



Tout est pardonné
– Charlie Hebdo

Dear Reader,

What a horrible start we have had to 2015, and what a lot we can learn from it. Free speech and the right to offend and be offended, expressions of ideas, emotions, values and fears, it's all subject to test both socially and individually. Coming to terms with what happened in Paris is hard for all of us, but it is especially significant for professionals in the communications industry.

The work of journalists, illustrators, cartoonists, editors, publishers and printers shapes peoples' concept of themselves and the world around them. It shapes perceptions of a global society that keeps expanding and diversifying, in step with the Internet's reach and with new ways of using it. This is why pursuit of openness, understanding and free exchange of ideas and perceptions, even if they offend, must be relentless.

Our industry provides the plumbing that makes information flows and delivery possible in print and online. We are facilitators as much as beneficiaries and with every new technological innovation – be it in printing systems, RIPs or creative tools – graphics technology aids freedom of expression and the spread of ideas. What we can learn from the horrific start to 2015 is that improving communications and information interchange technologies makes possible the dissemination of the ideas and values we need and want, even though it also supports what we don't want. In their forgiveness, the Charlie Hebdo cartoonists have shown us the hope that wherever we sit we can all move on.

Laurel, Nessian, Paul and Todd



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UV curable inks offer the offset world a fast drying solution for quick turnaround work. But now there are two further variations that offer lower energy consumption and potentially better image quality. Nessian Cleary looks at the options and their likely uses.

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Laurel Brunner has been looking at colour management with ProCo, a British company that recently invested in GMG ColorServer and ColorProof. ProCo provides communications services to marketing companies across multiple channels including print. It relies heavily on standards to improve processes and has used the GMG software to generate more consistent results.

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CMA Imaging revamped

Paul Lindström has been talking with Gerardo Cerros, who first founded CMA Imaging back in 2006 to offer high end colour management for packaging. The company went down with Ilford back in 2013 but Cerros has now relaunched it and here discusses his vision for the new company.

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News Focus

EFI is to combine all of its workflow tools together in a new Productivity Suite, which should be available later this quarter. EFI says this will move the workflow emphasis away from individual software packages and modules to a complete offering that uses best-of-suite, end-to-end workflows, certified integrations and synchronised development. See expanded story on page 5.

Xeikon has announced the first pilot site for its new high speed label press, the Cheetah. This will be installed at the British company Mercian Labels later this month, which will use it to continue its expansion. The Cheetah is a dry toner press designed for self-adhesive/pressure sensitive labels, capable of producing up to 30mpm.

Durst has launched a new textile printer, the Rhotex 180 TR, an industrial dye sub printer with a maximum print width of 1850 mm. It uses the newly developed Durst QuadroS Printheads and has a maximum resolution of 1200 dpi. It can produce up to 200sqm per hour. It's mainly aimed at sports wear, home textiles and soft-signage.

Liechtenstein-based BVD **Druck + Verlag AG** has installed one of the first Heidelberg Jetmaster Dimension

printers. This is a robot-based UV-curable inkjet system that Heidelberg claims will make the process of customizing mass-produced goods faster, cheaper, and more flexible. BVD is using it to produce personalised footballs.

Agfa has developed the Acorta, a wide format cutting table based on technology from Italian company Elitron, to complement its range of printers. It's said to be highly automated with a number of features such as the auto recognition system that can automatically locate the printed objects and the position of the reference points on the cutting table, as well as the substrate's height so that there's no need to manually set-up the job parameters. It can cut at up to 102 mpm.

Jetrix is to launch a 3.2m wide rollfed UV printer, the RX3200. This uses Konica Minolta printheads and has a resolution of 1440dpi. It's available with four or eight colours. Printing speeds range from 169sqm per hour in production mode or around 36sqm per hour in the best quality setting.

Canon has announced two additions to its ImagePrograf range of aqueous ink wide format printers. Both are five colour machines aimed at the CAD and display graphics markets. The iPF670 and iPF770 are 610mm and 914mm wide respectively and can print an A1 equivalent image in 28 seconds. The iPF770 is also available as an MFP, with an optional large format scanner and 22ins touchscreen display attachment.

Dalim has updated its Twist production automation software to v7.5, which aims to extend its reach beyond print workflows to support media production for the brand enterprise. It includes support for Camera Raw files, as well as the .psd and .png file formats. There's a new, free Twist Link plug-in to transfer files and export PDFs from InDesign and Illustrator to a Twist workflow.

Xerox has sold its Information Technology Outsourcing business to French multinational Atos for €927 million. This will allow Xerox to concentrate on its business processing and document outsourcing capabilities. The two companies have already collaborated together over the last couple of years.

Spindrift

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▶ **Apex Digital Graphics** is to sell CtP devices and plates from the Chinese manufacturer Cron to the UK and Ireland. Cron's thermal and UV platesetters range from B3 through to VLF (very large format). These units will connect to any workflow or RIP that can output a TIFF file, though Apex is selling FFEI's RealPro workflow. Apex will also sell Cron's Blackwood UV plates.

IBIS has developed two new functions for its Smart-binder SB-3 'Plus HS' binder. The ASA-100 Automated Stitch Adjust system enables the Smart-binder stitcher to continually and automatically adjust the wire staples to perfectly suit the thickness of each booklet being stitched. Meanwhile the SBS-100 Sheet Buffer Module sits between the web cutter and the Smart-binder and allows very thin booklets to be mixed with thicker booklets while maintaining a constant, high printer web speed.

Quark is to work with systems integrator, Global Publishing Systems Ltd to help customers implement Quark solutions for XML and structured authoring, including Quark Author Web Edition and Quark XML Author. GPSL will identify, integrate and train publishers on the most cost-effective solutions for making improvements, primarily through the implementation of workflows based on structured content. The arrangement will cover the US, Europe (including the UK) and Australia.

Quark has also dropped more hints about its upcoming QuarkXPress 2015 software. This will see a new 64-bit architecture and support for PDF/X-4 output. Other features include up to 4 times larger page sizes, custom paper sizes and a dedicated Orthogonal Line Tool. There will also be new table styles and a Format Painter plus the ability to relink any picture in the Usage dialogue as well as fixed layout interactive eBooks. Anyone buying the current edition before 25th February will receive a free upgrade when it ships.

Timsons, the British-based engineering firm that has specialised in producing web offset book presses, is to close down with the loss of 25 jobs. Last year the company opted to concentrate on its digital T-Press based around Kodak Prosper printheads but failed to secure any further orders. The separate contract engineering business, Timsons Engineering, is to continue operating.

Xaar has appointed Doug Edwards as CEO, following Ian Dinwoodie's decision to stand down. Dinwoodie has been CEO since 2003. Edwards was formerly president of Kodak's Digital Printing and Enterprise group and holds a BSc in Chemistry and a PhD in Conducting Organic Materials from London University.

Kornit has launched a new digital module for screen printers, the Paradigm II. This has been developed to complement screen-printing carousels and oval machines. It means that base layers can be screen printed and then short run or even personalised elements added digitally. It is suitable for use with various textiles from cottons and lycra to silk and denim. It can produce up to 200 garments per hour.

Riso has launched two new digital duplicators for the US market. Both have 600 dpi resolution. The SE9480 is a single colour device that prints at 185 pages per minute, while the ME9450 runs at 150ppm but can print two colours in a single pass. Duplicators transfer images from a drum to a master copy and then to each successive sheet, which is said to be more economical than conventional dry toner copiers.

Matti Technology, which develops, designs, manufactures and markets integrated solutions for high-speed digital print, has changed hands. Thomas Amrein, an electrical engineer and an economist, has taken over ownership from Dr Dieter Woschitz, who is planning to retire. The company was founded in 1995 by Max Matti.

Peter Morris, the former managing director of Friedheim International and chairman of Picon, has died of cancer. He spent his whole working life in the printing industry, starting as a teenager in the finishing department of a Birmingham printer. At Picon he helped set up the Graphics, Print & Media Alliance (GPMA).

According to a report from **RISI**, which specialises in analysing global markets for forest products, the demand for recovered paper will increase over the next five years as part of overall growth in the paper and board markets. RISI believes that developing regions will account for about 90% of this demand as they look to developed regions to supply recovered papers.





NEC has launched the MultiSync X981UHD, a 98-inch 4K UHD display. It comes with the SpectraView colour management engine and supports up to eight digital inputs, including one DisplayPort, four HDMI, two DVI-D and OPS. It's aimed at a number of industrial markets including control rooms, life-size digital signage, medical review, conferencing or creative multimedia design.

HP is to offer a new Light Fabric for its latex printers made of a 100 percent knitted polyester fabric. HP says it offers good colour gamut, is wrinkle-resistant and soft to the touch. It is available in 106, 137, and 152cm widths.

Domino reported steady growth in its latest full year figures to October 2014. Earning before interest, taxes and amortisation rose from €70m to €75.5m with net cash inflow rising from €73m to €87m. The figures were boosted by growth in the N-series full colour inkjet presses. The company opened a factory in India in 2014 and is planning to build a new factory in China in 2015 as well as building a new factory and warehouse facility in the UK.





News Analysis

EFI recently held its annual Connect user conference in Las Vegas. It is popular with users partly because EFI goes all out to ensure that its senior staff are available to tell users about upcoming products, and partly also because everyone loves a good excuse to party in Vegas. This year some 1500 people turned up for around 200 sessions ranging from business management to production technology.

The event usually sees new product announcements, particularly in the software portfolio and this year was no exception. Thus EFI has announced a new Productivity Suite, which essentially combines all of its workflow tools together. EFI says this will move the workflow emphasis away from individual software packages and modules to a complete offering that uses best-of-suite, end-to-end workflows, certified integrations and synchronised development. It should be available later this quarter.

Guy Gecht, CEO of EFI, also likes to host a fireside chat with a keynote speaker. This year he invited Thomas Quinlan, CEO of RR Donnelley & Sons who talked about the moment back in 2012 when he realized his company had inadvertently released details of Google's quarterly earnings ahead of schedule, wiping \$20bn off Google's share price. Donnelley's survived thanks to its reputation for customer service. But he also talked positively about the state of the industry and his own plans for expansion in the wide format sector. Quinlan also discussed the RotaJet inkjet presses, and Donnelley's part in developing these with KBA. He noted that take-up had been slower than expected but was hopeful that more people would look at the newer L-series that KBA recently unveiled.

EFI has also released its financial results for both its fourth quarter and the full year ending 31 December 2014. The last quarter showed record revenue of \$211.1 million, up 7% compared to fourth quarter 2013 revenue of \$197.2 million. This generated net income of \$25.1 million or \$0.52 per diluted share, which included an unfavorable non-operational currency impact of \$0.02 per share. This

drops to \$11.9 million or \$0.25 per diluted share according to Generally Accepted Accounting Practices.

The full year figures were equally rosy, showing revenue of \$790.4 million, up 9% year-over-year compared to \$727.7 million for the same period in 2013. The net income was \$87.1 million, up from \$76.6 million in 2013, or according to GAAP, \$33.7 million, down from \$109.1 million in 2013 – which EFI has attributed to currency fluctuations. But EFI has also been hit by a slowdown in the Chinese economy which has affected its industrial inkjet growth, particularly in its Cretaprint subsidiary. However, EFI has said that its UV ink sales continue to rise – up more than 20% for the fifth year in a row.

Nonetheless, Gecht commented: "We are getting increasingly confident in delivering on our \$1 billion revenue target for 2016 while hitting the higher end of our profitability range."

Gecht also confirmed that the company was actively seeking further acquisitions, hinting that he was looking at another inkjet company. The obvious gap in EFI's lineup would be an ink manufacturer in the growing digital textiles market.





Green Shoots

Sense Trumps Greed in Denmark

Over the last couple of months we've blogged a lot about the proposed tax on print that was due for a vote in the Danish parliament earlier this year. After months of effort by the Danish printers' association, sense has prevailed. The ordeal has been arduous, but in the end worthwhile because the tax is no longer on the table.

The original idea, first suggested in November 2012, had been to impose a tax on printed advertising, loosely defined, delivered to households, ie direct mail. The Danes set the tax rate at DKK4 (€54) per kilo of advertising material and targeted print in the belief that the tax would also benefit the environment, because it would reduce the amount of print produced.

Danish households received 167,000 tonnes of advertising material in 2010, which worked out to be about 80 kg or 1,400 items for each household. Based on these numbers printers or print buyers would have had to pay the equivalent of DKK320 (€43) per address they mailed to! The politicians thought the tax would reduce print volumes by 15% and that this would be good for the environment.

But they, like so many others, were confusing print with waste. The two are not the same, but it doesn't really matter because this was really all about increasing the overall tax take. Conventional print volumes and print waste have been declining for years in Denmark as elsewhere and print is inherently sustainable because most of it's based on a renewable resource.

Green in a grey area

The idea that direct mail is bad for the environment misses the point. Untargeted mass marketing used to have a return of 2% according to received wisdom. It was not data-driven and was ineffective and wasteful. Unfortunately many people beyond the printing and

publishing industries still have this perception of print as a wasteful and environmentally hostile medium.

Wasted investment on the part of advertisers, leading to binned print is of course environmentally (and commercially) hostile, but our industry has smartened up its act to be far less wasteful and much more relevant. Print is not inherently bad for the environment, waste is however. These days direct mail is designed to be more focused and to address specific interests, such as special offers from the local supermarket, so it is much more effective and less wasteful.

The Danish scheme had been subject to European Commission approval and, after a lot of ponderous consideration, got it. The next step was to have a vote and push through the legislation so that by March revenues would start flowing in to the Danish treasury. In December, the Danish Minister for Taxation, Benny Engelbracht, invited members of Denmark's two leading political parties to a renewed discussion because "When I hear signals of reservations from the other parties, I of course take this seriously. So I think it's only natural to invite [them] to new talks. But I have to stress that if this tax is to be abandoned we need to find other ways to finance this." This is where it gets interesting.

Alternative agenda

According to the Danish government's press office, Danish taxpayers benefit from "a deduction of your tax payment ... as a compensation for new "green" taxes. In 2015 it is DKK 955 [€128] a year per person [over 18]". Benny Engelbracht had been looking for something to cover this tax credit, and had estimated the take from a print tax would be an easy target. He had hoped to raise around DKK 340 (€46) million per year, an estimate that has apparently dropped by about half since 2012 in line with falls in direct mail volumes. When one considers the context, perhaps Mr Engelbracht has worked out that there are easier and much less disruptive ways to find DKK 170 (€24) million, for instance with a tax on petrol. Petrol costs are already high in Denmark, but given the recent collapse in the oil



▶ price, this should be a much easier tax to push through than a print tax.

According to the Danish printers association over 600 jobs in the printing industry were at risk. This would have cost the Danish treasury dearly in unemployment and retraining expenses, far more than the tax would have yielded. As print went to the wall, the take would have steadily become more measly.

There are also considerations of competitive advantage given to advertisers who do not choose to go the direct mail route. And, most seriously, the slow slide towards other forms of advertising. This tax might have been a boost for online marketing, but it would have distorted the marketing landscape and discouraged media buyers to use print. This would have further narrowed the range of communications channels in Denmark, and even reduced scope for information dissemination. Luckily good sense and probably the desire for a quiet life have prevailed.

For more green news, check out
The Verdigris Project:

Verdigris 

<http://verdigrisproject.com>



In the dryer

There's been a steady rise in the use of UV inks for offset printing, driven mainly by improved technology and the demand for ever faster turnaround of jobs.

The growth of digital printing, with its emphasis on short turnaround times, has forced the offset press world to speed up its own game. And one way of doing that is to reduce the drying times so that jobs can go straight into finishing. So, many printers have turned to UV-curable inks, which are touch dry as they leave the press and are relatively scratch proof. But conventional UV inks tend to leave quite a flat image that is not always suitable for commercial printing.

In recent years two alternative approaches to UV curing have emerged: low energy and LED UV. Both of these rely on tuning the inks very precisely to activate the UV curing process with a minimal amount of light energy. The downside of course is that this puts more pressure on the inks to perform, leading to higher ink prices. The trade-off between paying more for the inks or for the energy differs from one region to the next and according to the products and substrates being printed plus the business models of each individual print company so there's no easy answer as to which system is best.

There are some distinct differences. The low energy approach is a variation on conventional UV although it does use less energy. Most low energy systems only need a single lamp, another saving over conventional UV, which normally requires three to six lamps depending on the sheet format. However, low energy systems still use an ion-doped lamp and these lamps still use a mechanical shutter, and still take time to warm up and cool down.

Light Emitting Diodes (LEDs), on the other hand, are an array of semi-conductors that produces light when connected to an electric current. There are no moving parts and LEDs typically last for over 15,000 to 20,000 hours, while conventional lamps have an average life span of just 1000 hours. Also, LEDs can be turned on or off instantly, so there's no time wasted waiting for the



Matt Rockley of Heidelberg says that it's important for customers to understand all the variables to choose the most appropriate system for their needs.

lamps to come up to temperature. This also means that the lifespan equates directly to hours spent printing with no degradation of the lamps over time as they deliver their full performance up until the point they fail. Besides offset, LED UV curing is already used in many wide format and inkjet label presses.

Most manufacturers will quote impressive numbers of press installations, though most of these are in Japan. Conventional UV curing has been popular in the Japanese market, mainly because it obviates the need for a coater or sealing unit and the jobs can be turned around quickly with no need to store work in progress while it dries. But the Japanese have also embraced solutions that cut energy usage, following the 2011 Fukushima Daiichi disaster and the subsequent shut down of most of the country's nuclear power plants.

Both low energy and LED curing can offer dramatic energy savings over conventional oil-based inks since there's no need to dry the inks. Matt Rockley, marketing and product executive for Heidelberg sheetfed presses in the UK, estimates this could be as much as 45 percent

on an SRA sheet with an average 70 percent coverage. However, he points out that this alone is unlikely to offset the higher ink prices! This is particularly true of European markets, where energy prices are currently falling. But the real saving comes from turning jobs around faster.

It's not just about the energy use. Rockley points out that there are no low migration inks suitable for either low energy or LED curing and so most packaging printers



Ryobi was the first press manufacturer to introduce LED UV curing, seen here on a Ryobi 920 press.

are still using conventional UV curing. Instead the newer systems are aimed at commercial printers looking to turn jobs around faster.

These newer inks have a very different look to them as Rockley explains: "Conventional UV inks are mainly made with plastic photopolymers so when you cure it you get more of a matt finish so there's normally a UV gloss coating to enhance the product. Whereas the LE and LED UV are mixed with different products that give a glossier effect when dried so they look more like a conventional ink."

Most vendors agree that there's little difference in image quality between the low energy and LED systems as they both cure instantly. However, Rockley points out that simply following ISO12647 will produce a different look from an oil-based ink so that you might have to make adjustments to compensate. This could be an issue in producing a glossy magazine where the cover will have been printed on different stocks so that matching the

inside cover, page 2 to page 3, could be more tricky, but essential given that many magazines will sell a double page advert in this position.

Neil Handforth, sales and marketing director at Apex Digital, distributors for Ryobi in the UK, says that the LED inks will work well with most substrates, coated or uncoated, adding: "The image quality is outstanding because the ink is dried instantly on the surface of the sheet so there's no absorption to the stock." This gives a very sharp dot for crisp images and uses less ink – Handforth estimates 10-15 percent less ink than a conventional system. However, this can vary considerably as some substrates are more absorbent than others.

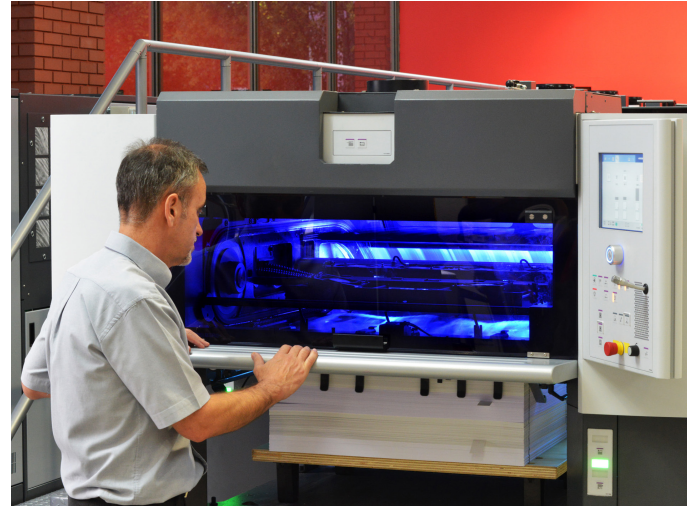
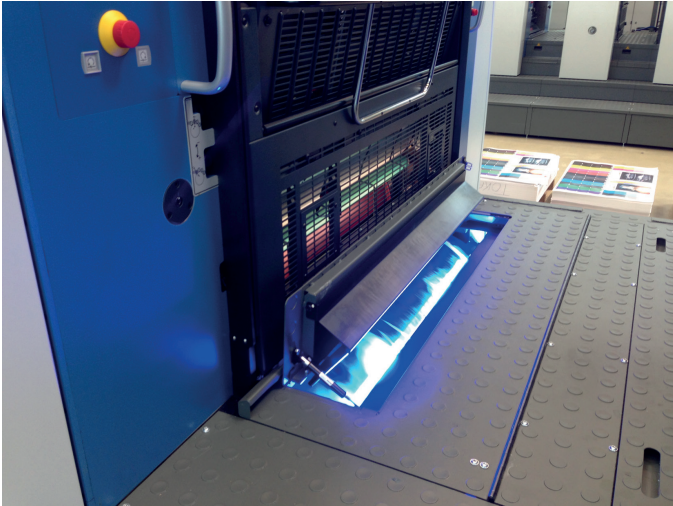
Ryobi was one of the first press vendors to look at using LED curing, showing its first system as far back as drupa 2008. Ryobi uses Panasonic LED arrays, which can be fitted to many of its presses from the two-up 520 series to the eight-up 920.

Handforth says that the main attraction is that the sheets are immediately dry and ready for guillotining or reworking. He adds: "There's no ozone and no heat so you are not ducting anything out of the machine. Also, there's no spray powder and most finishing operators will tell you that gets everywhere and clogs everything."

ABC Print Group, based in Hereford in the UK, is one of the largest B3 printers in the country. ABC was the first UK company to order Ryobi's LED UV, with a 924 SRA1 press. Managing director Mike Greene explained that he wanted to cut energy costs, adding: "Most drying solutions that produce a dry-to-the-touch sheet tend to be a big draw on electricity, as well as being hungry on consumables such as coatings or varnish."

The SRA1 format will produce eight-up A4 pages, which will be ready for finishing straight out of the press thanks to the LED UV. Greene noted: "The productivity gains of the configuration will be huge to a business like ours, and the savings on both maintenance and cleaning by not having to use spray powder are also important."

KBA has also looked at LED curing, announcing a partnership with Air Motion Systems last year. AMS



Left: KBA has partnered with Air Motion Systems, a recognised leader in LED curing systems. **Right:** Heidelberg offers customers all three forms of UV-curable printing, including LE UV as seen here on a Speedmaster 74.

offers a number of different LED curing units, which are generally small enough to be retrofitted to existing presses. AMS will integrate its LED bars to KBA's VariDry system. It can be fitted to new presses from the B3 Genius plus most of the Rapida presses from the B2 75 through to the Super Large Format 205, and retrofitted to existing models. Carsten Barlebo, European director of AMS, says that the presses can operate at their rated maximum speeds up to 20,000 sheets/hour on the Rapida 106.

Meanwhile, Komori has developed a low energy curing system, which it calls H-UV. It's a single lamp located at the end of the press which produces touch-dry sheets straight out of the press.

Platinum Press, based in Harrogate in the UK, bought a four colour B2 H-UV press to replace a five colour machine. Managing director Mark Plummer says that the fast turnaround between jobs will enable him to increase productivity to such an extent that the higher cost of the inks is less of a concern. He adds: "The ink dries on top of the uncoated stock so it's very vibrant."

Heidelberg has tried to keep an open mind over the various options, developing its Drystar UV system for conventional UV and Drystar LE UV for low energy UV inks while also working with IFT to fit LED systems. However Rockley says that the LED curing has been slow to take off in Europe because the inks are more expensive. He explains: "The photo initiators are finely tuned to 385nm so the drying system has to operate within that same

window." But he adds: "If you are printing to transparent films or plastics you might pick LED because it produces less heat."

The other factor to consider is, of course, the ink. There has been a limited choice of ink but as the technology starts to become more popular so more ink suppliers are now coming on board. This now includes all the major names, from Toyo to Flint, Sun Chemical and the Huber Group as far as CMYK inksets are concerned. There's a more limited choice for Pantone colours and special inks such as metallic and opaque white. As a very rough guide, conventional UV inks are roughly double the cost of oil-based inks, while the low energy UV inks are nearly three times the cost, and the LED UV inks approximately four times the cost of oil-based inks.

But, of course, time is money and the faster turnaround times can lead to higher productivity. This is especially so if combined with a smart workflow to gang jobs together and offer the kind of short run fast turnaround that has made digital so attractive, but with the quality associated with offset printing.

- *Nessan Cleary*



ProCo Not Loco

Printing is about providing communications resources to clients. But there are still too many printers who ignore the fact that in a digital world, data is as much a part of the offering as dots and density.

Thankfully, there are many exceptions and these companies are keeping print relevant in a changing media landscape. One of these industry leaders is ProCo, a UK company with 130 employees at locations in Sheffield and Stansted and an annual turnover of over €18 million. Positioned to provide support to clients' communications and marketing strategies across multiple channels, ProCo recently invested in GMG software to improve colour management and proofing processes. The new software is helping the company to ensure colour consistency and process efficiency across offset and digital printing workflows, in addition to multi-site collaboration and interaction through linked technology platforms.

ProCo's clients include some of the UK's largest retailers such as John Lewis, Hallmark Cards, Waitrose, WH Smith and DFS. Jobs are a mix of variable data production and long run work, so clients require data-driven print services as well as conventional offset printing. Both print output methods depend on tight data management to ensure high quality results, especially when it comes to colour.

The GMG Gig

ProCo has installed GMG ColorServer and ColorProof to provide a colour management structure that supports all customer needs across media channels. The GMG ColorServer automates colour separations and PDF conversions, so that files can be separated and re-separated automatically for different output paths. GMG ColorProof is a dedicated digital contract proofing system that supports device calibration and profiling and uses GMG's DeviceLink technology.

DeviceLink profiles map colour conversions directly from a source device to the target in a single profile. They are used for specific rather than general colour transforms

as is the case with standard ICC profiles. The end result is extremely accurate colour simulation, particularly going from CMYK to CMYK colour spaces.

ProCo's head of reprographics Karl Dalton says: "We have had far less issues with RGB images and can offer better quality uncoated printing due to the 47L [Fogra's profile for uncoated offset paper] colour profiling we now use for uncoated work. We have noticed much more



Karl Dalton has seen a notable improvement in proofing accuracy since installing GMG ColorServer and ColorProof.

accurate proofing when compared with the actual print for both litho and digital. The software has also enabled us to improve litho makeready times, leading to increased productivity, and reduced the amount of ink we are using."

Diesel Data

ProCo is heavily into data management, providing data-driven output to websites and to four HP Indigo digital presses, including a 7000, 7500, 7600 and 7800, as well as to plate for its offset press. ProCo was the first UK company to install the HP Indigo 7800 and made the investment specifically to support data-driven communications, long and short run. These machines print a 330 x 482mm format onto substrates up to 400gsm, including synthetic substrates such as plastic.

▶ The company also has a ManRoland 500 offset press printing 590 x 740mm. The ManRoland 500 is a highly automated beast capable of output of up to 18,000 sheets per hour onto substrates from 0.04 to 1mm thick. With such a range of applications and thousands of substrate possibilities, ProCo needed colour management tools and the means to automate colour data processing for output across multiple processes. ProCo regularly reviews its profiles and procedures and has found that the GMG software is delivering gains in turnaround times and cost efficiency thanks to ink optimisation tools within the GMG suite. Ink optimisation is essentially a clever application of the principles of UCR/GCR, reducing wherever possible the CMY components of a colour, for instance in the shadows, and replacing them with black ink which is cheaper.

Colour Clarities

It is a myth that accurate colour output is expensive because accuracy these days is a matter of intelligent data management. GMG, along with competitors such as CGS Oris and Alwan, has developed tools that make accurate colour completely affordable and companies such as ProCo are applying them. The cost lies not with colour management, but with its mismanagement and clinging onto the idea that colour can be fixed on press.

Successful colour printing depends on successful data management, ideally managed by knowledgeable professionals. In the case of ProCo, the company has ensured that everyone responsible for colour production appreciates the importance of process control. As Dalton says: “We recognised that colour management was becoming increasingly important and as we produce colour critical work across multiple platforms and formats, we needed to ensure we could improve the way we were processing jobs to standardise output and produce consistent high-quality results.”

ProCo uses its own quality benchmarks however, it is certified for a number of ISO standards. Standards are cost effective tools for improving processes and certification by external auditors confirms how well they are implemented in a company. ProCo is certified for ISO 9001 (quality management), 14001 (environmental management systems) and 27001 (data security and

management). Colour quality assurance and process control is the domain of ISO 12647-2 and ProCo would find compliance to the BPIF scheme for ISO 12647-2 relatively straightforward since this scheme has ISO 9001 at its heart.

Mellow CMYK

At the moment ProCo checks that it meets the ISO 12647-2 target values through Mellow Colour’s PrintSpec software implemented on behalf of one of ProCo’s major clients. The customer uses Mellow Colour in house and wants to ensure consistency between its own repro



ProCo's production director Graeme Parry: " ... if you can't measure something you can't see progress"

output and ProCo's production files to make sure brand colours are rendered consistently across output streams. (We took a closer look at the Mellow Colour PrintSpec software for the December issue of Spindrift.) PrintSpec is one of several modules in the Mellow Colour suite and is most commonly used for CMYK control and verification to measure colour appearance across jobs and presses.

PrintSpec includes a scoring system that grades jobs for how well they meet the requirements of ISO 12647-2. Graeme Parry, ProCo's production director, finds this extremely useful and says that it reflects the tight colour



The company has both digital and conventional presses. This ManRoland 500 can print 18,000 sheets per hour. Look at the speed that man's moving to feed it!

control ProCo can achieve having installed the GMG kit, noting: “We do find that the colour scoring we get back has improved with GMG.” He adds that “since we’ve had GMG we’re monitoring output on the HP Indigo devices and getting scores of 80% plus”. This is fantastic considering HP Indigo’s reluctance to commit to ISO 12647-2 compliance.

Dalton adds that: “Since installing GMG software we have noticed an improvement and stabilisation in our ISO test report scores and are consistently scoring in the high 90% range. Before, we were struggling to achieve over 80%.”

Scores & KPIs

The idea of using scoring to measure performance is an important part of the ProCo approach. Parry says that having a scoring system is important because “from my point of view I’ve always measured things using Key Performance Indicators (KPIs) [because] if you can’t

measure something you can’t see progress”. Using a scoring system provides the benchmarks ProCo uses to measure its productivity, as well as control over colour quality day to day, job to job and press to press. Using a scoring system with a sliding scale rather than a straight pass or fail, translates into greater control because “you can drill down into that far better than with a pass or fail result”.

So what gave GMG the edge over its competitors also touting for ProCo’s business? There is rarely any single reason why a printer prefers one set of tools over another however, ProCo wanted a good complement to Agfa’s Apogee workflow, which ProCo has used for many years. In looking at the various options it was clear that the GMG suite was the most complete and well-proven choice for ProCo. And Parry says that “GMG provided us with case studies that we could reference” which made a big difference.



What Can We Learn?

Common advice from conference podiums is that printers need to become marketing services providers. But print has always been about communications services and successful printing companies have embraced data management as part of the model, especially for marketing applications. ProCo is one of a growing cohort of companies going far beyond clichéd advice from industry pundits. Successful printers inevitably broaden the range of services they offer as part of their survival strategies. Technology allows companies like ProCo to create new opportunities for themselves and for their clients, and they grow on the strength of it.

- *Laurel Brunner*



CMA Imaging revamped

We have a new player on the market for high end colour management packaging solutions: CMA Imaging. Well, not entirely new, but sort of re-started. Originally CMA was founded in 2006, but was sucked into the slipstream of the Ilford crash late in 2013.

For the founder of CMA, Gerardo Cerros, it has been a roller-coaster ride: “When we were acquired by Ilford in 2013 we thought it was a perfect fit – our colour science



Gerardo Cerros, Managing Director as well as Chief Technology Officer at CMA, has had to start up CMA twice – first in 2006 and then again in 2014.

knowledge and experience, with the synergy of the high quality reputation of Ilford in inkjet photo printing, commercial papers and proofing substrates. It was quite a blow when Ilford was finally closed down, and I had to buy back my old company. These days Cerros is again

acting as managing director at CMA, as well as being chief technology officer.

But Cerros has built a strong team around him, including Mark Sanderson and Pierre-Alain Brugger, with 22 employees worldwide, and growing by the day.

When we heard that CMA had decided to re-start the company, and (again) enter the market with proofing solutions, we asked if it isn't a very mature and also crowded market? Cerros agreed but explained: “We know that we can't go into this market offering what many others already do, but instead we need unique solutions and approaches.”

He continues: “Conventional proofing for commercial printing, using standard CMYK process colours, is a done thing, a commodity. But we will address the more challenging areas, like packaging printing on many different substrates, using different types of spot colours and ink types.” To perform accurate and cost effective proofing for those types of applications is still a big challenge, both for printers and vendors of graphic arts equipment, software and consumables.

One of the strengths of CMA, already proven in the era before the Ilford acquisition, is the know-how for printing to international and regional standards, having been one of the few external companies to be authorised to perform UGRA/FOGRA PSO certifications. This will now be an integral part of CMA's software solutions: the capacity to validate print and proofs to a given standard.

Gerardo Cerros again: “We were the first manufacturer of proofing paper and inks to enable a perfect match to the new ISO 12647-2 standard, as implemented through the GRACoL 2013 colour dataset, very similar to the coming FOGRA 51 dataset. This means taking into account a much higher degree of OBA in the printing stock, and using the M1 mode for the spectrophotometer in use. Our software solution isn't split up in many options, which is quite common amongst our competitors. Instead all the features we see as crucial are already part of the base package.”

Talking about software solutions, we were impressed by how complete the software suite looks, for a newly re-started company. We asked if it was written from scratch by themselves, or brought about through third party deals and OEM solutions?

Cerros saw where we were coming from, and explained: “We knew it would take us at least five years if we were to build an R&D team from scratch, and program

of software developers, but be free to integrate bits and parts where and when we see the best possible answers to clients’ demands.”

So one of the important areas for CMA is to build a worldwide distribution network, and build bridges to key software developers. For this reason Mark Sanderson, with many years experience of product development and sales, has joined CMA.

He explains some of the strategy CMA have for its existing and future solutions: “It’s obvious we need to offer state-of-the-art solutions to our customers and among other things that means a cloud-based solution for colour and quality control. For example, our ColorCloud module offers a very simple but effective function to not only a grey-balanced calibration of the press, but also [the] means to measure and monitor this over time for a stable and predictable result. We also have ink saving solutions since way back, and one of our main objectives is to save time and money for our customers through efficient solutions, at a reasonable cost of ownership”.

One important area critical for a stable and predictable proofing result is, of course, the interaction of the substrates and inks used in the application. To help CMA stay ahead in the inkjet technology in terms of ink and substrate, Dr Pierre-Alain Brugger joined CMA late 2014 – with more than 20 years experience in inkjet media development of coatings, material science and nanotechnology. He is bringing to CMA his experience of various customers’ media development, including big names like Canon, Epson, Heidelberg, HP, Iris, Kodak, Lexmark, Memjet, Noritsu, Xpedex – just to mention a few.

Dr Brugger is manager of the CMA Imaging Inkjet and Technology Consulting division. He explains what the challenges are in this line of work, and how he intends to approach this: “While many printers and vendors have to work with what they have, and try and work around problems with a certain substrate or applications, we start by looking at the ink–substrate interactions and, if needed will develop either a custom made coating or change the ink formula in order to reach the results we want.



Mark Sanderson, responsible for worldwide sales and business development, handles both product development and OEM partners for CMA’s continued expansion worldwide.

our solution purely with our own resources. So we have selected a small group of software vendors, and integrated what we know to be robust and reliable core engines for the different parts of our software suite. For example the RIP engine is based on the Adobe PDF Print Engine, so Adobe obviously is one of those third party software contributors. Others I prefer not to mention by name, since it’s actually we, CMA, who design the overall architecture, and decide on the development strategy. We also don’t want to be locked in to only one or a handful



Dr Pierre-Alain Brugger will use his experience within inkjet media development and nanotechnology to further develop both ink and substrates for CMA and its clients.

“This of course includes in printing a large colour gamut, as well as printability, predictability and stability. All with an eye on price/performance – if what we offer our clients is equal or more expensive than existing solutions, we won’t have much of a market. So our solutions typically increase the quality, while at the same time save time and money by reducing waste and unnecessary makeready times, or a too large ink consumption.”

We at Digital Dots think that this concept sounds like a good and promising one, and will follow up with hands-on tests of the CMA suite of software solutions.

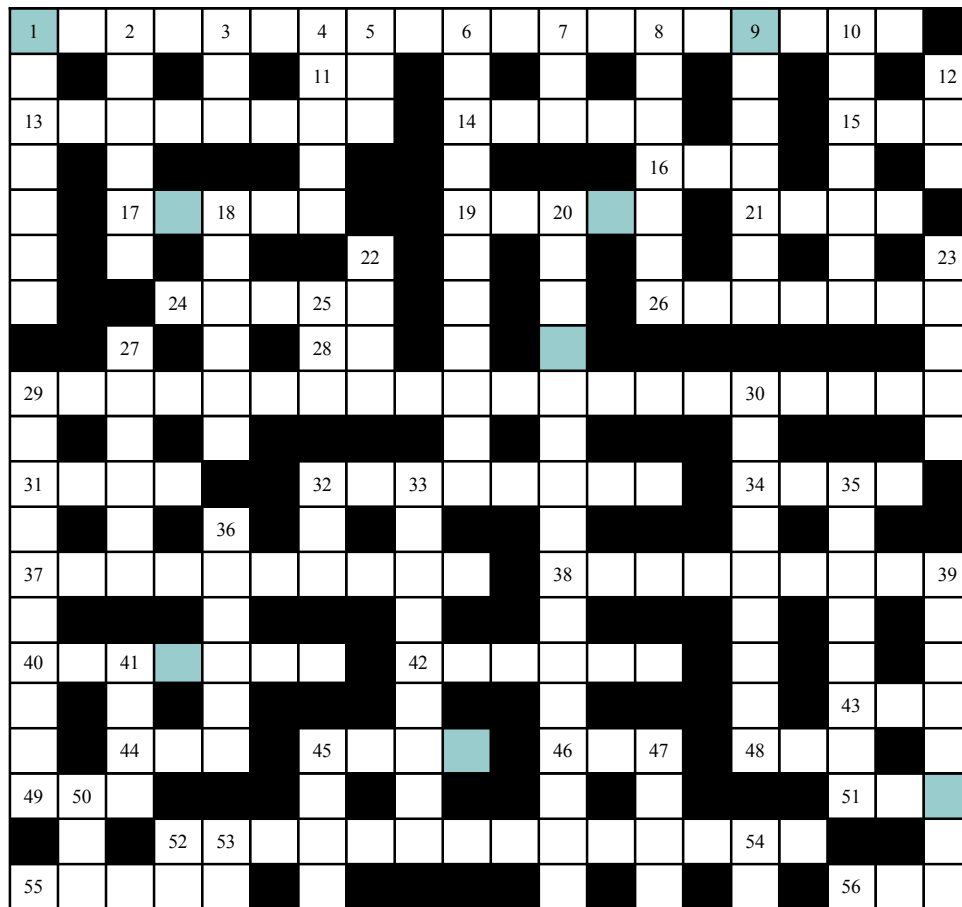
- Paul Lindström



X-word Puzzle

Number 59*

Now it's time for something a bit more lighthearted. This month's puzzle got a little out of hand, so although the grid is the same size as usual, there are more clues. If this makes it harder or easier, we aren't sure. You decide.



Across

- 1. Calculations used to work out how to render neutral colours. (4, 7, 8)
- 11. Chilled safe current? (2)
- 13. To make work processes or devices without physical intervention. (8)
- 14. Why colour exists. (5)
- 15. Cool and trendy, often replaced over time. (3)
- 16. Component of paper. (3)
- 17. Calm down! (5)

- 19. To be appropriate for it? (5)
- 21. Gotten old. (4)
- 24. Orderly line processed sequentially. (5)
- 26. To push down, of spirits and buttons. (7)
- 28. Religious Education. (2)
- 29. This is CMY plus black either before or after. (7, 5, 8)
- 31. Cunning or otherwise, necessary to avoid failure. (4)
- 32. What makes real and physical a digital data file. (8)

- 34. Some diodes do this with light. (4)
- 37. This is what all process management must be to succeed. (10)
- 38. The process of assigning digital dots their position for output. (9)
- 40. A spot colour not printed CMYK. (7)
- 42. How white substrates look when chilling OBAs are present. (6)
- 43. Assistance. (3)
- 44. A very long time. (3)
- 45. To tie up. (4)
- 46. One less than eleven. (3)
- 48. Putrefaction. (3)
- 49. Don't walk, the press is ready for it. (3)
- 51. When you think you'll get there. (3)
- 52. What standards such as the ISO 12647 series are all about. (7, 7)

- 55. Design has to consider this for accurate colour output. (5)
- 56. Not pigment. (3)

Down

- 1. Print method for which targets are specified in ISO 12647-5. (7)
- 2. Complete, unmodified. (6)
- 3. Sit on something not up to scratch. (3)
- 4. Ink containing rubber. (5)



- 5. Top notch, perfect. (3)
- 6. The first of the 4Cs of colour management. (11)
- 7. What you see on poorly processing plates. (3)
- 8. Turned around. (7)
- 9. A kind of masking. (7)
- 10. Attain. (7)
- 12. Input equivalent of dpi. (3)
- 18. To project or start selling. (6)
- 20. It removes the non-image areas of a processless plate on press. (8, 8)
- 22. Silly noise to tell you something's ready. (4)
- 23. The management entity of a DAM. (5)
- 25. A link on the Internet. (3)
- 27. A bad twist, not a break or dislocation. (6)
- 29. One who categorises others? Necessary pre-digital typesetting.
- 30. The most common cause of mistakes. (4, 5)

- 32. Type of plastic popular for packaging liquids. (3)
- 33. Those who know no better. (9)
- 35. To begin or a beginner. (8)
- 36. Necessary to perceive colour. (6)
- 39. Get tints from light to dark. (8)
- 41. Not odd. (4)
- 45. Opposite of front. (4)
- 47. Take NB. (4)
- 50. Home of Dubai and Abu Dhabi. (3)
- 52. Public relations
- 53. Country somewhere between BG and MD. (2)
- 54. Fine. (2)

Once you've solved the puzzle, write down the coloured letters from the grid in the box below and unscramble to reveal the secret word, which could be the theme for this month's puzzle. Clue: What everyone and every business needs from time to time.

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Number 58 - Answers

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

*Answers in the next issue



Acrostic Answer:
PEACE FOR ALL