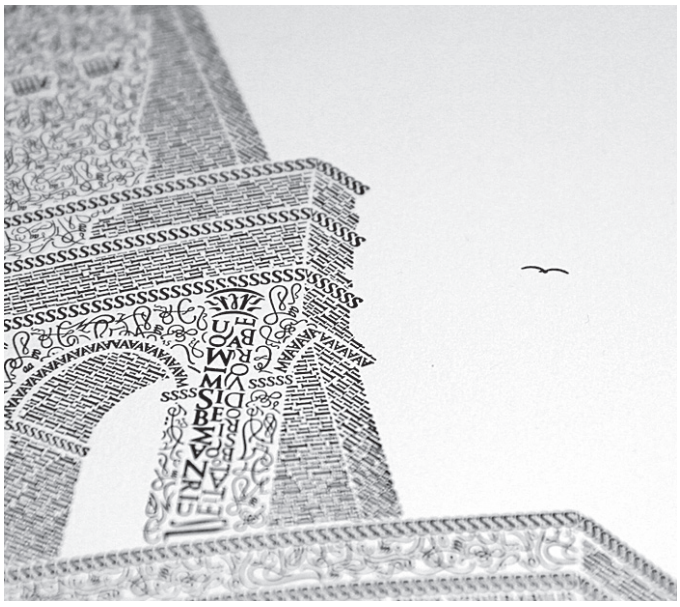
fonts in folders of their choice (for example Adobe and Microsoft).

Moving fonts from the assigned systems folder or application specific folder will most likely make the application misbehave, or give the OS nervous tics. So, when and if you want to tidy up the font situation, you may need font management software to help you along.

But wait a minute – the Mac user surely can use the Font Book utility included in OS X to manage fonts? Yes and no. It's the obvious tool for a single user to look at and organise the fonts he or she uses. But in an organisation you need a more professional solution to manage fonts used in the publishing workflow. Enter font management systems!

Font management the professional way

There are several third party font management solutions on the market, and for single users we have found the



Linotype FontExplorer robust and easy to use. It used to be freeware, in promotion of the Linotype font library, but of late a modest fee has been added to it and the name expanded to FontExplorer X Pro. The FontExplorer X Server is the solution for managing fonts across the corporation.

A classic font manager and mainstay was the Suitcase application, now extended, enhanced and renamed to be the Extensis Suitcase Fusion 3. Suitcase works well for single users, but for a corporate wide solution you need the Universal Type Server 2 – either the Lite version for up to 10 users, or the Professional scaleable version for larger teams.

When deciding what you need in terms of corporate font management there are some different aspects to consider. Are you mainly concerned with inventory-related questions, like "what fonts do we own" and what other fonts reside on our servers and workstations? Or perhaps you are more into actual production, and want to make the workflow more efficient. Then matters related to reducing the number of (unnecessary) fonts, avoiding font name conflicts, faulty fonts et cetera, are closer to your heart.

When you approach the task from several viewpoints, the following items probably show up on the 'must have' list (not necessarily in order of importance):

• Means to organise fonts in groups, for example, to clearly identify the fonts that are OK to use in the corporate profile.

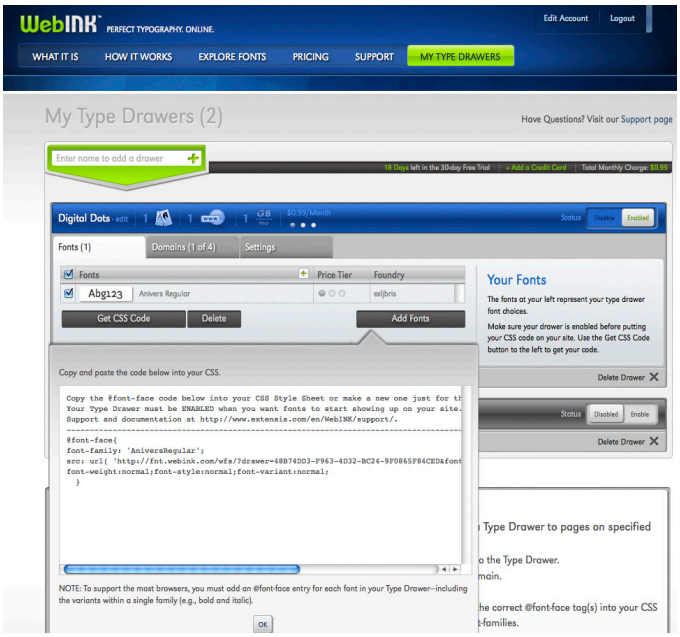
• Means to identify common corporate assets, in this case fonts, so they can be used corporate-wide and don't need to be bought unnecessarily by individual workgroups or departments.

• Means to manage those fonts in a centralized way by, for example, the IT department.

• Means to identify and remove faulty fonts, or replace them with new, fully functional versions.

• Means to automatically activate the correct font when called for in an opened document. To only have those fonts activated that are actually needed for the design task at hand reduces network and system load, so providing overall enhanced workflow efficiency.

The benefits of implementing such a font management solution are numerous, with substantial cost savings



Extensis has extended its font management software Suitcase Fusion 3 with a module called WebINK that helps a web designer to ensure that the intended fonts are used by the web browser at the reader's end.

from the reduction of printing problems. Just imagine if a ready-to-print document, with a proof read by dozens of people during a multi-iteration cycle of proofs, is opened by a person who doesn't have the proper font set, and the texts reflow just before making print-ready PDFs! A horror, and a very costly one if that faulty PDF reaches the printer.

A new world – font management for the Web

While font management is an obvious issue for a paper-based print publication workflow, web-based publishing and controlling how web browsers use fonts, is a slightly different matter. But, since respecting a corporate design profile in web publishing is as important as in paper-based publishing, font management is relevant for the Net as well. Extensis has realised this, and launched an application called WebInk to better manage which fonts are used on your web site.

While HTML5 might change the situation, as for now it's very difficult to control what font is actually used when a reader looks at the page in the browser. The web designer/programmer can recommend what font should be used, but if it doesn't reside on the receiver's computer, the browser will use what's installed.

Extensis has extended Suitcase Fusion 3 with a module called WebINK. The owner of a website can subscribe to a series of fonts via Extensis, and these fonts are called upon through a CSS script embedded in the HTML code, and provided for via Extensis secure servers. While HTML5 may make font management easier, the WebINK solution provided by Extensis, looks like a good answer to a widespread and old problem.

Fonts continue to fascinate, but also cause problems. But as we can conclude from the above – good solutions aren't very far away!

– Paul Lindström

Quiz

For reasons we won't bore you with, we spent a large amount of time this summer devising general knowledge trivia and music quizzes. So it comes as some relief to focus the graphic arts again. Of course, we might've thrown in a couple of general knowledge questions, just to keep you interested. Or then again perhaps not.

1. In which year was the International Color Consortium founded?
(a) 2003
(b) 1994
(c) 1986
(d) 1993

2. Who is considered the Father of Desktop Publishing?
(a) Efi Arazi
(b) Steve Jobs
(c) Paul Brainerd
(d) Andy Tribute

3. In which country did the CIELa*b* colour space originate?
(a) France
(b) America
(c) Germany
(d) Finland

4. Which ISO standard used to be called PDF?
(a) 12647
(b) 9001
(c) 32000
(d) 15399

5. According to Enfocus research into submitted PDF file accuracy, what's the approximate error rate?
(a) 57%
(b) 9%
(c) 21%
(d) 25%

6. Which computer company is the world's largest in its sector?
(a) Apple
(b) Microsoft
(c) Dell
(d) Google

7. Which digital press for full colour commercial applications is the fastest?
(a) Ricoh C900
(b) Canon imagePress C7000VP
(c) Kodak Nexpress SE3600
(d) Fujifilm Jetpress 720

8. Which of the following file suffixes is a standard data format?
(a) .indd
(b) .xls
(c) .pdf
(d) .psd

9. Why do RGB colours need to be converted to CMYK for print?
(a) Because CMYK colours look better
(b) RGB is an additive colour space, which cannot be printed
(c) Conversion is a value added service for special clients
(d) CMYK inks are cheaper than RGB inks

10. What are preflight profiles
(a) Summaries of PDF settings for specific output
(b) Different descriptions of preflight software used by manufacturers
(c) PDFs that include colour management data
(d) Versions of preflight software for different computers

Answers on next page. Don't peek!

Answers

1. - d
2. - c
3. - a
4. - c
5. - d
6. - a
7. - c
8. - c
9. - b
10. - a

Each correct answer gets you 4 points for a top score of 40. If you got between 30 and 40 you are clearly deeply immersed in the industry and have been so for a number of years. It's great that you manage to stay so up to date and that you've remembered some of the moments of wonder peppered throughout the last 30 years or so.

If your score was 18 to 29 you are clearly either not staying in touch with technology, or you are too young to be able to appreciate some of the industry's earlier milestones. Either way, well done.

A score of 7 to 18 is pretty pathetic. Maybe you should spend more time keeping up with the business, either through reading or listening more carefully to the world around you.

If you got less than 7, please let us know and we'll refund your subscription fee!

X-word Puzzle

Number 24 – Answers

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