money • *noun* **1** a medium of exchange in the form of coins and banknotes, as issued by a government. **2** assets and property in terms of monetary value, or wealth. **3** payment or financial gain.

Dear Reader,

It's all about money. Everything we read, hear and see in these dark and dreary days is about money. The question is, what will the global financial crisis mean for printers and publishers? For newspapers and magazines the superficial benefits are obvious: copy; probably it's not so bad for book publishing either. But for printers and printing equipment manufacturers the implications are serious.

Tight credit, expensive oil and commercial caution are curling around the tender parts of the body corporate in a vice-like grip, across sector divides. How will manufacturers find the funds to invest in new product development and bring said products to market? How will printing companies find the means to pay for them? How will manufacturers be able to extend lines of credit, where there's no credit to be had?

There are no easy answers. We can expect another tranche of consolidations and shrinkage. Cash poor companies at the extremes will struggle and cash rich ones will endure. In between is where most of us bump along, and where it's tempting just to keep our heads down. This is not the time for caution or fear, nor for recklessness. This is the time to keep focused, to hold a steady course and keep on moving forward as confidently as possible. Because it's really not about money at all.

As ever,

Laurel, Nessan, Paul and Todd

In This Issue

Kitchen sink not included

Adobe is back with the fourth outing of its Creative Suite. Nessan Cleary fired up a beta copy and took it for a spin to see what improvements Adobe has made to the print-related elements. Not surprisingly, there's better integration between all the various programs, most of which also gain a fair selection of new tools.

see page 9

Xanté going for gold

Laurel Brunner looks at Xanté, an American vendor that specialises in imagesetters, and now digital printers, for small companies. Xanté has recently acquired RIPit, giving it an effective workflow and turning it into a one-stop shop for many small print service providers.

see page 14

The end of free radicals

Paul Lindström looks at the development of cationic inks as used in UV-curable wide format inkjet printing, and in particular the new Gerber Solara ionx UV flatbed printer with its Cold Fire curing.

see page 18

Regular Columns

News Focus

Fujifilm has developed a Toner Quality Control (TQC) system to optimise toner usage on Xerox DocuColor digital presses. The software uses ICC profiles to generate a profile for the press that can help reduce the amount of toner used and produce output quality far closer to that of offset print. The TQC profile provides the correct calibration settings for the press and colour manages each job, using GCR (Grey Colour Replacement) for optimum toner density and correct colour balance on all pages.

Xerox has launched version 3.0 of its SAVE (Self-Assessment Value Estimator) programme for SMBs. SAVE supports Xerox's PagePack toner and service package (a click charge) for users of MFPs and light production machines. The latest version of SAVE calculates the most cost-effective plan for users wishing to optimise equipment usage. Version 3.0 adds a competitive comparison based on what Xerox knows about the toner and service costs of competing engines.

Xerox has also announced an authorised partner programme to help them exploit its Extensible Interface Platform (EIP), development software for creating server-based applications for Xerox multifunction printers. It has deals with Paper River, Triboni and XL Print to for various workflow solutions. Details next month.

Heidelberg has announced disappointing post-drupa financial expectations. Based on preliminary calculations, it expects sales of €800 to 820 million for the second quarter 2008/2009, ended 30th September. This is a ten percent drop compared to the same quarter last year. Heidelberg attributes the fall to a "significant reluctance to invest in all regions because of the actual economic situation". Second quarter losses are expected to be up to €20 million Euro and Heidelberg expects free cash-flow in the second quarter to be negative – -€70 to -€90 million, mostly because of the lower sales volume. Full quarter, half yearly results and full year forecasts will be announced on the 6th November.

EFI has released X-Pack 8 an update for Fiery XF RIP. It consists of eight drivers for a range of Mutoh printers. Current owners of Fiery XF 3.1 can download them using the Online Updater function in the RIP.

Adobe has announced Creative Suite 4 which focuses on workflow across applications within the suite, and different user activities. It is bursting with hundreds of new features designed to advance creative processes across print and Flash technology throughout the entire bundle. CS4 is available in various flavours and ships this month. See the first part of our review on page 8.

Danish software developer **Cacidi Systems** has announced new versions of its software bringing it inline with Adobe InDesign CS4. Cacidi's software is a series of plug-ins that provide process automation for database driven production across media.

Enfocus has updated PitStop Professional, PitStop Server, Switch and Instant PDF to be compatible with the latest versions of Illustrator, InDesign, Acrobat and QuarkX-Press. Instant PDF now supports PDF/X-4 and Acrobat 9 and has more colour management options, improved preflighting, and integration with Enfocus PowerSwitch.

In last month's issue we reviewed QuarkXPress 8, and **Quark** has now announced that it has updated its server products in line with this, with QPS 8, Copydesk 8 and Quark Server 8. There's also an adaptor for QPS for the Alfresco asset management database which is part of Quark's Dynamic Server offering. Gavin Drake, Marketing director for Quark UK says that QPS is increasingly ▶

being used in advertising agencies and large corporations, adding: "They often struggle with the same issues as publishers."

HP has launched the four-colour Scitex XP2300 UV printer, claimed to be the world's first 3.2m UV roll-to-roll machine specifically designed for outdoor signage. It has 16 piezo-electric printheads, prints up to 360dpi at a maximum of 233m^2 per hour and can apparently print 180m^2 with one litre of ink.

Inca Digital has launched a faster version of its Spyder flatbed printer. The Spyder V has a new printhead array, designed by Inca, with a 25 picolitre drop size. It can reach a production speed of 93m^2/hr and a maximum speed of 130m^2/hr. The standard version takes CMYK inks but there is a six-colour version which can use Sericol's Ultratone colour set.

Océ is strengthening its alliance with Mutoh, with a view to broadening its portfolio of outdoor durable display graphics inkjet printers. Océ sells Mutoh large format inkjet printers as the Océ CS9000 Series, along with roll-based media and the Onyx graphics workflow software. Additions to the line include low- and eco-solvent printers, the Océ CS9265 and Océ CS9290 for greater productivity and quality using specially formulated high speed, low-solvent inks.

EFI has won its patent lawsuit relating to its Vutek inkjet technology. Leggett & Platt, Inc. had claimed that EFI had violated its patent for UV ink curing. The US Federal Court of Appeals in Washington, D.C has ruled decisively that all Leggett & Platt's claims of patent infringement "were invalid on multiple grounds". This is an important victory because it allows EFI to continue selling its wide format UV printers and inks and to further develop them.

Katun Corporation, suppliers of imaging supplies, photoreceptors and parts to the imaging industry, has been acquired by Monomoy Capital Partners, a private equity partnership. The company's president and CEO, Carlyle Singer and Katun's management team keep their jobs and will work closely with Monomoy to leverage Katun's recent developments in colour xerography.

Kodak has introduced a new tool to assist digital printers wanting to get into the photo services business. It runs on the Creo colour server and is called Photo Touch-up. Yes really. It's a software utility that analyses, corrects and enhances image content prior to output, to ensure the best possible quality output. It also has batch functionality for automated correction of multiple images.

Not to be outdone, **Canon** has announced two new 24ins printers. The iPF6200 is aimed at the fine art and proofing markets while the 8-colour 6000S is targeted at poster and sign printers. The 6200 is a 12-colour machine with built-in colour calibration and a resolution of 2400 x 1200 dpi. Canon has also launched three new large format printers, the iPF810 and 820, both of which are five colour 44ins printers, and the 24ins iPF605 for the CAD and GIS markets.

Following several years of close technical collaboration, **HP** and **Nikon** have agreed to collaborate on products and technologies for digital fine art systems for professional photographers. They will be based on cameras and lenses from Nikon, and HP's large-format Designjet photo printers and its Artist Software technology for automatically optimising lighting and colour in photographs.

HP has a new Designjet, the Z3200. This photo printer is designed for creative professionals and print service providers, particular for photographers, photo and fine art, graphic design and commercial print services. It's a 12 colour printer using HP's Vivera pigment inks, and features new HP 73 Chromatic Red ink, to print up to 95 percent of Pantone colours. The printer has an embedded spectrophotometer for improved colour control with HP DreamColor technologies for accurate colour matching and control.

Hiflex has released the latest version of its MIS which has added automation to integrate the print buyer into the processing workflow for better tracking of the process. It also gains additional JDF interfaces in post press and digital printing. As standard, the Hiflex MIS also has the Executive Information System shown at drupa for displaying chosen pieces of information.

The World Association of Newspapers, representing 77 national newspaper associations and 18,000 newspapers worldwide has requested the EU and US competition authorities to block the advertising agreement between Google and Yahoo on anti-competitive grounds. WAN says this deal will damage the advertising revenues that these search giants provide to newspaper and other websites, and the cost of paid search advertising. Absent

this agreement Google and Yahoo remain competitive, so there is more than a whiff of anticompetitiveness about the deal, which likely will lead to higher costs for end users. WAN is also concerned that this deal would give Google unwarranted market power over important segments of online advertising.

Heidelberg has opened its first Print Media Academy (PMA) in India, in the city of Chennai. Heidelberg now has print industry educational facilities in all four BRIC (Brazil, Russia, India, and China) countries. Altogether Heidelberg now runs Print Media Academies at 18 sites in 15 different countries.

Rather less positively, Heidelberg is closing its premises in Leeds, as part of a restructuring programme for the UK.

Following its acquisition of EDS, providers of massive IT infrastructure technologies, **HP** is restructuring the EDS business group over three years to reduce the company's workforce by some 7.5% with the loss of 24,600 positions. Nearly half of the reductions will be in America, and HP expects to replace roughly half of them over the next three years, elsewhere in the world. The restructuring is expected to save HP some $1.8bn.

Messe Düsseldorf has announced that its countdown to drupa 2012 has begun. The first drupa 2012 committee has met for its first session and voted in a new president Mr Martin Weickenmeier, CEO of Körber PaperLink GmbH. He leads a 23-member committee that is responsible for the key drupa policy decisions, hopefully including some plan to make the show more affordable for visitors. Relatively few users and print buyers are willing to justify the expense of staying in Düsseldorf for more than a couple of days, which is not at all in the interests of exhibitors.

Say What?

This month's Say What award goes to our old friends at Adobe for sending us an utterly pointless email to remind us of the NDA that we had signed for the briefing on CS4 prior to its announcement. Leaving aside that this email arrived some time after the briefing, and around about the time that we had given up hope of seeing the beta software that we needed to write the review, our real issue with this missive lies in the choice of typeface.

Who writes emails in Courier? It turns out that 9pt Courier is incredibly hard to read on a screen in Mac Mail, and not particularly creative.

Nor is Adobe any easier to deal with by phone. After a week of being given the run around by Adobe UK, we phoned the headquarters in San Jose, and were put through to the PR hotline, which turns out to be an answerphone with a message promising to get back to whoever calls in two days. And this after we've sat through the briefing on how fantastic CS4 is at helping designers hit their deadlines. What about journalist's deadlines? And, for the record, no one from Adobe ever did get back to us.

We really love most of the Adobe technology, and we think there are some really very smart people working there. But this is not the first time that Adobe has made an appearance on the Say What page, and we fear that it won't be the last.

Driftwood

(Useful stuff washin' up on our shores)

Spectrophotometry – a tricky thing

The Belgian graphic arts research institute VIGC has conducted a study on the accuracy of spectrophotometers, and found that there can be quite large differences in measurements, even when using spectrophotometers of the same brand. "Instrument accuracy can be a nightmare" according to the report, which found differences of up to Delta E of 3.7 for a specific colour. The result was better when measuring a series of colour patches – around Delta E 0.45 for the best instrument, but up to 2.7 for the worst.

In the report VIGC suggests the graphic arts industry should move towards using the newer (and more complex) formula of Delta E 2000 in order to achieve readings that correspond better to how colour differences are interpreted by human vision. If we take the colour yellow, for example, it's more difficult for most people to register small tone value differences, and the older formula (from 1976) which is used to calculate colour deviation doesn't take this into account.

While we agree with VIGS that it's probably time for our industry to embrace the newer formula for Delta E calculation, Delta E 2000, we don't think the phrasing in the report is correct. In the report it's said that "the overall average of all devices on the 13 patches is rather bad, Delta E 1.5 when calculation Delta E E*ab (1976 formula) but very good, 0.4, when calculated with the more recent Delta E 2000". The fact is that we can't compare results from the two different formulas straight off. The actual colour difference is the same in both cases – the measured samples are the same. While an average of 0.4 definitely is 'good' when using the older formula from 1976, the new formula of 2000 is stricter, and perhaps 0.4 isn't that good. We need to learn new tolerance levels for calculating with Delta E 2000!

We also think that repeatability is as important as accuracy when it comes to colour measurements, so even if this report is to some extent alarming, there is no reason to give up measuring proofs and prints. We just need to be clear on how the instrument is set up, and be aware of possible deviations between instruments and brands. And, of course, we need to maintain our instruments regularly according to the manual!

But the work done by VIGC is impressive, and the full report can be found at www.vigc.be. For more info contact Eddy Hagen or Fons Put at VIGC.

Boomerangs

(Your feedback fed back)

Our story in last month's issue on XPS has caused a bit of a kerfuffle. First an interesting series on the provenance of XPS:

From: "Craig Revie" <Craig.Revie@ffei.co.uk>
Date: 3 September 2008 16:27:56 BST
To: "Laurel Brunner" <lb@digitaldots.org>
Subject: This month's spindrift

Hi Laurel,

I see that in this month's SpinDrift you say that XPS was designed by Global Graphics. Are you sure? Martin Bailey tells me that this is a Microsoft standard. Perhaps the confusion comes from the fact that Martin chairs the committee that is standardising XPS. Have I missed something?

Craig

Laurel replies:

As I understand it Microsoft commissioned Global Graphics to advise and help on the original spec and they ended up writing XPS for them. This is why it's as good as it is and why Martin is so involved with XPS.

And then Craig says:

Hmm. Interesting spin! It is certainly true that Microsoft worked very closely with GG and that GG developed a reference implementation. It is also true that GG suggested improvements to Microsoft some of which were adopted.

Anyway, while it may be a stretch to equate this level of participation with writing the specification from the graphic arts point of view it's some comfort that a company that knows how to do things properly was extremely influential.

To clear things up, we asked Adrian Ford, formerly chief technology officer for Global Graphics, who now works for Microsoft, for his views. He answers:

Hi Nessan,

Good to hear from you. It sounds like your reader is correct. Global Graphics was one of a large number of companies from across industry that made contributions to the development of XPS, although not all of those contributions were publicized. For example, here's a snip from a relevant Global Graphics press release ""Global Graphics was a valuable contributor to the development of the XPS format," said Madelyn Bryant McIntire, principal group program manager of the Windows Experience division at Microsoft Corp".

I'd be happy to talk about what we're doing with XPS, the benefits that the format, and the emerging ecosystem around it. XPS is part of a much larger initiative, it is closely linked to the Windows Presentation Foundation and Silverlight imaging models and was designed to be a trustworthy, secure and simple-to-implement format for electronic paper.

Kind regards, /adrian

And, according to Michael Jahn, XPS hasn't much of a hope:

From: "Michael Jahn" <michaelejahn@gmail.com>
Date: 5 September 2008 13:53:15 BST
To: "Laurel Brunner" <lb@digitaldots.org>
Cc: "Paul Lindstrom" <pl@digitaldots.org>
Subject: Re: XPS ? - hummm

Hi Laurel,

XPS has no ecosystem to survive in.

There is no business case for any vertical that I have seen where it solves a "we need a file format that can do THIS" problem.

The real play will be what AUTHORING file format will become the exchange standard.

http://www.odfalliance.org/blog/

No one will even consider switching out a massive archive of documents, images and graphics from PDF without

some huge compelling reason. What is that reason ? XPS is not smaller, it can't be created faster nor does it display faster. What we need is a standard file format that we can exchange reliably that is editable. This is neither PDF or XPS.

XPS is a nice spooling technology, and yes, it is free - but when people say "a million people have Vista, and a million people need to exchange a document..."

If a user needs to exchange a document for collaboration - they send the original Authoring Word document (if they do not do this all the time) or they upload it to a Google Document;

example:
http://docs.google.com/Doc?id=dfwf37zj_973c9dkw8gc

If a user needs to exchange a document for review (where the other party does not need to edit) - they make a PDF and send that.

I have never encountered anyone asking me to create or open an XPS, and if I did, I would simply open it in Acrobat.

And Laurel replies:

Dear Michael,

I don't see any disagreement here. We're leaning to Yes at the moment based on what we saw at drupa, and the fact that Adobe has not come up with any cogent arguments as to why XPS is inferior to PDF beyond the obvious.

Time, or rather the market, will tell.

Best regards,

Laurel.

… and Michael said:

okay - lets disagree !

http://michaelejahn.blogspot.com/2007/02/there-has-been-lot-of-xps-vs-pdf-noise.html

and http://michaelejahn.blogspot.com/2007/01/adobe-mars-adobe-is-working-on-way-to.html

(i am not alone)

Check out his links and see what you think.

Spindocs
(Where the spinner gets spun!)

Although iTunes has very little to do with the world of printing, we couldn't let Apple's threat to close down the iTunes Store pass without some kind of a comment.

This came about because the Copyright Royalty Board, which determines rates for royalty payments in the States, said that it wanted to increase royalties, from 9.1¢ per song, possibly to as much as 15¢ per song. The rise would have to be paid by either Apple, the record companies, or the consumer. The day before the rate was due to be set a document from Apple was leaked, effectively saying that the company wouldn't absorb the rise in rates or raise its prices, and was instead prepared to shut down the iTunes Store.

Apple makes an enormous amount of money out of selling music on its iTunes Store, not to mention a substantial revenue from selling its iPod music players. This issue is all about ensuring that the people who created the music also make some money out of their work. And let us not forget, Apple goes to considerable lengths to protect the copyright on its intellectual property.

Of course, it's not necessarily Apple that would have had to pick up the bill for this, as the record companies could have absorbed the extra costs without passing them onto Apple. The timing of this 'leak' could have been about trying to pressurise the record labels into doing just that. But it's one thing for Apple to pose as a champion of consumer rights, trying to keep prices low, and another altogether for Apple to act like a bully, threatening to withdraw the entire music store just because it might have to pay the musicians.

For our part, although we like the idea of keeping the price of our music low, we believe that those people who create content, such as musicians and journalists, should be paid for their work. And of course, that applies to Spindrift, so if you are reading this and havn't paid your subscription, then we hope you feel suitably guilty.

In the event, the CRB backed down and decided to leave the royalty rate at 9.1¢ per song for music distributed digitally. Meanwhile Nokia has just launched its Comes with Music service which is offering DRM-free music from many of the major labels and could be a major rival to the iTunes Store.

Acrobites
(Something to get your teeth into)

ESC

Enterprise Social Computing is Facebook and MSN for grownups. The idea is to use Web 2.0 technologies within the enterprise to make it easier to get work done. The idea is to improve communications and to provide employees with tools to help them work together within a secure environment that facilitates information sharing.

LCA

Life Cycle Assessment refers to the complete investigation and valuation of a given product, from its creation to its disposal. Such an analysis involves several phases. The first of these, Scope, determines the boundaries of what should be involved in the assessment. Life cycle inventory is to do with data gathering, collecting the information that forms the basis of the overall assessment. The final stage is interpretation, which is obviously the most important part.
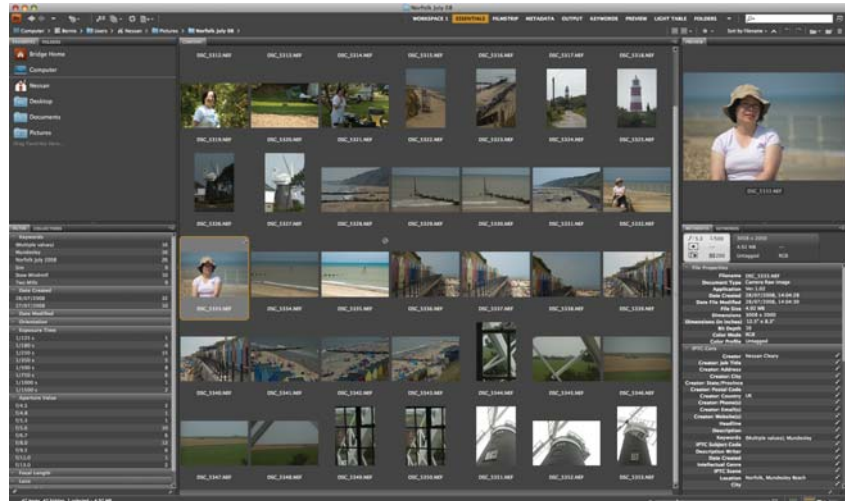
Kitchen sink not included

The first and most obvious thing to say about Creative Suite 4 is that it is quite a large collection of programs. I had planned to zip merrily through these in one go, but it quickly became obvious that there just isn't the time or the space to do this justice in a single story. Plan B was to just write about the print-related elements of the Creative Suite, but in today's world of cross media publishing that seemed like a bit of a cop-out. So, instead I'm going to look at the print-related elements this month, and come back to the rest in a second story.
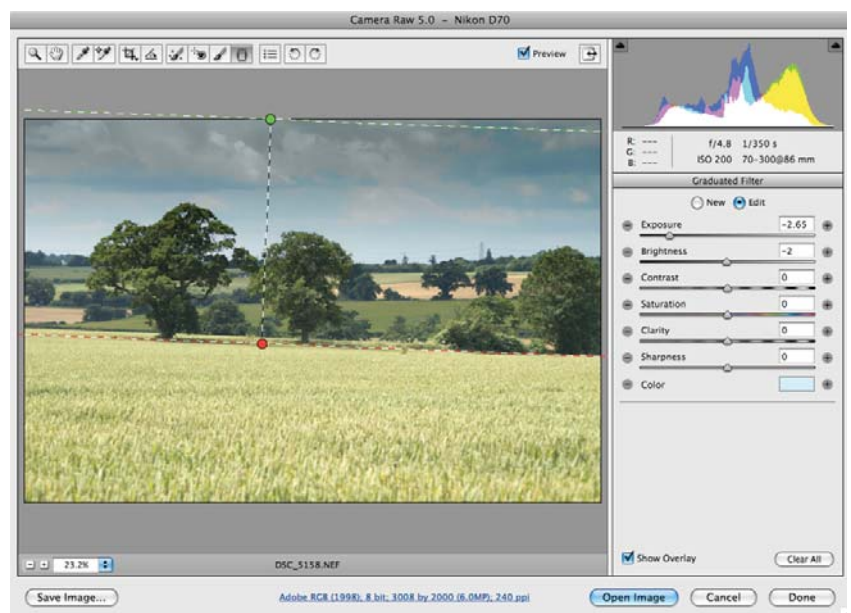
Most people will be aware by now that the Creative Suite is Adobe's collection of its main creative programs into a single package. Not surprisingly, the main theme of the latest iteration, CS4, is much greater integration between all the different programs that make

It's much easier to navigate around Bridge, thanks to the use of breadcrumb links in the top left of this screen, and a list of workspaces across the top right.

up the suite. There's much more uniformity in the look and feel of the various programs, which makes it easier to jump back and forth from one to the other. There's also better compatibility between file formats, so that you can work on a file in one program and be able to read the same content in another. This is partly down to the way that many of the programs can now handle native Flash content. And just to make the point, Adobe has added Flash Professional to the Creative Suite.

There's also a much greater emphasis on reducing the time taken between tasks. Many programs now feature context-sensitive controls so that you don't need to waste time moving the mouse back and forth between the task in hand and the control panel. In addition, many effects are controlled by sliders that directly affect the object in question, which feels a lot more positive than typing numbers into a dialog box.

Overall, there's been a general tidying up of the interface for most of the CS4 programs. Many of the programs, for example, have gained tabs for each document so that when you have multiple documents open you can simply click on the tabs to go from one to the other. I especially liked the ease with which you can now switch between different layouts from a short cut in the top right

Camera Raw gains a number of useful tools, including the ability to add graduated filter effects.

hand corner. And Bridge at least appears to have inherited my custom workspaces from the CS3 version.

I must confess that I've always been disappointed with Adobe's Bridge. It sort of works as a File Browser, but it always seemed to me that it could have been so much more use as a digital asset manager. So it's a relief to find that Adobe has finally improved the search facility in Bridge, integrating it with the OS, with Spotlight for the Mac, and Desktop Search in Vista. It's still not nearly as good as a proper asset manager like Portfolio, but it's a welcome improvement. In addition, many of the CS4 programs have gained breadcrumb navigation so you can see where you've been and can jump right back to a previous folder.

Photoshop CS4

One of the most jaw dropping new features of Photoshop CS4 is Content-Aware scaling which can recompose an image as you resize it. Normally if you needed to crop an image you'd run the danger of cutting out people at either end of the picture, but this tool can squeeze the people together so that they all fit into a narrower space. It works the other way for images that need to be stretched, and you can choose which elements of an image not to scale.

There's a new Adjustments Panel which lets you edit things like curves and levels with the effects immediately apparent on the image, and without having to go through a dialog box. It also has a new Vibrance adjustment for controlling colour saturation across an image without blowing the skin tones.

There's a new Masks panel for creating vector and pixel masks. This has simple sliders to control the density and feathering of a mask. There's also a Refine Mask command, which pulls up a dialogue box, and gives better control over the size and edges of the mask. Adobe has improved the Dodge, Burn and Sponge tools, which can now be used to even up an exposure with very little real skill needed.

Elsewhere Adobe has tightened up the automatic Alignment and blending capabilities of Photoshop. This is particularly evident in the Photomerge command, which can stitch images together to make a panoramic and smooth over the slight differences in geometric distortions from wide-angle lenses as well as tone and colour.

You can also use the blending tools to merge several versions of an image together and in so doing can alter elements within that image. For example, if you shot the same image with different focal points, you could then blend the different versions together to get a single image with a wide depth of field.

Adobe also appears to have been tinkering with the OpenGL technology that drives graphics cards to make it possible to zoom right into images with much less distortion than with previous releases, and with much

System Requirements

Mac users will need at least OS X 10.4.11, and a Multi-core Intel processor. Windows users will need Windows XP SP2 or Vista, plus at least a 2GHz processor. All users will need 2GB of RAM, 24GB (26GB for Mac) of hard drive space, a 1280 x 900 display with OpenGL 2.0 compatible graphics card and QuickTime 7.4.5.

The Creative Suite 4 should ship at some point during October.

Pricing ranges from €1500 for the Web Premium edition to €2500 for the Master collection with more details from www.adobe.com

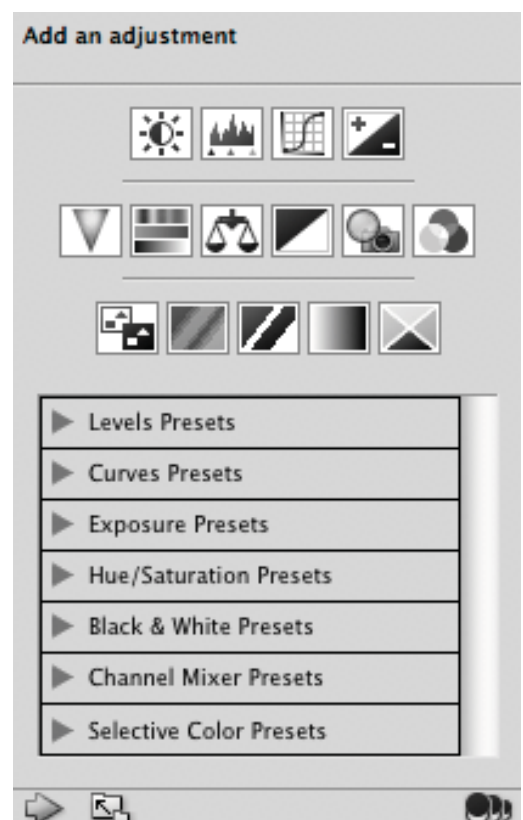
Adobe has collected all of the Adjustment tools together into a single panel.

better performance so that you can quickly zoom in and out without waiting around for the image to catch up.

There is a host of smaller improvements, such as the preview cursor that's been added to the Clone Stamp and Healing brushes so that you can see the elements that you are cloning or healing. There's a new Print window which lets you preview out of gamut colours, and brings 16-bit printing to the Mac. In compensation, Windows users get support for 64-bit editions of Vista.
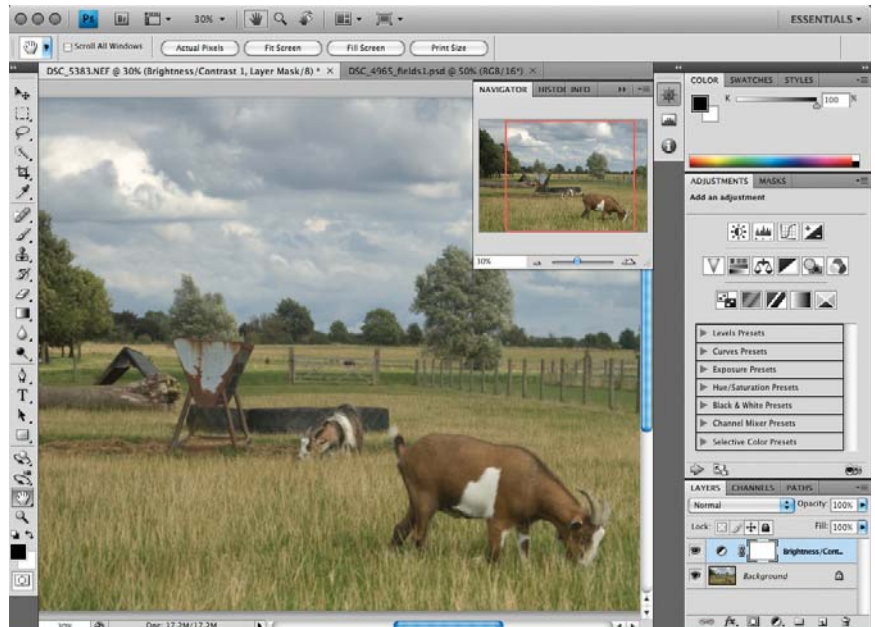
Photoshop CS4 also includes Camera Raw 5, which gains a whole host of added effects. You can, for example, add the effect of a graduated filter, rotate or crop the image or use an Adjustment brush to select an area to apply localised changes such as the exposure, brightness or colour.

As with CS3, there's also an Extended edition which adds 3D editing, some motion graphics abilities and image analysis functions. Adobe has developed a new 3D engine that is said to be much faster. It will, for example, let you paint directly onto 3D objects, convert 2D images into 3D objects or merge a 2D layer onto a 3D layer to effectively wrap an image around an object. Adobe has also improved the motion graphics side of Photoshop such as the ability to animate 3D objects. After Effects can also read and import 3D layers from Photoshop files.

Adobe has improved the interface for Photoshop, with the tabbed documents seen here. The entire interface is now a single window so its easy to resize it when working on different programs.
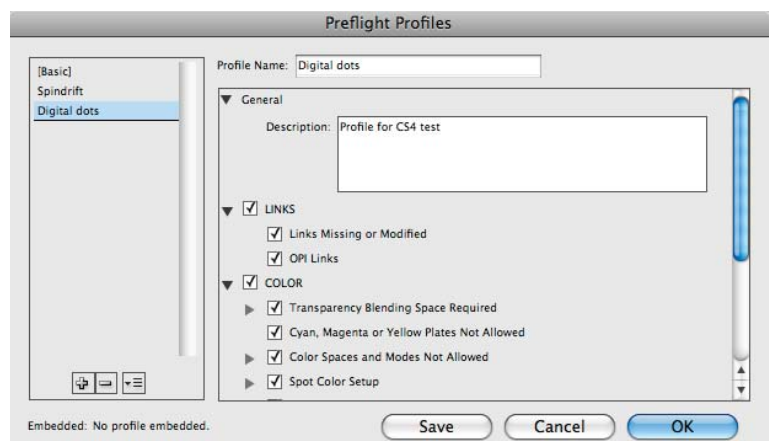
InDesign CS4

InDesign has borrowed a trick from QuarkXPress in that you can now export InDesign page layouts as Flash pages complete with interactive elements such as hyperlinks and buttons, and without the need to learn complex Flash programming. When it comes to exporting Flash content, users have a choice between exporting to the standalone Flash player format .swf, or to XFL, which is an interchange format that allows the file to be opened in Flash Professional, now making its debut in the Creative Suite. Exporting the file in XFL means that the text and graphics can be further edited in Flash.

There's a conditional text feature that allows you to have the text for several editions or language versions within the same document. Rather than having to manually decide which layers to print, you can tag the elements for each version with a condition. So for example, a computer magazine published in French and English might use one condition for the English ▶

Adobe has developed its own preflight engine for InDesign.

text and another for the French text, complete with language-specific screenshots and captions. Conditions can also be used to show or hide words from one version or another that are on the same layer. You could also use conditions to choose high resolution images for one version of a publication, and low res images for an online edition.

Adobe has also developed its own preflighting engine, which lets you check through a document for any potential errors before you export it to a PDF, or before you do any further work on it in Flash. The preflighting is based on templates – with each user defining the parameters of what's allowed within the document – and these profiles can be exported to other users. Adobe has also redesigned the Links panel which now shows thumbnails of assets as well as all uses of the asset where it's used multiple times in the same document

Illustrator CS4

Illustrator gains a number of useful gems. For starters, Adobe has added the ability to have multiple pages or artboards within a single file. The individual artboards, can be different sizes, and they can be tiled or overlapped with each other, or you can even create one artboard within another. The various artboards can be saved as a single multipage PDF or as a numbered sequence of files in other formats.

There's a new Blob Brush tool that is very much like painting with a very fat brush. It can create a vector shape, filled, and complete with outline paths which can easily be selected. The shape can then be further refined with the Eraser and Smooth tools. As with other drawing tools you can set options for stroke character and pressure sensitivity.

Adobe has also improved the Appearance panel, which shows attributes, such as the fill colour, for both single and multiple objects, and which can be edited by clicking on the attribute. You can now turn off complex effects to prevent constant re-rendering from slowing you down. There's a Same Appearance Attribute option that lets you select all the objects with similar attributes, and then apply a single edit to all of those objects.

Conclusion

In truth, dwelling on individual features within the various programs doesn't really capture the essence of this release. What really comes across is the ease with which you can switch from one tool to another, and apply effects fairly quickly direct to an image or a document without having to go through dialogue boxes or mouse backwards and forwards from one side of the screen to the other. On top of this Adobe has done a much better job of integrating the programs together so that CS4 feels much ▶

Which collection?

There are now six editions of the Creative Suite, and 14 programs included in the CS4 family. Design Standard includes InDesign, Photoshop, Illustrator and Acrobat, while Design Premium includes all of these as well as Dreamweaver, Flash and Fireworks, as well as the Extended version of Photoshop. Web Standard comes with Dreamweaver, Flash, Fireworks and Contribute, while the Web Premium edition has all of these plus Photoshop Extended, Illustrator, Acrobat and Soundbooth.

For those working on video, there's a Production Premium edition, which comes with Photoshop Extended, Illustrator, Flash, After Effects, Premiere Pro, Soundbooth, OnLocation and Encore. And of course, there's a Master Collection that includes everything. All the different editions also get Bridge, Device Central, and Media Player, and all of them except Production Premium include Version Cue, while Production Premium also gains Dynamic Link.
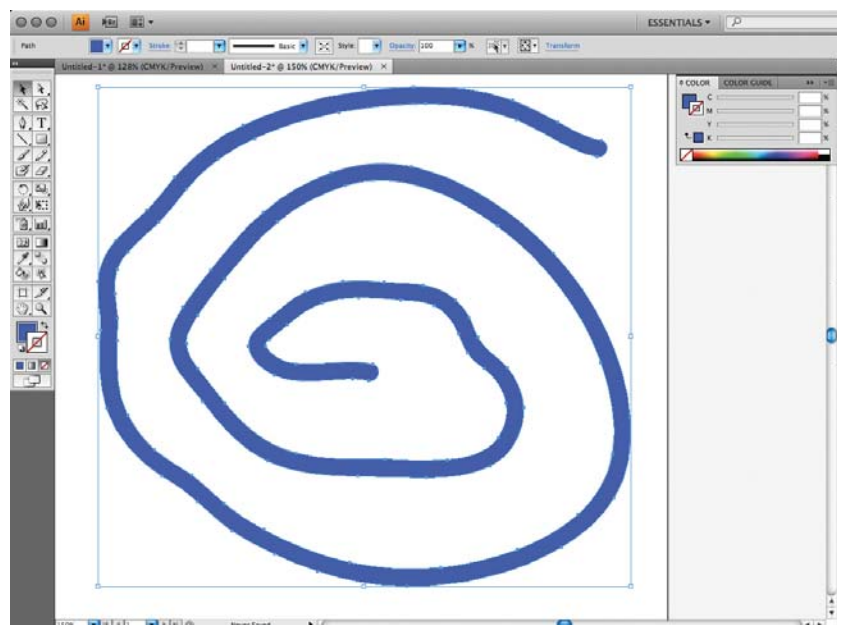
Illustrator has gained a number of new features including the Blob tool which can produce vector shapes, filled with colour, and with editable points.

more like a single product rather than a disparate collection, and it feels much more natural to take a file from one program to another to apply different effects.

We'll come back to CS4 with a part two of this review to look at the other programs that make up the collection. Principally we'll focus on the web-based products such as Dreamweaver and Flash, but do write to us if you would also like us to cover the video and sound editing programs.

However, be patient with us, as this may take a month or two. We've written this story from a beta copy of the Master Collection but we'll wait until we have the final released version for the next part of the story. Not every feature has worked for us, but that's the nature of beta software so we've given Adobe the benefit of the doubt, but with the final release we'll have more to say on the overall productivity of the Creative Suite.

– **Nessan Cleary**

Xanté Going for Gold

Many small businesses, especially printers, can survive rough seas because they have close relationships with customers: both sides trust each other and rely on one another for support. The same applies for suppliers and developers, although many have disappeared during the wretched years of consolidation and collapse. But there are some companies that continue to survive. And Xanté, an American developer based in Mobile, Alabama, is one of them.

The original intention of Xanté's founder, Robert Ross, was to provide prepress and production technology purely for small printing companies. He wanted the company to be a one-stop shop offering everything a small printer required, from imagers to consumables. Xanté has its own dedicated research team looking at ways of exploiting generic office printers to suit professional printing applications. Most of this work is done in the US, which is where all product re-engineering and software development also take place.

Xanté employs some 230 people of whom around 24 are based at its European headquarters in Holland. The company was founded in 1989 by a couple of ex-QMS engineers because one of the founders spotted a gap in the market. QMS had been a supplier of hardware and software controllers for the Unix market. It also produced controllers for HP and other laser printer manufacturers, including Minolta which subsequently acquired QMS. Many of the QMS end-users were small businesses that often couldn't afford the high prices necessarily charged by companies with many layers of people to support.

Xanté started with simple filmsetters and CTP and now offers a range of products, all under €50,000. It has maintained its focus on small printing companies, and no small part of this survival has been down to its close relationships with its customer base.

Over the years Xanté has grown steadily to become an international provider of low cost printing system technologies with many thousands of customers worldwide, and over 1000 for its Ilumina digital colour press alone. The company now sells direct to dealers, a move which it hopes will bring it closer to end users. It will also have a fiscal benefit, since bypassing distributors removes another layer for commissions. In the UK there are seven regional Xanté dealers, and a key part of the company's philosophy is to foster close relationships between those dealers.

This ultimately benefits customers because it provides an open channel for development ideas, and access to different applications for Xanté technologies. Today around 30% of Xanté's business is in Europe, with 60% in the US and the balance in the rest of the world. According to Brian Slee, Xanté's key account manager, this is changing, in line with emerg-

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ing markets: "The feedback we got from drupa shows some shifts, with phenomenal interest from India, Pakistan and the Middle East".

So what do they actually do?

Xanté supplies a range of equipment, but it has an especially well established position in small format computer-to-plate systems, imaging chemistry-free polyester printing plates. Xanté introduced a 16-up version of its polyester technology earlier this year, which it hopes to sell to book and small newspaper printers. This platesetter will cost around €32,000 when it comes onto the market in October.

The PlateMaker 5 XL was developed in response to a request from a small newspaper publisher based close to Xanté in Alabama. It images polyester plates and paper proofs at a rate of 60 plates per hour at 600 dpi, which Xanté claims is sufficient for 100 lpi output. Its maximum output size is 914 x 1219 mm. It uses Xanté's roll-fed Myriad polyester plates, which are manufactured by Agfa for Xanté. This is the first polyester-based printing plate to behave more like traditional metal plates on press. The plate is good for up to 20,000 impressions and has a per plate cost of around €6. Furthermore, the plates are imaged with toner which also ticks the green box, since the plates require no processing. The RIP is the same OpenRIP Symphony 3.0 technology as is used with Xanté's other platesetters.

Last year Xanté acquired RIPit, developer of RIPs, and Exxtra Imaging, which produced low cost metal computer-to-plate technologies. As a result, Xanté is now selling an internal drum violet imaging metal platesetter. Available in 2- and 4-up models, the VM (Violet Metal) devices image 10 micron dots at 2540 dpi for 200+ lpi output. The 2-up engine can image up to 19 plates per hour and the 4-up, 27. There is also a newspaper version of this machine, which images 50 927 x 635mm plates per hour at 1270 dpi. Xanté provides its Symphony RIP and workflow system, an implementation of Adobe's APPE technology. RIPit had introduced the platesetter and workflow at IPEX under the name of Speedsetter, prior to the Xanté acquisition.

The Xanté engines provide many small printers with a low cost entry into computer-to-plate output, to improve production efficiency and help cut consumables costs. However Xanté also has technology for capturing new markets. The €8,300 Ilumina digital colour press is based on an OKI C9800hn Digital Color Printer, a low cost colour xerographic engine that can print at up to 36 colour or 40 black A4 pages per minute at 1200 x 1200 dpi. It's a handy little printer because it is small and can print on oversized media up to 327 x 1200 mm. Xanté has modified the fuser unit in order to better control the amount of toner laid down so that it will

Xanté is an OEM partner of Oki, but has modified the fuser unit to produce this Ilumina 3D printer for producing lenticular images.

work with heavier stocks than the standard Oki model. It will print onto all sorts of media including metallic, cast-coated and magnetic stocks, ranging from 74 to 502gsm.

People use it to provide in-house colour printing services in applications that don't need higher speed. Printers are using this device to produce fridge magnets, decals and even vehicle advertising! It is rated for 150,000 impressions per month and has a 760 sheet input tray as standard, with optional high capacity feeders. Xanté is developing a variable data software offering for its printer, the details of which are sketchy: it will be based either on Xanté's own work or some sort of technology partnership.

The Ilumina technology is also the foundation of Xanté's small format lenticular device, the Ilumina 3D, which sells for about €25,000 and has a per sheet cost of around €10. According to Melissa van Gelderen, Xanté's marketing and communications manager, the device was developed to give small printing companies a means of serving this growing market. She explains: "Lenticular printing is still very centralised and now with this we hope to decentralise it for all small printers".

Lenticular Print

3D effects are achieved by capturing a sequence of pictures and then slicing them up and interlacing the pieces from different viewpoints. The idea is to create the impression of seeing the same scene but from different perspectives. It is also possible to create the same effect using layers, so that one scene appears to float in front of another.

Lenticular printing is a means of reproducing these complicated images, printing the slices behind a lenticular surface to give the appearance of depth and 3D. Lenticular material has a series of tiny cylindrical lenses that sit on top of the interlaced or layered images. When you view the material from different angles, the lenses show you a different view of what sits behind them, so the impression is three dimensional or layered.

Xanté's ProMagic interlacing software handles the business of slicing and interleaving images, working with both Photoshop and Illustrator for manipulating up to 50 layers of images of 30,000 x 30,000 pixels, and 99 image files. A ganging feature is not yet available but this would make it possible to print multiple jobs, such as business cards and postcards on a single sheet. Once again, Xanté has modified the fuser unit so that it can print onto plastic lenticular stocks.

Symphony workflow

With its RIPit acquisition, Xanté suddenly found itself thrust into the workflow business. Recognising the importance of workflow and automation for modern prepress production the company is in the process of upgrading all Xanté RIPs and workflow systems so that they are based on the Adobe PDF Print Engine (APPE). The Symphony workflow, inherited ▶

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from RIPit can drive multiple devices from a single RIP system. It supports prepress functions such as trapping, imposition (including printers marks and colour bars) and ICC-based colour proofing, and is specifically designed for small printing houses. It supports Adobe Accurate Screens, Agfa Balanced Screens and PerfectBlend hybrid screens, another RIPit legacy. There are soft proofing utilities as well as hard copy output management, and a raster view for checking the rasterised separations prior to output. There is even an ink usage calculator so printers can calculate ink usage and settings for different presses. There is also a version of this workflow system for flexo applications, also based on APPE.

For version 3.0 of Symphony, which runs on APPE, Xanté has added colour management improvements, a ganging feature and linearisation and tools for editing TVI curves. Custom print queues and ticket editors can configure workflows, in terms of managing devices and changing file set-ups, but that's about as far as it goes. The Symphony software suite includes basic job ticketing and queue management to manage jobs, but this is not a JDF system. It's vaguely JDF-compliant but Xanté has no working partnerships with MIS developers and the company does not offer its own interfaces to MIS or other larger prepress production systems. But this is not necessarily a bad thing: for many small printing companies, JDF is just so much media hype, so for the market Xanté works in JDF probably doesn't matter.

Is Small and Sweet Nice enough?

Xanté offers a broad base of technologies to small printers. It sells equipment at low cost but with relatively high performance. Small companies such as this may not have the glitz and glamour associated with the large organisations they compete with, but they often have their own quirky charm. Investment into new kit is probably the last thing on the minds of small printing companies these days, so when times get tight it's often worth talking to suppliers who don't need to support massive infrastructures.

Nonetheless, whatever the economic climate, new technology investments can still help improve competitiveness and broaden a business's activities. We have seen an awful depletion in the supplier community over the last few years, especially of small companies cutting their own paths and often working very closely with their customers. Xanté is a survivor, working closely with small printers to help keep them competitive and efficient. If for nothing else, Xanté is one of the few that deserves wider recognition for having survived so many tumultuous years!

– **Laurel Brunner**

The end of free radicals?

Inkjet technology was everywhere at drupa, and one of the fastest developing inkjet technologies is UV-curable ink and the print-heads to go with it. Gerber didn't make much noise during drupa about its new printer, the Solara ionx, but will show it at Viscom in Spain this month. It's promoted as using 'revolutionary' cationic UV-curable ink technology, and the printer is now out of the pro-totype and beta testing stage and into production.

So what's so special about cationic inks, and why would it be revolutionary to be able to manage them in a digital printer? To answer that question we need to take a step back and look at how digital printing has made advances in the last few years, in particular when it comes to replacing some of the conventional analogue ways of doing screen printing.

Up until a few years ago the main objection amongst screen printers against going digital was that there were no inkjet printers capable of laying down a thick enough ink layer to print, for example, white on dark substrates. In general UV-curable ink has changed this situation, but the technology used with these inks is not without problems. The inks themselves can emit an odour, and some of the components in the ink can cause skin irritation. Most of the conventional curing technologies use high energy UV-lamps, which are expensive, use a lot of power and cause heat problems in regard to the substrate. Another negative aspect is that some of the UV-lamps create ozone in the process, which can be a health hazard.

In the conventional curing process the ink needs to contain free radicals to react to the UV light in the polymerization (curing) process. Over the years various improvements have been made to the UV curing technology, including the use of different ink formulas. One such path is through cationic ink, a chemical formula known since the seventies, which has the benefit of needing less power to cure as the UV light doesn't need to penetrate the full depth of the ink film. Several vendors have tried to master these cationic inks, but the ink formula involves replacing the more conventional free radicals with photo-initiators that respond to the exact and very narrow bandwidth of special UV lamps and this has proven to be a big challenge to overcome.

The new Gerber Solara ionx is a flatbed inkjet printer able to print on both rigid and roll fed media. It uses UV-curable cationic inks from Gerber.

Gerber's new cationic inks, in combination with its special curing technology called Gerber Cold Fire Cure, seem to have done the trick. Gerber uses a narrow bandwidth UV-lamp covering the whole print width, curing at near room temperature. This UV-lamp doesn't emit any ozone, and uses much less power than most other UV-lamps. In turn this should make the lamp itself last longer – up to 10,000 working hours according to Gerber.

The ink itself doesn't smell to the extent that many other UV-curable inks do, and the printer doesn't need an exhaust ventilation system. Since the ink cures at around room temperature, it doesn't alter the qualities of the substrate used. And as with most of the other UV-curable inks, it can be used on many different substrates. Gerber claims that the Gerber Cat inks have very good stretching capacity, so should not crack on plastic materials such as vinyl, and can be stretched and bent around corners and 3D shapes. It also sticks well to most types of glass.

What are the alternatives?

There are a wide range of UV-curable inks and inkjet printers on the market, and then there are printers using solvent-based ink. Research and development of UV-curable inks is intense, and vendors are working hard to overcome the common problems. For the curing technology, smaller and more power efficient lamps are being developed, and the substrates are being improved to work with these different inks.

While solvent inks have the obvious problem of emitting harmful VOC (Volatile Organic Compounds) into the air, several vendors have developed eco solvent inks which are intended to reduce the amount of these VOC. Epson, for example, recently launched the Stylus Pro GS6000 printer using the UltraChrome GS ink – the first solvent-based ink according to Epson that doesn't need to carry the hazard symbol on the package.

The magical component – the Gerber CAT inks – require less energy, flex well, are scratch resistant, have high colour gamut and opacity, and don't emit any odour, VOC or ozone in the curing process.

However, Claes Jeppson, product manager for Epson Large format printers, says that Epson won't be entering the UV-curable inkjet market. He explained: "The problem with most UV-curable inks is that they have much smaller colour gamut than solvent-based inks. With the launch of the GS6000 and the UltraChrome GS Eco Solvent inks, we think we have a good combination of more environmental inks and a large colour gamut – the GS6000 has CMYK plus orange and green."

But Gerber is not alone in offering cationic ink – Konica Minolta has launched a black and white bar code and label printer called the SP-M0320HR. Konica Minolta has also demonstrated a prototype version of a printer using the new KM1024 inkjet printhead, designed to use colour cationic UV-curable ink, manufactured and patented by Konica Minolta.

Pros and cons – a summary

The Gerber Solara ionx seems to meet a range of expectations – it's able to print on many types of substrates, including glass, has low power consumption, emits no ozone or VOCs, cures near instantaneously, prints reasonably fast (up to 40 m²/h) and has a good colour gamut (Gerber claims that its CAT UV-inks have a higher colour gamut than most other 'conventional' curable UV-inks).

We at Digital Dots plan to test some of the large format printers on the market, and one of the things that we will test is the actual colour gamut of the printer, as well as printing speed in combination with different quality levels and resolution settings. It's clear that large format printing does offer fast and exciting product development at the moment, and in the years that lie ahead.

– **Paul Lindström**

Graphic Arts Crossword Puzzle   Number 12

If you get stuck, go to the **IGAEF** website for some hints. For those of you that really get lost, answers will be in the next issue of Spindrift. **The answers for the previous puzzle are on the next page.**
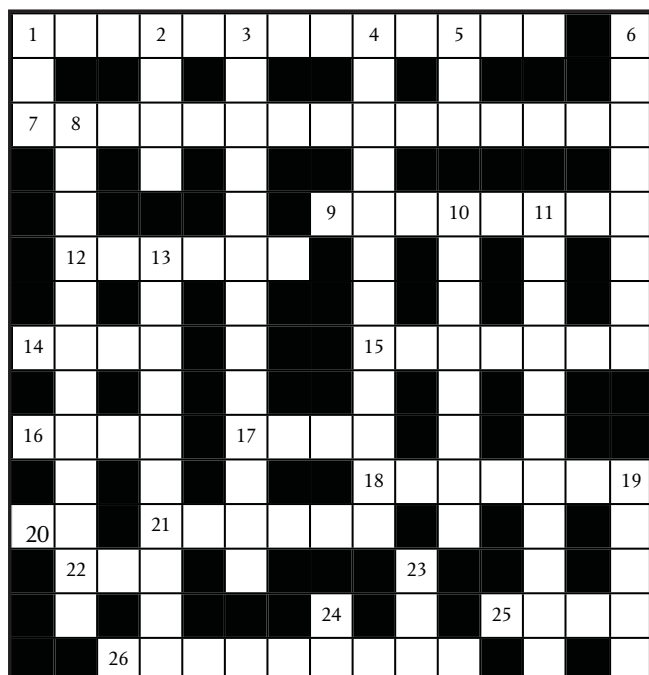
Across

1. E-books want to, soft proofers seem to, change a substrate with your fingertips? (8,5)

7. Flat bed or drum, nothing is captured without this. (7, 8)

9. People have to do this to spreadsheets and databases, and in new lands. (8)

12. Not offline. (6)

14. A single element of a multiple set. (4)

15. To you and non-nuanced, yes, an unbreachable rule. (7)

16. Hope, desire, a promise? (4)

17. Last in first out inventory. (4)

18. It works with a partner to flare in singular excitement at the end of your nose? (7)

20. Two. (2)

21. He cuts or copies before he does this. (6)

22. Not bottom. (3)

25. Requests parts lent every angle. (4)

26. Get on and feed your computer! (5,4)

Down

1. The operating system that got Mr Gates on his way. (3)

2. They pass between electrons. (4)

3. Boom, hint? Muddled, I jest and something gets on the worksheet. (4, 2, 7)

4. Suggestive offers we can't refuse. (12)

5. Domestic animal or plastic? (3)

6. What's left at the end of a long day, or what you've got when the power fails. (2, 6)

8. Colourful in towns? (12)

10. To unfold. (8)

11. "Oh no, the webs are breaking" he called. "We need …and now really!" (3, 3, 5)

13. Leaves fate alone and trusts the result. (4, 6)

19. Wide area networks go beyond. (5)

23. For all that, it's overweight. (3)

24. Overdose. (2)

Answers for Graphic Arts Crossword Puzzle Number 11

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

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