Digital Dots

Spindrift

Invigorating the Graphic Arts industry since April 2003

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News Focus • Opinion • Reviews • Testing • Interviews • Brain-teasers • Techno-babbling

It takes a lot more energy to fail than to succeed, since it takes a lot of concentrated energy to hold on to beliefs that don't work.

– Jerry Gillies (Author of 2 million copy bestseller Moneylove)

Dear Reader,

With Fespa fast upon us we have a heavy emphasis on wide format digital printing in this issue. And the next issue will include even more on the topic, with our post-show review of the latest kit.

This is a sector that is absolutely booming, and the Fespa team have done a great job in generating excitement around the show. Their enthusiasm and energetic efforts to put together an innovative programme are impressive.

We are contributing to the sessions and will be providing an overview of ISO 16759 and what it means for the industry. ISO 16759 has been approved and will be published shortly. In our Fespa session (25th June 14:00 to 17:00) we will also provide an update on progress with the new work within ISO TC130 WG11: carbon footprinting digital media.

This work will be a real struggle but we hope to come up with a document that is workable and that has teeth. Fortunately we have some very brainy people in the group plus a liaison with some major electronics manufacturers with the necessary device know-how. Join us at Fespa to find out more about how this will work.

We look forward to running into you at the show!

Enjoy,

Laurel, Nessan, Paul and Todd

In This Issue

Wide Format Supremos

Inca Digital will unveil its new Onset Q40i later this month at the Fespa show. But Laurel Brunner has had a sneak preview at this high speed flatbed printer. This has a 1.6 x 3.2m bed and can produce up to 310sqm/hr but with a 9-picolitre drop size it is capable of very high image quality.

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A digital challenger

Paul Lindström and Laurel Brunner have been testing the recently-launched Durst Rho P10-200 flatbed printer. This is a high production two-metre wide UV-curable printer. It boasts 10 picolitre ink droplets, coupled with a new Rho ink formulation that has an extremely wide colour gamut, making it suitable for a wide range of applications.

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Castles in the sand

Nessan Cleary has been puzzling over Adobe's decision to rethink its Creative Suite software and sell it through its Creative Cloud service on a subscription basis, with no option for a perpetual license. Does this really make sense for users, and is it the shape of software to come?

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Regular Features & Special Treats

News Focus

Konica Minolta has launched a new dry toner press, the Bizhub Press 8000e. This prints at up to 80 pages per minute and can easily handle monthly volumes of 500,000 prints. It builds on the existing 8000 but adds new EFI controllers that are said to be twice as fast.
Konica Minolta also announced a new partnership with the Vpress web to print service, which will initially be just for the UK.

Agfa has published its figures for the first quarter of this year, which show gross profit margin continuing to improve year on year. The net results for the first quarter were a €12m loss, an improvement on last year's €20m loss for the same period. These figures also reveal that all the growth is with Agfa's Healthcare IT side of the business, while Agfa says that the Graphic Arts division has suffered from the weakness of the Euro and a general downturn in the printing industry.

Xerox's results from 2012 show $22.4 billion of full-year revenue and operating cash flow of $2.6 billion and an adjusted net income of $1.4 billion. Xerox delivered adjusted earnings per share of $1.03, as well as $1.1 billion in share repurchase and $255 million in dividends. Xerox recently increased its quarterly dividend by 35 percent and expects to repurchase at least $400 million in shares this year. Ursula Burns, chairman and CEO of Xerox, revealed that 55 percent of Xerox's total revenue now comes from services, and that this will grow to two-thirds by 2017.

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Goss has a new highly automated 2×1 web offset press for the production of newspapers, books and semi-commercial publications. The Goss Magnum Compact press system boasts a range of design features packaged to deliver fast makereadies, simplified operation and run-length flexibility. This brings automatic plate loading and compact design to the single width press market for the first time. It's a compact design with a height of 2.2m, which benefits both the print quality and leads to easier maintenance.

Fujifilm has combined an Inca Onset S40i with its Uvijet OC inks and a recently announced media handling system for a solution to produce POP corrugated boards. The new inks overcome the difficulty of distorted or bowed substrates, largely caused by the tendency of the ink to sink into the substrate leading to poor print finish. The handling system uses a 'vacuum-to-vacuum' transfer method for full automation.

Screen has launched a new entry-level flexo/letterpress platesetter, the PlateRite FX870IIE. It can produce flexo plates at a rate of 2 sqm/hour (approximately four 762 x 635mm plates per hour) depending on plate sensitivity. Resolution ranges from 2,400dpi up to a maximum of 4,800dpi and it also supports Screen's Flexo Dot screening that is specifically designed to improve the highlight areas in flexo and letterpress printing.

Agfa has two new Anapurna wide format printers including the M3200 RTR, a mid-range 3.2m wide UV roll-to-roll printer. It has a new generation of printheads and is suitable for premium banners and backlits. Also new is the M2500, a 2.5m wide hybrid UV printer with six colours and a high density white ink.

Heidelberg has been demonstrating its new Prinect Smart Automation function, which aims to automate the print production of jobs coming from a web to print system. It draws automatically on a pool of previously defined format templates early in the job creation process and merges these to create a complete job description that

contains all the information needed to produce the job from start to finish without manual intervention.

Alwan has added its DeviceLink technology to Compose systems' LinkProfiler plug-in for the Harlequin RIP, bringing colour management, TAC reduction, and ink savings directly to the production workflow. The Alwan LinkProfiler plug-in allows Harlequin RIP users to use the colour management framework provided by their RIP to create and apply Alwan DeviceLink profiles as part of the RIP'ing process. Elie Khoury, founder and president of Alwan Color expertise explains the benefits of this new solution: "Alwan DeviceLinks will colour manage RIP'ed files and/or limit their ink coverage (TAC) and/or optimise their black generation automatically and without any manual intervention."

GMG has updated its colour management program ColorServer to v4.8. This has a new Paper Adaption Tool to help print houses overcome the problems of a mismatch between the paper tint of the proof according to ISOcoatedV2, GRACoL, JapanColor or any other standard, and the white point of the actual paper to be printed.

Enfocus has released update 4 of its Switch 11 workflow system. This adds support for PitStop Server 11 update 2, WoodWing Enterprise 8, HP SmartStream Production Pro Print Server and StuffIt Deluxe 15. It also includes a new configurator to control Ultimate Technographics' Impostrip OnDemand Automation solution. The Web Services Module for the new version has been reorganised and improved to allow easier deployment into customer websites.

Enfocus will replace Instant PDF, the "virtual printer" aimed at designers for easy preflighting and creation of PDFs with a new product called Connect YOU. This will have similar functionality as Instant PDF, but extended to also support preflighted PDF creation through Adobe InDesign. The idea is that printers will setup the connector for the designer through the Connect ALL software, which is a customisable server software that can create an unlimited number of "connectors". Connect ALL can be configured together with Enfocus Switch or Pitstop Server, or even replace Pitstop Server. Connect YOU and Connect ALL support the latest set of Ghent PDF Workgroup preflight settings, as well as the tracked preflight functionality of Certified PDF.

Ricoh and **Xerox** have teamed up to request a review of US patent number 7986426, which has become the subject of an aggressive patent licensing campaign by various affiliates of MPHJ Technology Investments aimed at the users of multi-function imaging equipment, including those supplied by Ricoh and Xerox. MPHJ's affiliates allege that using these printers with email or network software infringes the patent, while Ricoh and Xerox say that the patent should be revoked as its claims are covered by various prior art references.

Antalis has introduced a new range of papers for digital printers, Olin Digital, an addition to the Olin range of premium uncoated papers. The new range has been certified compatible with HP Indigo and dry toner presses with sizes specifically cut for HP Indigo presses. Weights range from 90 to 300gsm, and there's a choice of two finishes – Regular and Smooth – and two shades – High White and Cream.

Esko has updated its workflow software with the release of Suite 12.1. This now includes standard workflow templates for typical applications such as folding carton, labels and signs. There's also integration with On-Press visual inspection systems so that users can now define areas on a job for inline visual inspection systems, saving on the set-up time. The new version also makes it easier to manage jobs that are split across multiple press types and allows for automating gang printing on large format flatbed digital printers.

Esko has also released the Enterprise edition of its ArtiosCAD software worldwide. With ArtiosCAD Enterprise, all assets are stored in a centralised corporate database in the cloud. It enables dynamic on-line collaboration between design groups, CAD and graphic designers, suppliers, brand owners and production.

Xerox has organised raids in China and Dubai that resulted in the seizure of more than 55,000 boxes of counterfeit consumables and parts for various Xerox products. Xerox has recently introduced a new loyalty

program, Genuine Xerox Rewards, which allows customers to register products and supplies with Xerox to validate their authenticity.

Quark has signed up for the EMC Information Intelligence Solutions Partner Program to ensure that its solutions for customer communications and enterprise publishing integrate seamlessly with the EMC Documentum platform. This mainly affects Quark's XML Author.

Hollanders Printing Systems will use the Seiko 508GS print-head with nozzle guard in all of its future ColorBooster XL installations, following a test earlier this year. This new head features a stainless steel cap to protect the anti-wetting layer of the nozzle plate from deterioration during operation and cleaning cycles.

FFEI has bought a new facility for its product development and manufacturing operations in Hemel Hempstead, UK, allowing it to move out of its current rented premises in early July. The company has invested over £2m in the new building.

On the night of June 5, which is United Nations World Environment Day, **Ricoh** turned off the lights on all its billboards, Ricoh logo signboards and night lighting facilities at all of its Group companies around the world, with the exception of the 100 percent eco-powered billboards in New York (Times Square), London, and Sydney. This was part of an initiative to encourage staff to focus on energy conservation at work and at home.

Finally, we want to express our condolences to the family of Ted Stephens, chairman of **Optichrome,** who has died after suffering from lung cancer. Optichrome is a family-owned printer, based in Woking, UK, having been started by Ted's father Ken in 1963, with his daughter Natalie now group director. Under Stephens, Optichrome developed the Optimus MIS, now a separate company.

News Analysis

EFI has had a busy month, having acquired two more MIS to add to its already considerable MIS portfolio. These acquisitions appear to be more about buying market share, rather than particular capabilities, and both involve relatively local companies.

Indeed one aspect of the MIS sector is that it is dominated by regional companies, and although several have expanded to cover other geographic areas, few can be said to be truly global. This partly reflects the way that MIS has developed over the years from being an often-misunderstood piece of software to a vital tool in a printer's armoury. In addition, the nature of MIS means that each supplier has built very tight relationships with their customers, and that those customers value having someone near at hand to solve problems.

So these acquisitions can be seen as EFI establishing its global MIS brand at a regional level, developing a customer base and the necessary support teams. EFI already has the most comprehensive portfolio of MIS in the print and packaging sectors, having Monarch, Pace and PrintSmith for different sized print companies as well as Radius for the packaging sector.

The first of these new acquisitions was PrintLeader, headquartered in Palm City, Florida. PrintLeader is a mainly US-based MIS for the printing industry, and as such brings a lot of additional customers to EFI.

PrintLeader's MIS products will now be integrated into EFI's PrintSmith Vision product line, part of its EPS group. EFI will also continue to support the existing PrintLeader client base, which consists of more than 800 commercial and in-plant printing operations across North America.

EFI also bought the European company GamSys Software, which deals with ERP systems for the printing and packaging industries in the French speaking areas of Europe and Africa. GamSys, based in La Reid, Belgium, has built a base of over 400 customers in Europe over the past 14 years, which will help EFI grow its European MIS business.

GamSys will now become part of EFI's existing software applications portfolio. EFI intends to integrate support and operation of GamSys into the existing Productivity Software organization, while continuing to enhance the product's offerings, which in the first place means adding support for EFI's Fiery print engines.

Since both of these companies were privately owned, EFI is not under any obligation to disclose the financial terms of the transactions, but has said that the costs will not have a dramatic effect on EFI's Q2 or 2013 full-year results.

A Review

EFI Fiery XF for large format production

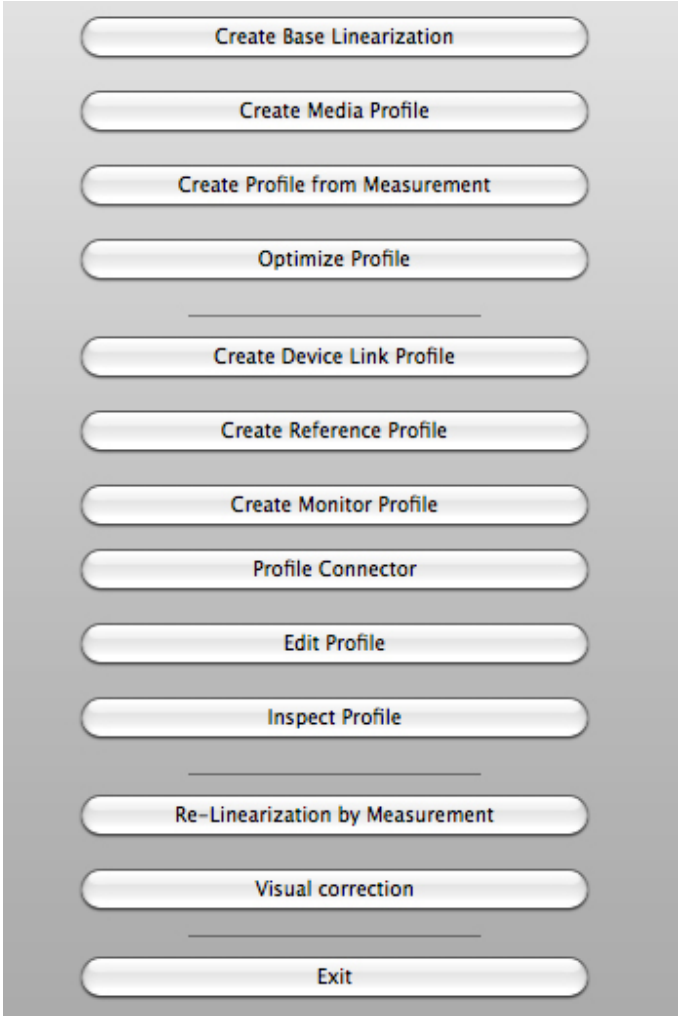
Earlier this year EFI announced the release of the updated Fiery XF RIP System, and since we reviewed version 4.5 in Spindrift 8-9 in 2011 we have to admit that we were a bit sceptical as to whether version 5 really had enough new features to be worth a new test and review. But once we started up the software and read through the enclosed material, we realised it's actually much more than just an update – it's basically new software.

First of all the user interface, while similar to version 4.5, is now fully customisable, so the user can configure a workspace custom tailored to his or her most common needs. We also quickly noticed the context sensitive help, which is very welcome and handy in such an advanced and complex system (in all there are over 20 options in this modular architecture, but more on this later). And we also like the fact that EFI supports both the Mac OSX platform as well as Windows – both versions have the same functionality, look and feel.

One might have thought that functions related to colour management would have been all taken care of in a mature and stable way by now – after all EFI Fiery XF goes back to the days of BEST Color, a company acquired by EFI in 2002. But Fiery version 5 contains many important additions and enhancements related to colour management, not least in regard to the handling of spot colours.

We particularly like the support of the CxF colour format, one of the latest additions to ISO standards through the 17972-series for colour data exchange. The CxF format is also used in the Pantone Live product, a cloud-based spot colour ink database for more accurate spot colour handling. EFI Fiery XF v5 contains a range of new tools for enhanced spot colour management.

The former Color Manager is now replaced with an integration of the Color Profiler Suite, and while this is an optional module, we can't see how any printing business

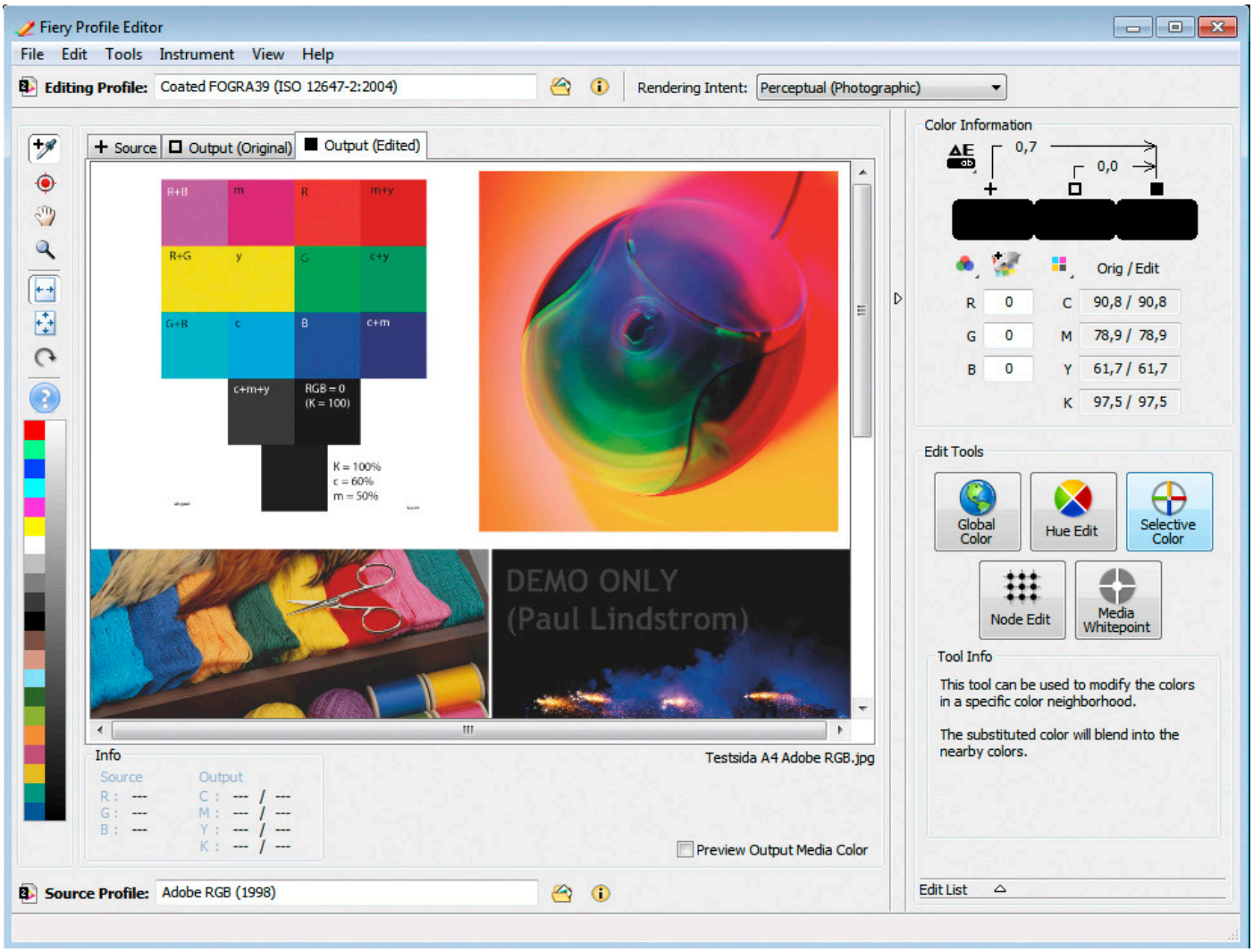


Careful calibration and linearisation, coupled with fine tuned ICC profiles still remain at the heart of successful proofing and high quality image output. This and more can be done in the integrated Color Tools in Fiery XF v5.

can be without it. This is where you create and fine tune ICC profiles for custom papers and inks, as well as make a fleet of printers conform to the same set standard and reference calibration condition.

The Color Profiler Suite can now also calibrate monitors, so you don't need to go outside Fiery XF for colour management related matters. EFI cooperates with Caddon, a German vendor of high-end LED-driven viewing booths and softproofing systems, so the module for softproofing integrates with a Caddon system. The EFI Color Profiler Suite can also be bought and run as a standalone application, separate from Fiery XF.

Another fruitful cooperation is with Esko and the new Advanced Layout option integrates some of the functionality of Esko iCut, coupled with new features



There is still room for improvements in colour management, and the old Color Manager inside EFI Fiery XF is replaced with an integrated version of the Color Profiler Suite in version 5. In particular spot colour management is among the new and enhanced features.

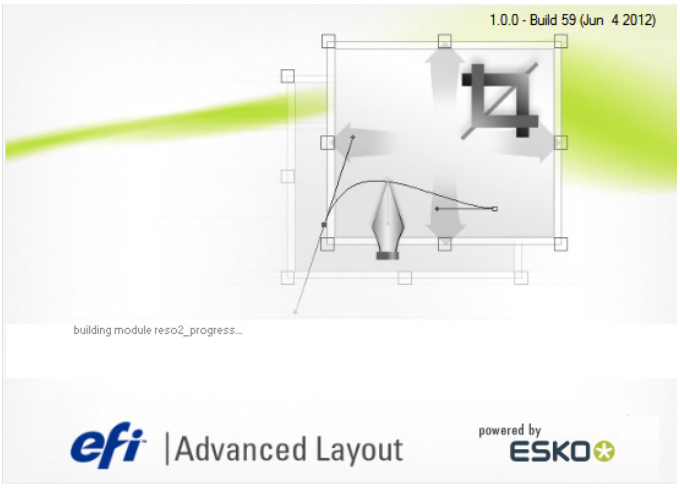
developed by EFI. This is where settings for nesting and cut marks are made, and perhaps the most important new module for large format production in Fiery XF. Licenses for both Fotoba and Zünd cut marks, as well as Grommet Marks, are included in the Advanced Layout module.

The list of supported printers is long, but when it comes to very large format printers you should check first before buying that your model is on the list. A selection of well-known manufacturers is represented, including Agfa, HP Scitex, DGI, Inca, NUR and Océ. And of course Vutek, which is owned by EFI, with special modules developed for Fiery XF, enabling a tight integration with the print controller and the printer.

As before, Fiery XF supports JDF so a more or less seamless integration with MIS systems is fully possible, and this is yet another element for achieving workflow efficiency and productivity.

When it comes to offering support for different spectrophotometers it's worth noting that both the latest devices from Barbieri and X-Rite are included on the list, as well as spectrophotometers from Konica Minolta. Even built-in spectrophotometers, as in the new Canon iPFX400-series printers, are supported.

Since Fiery XF is now a very comprehensive RIP system, it has naturally become quite complex. But EFI has done a good job trying to still keep it quite straightforward to use, with installation wizards to help you on the way and with educational videos from what is called Fiery Gobal University. Most of the training videos are just a few minutes long, and cover a specific topic, so there is



The new Advanced Layout function is 'Powered by Esko', and this is where cutting path and marks can be added, as well as grommet marks and instructions for tiling.

no real excuse not to go through them. Along with the built-in context sensitive help, the user is guided through the different software modules, functions and operations.

We can also report that the support for Fiery is fast and efficient – we initially had some problems with duplicated licenses on our test computer, but it was quickly sorted out, in our case by the technician using the Team Viewer software to remotely log onto our computer and tidy up the configuration files.

All in all we can conclude that EFI has managed to make an already good product even better, while trying very hard to maintain ease of use in the process. Hats off to the team in Ratingen, Germany, where the product development takes place. It's good to see that some team members go back all the way to the BEST Color days, which seems to be part of the success.

Green Shoots

Trends are often hard to spot without the benefit of a few years. However it is clear from our recent blogs that more and more companies are adopting energy management and related environmental standards. This is great news for the printing and publishing industries because it is a strident demonstration of environmental commitment.

Taking Another Step Forward with ISO 50001

Agfa Graphics has made a sustained commitment to improving its carbon footprint for many years. It has also made considerable efforts to help the industry do so as well, particularly with the Azura line of chemistry-free plates. And we're proud to say Agfa is one of the Verdigris project's founding members. Now the company has announced that it has achieved ISO 50001 for its plate manufacturing plants in the UK and Germany.

Agfa is one of the first companies in the world to get certified to this relatively new standard for energy management. But we hope it won't be the last. Gaining certification to ISO 50001 is an important step towards reducing the graphics arts' environmental impact. ISO 50001 lays out what a company needs to do in order to continually improve its energy performance. Like any management system the assumption is that energy efficiency, use and consumption should all be monitored and improved as part of a structured management programme.

Verdigris

The Verdigris project is supported by Agfa Graphics, Digital Dots, drupa, EFI, Fespa, Heidelberg, HP, Kodak, Mondi, Pragati, Ricoh, Splash PR, Unity Publishing, and Xeikon.

The standard specifies what has to be done to demonstrate energy management, including what should be measured and the requirements for documenting and reporting the data. The specifications are comprehensive and address all aspects of energy performance that are within an organisation's control. This is not a prescriptive standard however, so organisations have considerable flexibility in how they implement it. The goal is to strive for, and prove, continued improvements in energy performance.

Agfa has been developing its family of chemistry-free plates for many years, helping to remove chemicals, waste and processing resources from the platemaking process. Chemistry-free platemaking helps printing companies reduce their environmental impact, as well as cut costs. Increased platemaking efficiency minimises downtime on press.

However, platemaking is an energy intensive business conducted on a huge scale. With this certification, conducted by Lloyd's Register Quality Assurance, Agfa has a proven commitment to its energy management programmes in its British and German plants. The company is one of the first in the world to achieve certification to ISO 50001 and is working towards certification at all other Agfa Graphics factories around the world. The company hopes to achieve this within the next eighteen months or so.

Agfa's new certificate is about more than altruism or marketing: energy is one of the biggest costs facing any business. Managing it efficiently inevitably leads to substantial costs savings and provides additional insight into how manufacturing processes can be improved. In Agfa's case, its programme to manage energy and achieve ISO 50001 certification has already resulted in "multi-million euro efficiency savings worldwide". This is another great example of how efforts to cut carbon also cut costs.

Tougher Than It Looks

When standards makers started working on ISO 16759 (for quantifying the carbon footprint of print media), there were two primary reference documents: PAS 2050

and a working draft of what was supposed to become ISO 14067. Both documents were written to help companies quantify and calculate the carbon footprints of products and services and are closely aligned.

The snag is that ISO 14067, having failed in the final stages of voting, will not be published as an international standard. It has instead been approved as a technical specification and is expected to be published shortly. The difference between the two is that fully compliant implementation of a standard can be confirmed by third parties, such as certification bodies; it can be mandated for instance for safety or quality control. A technical specification is a document companies can follow if they choose; it's unlikely that customers will demand it.

So on the basis of ISO 14067's rejection should we worry about ISO 16759's vote due to close in a couple of weeks? Maybe, but it is important to keep in mind the reasons why the latter was not popular. Perhaps the most important of these is that ISO TS 14067 is non-specific and can be applied to whole categories of activities. This means that in the view of some countries it might have negative implications for trade in developing countries.

The authors of ISO TS 14067 also strove to reflect the interests of all products and services, which is partly why the document has been in development for over four years. And ISO TS 14067 has a complex set of communications options, including labels and claims that were considered to place heavy burdens on the companies trying to implement it.

As a technical standard, ISO TS 14067 is available to any organisation that wants to use it. However, it is not a standard so it is essentially toothless. This could be seen as a step backward for those of us who are trying to encourage industry and service providers to improve their environmental impact, starting with carbon footprinting.

Equally, publishing ISO TS 14067 at least gets this document into the public domain. The document reflects a tremendous amount of work done by committed professionals from all over the world, so it should have some value in the marketplace. That value is in its completeness and the extent to which it reflects the needs of generic carbon footprinting methodologies.

Different areas of industry, from agriculture to exhibitions, can use it as a starting point for a sector-specific implementation. That might help industry to reduce overall carbon footprints and improve grassroots business efficiency.

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European Sustainability Simmering for All

The European Commission is turning up the heat on its sustainability policies, so the rest of the world should take note since this will affect international trade. We heard about the EU's Product Carbon Footpring (PCF) and Organisational Carbon Footprint (OCF) earlier this year. Neither are regulations yet and both essentially echo existing ISO standards.

However, the EU feels PCF and OCF are needed because "the alternatives existing were not suitable to achieve our political objectives (clearer, more reliable, verifiable and comparable information on the environmental performance of products and companies reporting)". This is what Dr Michele Galatola of the EU has told us, but we aren't convinced.

These initiatives, plus the EcoLabel, are all voluntary but they will be reviewed periodically to see if they should be turned into regulations. This may be why the EU seems to marginalise ISO standards. These initiatives will impact

printing businesses in Europe and other parts of the world. It's creeping up on us and the printing industry should be adding more to the discussions.

On the 27th May the EU hosted a Sustainable Industry Forum at the European Commission in Brussels. 'Treating Waste as a Resource' is the theme and participants, including industry and policy makers, were invited to help develop ideas for how waste can be exploited to provide raw materials and employment through business and market development. The results of an EU study 'Treating Waste as a Resource for EU Industry: Analysis of various waste streams and the competitiveness of their client industries' were also presented and discussed.

Waste management is already pretty sophisticated in Europe with over 70% of paper entering the recycling chain. However, if the goal is jobs and growth within the context of sustainability, the biggest problem is lack of knowledge and lack of awareness of how one person's

Waste management is already pretty sophisticated in Europe with over 70% of paper entering the recycling chain.

waste is another person's raw material. The Sustainability Forum should really have been a grass roots initiative, not a collection of self-interested talking heads.

Printers are good at exploiting the potential of waste as a resource: silver recovery from film, recycling aluminium and paper, and so on. But they need better understanding of how to use resources, human and otherwise, efficiently so that there is less waste in the first place. The paper industry has already taken massive steps to turn waste into resources and to capture more carbon. The EU might want to consider such efforts in the context of its environmental efforts for growth.

Much EU environmental work borrows heavily from other efforts and is arguably redundant, unless the EU wants a foundation for future regulation. The Sustainable Industry Forum was supposedly about industrial symbiosis, remanufacturing and reuse. Hopefully it also provided insights into where the lines between voluntary and regulatory requirements should be drawn.

ISO 16759 Approved!

After what feels like forever but is really only a couple of years, ISO 16759 (Quantification and communication of the carbon footprint of print media products), has been approved. Yay!!

This is very exciting, but it marks only the beginning of an important journey for our industry. We are expecting ISO to publish ISO 16759 this summer. When it is available, the printing and publishing industries and their supply chains will be able to start calculating carbon footprints to a common standard using their choice of calculator. ISO 16759 is not a calculator but a framework of requirements. This means the market can develop any size and shape of calculator it wants, specific to different printing and publishing sectors and needs in the supply chain.

As long as a carbon footprinting study complies with requirements of ISO 16759, print buyers, publishers, consumers and anyone else involved in print media production, will be able to trust the data. For the ISO authors the real work will begin once this starts to happen: the standard is rather like slightly shaky software that has just been released into the market. Only when users start offering feedback, can the standard be made more robust.

The publication of ISO 16759 puts the printing and publishing industries in a unique position. This standard is the first of its kind to be on track to reach market. Despite over four years of struggles and debate, ISO will publish the draft of ISO 14067 (Quantification and communication of the carbon footprint of products and services) as a technical specification not as a standard. The document did not achieve consensus because of concerns over reporting and worries that it might be used as a restraint to trade. This means that there is no ISO standard that specifies the basis for calculating the carbon footprint of

a product or service. Only ISO 16759 is specific to a given industry sector.

ISO is either missing something or they are ahead of the curve on the need for tangible carbon footprinting data. Given the number of companies already touting carbon calculators for our industry, we rather hope the latter to be true. And we are already aware of a certification project to establish whether a calculator meets the requirements of ISO 16759. The only way is forwards!

For more green news, check out The Verdigris Project:

Verdigris

http://verdigrisproject.com

Boomerangs

We've received this email from Mike Horsten, marketing manager for Mimaki Europe in response to the last issue of Spindrift.

Hi Todd,

There is a mistake in this issue of Spindrift.

On page 11 it states that Mimaki Backs the GPT solution and the adaptation of this machine. Mimaki does not support modifications on the machines we make. This machine is built by Mimaki as a TS34-1800 Dye Sublimation printer. If somebody buys this machine and modifies it the warranty is no longer valid. We do not support these modifications as you state in the newsletter.

We've checked further into this and, as Horsten says, the modifications that GPT have made to the 190s have rendered the original Mimaki warranty invalid. Indeed, Horsten makes it clear that Mimaki does not support this machine but that GPT have bought a Mimaki printer and are legally entitled to modify it as they wish.

However, it appears that the bulk of the machine, as originally made by Mimaki, is covered by a warranty from Hybrid Services, which is Mimaki's UK distributor and would presumably have the training and access to parts necessary to service the Mimaki machines. GPT is a Mimaki reseller for Hybrid Services. The modifications that GPT have made to this printer, mainly around the heater unit, are separately covered under a warranty from GPT. Hopefully this clarifies the situation and we apologise to Mimaki for any misunderstanding.

Preview

Fespa has established itself as the most important exhibition in the wide format world, and at the end of this month it comes to London. Undoubtedly one of the highlights will be the new Inca Q40i Onset, which we've covered on p15.

Also worth seeing will be HP's brand new latex printer, the Latex 3000. It's a 3.2m wide roll fed machine, with a newly designed printhead offering 1200 dpi native resolution. It has a six-colour inkset, using CMYK plus light cyan and light magenta, plus an ink optimiser, which is effectively a clear ink that acts as a pre-treatment.

Also on the latex front, Mimaki will be demonstrating its new latex ink, which now includes orange and green inks and a higher density black ink.

Mimaki will also launch its JV400-SUV at Fespa. This uses a mixture of solvent and UV-curable inks. In the printing process, the solvent component is absorbed by the ink-receiving layer of the media and the pigment is settled on to the media. The printed ink is then cured with a special UV light process, resulting in a smooth, high gloss appearance, which has the bright colours associated with solvent printing and the scratch and weather resistance expected of UV devices.

Fespa will also mark the European launch for the Inktec Jetrix KX5. This is a standard format 2.5m x 1.3m UV flatbed printer. It uses the next generation Konica Minolta 1024 print head, which boasts a six picolitre drop size. The printer can reach speeds of up to 30sqm/hr and has a maximum print resolution of 1440dpi and edge-to-edge printing.

Durst will be demonstrating its Rho 1012, which has a small drop size of 12 picolitres for high resolution printing with a high productivity of up to 490 m^2 per hour at 1000 DPI. Durst will also show off the P10 printer with its Variodrop technology, which we've covered in some detail on p19 of this issue.

Mutoh will be showing three new ValueJet printers, including the ValueJet Hybrid VJ-1617H, a roll-to-roll printer than can also handle rigid materials. It's the first Mutoh printer to use white ink and is suitable for both indoor and outdoor applications.

Expect to see an emphasis on wide format workflows. Agfa will be launching its new Asanti workflow, essentially a wide format version of its Apogee workflow. This will include the Apogee Storefront cloud-based web to print solution.

Fujifilm will also be demonstrating a version of its XMF workflow that has been tweaked for wide format. This will work with wide format printers from other vendors, relying on those devices existing RIPs to handle the screening, with XMF dealing with the file preparation, colour management and finishing.

But of course, Fespa is much more than just a lot of machines crammed under one roof and there's a healthy program of seminars as well as several accompanying shows including Fespa Fabric, covering textile printing, and the European Sign Expo, which showcases some of the practical applications of signs. Naturally, we'll cover all of this in next month's issue.

Wide Format Supremos

How Inca manages its business has long been a bit of a mystery to us, so we recently trekked up to Cambridge in the UK to get a better idea of how the company works. While we were there, we were fortunate enough to get a closer look at its latest technology, the Onset Q40i. This new machine will be introduced at Fespa and according to Tudor Morgan, Fujifilm's marketing manager, "will change the game for offset customers who want to get into inkjet".

Fujifilm is the exclusive distributor for Inca products, even though Inca is wholly owned by Screen from whom Fujifilm OEMs platesetters. Inca also sells its wide format

(Inca) is exploring new business areas, beyond sign and display graphics including industrial applications and packaging.

products direct, and does have a life beyond Fujifilm. It is exploring new business areas, beyond sign and display graphics including industrial applications and packaging. Inca's partnership with Fujifilm developed from an initial agreement with Sericol, which Fujifilm acquired some years ago. The Sericol name is now just a brand name for Fujifilm's graphic solvent and UV screen inks and which Inca uses for all of its digital printing products.

Screen & Inca

Around 38 of Inca's 180 staff, or roughly 20 percent, are dedicated to research and development mostly for Fujifilm. According to Heather Kendle, marketing director, "the majority of our research is dedicated to the flatbed sector with no delimitations as to who does what". Technical director Dr Will Eve confirmed the Fujifilm emphasis: "We don't have very much involvement with Screen on a daily basis although we have a small amount of interaction". This may be because Screen has an engineer permanently embedded at Inca working on products, such as the Truepress 1632UV that was successfully previewed at drupa. This uses Fujifilm Dimatix Polaris heads and has replaced the Inca Spyder.

Onset Q40i

The Onset Q40i is the latest iteration of Inca's successful flatbed wide format printers utilising its signature moving table technology. The objective with the latest model is to provide improved quality and performance compared to the S40i. To that end the Q40i has a smaller drop size of 9pl, as against the 27pl of the S40i, though both support bi-directional printing.

The model we saw was demonstrated printing six colours: CMYK, Lc, Lm. The Q40i uses Dimatix Sapphire QS-256 MEMS (Micro Electro Mechanical System) heads, which

The Inca Onset Q40i brings new levels of quality to wide format digital colour printing.

use semiconductor technology and have a silicon nozzle plate instead of gold plated nickel. Silicon can give a much more precise positioning of nozzles so jetting is more accurate. The 256-nozzle Q40i printhead is a hybrid of full MEMS heads that have the silicon nozzle plate, and the older head design used on the S20.

All Inca machines now use independent heads configured in a full width print array. This makes the machines less expensive to own and gives better quality output because the heads can be individually aligned instead of pre-aligning them in a module. It costs on average €2500 to

replace a UV printhead according to Tudor Morgan. This high cost is a driver for reliability. Of course, maintenance determines frequency of head failure, so Inca also encourage users to take care of their machines.

Like the S40i, the Q40i has 168 (6 x 28) printheads with 256 nozzles per head. The machine is temperature controlled in order to optimise ink performance and because of the effect of heat on drop formation. High humidity can cause condensation but Inca have not found this to be a common problem. However low humidity is more problematic especially for printed plastics because it encourages static, which attracts dust. Dust can damage printheads and play havoc with output quality.

Dimatix's new silicon nozzles along with Inca's improved software makes it possible to render text more finely and accurately so the bi-directional mode can be used more often to produce a wider range of demanding, high value jobs. Top output speed in 12-pass quality mode is 305 m^2 per hour and the machine is in beta now at a new wide format customer in New York City.

Duggal Visual Solutions

Based in Manhattan, Duggal Visual Solutions employs around 275 people and specialises in display graphics and all aspects of large format printing. It was the first company to produce a digitally printed building wrap and has been a leading investor in high performance wide format digital printing. Inca selected Duggal to be the sole beta test partner for the Q40i and to be the first to implement this machine in commercial production, which includes the production of high value backlit brand material.

CEO Michael Duggal says: "We have many industry partners who provide strong solid machinery, each playing a role in our full suite of the highest quality and best matched machines, to serve our customers." Duggal is producing backlit and citylight (day and night viewing) materials for a range of big brands including Fortune 500 companies and museums. Duggal's investment is its first with Inca, and was made because "we believe it is the best marriage of speed and quality currently in the market place. Our clients rely on us, and we have hard earned the reputation for being the premier provider of high quality visuals and personalised service for the demands of every project. The chance to be the first graphic company in the world to feature a nine picolitre drop in an industrial speed machine was very compelling, and again allows us to surpass our customers' expectations."

Clearly the Onset Q40i is designed for speed without quality compromise. It can operate in 12, 18, and 25 pass modes. The more passes, the better the print quality in solid colour areas. We haven't had a chance to formally test this machine, so we don't know what its colour gamut or resolving power is. On the paper samples we saw the blacks were not very dense, but even at 4-point reversed type dots were holding up well. Solids were uniform across the print width and graduated tints smooth.

Michael Duggal, CEO of Duggal Visual Solutions.

Quality Control

The Q40i, like Inca's other large machines, has special UV sensors fitted to monitor stray light around the printheads

The Q40i is built at Inca's factory in Cambridge, UK

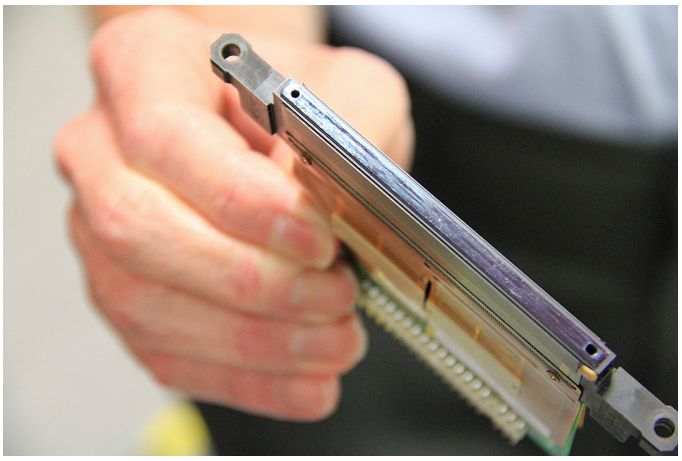
that could lead to clogging over time. Nozzle mapping software keeps track of nozzle failure and its causes, and checks deviation. An inbuilt scanner is also available to check output based on an evaluation of a printed test sheet. Software and test charts together determine the nozzles that need to be mapped. Inca recommends daily diagnostic routines to ensure optimal output quality and performance.

Quality control using digital colour management techniques can only go so far if the heads and inks used in a digital print engine are inadequate. Achieving ISO 12647-2 compliance, the quality control benchmark for offset printing, should be possible with the Onset Q40i. Part of Duggal's rationale for its investment was to be able to offer common colour appearance for both wide and narrow digital print output. Michael Duggal says that: "All our devices are [Idealliance] G7 calibrated [ie based on ISO 12647-2 criteria] and can match the offset standard or be extremely close. Our Inca Onset Q40i and HP Indigo 5600 actually have a larger colour appearance than the offset standard. These presses are set up as G7 extreme, which means images look even more vibrant as we are using the entire colour gamut."

The Cure

The Q40i uses mercury arc lamps to cure the Fujifilm inks, for which there are two options: Uvijet OC for corrugated applications and Uvijet OZ for display graphics. Inca has toyed with LED curing in the past, most notably on the Spyder 150, however it has not pursued this path. According to Dr Eve LED curing is "nice in some ways, very controllable but pretty expensive for the output power at the moment". There is 28kW of UV power on the Onset Q40i and to match this with LEDs would be very costly. Also as UV lamps include a lot of visible light as well as the UV, there is less risk of inadvertent exposure. This is not the case with narrow band LEDs, which include no visible light to warn operators.

The Q40i has a zoned bed that works in conjunction with the UV sensors satisfying Fujifilm's customers' desire



The 256-nozzle Q40i printhead is a hybrid of full MEMS heads that have the silicon nozzle plate, and the older head design used on the S20.

for reduced masking. This also helps reduce the amount of cleaning time required. The 15-zone vacuum table is designed to meet the needs of rigid media providers and customers and "covers most sizes". Tudor Morgan says that "for us it energised the Onset programme". Buyers will be able to add the handling system Fujifilm announced in January however, only those producing work at a rate of 250 m^2 per hour will need the handling system. The majority of S20s are currently sold without the handling system.

ReporterPro & More

Inca also shared with us a new software project due for release later this year to support its ReporterPro software. The new software is essentially a database of information that tracks individual machine usage such as uptime, productivity, ink consumed etc. Inca has been collecting this data for several years on any Inca machine sold via the Fujifilm channel. But the new software collects much more detailed machine data including such things as nozzle deviations from mean, based on 256 measurements per head.

This tool is an all-Inca development although it appears to have much in common with the Fujifilm Taskero monitoring system, which is now part of ColourPath in the Fujifilm XMF workflow. The goal is the same: to aggregate machine data in order to provide an accurate view of how customers actually use machines as well as how machines are performing.

This information will help Inca to identify customers who need further support, either in improving usage of a machine or for upgrades or additional engines. In this respect the new software is a tool for prequalifying possible new sales. Usage in operations helps Inca to identify candidates for upgrades or support and to help customers get the most out of their existing installation: people don't always understand their own usage patterns. The information could also be used to anticipate mechanical problems or possible failures.

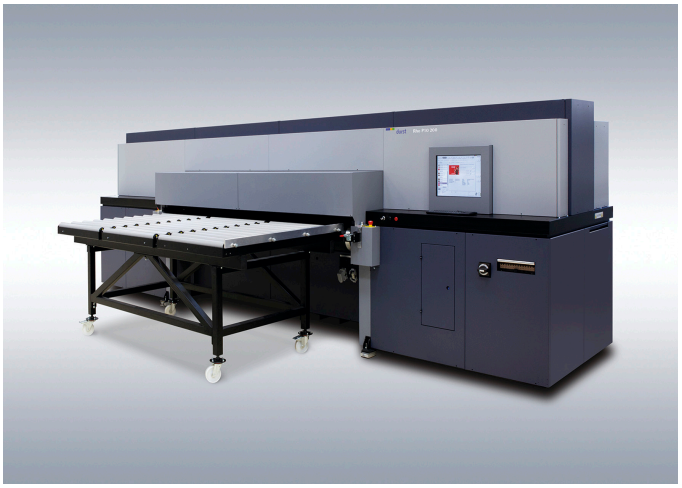
These are substantial new developments for Inca and strengthen the company's competitive position, as well as that of Fujifilm. We look forward to having the opportunity to formally test the Onset Q40i soon.

– Laurel Brunner

A digital challenger

Durst Phototechnik AG has an enviable reputation as a developer and manufacturer of high performance wide format digital printers. The company has a long history in the graphic arts, but is best known these days for its Rho line of engines. So it was with great interest that we received the Durst submission for our wide format UV-curing printer testing project.

The Durst Rho P10-200 flatbed printer was introduced in 2012 and is the latest addition to the P10 series, which consists of flatbed and roll-to-roll large format machines printing UV-curable ink. The P10 is the first wide format



The Durst Rho P10-200 is a flatbed large format printer for curable UV-ink. It gets its name from the maximum printing width, which is just over two metres. The P10-200 has an optional roll-to-roll function.

industrial print line to feature 10 picolitre ink drops and includes Durst Variodrop technology. Variodrop technology can provide a significant performance boost, up to 25% according to Durst, and can boost output quality.

The combination of a 10 picolitre drop size and Variodrop position the Durst technology as a viable competitor with offset and flexo technologies. This allows Durst customers greater scope in applications and to provide services for a wider range of clients. It also gives offset and flexo printers a digital printing option capable of producing common colour appearance across analogue and digital devices. This could add a whole new dimension to their businesses.

The P10-200 gets its name from the maximum printing width, which is just over 2 meters (205 cm to be exact). The P10 prefix is also significant because it alludes to the Quadro Array greyscale printhead, which jets ink droplets of only 10 picolitres. This makes possible a resolution equivalent to 1000 dpi and exceptionally fine details in the images. The P10-200 is a flatbed printer in its base configuration, but has an optional roll-to-roll function.

Inks

Durst Rho Inks are manufactured for a wide range of substrates, including fabric, vinyl, self adhesive foil and film, but also stretch materials and, of course, paper. The new Wide Gamut ink series has a higher level of pigmentation than before, so produces higher density and colour gamut as well as being cost effective: less ink per square metre is required.

The Rho Roll Inks for flexible applications have low odour and since they are UV cured do not contain any VOCs. This is why Durst has been able to certify this ink according to the Nordic Swan Environmental Accreditation.

The Rho Rigid Ink is for rigid media such as soft and hard foam boards, acrylic, metal and PVC. This Rigid Ink is still flexible enough to be cut without chipping and it can also be used on flexible media. The main difference between the two is that the rigid ink has overall excellent adhesion behaviour on the largest variety of substrates. This includes glass and acrylics, where other inks would not adhere sufficiently.

The standard ink setup is CMYK, but this inkset can be extended with light cyan, light magenta and white. Durst also offers what it calls PCA (Process Colour Addition), which is a dual combination of either Orange, Violet or Green, to extend the colour gamut even further. Durst recently announced a new ink development, called Premium White HD Set for the Rho P10 Series, which provides improved coverage without loss of printing speed. The Premium White inkset provides better

lightness, density, and colour stability with 100% ink coverage. (White HD L 90.576, versus White HD+ L 93.736)

Performance

The Durst Rho P10-200 has a maximum print speed of 175 m^2/h, regardless of ink setup and can print on media up to 40mm thick in the standard version. The Industrial version can cope with materials up to 70mm thick and can also manage heavier substrates, up to 70kg versus 50kg for the standard version.

An advanced magnetic linear drive provides the carrier transport to ensure accuracy and reliability. According to Durst, the shaft is accurate to a tolerance of 2µ. The Rho P10-200 is built for continuous printing, and doesn't need to pause for masking which is common in table systems. Mechanical front stops ensure accurate registration plus parallel printing of several boards side by side.

Extended colour gamut and resolution

One of Durst's objectives when developing the new Rho Ink series was to equal or even surpass the colour gamut of standard flexo printing. Durst has succeeded in this goal, since even with the standard CMYK setup the colour gamut achieved in our test is around 415,000 colours. According to the ISO 12647-6 standard on coated paper, flexo printing stops at around 380,000 colours.

The colour gamut with the Rho Ink also exceeds the gamut of offset printing, which according to the ISO 12647-2 standard produces a gamut of 402,000 colours on coated paper. With the additional Orange and Violet extended inkset, the Rho P10-200's colour gamut increases to 580,000 colours, easily surpassing that of standard offset. Using light cyan and light magenta doesn't extend the gamut particularly, but rather enhances smooth tone transitions, especially in the lighter areas of images for a more pleasing visual result.

Exceeding customer expectations

Brieke, a German signmaker based in Frankfurt am Main, is the first user of the Rho P10-200 with the new inks. According to managing director Wolfgang Schäfer, the extended gamut is evident as soon as you look at the prints: "We were early on impressed by the vivid colours, even when only using the standard CMYK option". Brieke has even created a special brand of printing called 'mega brush' based on the high resolution achieved in the P10-200 printer.

"Thanks to the very high resolution in our Rho P10 we can offer our clients fine art quality production on a wide range of substrates," continues Wolfgang. He adds with obvious pleasure that "the White option also opens up so many possibilities, and often we can skip post treatment or lamination, since the UV-cured ink has such a durable finish".

Pixart Printing in Venice has also made a big investment into the P10, having recently ordered seven new systems, the largest installation of the P10 in the world. The installation includes a flatbed P10-200. Pixart is a massive Durst user and the new machines will increase its production capacity and product range. Much of this will be high quality packaging work that will allow Pixart Printing to compete with printers using offset and flexo presses. Alessandro Tenderini, Pixart Printing's general

Alessandro Tenderini, general manager of Pixart Printing. This company is a major Durst customer and installed the Rho P10-200 to increase production capacity and product range.

manager, says he chose Durst "Mainly for their reliability. Since we met Durst for first time (in 2007), they have been working hard to improve their printers and software based on the suggestions we gave them. They wanted to be close to our market and to our needs. They are really fast and precise and when they decide to offer us a new product usually we know that it is 'ready to go'."

Although Pixart Printing is gaining new business with its Durst fleet, Tenderini says: "There isn't a single area that we are capturing in this moment, what is happening is a culture transformation. There is a deep shift from the old way to sell products to a radically new approach. The world crisis is an accelerator. The quantities of printed material requested for a single order are dramatically decreasing and in the meanwhile people are looking for a cheaper way to buy the same product and we are there, we are fully organized to deal with a huge number of small orders with the maximum efficiency."

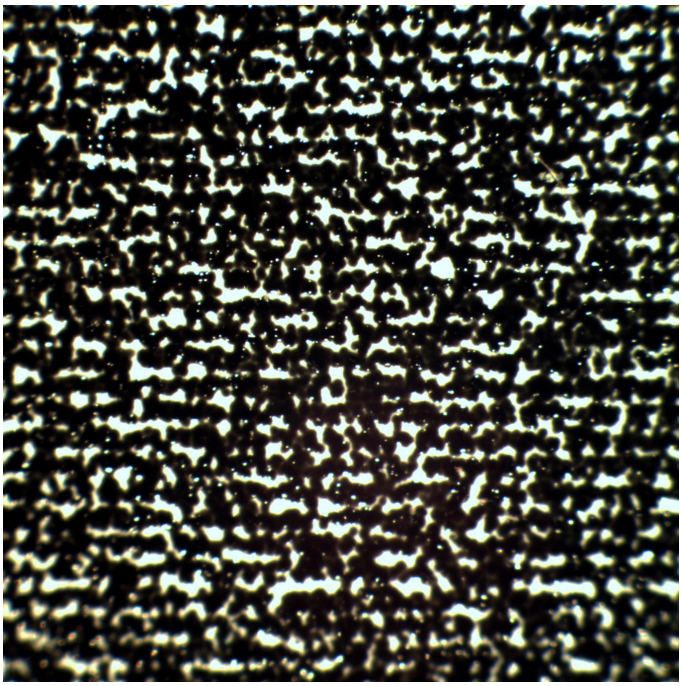
The company plans to go for certification to ISO 12647-2 in addition to its existing certifications to ISO 18001 (health and safety), 14001 (EMS) and 9001 (quality control).

How the tests were done

Our test required participants to provide output samples from test files supplied by Digital Dots. For the colour gamut test, we use a standard IT-8 CMYK profiling chart; for the resolution test, we use a specially designed chart with line pairs at a wide range of spacings. The participants printed these under optimum conditions onto two types of substrates: glossy vinyl and uncoated paper.

For visual evaluation of general image quality and smooth reproduction of tonal graduations, we also asked for an output of a 70x100 cm poster. This poster was also used to evaluate the uniformity of ink density across the whole width of the substrate.

We take five measurements of full tone cyan and then use the SpectroShop software to compare the colour deviation between the first sample and the other four. As a threshold we decided on 2.5 ΔE, the same value suggested

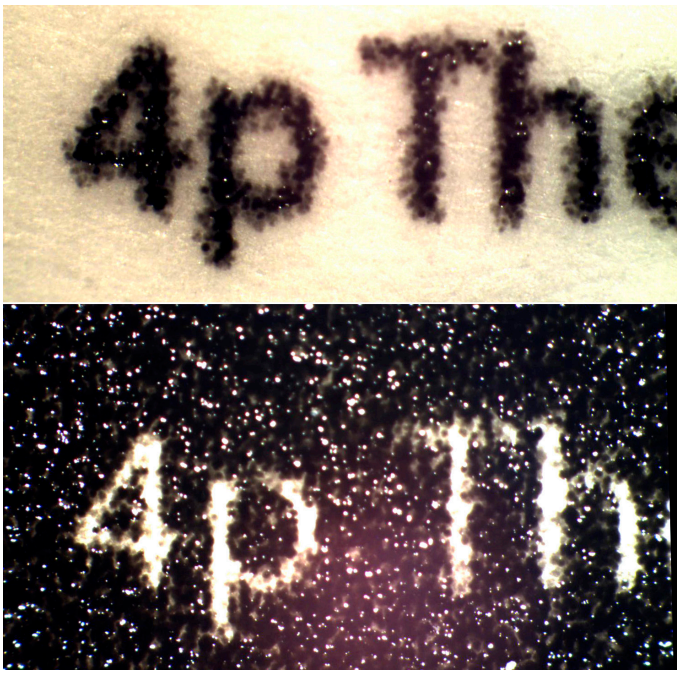


In the resolution test, the Rho P10-200 showed identifiable line pairs up to the equivalent of 350 dpi, in the horizontal direction, and up to 250 dpi in the vertical direction. Shown here is an image of the sample as seen using a digital microscope at about 500x enlargement. Note that the droplets are far smaller than the lines that are to be reproduced.

in the ISO 12647-2 standard for when printing solid spot colours.

We measure colour gamut by creating a standard CMYK ICC profile from the IT-8 characterisation chart data. This was done using an X-Rite i1 Pro spectrophotometer and professional profiling software. The profile was then analysed with Chromix ColorThink Pro to yield a figure for the total number of discrete colours contained within the gamut. We define discrete colours as separated by a ΔE value of 1, using the CIELab colour space as reference.

To measure resolution we viewed the prints of the line pairs chart under a digital microscope. We wanted to determine the point at which the lines could no longer be differentiated as distinct pairs. We call this the resolving power of the printing system, and this is often different than the stated addressable resolution, as per the technical specification. The resolving power is a combination of the native resolution of the print heads, droplet size and mechanical precision when moving the printheads and/or media while printing. As a complement to the line pair



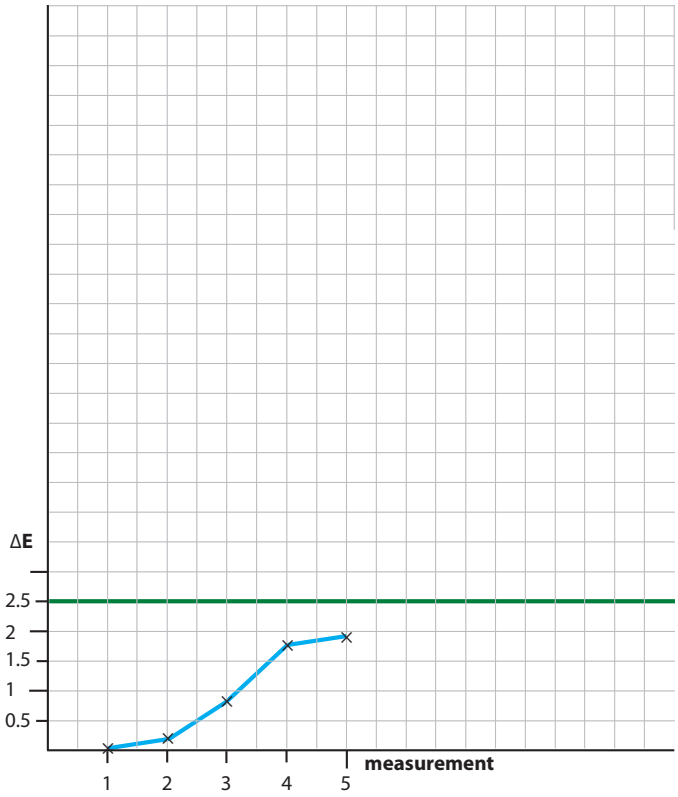
The Rho P10-200 could reproduce four-point text well, both as black on a white background, and inverted white on black. Shown here is an image of the sample as seen using a digital microscope at about 500x enlargement.

chart we also print text, both positive black on white and inverted white on black, in a small font (down to 4p).

Results in numbers

Durst submitted test samples produced using the CMYK ink setup with the Rho Wide Gamut Rigid Ink in the 1000 dpi mode on Kapa Plast soft foam board using the four-pass option. Our gamut test indicated a total of around 415,000 colours (which exceeds the approximately 402,000 colours when printing offset inks on coated stock). For the uncoated substrate, printed on Core Silk 200 gsm stock, the gamut was measured to be 336,000 colours, significantly less than on glossy substrate. But this is expected, since prints on uncoated stock normally produce a less vivid and colourful result.

In the resolution test, which was printed on 3M Scotchcal Series 40 vinyl and with the same resolution settings as the colour gamut chart, distinct line pairs could be seen at up to 350 dpi in the horizontal direction and at up to 250 dpi in the vertical one. The small text was clearly reproduced down to four point, both the positive text and inverted text with white on black background.



When measuring all five samples of solid Cyan across the width of a 70x100 cm poster, the uniformity of the ink density was good. We use a threshold of 2.5 ΔE, as suggested in the ISO 12647-2 standard, when printing solid spot colours. Any colour deviation lower than 1 ΔE is invisible to the human eye. The first sample is compared with itself, so will give a zero colour deviation.

Technical specifications, summary

Vendor	Durst
Inkset	Rho Premium WG Ink 1
CMYK	CMYKcm (light cyan, light magenta), CMYKcm-o-v (any combination of two inks of orange, green, violet)
Max media size	205 cm width by what can be handled length
Max media thickness	40mm standard, 70mm industrial version
Resolution (dpi)	1000 dpi at 10 pL
Print speed	175 m^2/h

Regarding uniformity, the Rho P10-200 showed a maximum deviation across the page of 1.9 ΔE (and an average of 0.8 ΔE). A colour deviation below ΔE 1 is impossible for the human vision to detect, so the results for the Rho P10-200 could to be said to be satisfactory in terms of uniformity.

Conclusions

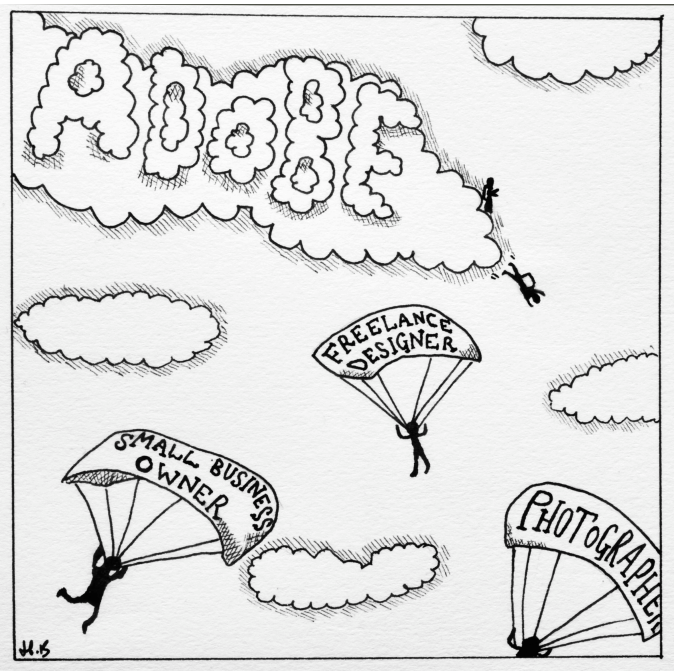
Durst has succeeded in developing an ink that matches its goal to match and even exceed the gamut of conventional flexo and offset printing. Coupled with the high resolution achieved with the 10 pL Quad Array print heads, the P10-200 offers speed, quality and versatility. This makes it a compelling contender for a very wide span of applications and business models.

– Laurel Brunner & Paul Lindström

Castles in the sand

By now most readers will be aware that Adobe has changed the way it sells some of its software, including all the programs that make up the Creative Suite. It will in future only be sold through the cloud with regular licenses, with no further updates to perpetual-licensed products planned.

A quick survey of reactions across the Web immediately following this announcement showed that the most common reaction was one of dismay, with many people calling Adobe arrogant. But is this really an accurate assessment or could it be that this move is good news for customers or simply an early precursor to the way that software will be sold in the future?



It's hard to see why Adobe hasn't offered its customers the choice of how they pay for their software. At the very least, a great many of those customers will be evaluating whether or not they still need Adobe, and it seems inevitable that some of them will bale out.

Certainly, there's nothing new about selling software via the Internet and indeed the concept of Software as a Service or SaaS, has been around for quite a few years now. Several Web-to-Print systems, and even some MIS, such as HiFlex, are sold this way. There are considerable advantages in such systems, saving customers the need to invest in and maintain the hardware necessary to host these solutions, and ensuring that the software is up to date, and the data is fully backed-up.

But it's not really accurate to describe Adobe's offering as SaaS since the programs themselves will still run on the users' desktop machines so that customers will still have to buy their own hardware. Instead Adobe is running regular license checking from the cloud, albeit with a few other services thrown in for good measure.

... could it be that this move is good news for customers or simply an early precursor to the way that software will be sold in the future?

As such Adobe will continue with the Creative Suite programs, but the current CS6 versions will be replaced with new CC editions. These will be updated as and when Adobe develops anything new, with no need to number different versions. This at least ensures that customers will have the option to keep their software up to date, though presumably this also means that customers will have to keep their hardware up to date to take advantage of this.

As part of this move Adobe has updated its Creative Cloud offering. This includes integrating Behance, a leading online creative community, so customers can showcase work, get feedback on projects and gain global exposure. The service also includes 2GB of storage space, with an option to buy more.

Customers can choose between a monthly or annual license and the user will have to reconnect to the Creative Cloud at least once every 30 days to verify that the license is still current.

Creative Cloud membership for individuals is €44.80 (ex-VAT) per month based on annual membership; existing customers who own CS3 to CS5.5 get their first year of

Creative Cloud at the discounted rate of €26.11 (ex-VAT) per month. Students and teachers can also get Creative Cloud for €26.11 (ex-VAT) per month. In addition you can also get individual programs on their own, such as Photoshop, which costs €20.66 per month, including VAT.

A team version of Creative Cloud includes everything individual members receive plus 100GB of storage per team member and centralised deployment and administration capabilities. Creative Cloud for teams is priced at €62.52 per month per seat. Existing customers,

Richard Curtis, digital imaging specialist for Adobe UK, demonstrates Photoshop CC at the Adobe Creative Days event in London. This latest version has a number of useful features, but will it be enough to convince customers to commit to the Creative Cloud service?

who own a volume license of CS3 or later, get their first year of Creative Cloud for teams at the discounted rate of €44.80 per month per seat if they sign up before the end of August 2013.

Adobe has also announced details of the new Photoshop CC, which will be available from the start of this month. Photoshop CC includes all the tools found in both the standard and Extended editions of Photoshop.

There are a number of new tools for such things as deblurring and sharpening, as well as a new Camera Shake Reduction tool.

There's also a new version of Adobe Camera Raw, which has a new Advanced Healing brush that uses brush strokes rather than a circular area, plus an Upright tool that automatically straightens horizons and applies perspective corrections without distorting the image.

For now, Adobe will continue to sell the CS6 programs with their perpetual licenses but there are no plans to upgrade or even support these in the future. That said, Adobe will update the Camera Raw plug-in for Photoshop to accept raw files from new cameras as they are released. But CS6 users won't get the new features available with ACR 8.0, such as the advanced healing brush.

Winners and losers

So, why introduce this subscription licensing model? Rufus Deuchler, worldwide design evangelist for Adobe, says that it's because it was too difficult to update so many programs all at once for an 18-month release schedule and that this model will allow Adobe to push updates to users immediately when they are ready. He goes onto say that one of the main advantages is being able to synchronise all of one's work and the software settings via the cloud so that the same work and settings are available across multiple machines, such as a laptop and an office computer.

We think that ultimately this move to subscription licensing is about financial control over buying software. Big companies may well feel that they are gaining greater control because they can manage their software costs as a regular payment with no hidden surprises. But conversely many smaller companies and individuals may feel that they have lost control because they have to make regular payments as opposed to planning their software upgrades around their needs and budget constraints.

At first glance this appears to be a strange move, given that so many Creative Suite users are freelancers. There's no doubt that this will lock out a great many potential users, including students and part time professionals such as working mums. One Adobe staffer we talked to dismissed some of these people as amateurs and that's certainly true amongst many Photoshop users. But then a great deal of the market for professional photographic

products, whether we are talking about cameras or software, is made up of consumers who cannot claim the cost back against tax. Of course, many of these users don't keep their software up to date and so may not seem very valuable to Adobe, but Adobe may still come to rue jettisoning this market.

However, many designers worry that the tools that they rely on for their work are cheaply and widely available making it easy for anyone to set themselves up as a graphic designer. So some customers will see the move to regular licensing as an advantage, sweeping away all the wannabees that might undercut them for work, and ensuring that only those that are confident of an ongoing business can justify keeping up the license fees to use the software.

It's also worth remembering that the Creative Suite covers many disciplines and this licensing is likely to affect these in different ways.

It's also worth remembering that the Creative Suite covers many disciplines and this licensing is likely to affect these in different ways. It's probably a good thing in video production, where the pace of development is extremely fast at the moment and most people will routinely update their hardware as faster machines become available and will want to keep up to date with the latest versions of the software. Then again, there's not many alternatives for high end video editing.

It's less clear cut for photographers. Anyone who does a lot of retouching, such as for fashion or advertising photography will probably find that Photoshop remains a must-have tool. But for those people with a more documentary approach, there are plenty of other raw converters and more basic processing programs that may prove a better fit.

There is a further issue of archiving. It's not uncommon for designers and photographers to return to older work as new tools become available. Adobe has stressed that customers can store their files on their own hardware but many professionals are likely to be wary about being tied into the CC software, knowing that once they stop paying that license they are going to have to find another way of accessing those native files. That may prove to be a problem for, say, a photographer who's stored their processed images as multi-layered .psd files.

Alternatives

Clearly, this is going to stimulate other software vendors to making a play for those customers that would rather not sign up to the Creative Cloud. Indeed Corel has done just that offering discounts of up to 60 percent to existing Creative Suite users for its own range of graphics programs.

Quark has also announced a new version of QuarkXPress, v10, which should be available later this summer, though there are no details on this yet. Not surprisingly, Quark has stressed that this can be bought with a perpetual license. We asked Gavin Drake, marketing manager for Quark, if there were any plans to offer discounts to InDesign users. He replied: "We would love to hear from InDesign users as to if this is something that would be of interest to them. If yes then we would certainly consider special pricing to ease the transition from InDesign to QuarkXPress." He also said that many customers use both: "In fact almost 50% of the people surveyed used both QuarkXPress and InDesign. What was also interesting is that the earlier adopters of new versions tended to be the customers most likely to be using both tools."

Future business model?

Clearly there are some customers that like the idea of subscription licensing, and there are other software vendors that are looking at whether they could do something similar. For example, Paul Bates, UK business manager for Esko, says: "We are looking at changing our licensing and if the demand is there we will bring out a pay per click model. We have some people who want the software but only use it a few days a week so that makes it expensive for them."

FFEI sells a number of Illustrator plug-ins aimed at packaging design and repro. Managing director Andy

Cook says that he is still evaluating what the Adobe move will mean, adding: "We already have built a model but havn't implemented it yet. But the technology does lend itself to an online subscription business to update the license on a regular basis. I think it's a trend that will become common and that we will implement it."

It is also worth noting that some vendors are already using regular licenses. Helicon Soft, for example, sells Helicon Focus, a useful solution for 'focus stacking' that is commonly used for product photography such as jewellery as it allows the entire item to be in focus. Users have a choice to buy either a perpetual license, or a license for one year at roughly a quarter of the price.

Microsoft is also venturing into this area with its Office 365, which is an annual subscription license for the Office suite. But you can still opt to buy perpetual licenses if you prefer.

Conclusion

Clearly, this move makes a lot of sense to larger agencies and for the kind of tools that are only used occasionally or that are updated regularly. But given that so much of the creative business is made up of freelancers, we think that Adobe really should have continued to offer customers a choice as to how they pay for the software they use.

As it is, the rather heavy handed approach appears to have angered people who might otherwise have come to feel that this is a sensible way of working. At the very least, Adobe has caused many of its users to re-evaluate the software they use and their workflows; some will conclude that they value Adobe more than they thought but others will cast around for alternatives.

In many ways this comes down to how much we trust Adobe as a company not to completely abuse us. In the future Adobe could significantly increase the price, decrease the frequency at which it updates the software or even implement a permanent online license check. And of course Adobe will have to put the prices up, as many of the figures being quoted, and which make the CC products seem attractive, are only introductory offers, in some case up to 50 percent of the actual cost. Also, what happens if Adobe doesn't manage to carry the majority of its users to the Creative Cloud model? Presumably it will have to push prices up to cover the shortfall.

Paul Bates, business manager for Esko UK, says that Esko would consider a subscription license model for its design software.

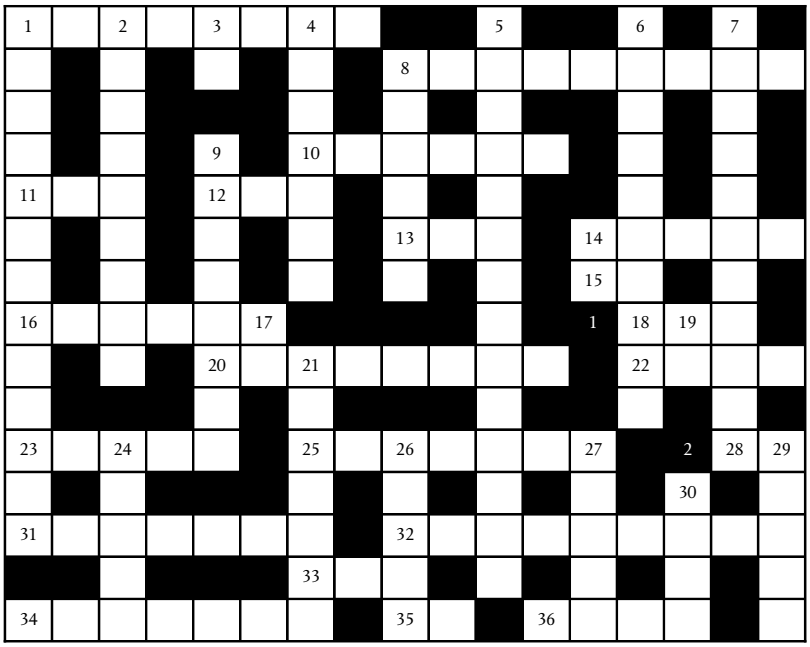
It strikes us that there is enormous risk in this for Adobe. The key is whether or not Adobe can tie enough users into its Creative Cloud services, such as file interchange between users, and whether or not Adobe can stay one step ahead of its competitors. Many people will probably opt to stick with CS6 and see what happens. Or to put it another way, those competitors have a year or two to come up with a credible alternative. Either way, the next couple of years are going to be really interesting in terms of graphic design software.

- Nessan Cleary

X-word Puzzle

Number 43*

Our puzzle this month is the usual mix of graphic arts terms and concepts. We don't think it is particularly hard, just hard enough to give you a little distractive therapy without taxing the grey cells too much.



Across

1. Monitor this and you'll improve cost control. (3, 5)

8. A container for toner. (9)

10. You cannot use these to dispose of hazardous waste. Tiring. (6)

11. Software developers kit. (3)

12. A digital heart and soul. (3)

13. Analyse this to see where you need to get from where you are. (3)

14. Not text but maybe lineart. (5)

15. Regarding religious education. (2)

16. Writer of words or code. (6)

18. Smallest resolvable point? (3)

20. Stock without an added surface. (8)

22. System restart. (4)

23. For witches and heatset web offset. (5)

25. Tempted. (7)

28. Note Bene. (2)

31. Stitches? (7)

32. Height. (9)

33. A very long time. (3)

34. The only baseball player to wear a mask. (7)

35. Not don't. (2)

36. Small difficulty or tear? (4)

Down

1. No text is complete without them, image or otherwise. (13)

2. Portions of images that have been removed. (5, 4)

3. Starting price. (2)

4. Slow changes or process: goes right away don't understand all language. (7)

5. Slides in need of digitising. 14)

6. You cannot use this on a roll to roll machine. (5, 5)

7. Gathering of a mass of disparate things. (11)

8. It comes to us all: embrace it to not stay the same. (6)

9. The lights added to a four-colour set. (1, 7)

14. Infrared. (2)

17. Registered nurse in the royal navy? (2)

19. Not off. (2)

21. A key tool in the bindery. (7)

24. To make a law or perform in a play? (5)

26. One or more to watch to ridiculous ends. (5)

27. Was it a picture or a conclusion? (5)

29. Holds together in the finish. (5)

30. Circle. (4)

***Answers in the next issue**

Number 42 – Answers

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