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Spindrift

...Scavenging The Graphic Arts Industry Since April 2003

News Focus • Opinion
Reviews • Techno-Babble
Attitude

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simple • ***adjective*** *(simpler, simplest)* **1** easily understood or done. **2** plain and uncomplicated in form, nature or design. **3** humble and unpretentious. **4** of very low intelligence. **5** composed of a single element; not compound.

– From the Compact Oxford English Dictionary

Dear Reader,

Simplicity, convenience and ease are what technology brings to processes, whether it's for making a cup of coffee or brushing your teeth. In the print media industry, digital production technology is making a similar contribution to information access and use, as a quick glance through this month's news will show. Most of the news is about digital printing, workflows and improved financials for digital press suppliers. Traditional press suppliers are seeing positive growth too.

Goss, whose primary market is the newspaper industry, recorded its third consecutive year of sales and earnings growth in 2006. Xerox, according to CEO Anne Mulcahey, "met our full-year expectations on earnings growth and cash generation, [and] increased post-sale revenue".

Printing technologies are at the end of what has become a highly complex series of processes. We live in a world where more and more we want to be in control. Ingmar Kampe and the folks at Lego have built huge empires on the principles of simplicity, ease and convenience, the do-it-yourself ethic that puts the consumer in control. This is where the digital production industry should be setting its sights, and where publishers especially should be heading.

DIY production and publishing are about more than on-demand print, or web-to-print. The DIY model enhances the value of content and adds value to print because it facilitates customers' imaginations, initiatives and ideas. Advances in digital printing technologies and workflow are creating a new infrastructure for print media creation and use. And as the positive financials tell us, the markets are starting to respond.

Enjoy!

Laurel, Nessan, Paul and Todd

In This Issue

Plate costs

The cost of plates, as we all know, is going up and up, mainly because of the rising costs of energy and raw materials. Aluminium is in greater demand than ever, making it a highly valuable commodity in its own right. However, as Laurel Brunner finds out, this isn't all bad news, as printers should be able to recoup higher scrap metal values.

see page 8

Introducing Fujifilm's XMF

Last month's news section kicked off with the launch of Fujifilm's new workflow system, XMF, and as promised, we've taken a closer look under the hood. XMF takes advantage of the latest technologies, including Adobe's PDF Print Engine and JDF, but it also marks a renewed enthusiasm within Fujifilm for the graphic arts side of its business.

see page 14

Océ OpenHouse

Every year Océ hosts its OpenHouse trade fair. Laurel Brunner availed herself of Océ's hospitality and looked at the new printers announced at the show, as well as discussing Océ's future strategies.

see page 18

Regular Columns

News Focus

Kodak has announced two new digital colour presses, a new version of the Nexstation front end, and a new roll feeder option. Nexpress is now available in five flavours, based on the Nexpress platform and Nexstation front end. The Nexpress M700 four colour engine runs at 70 pages per minute simplex or duplex for substrates from 64 to 300gsm and is rated for monthly print volumes from 50,000 to 150,000 A4 pages. Resolution is 1200 x 1200 dpi and Kodak claims "output with excellent quality text and graphics, high density [and] a wide colour gamut. The engine uses wax-based dry ink and a dual fusing system and the press can print on mixed media from five paper feeders. The M700 is currently only available in North America.

The Nexpress S3000 is a faster version of this press printing 100 A4 pages per minute, and rated for monthly print volumes of over 450,000. The Nexpress S3000 is expected to be available in October.

Version 9.0 of the Nexstation has a new operating control system for increased uptime and productivity. It works with Prinergy and other leading workflow management systems, with an open standards based architecture for easier job acceptance and reduced data processing errors. The Nexstation RIP is based on the Adobe PDF Print Engine and will also work with Kodak's Colorflow technology.

Agfa has launched a new 2500mm wide format industrial inkjet system for high quality indoor and outdoor sign and display production, the Anapurna XL2. It has also announced the 1600mm wide Anapurna M. This printer uses state-of-the art 14 picoliter printheads and Agfa's UV-curable inks for photorealistic output.

Duplo International has introduced two new A3 versions of its Duprinter digital print engines. The DP-S850 and DP-S550 run at 150 copies per minute, and are positioned to be versatile and cost-effective alternatives for printing jobs such as newsletters, corporate stationery, posters, direct mail/flyers and instruction sheets. They use new thermal heads and master material technology that works in tandem with a carbon-rich, high density black ink, for exceptional image sharpness, plus high quality halftones and solids. The DP-S850 outputs 600 x 600 dpi and the DP-S550 300 x 600 dpi.

Epson has developed a thin-film piezo with the world's highest degree of distortion. Volume production of next generation micro piezo print heads based on this new technology is due for imminent launch.

The new piezo element offers the world's highest degree of distortion through film thickness reduction and materials development. Epson has developed an inkjet nozzle with a density of 360 dpi, which it claims is the world's highest density for an inkjet print head using piezoelectric technology. In the future, Epson plans to focus on micro piezo technology, with a view to expanding its usage in business and industry.

Gradual Software and **Ultimate Technographics** have announced a partnership to combine Gradual's Switch automation software and Ultimate's Impostrip On Demand automated digital imposition software. The idea is to provide fully automated imposition workflows for digital printers.

Xerox is on the up with first quarter earnings at $0.24 per share, an increase of 20% and which exceeds expectations. Total revenue was $3.8bn, an increase of 4%, with

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gross margins improved to 40.6% and an operating cash flow of $187m. The Production division revenues (28.81% of Xerox's total revenues in 2006) were up by 5% and post-sale revenue from digital systems increased 7%. Colour revenues grew 17 % in the first quarter and now represent 37% of Xerox's total revenue, four points higher than the first quarter of 2006.

Xerox has also announced a slew of new presses for the monochrome and light production markets. The company claims the Nuvera 288 digital perfecting system is the fastest cut sheet printer in the world. The new Nuvera 100/120/144 printers use Emulsion Aggregation toner and Xerox has enhanced the Docutech Highlight Colour printers. See Expandocs page 5 for full details.

There is also a new Freeflow Print Server, designed to deliver outstanding image quality and system performance for the DocuColor 5000, 7000 and 8000 digital presses. Version 6.0 features Xerox's Confident Color technology suite of ICC compliant colour management tools, a new drag-and-drop interface that allows for easy job management by enabling print operators to process incoming jobs using simple tools, and PDF job streaming with JDF job ticket support.

Privately held **Esko Graphics** has reported a strong performance for 2006. Revenues were €127m, an increase of 9% over 2005. Estimated pre-tax earnings for the full year were €13.6m, a 74% improvement over 2005.

Packaging revenues increased by 11% compared to the previous year, and sales of new packaging systems (excluding services) grew by 16%. Overall service revenue went up by 3% despite a declining contribution from maintenance of discontinued CtF and CtP equipment.

Océ has announced first quarter revenues of €729.2m and a net income of €12.2m. Gross margins are the same as last year at 41.6% and the company is seeing an upward trend in wide format print sales. Océ's order book for its digital display systems is substantially higher than at the end of the 2006 first quarter and, although results in digital document systems lagged, they are expected to improve during 2007.

Canon has previewed its new JDF-compliant workflow software, iW Prepress Manager (iWPPM), a highly user-friendly and versatile technology suite for which Canon was granted 82 patents. The technology is designed to streamline document production processes, combining, manipulating and producing page content from multiple sources, analogue or digital. Canon uses its own PDF editing technology, rather than using Adobe Acrobat plug-ins, to provide complete PDF content editing capabilities. We plan to take a closer look at this technology in a future Spindrift Expandocs.

Canon's new Imagepress C7000VP starts shipping in July. This engine is Canon's top quality press and is expected to provide the company with increased market share. Features include oil-less fusing for prints with the look and feel of offset, advanced colour management tools, true 1200 dpi resolution and output of up to 70 colour pages per minute on stocks up to 300gsm.

Canon has also previewed EFI's Fiery Central PDF-based digital workflow technology, driving its Imagepress engines. Canon and EFI have worked closely to refine Fiery central to optimise it for complex document production.

ECRM has released its Workmates News workflow technology for newspapers. It allows publishers to process PDF, PostScript, TIFF, PDF/X-1A, PDF/X-3, EPS, DCS, or DCS2 files, and is compatible with all standard models of prepress equipment. The technology works in a Web browser for publication planning, template creation, page monitoring, viewing and proofing.

Markzware has released Flightcheck v6 for Macintosh with Quark Xpress 7 and Adobe Indesign CS3 support. This version ensures accurate preflighting of files created using the new features of both software packages.

Axaio Software has announced new Madetoprint plug-ins for Indesign and Incopy CS3. They will be available in May 2007 and provide output enhancement and automation, with the same range of functionality as the CS2 versions.

ROI, specialist software developer and system integrator, has launched version 2.0 of Xralle for online business procurement and print management. This software is currently used to manage over €300m worth of online business transactions annually. Version 2.0 is completely rewritten with ASP.Net technology.

HP has a new Designjet series, the Z6100, for print service providers and technical printing markets. The new eight-ink HP Designjet Z6100s are available in 1067 and 1524

mm models and print at over 100 m^2/hr. New HP Double Swath technology creates a print swath up to 46mm wide and the series has the first ever Optical Media Advance Sensor. This improves paper advancement control for higher print speeds without quality compromise.

Kodak's Darwin VI authoring tool for variable data documents is now compatible with QuarkXPress 7. This software converts XPress 7 documents into variable data pages where all elements can be dynamic.

Spandex has added enhancements to its Gerber Solara UV2 hybrid inkjet printer: full bleed print mode for printing edge-to-edge, performance print mode for increased capacity, and rest mode which is activated once the print heads have been idle for 60 minutes in order to extend their lives. Users can now enter exact dimensions for a print job, and manually adjust Solara's vacuum when using lightweight materials or demanding substrates.

Seefile Software has announced that the latest version of its web-based creative collaboration tool is now compatible with Enfocus server workflow products, PitStop Server 4, and Automate 1.

According to industry analysts Infotrends, the **HP Indigo** press line is the leading digital press brand in the American high volume (one million impressions per month) segment. In 2006, HP captured 41.9 per cent of the market for top quality, high volume digital colour presses such as the HP Indigo presses 3050, 5000, w3200 and w3250, and competing devices from Xerox, Kodak and Xeikon.

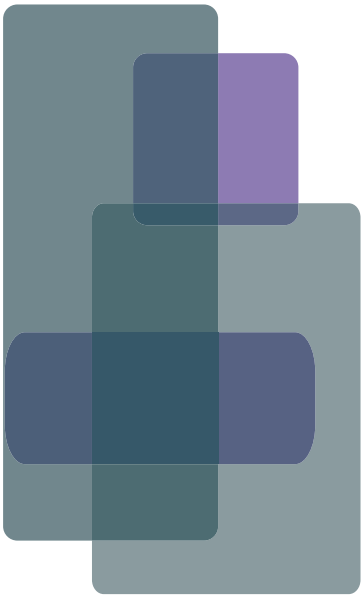
DXG, a rapidly growing American digital camera manufacturer has announced the ultra-compact DXG-589V, digital camera/camcorder and portable entertainment centre all in one. The DXG-589V combines a five megapixel digital camera, VGA camcorder, video game player, digital music player, and facilities for direct video recording from TVs or DVD players into a single product.

Goss International recorded a third consecutive year of sales and earnings growth in 2006. Sales of Goss web offset presses, print finishing systems and aftermarket Lifetime Support services totaled $1.14bn. Pre-tax earnings were $61 million, and each of the company's worldwide operating entities achieved profitability.

Kodak has announced version 4 of its Prinergy workflow system. This includes a new dashboard which shows all job information, plus support for transparencies and for digital print automation, which can be expanded into Kodak's web-to-print solution, as well as new digital job notes and custom fields.

Inca Digital has shown off a brand new printer, Onset, designed specifically to put the nail in the coffin of screen printing. Onset is an extremely fast digital UV flatbed printer, complete with automated loading and unloading, and is aimed at the point of purchase signage market. It can handle print sizes of up to 3.2 x 1.5m, with a maximum throughput of 500 sq m/hr, including loading, printing and unloading. There is also manual loading, so that it is possible to interrupt a print run for a one-off job.

There's a choice of satin and gloss print finishes, and standard and high quality modes. It uses 576 Spectra printheads, with a total of 73,728 nozzles allowing for a considerable amount of redundancy, which in turn reduces down time. It uses Sericol CMYK inks, and will be distributed worldwide by Sericol. Cost is likely to be around £1.5m.



Say What?

(Iffy Writing Award Presented in the Ether for Obfuscation, Confusion, Misinformation or All Out Pretentiousness)

For this month's Say What? we'd like to welcome Erwin Busselot to his new post as public relations manager for Agfa Graphics. We did enjoy reading the release announcing the new Anapurna line, and particularly the new C^3 strategy, aka the C to the power of three concept, or as Willy Van Dromme of Agfa put it: "Completeness to the power of three".

This load of codswallop apparently means that the heads, inks, software and printer have been tested to work together, that Agfa has a customer services team, plus some extra benefits including the ability to print vibrant colours. In other words, all things that one would expect as standard from a large format inkjet printer. Which rather begs the question, since this is a new concept (or at least new for Agfa), what has Agfa been doing up to now?

Expandocs

(In this section, we aim to cast some extra light on a particular recent news story.)

Nuvera Additions

Xerox has just introduced the Nuvera 288 digital perfecting press, plus several updates to its existing Nuvera and Docutech lines.

This press prints 288 duplex pages per minute making it the fastest monochrome cut sheet digital printing product on the market today. It has what Xerox calls a Tandem Architecture Design, which is basically two print engines instead of one. This is roughly similar to Océ's Gemini technology first used in the Varioprint 6250. Here the front and back page images are offset to an image belt and then simultaneously pressed into the paper during fusing. According to the demonstrator we spoke to, Xerox is using the same idea but with Xerox software driving it, and, of course, he said it had better image quality. The Nuvera 288's RIP provides parallel processing (well it would, wouldn't it, particularly with two engines to drive) and the printer uses the new EA chemical toner.

Emulsion Aggregation toner is chemically formed through specialised mixing of pigment and latex particles. The manufacturing process generates less CO2 emissions than is the case with conventional toners, though it does leave its own less environmentally-friendly waste. The toner particles are grown rather than being ground down from a solid lump so that they can be both very small and uniform in size. This in turn leads to much higher image quality and a more efficient use of toner as well as obviating the need for fuser oil. The image quality of the Nuvera 288 was truly stunning, with the appearance of a contone image, no glossiness and a completely smooth surface texture.

The Nuvera 288 is capable of up to 156 lpi and prints at an apparent resolution of 4800 x 1200 dpi. It is aimed at the transactional market where the twin engines will help to minimise any down time for the machine. Xerox calls this Pass Through Programming, meaning that it can shut down one print engine and continue printing at 144 pages per minute on the other one.

The existing Nuvera 100/120/144 are to be available with EA toner and have been made to be fully scalable. The idea is to have a common production engine, so that there is a common technology for both copier and printing environments. The scalability allows users to choose their preferred system configurations, and is intended to provide Xerox with more flexibility in the face of competition from companies such as Canon and Océ.

In addition to these monochrome announcements, Xerox has also introduced Docutech highlight colour systems at 128 and 155 pages per minute, with added finishing technology. These machines are intended for books, manuals, marketing and direct mail applications, where additional single colours are required. The DocuSP print server is also now available for the 4595 copier/printer and the 4110. Xerox claims that the 4110 outsells every other product by 2:1.

Acrobites

(Something to get your teeth into)

IMF

The original Ifra Messaging Format has now been superceded as the preferred data format for Ifratrack, Ifra's standard for file delivery status notifications, although it is still around. Ifratrack now benefits from the added frisson of XML. The IMF standard has been around for years but it hasn't ever really got out of a trot, largely because the original version was proprietary. The use instead of XML, which is so widespread for use in data interchange, will help Ifratrack to leverage the wide range of validators and parsers available for XML, so helping to reduce misunderstandings and problems with file delivery.

OLED

The technology behind, or rather underneath, Organic Light Emitting Diodes was pioneered by Kodak and Sanyo. It is comprised of the same main components as an ordinary LED, with additional layers of organic compounds to aid with light emission. These diodes are self-illuminating so they don't need diffusers or backlighting, which are some of the limitations of LEDs. They don't need mercury lamps so they are smaller and less environmentally hostile and they consume less power. This technology comes in two varieties: a cheap and cheerful one; and one suitable for high resolution graphic content. Each individual pixel is addressable and although this technology is used in flat panel displays, it has a far bolder future in electronic paper.

Driftwood

(Useful stuff washin' up on our shores)

All those words

In the wonderful movie, *Amadeus*, the composer Mozart is told by the Austrian Emperor Joseph II that he uses too may notes, that "there are only so many notes an ear can hear in the course of an evening". Now, what has this to do with graphic arts production? Well, we have the similar situation with words. Creative writers may extend the language by using a slightly different grammar, and sometimes even invent new words. This is all very well but for the most part, if grammar is used in a way that the reader is unfamiliar with, it may cause problems with understanding the text properly. Often new ways of spelling are simply spelling mistakes.

Spell checking is not new, and even checking of grammar is common in popular word processors like, for example, Microsoft Word (although the suggestions given by Word are sometimes difficult to understand and often better ignored). But there is constant work and development underway in this area, to improve the text proofing tools in word processors and page layout systems.

One of the better known actors in regard to orthography is the Norwegian company Tansa, which offers writers and publishers a solution that not only checks spelling but also works on hyphenation, punctuation, word usage and even writing style. Tansa combines several dictionaries, and proofreads phrases rather than single words. On top of general language dictionaries the user can load special dictionaries for regional spelling of words as well as specialist terminology. Another important part of an advanced proofreading system is that it's server-based, so that the agreed spelling of, for example, names is used across the whole company. The same goes for the usage of acronyms and abbreviations – once the spelling is agreed upon it should be used in the same way by everyone. Standalone spell checking, and custom tailored dictionaries on single workstations don't provide this.

In many countries there are committees which suggest a certain style of language, and if such dictionaries are published they can be integrated in the Tansa server, and integrated in the 'house' style that is defined for each publisher or corporation.

Besides achieving a unified use of language, a good text proofing system also saves time when it comes to conventional, manual proofreading, if it still takes place. (In many publications this step in the publishing process seems to have been eliminated). If you want a unified corporate identity, including the style and usage of words and typo-

graphy, you may find it worth the trouble to look into such modern, advanced spell checking systems.

Spindocs

(Where the spinner gets spun!)

We received a letter last year from a major corporation outlining its ethics policy. Amongst numerous rather impervious paragraphs was the following:

"Below is the ethics policy for Global Purchasing personnel:

• Maintain ethical and professional behaviour in all supplier interactions.

• Treat fellow employees, suppliers and customers with honesty and respect.

• Do not solicit or accept any gift or benefit from a supplier.

• Do not give any gift or benefit from a supplier.

• Do not show favouritism to a particular supplier.

• Do not seek reciprocity from suppliers or customers.

• Do not disparage competitors' products.

• Protect the confidentiality of [company] proprietary information.

• Disclose all outside business relationships to appropriate management.

• Do not represent your personal views as those of [the company]."

Quite how any business gets done with all this compliance, is a mystery. What is the world coming to?!

Boomerangs

(Your feedback fed back)

Following our article about Vio's business we received this email from a subscriber who wishes to remain anonymous, while correcting some of the statements in the piece.

From: XXX
Date: 4 April 2007 16:46:34 BDT
To: Laurel Brunner <lb@digitaldots.org>
Subject: Re: Spindrift

Dear Laurel,

An interesting point of note in the Vio article: When Richard states, "Vio is now the default in the UK & US...", is a real stretch from the truth. Adfast by far is the 'dominant' supplier of advertising to the UK regional press(in terms of volume), Adstream/Quickcut is by far the 'dominant' supplier of advertising to the UK national press (in terms of volume), and there is no 'clear winner' in UK magazines. As for the US, the acquisition of Adsend does not give [Vio] dominance. Other types of removable media and publisher's own FTP sites is by far in dominance (in terms of volume). Finally, the statement regarding Asia is very far from the truth.

NAME SUPPLIED

Plate Costs

Plate prices have been rising of late and for printers considering moving to direct-to-plate output, this additional cost consideration can be a bit off-putting. However, it shouldn't be a block. Plate prices are rising for all plates, not just digital ones, so high priced materials are just another rather unpleasant fact of life in the printing industry.

The good news is that higher plate purchase prices means higher scrap metal values, and even more incentive for printers to recycle. And printing plates, like paper, are a lot more environmentally friendly than electronic gadgetry.

We decided to ask plate manufacturers for their perspective on the price rises, to see what printers can expect in the future, particularly with processless and chemistry-free plates hovering on the horizon.

Tony King of Agfa

In the Raw

Obviously plate costs are rising because of higher raw materials prices and sky-rocketing energy costs. Energy costs are rising everywhere, due in part to the war in Iraq, but also because energy is precious and we, together with the developing economies, constantly want more of it.

For printing plate manufacturers, energy costs influence everything from the initial mining of the raw materials through to plate delivery. Tony King of Agfa says: "Raw material cost increases are mainly driven by the increase in mining costs, and the energy cost increases that affect the manufacturing cost of all metals".

Energy is required throughout the supply chain, and especially for preparing aluminium sheets into surfaces suitable for printing, as King explains: "From our side, plate manufacturing is also a very energy-intensive process. The plate graining and anodising, for example, uses large amounts of electrochemical energy. So whilst the well-publicised increases in energy costs have hit industry as a whole, it is fair to say that plate manufacturing is hit especially hard because of the combined effects of aluminium and energy price increases." Rising oil prices also influence manufacturing costs, because some plate coating components are oil-based.

Bauxing Clever

But rising oil prices are only the lesser part of the cost increases. By far the most significant factor is the rising price of aluminium. This is due to price increases in the raw material, bauxite. Most bauxite comes from Australia and the West Indies and it takes two to three tonnes of bauxite to produce one tonne of aluminium. Naturally the production costs themselves are subject to rising energy and labour costs and, just as naturally, these get passed on to the purchasers of aluminium.

Besides the increase in raw aluminium prices and energy costs, we also have a market where there is greater demand for aluminium itself for a range of purposes. This has meant that for the last few years the world-wide production of aluminium has fallen behind demand, fuelling yet further the rise in prices.

According to data on the London Metals Exchange, the international centre for base metals trading, the price of the world's most plentiful metal has risen steadily over the last few years. It is now at more than twice its 1999 cost of around €2000 per metric tonne. In 2006 it topped €2200, although it has since fallen back to around €2000. Keith Dalton, managing director of Fujifilm UK estimates over sixty percent increases in the prices of raw metals from eighteen months ago. He adds: "But more importantly the trend is up. Where it was increasing slowly for years, it has now accelerated".

Kevin Cazabon, Kodak's regional consumables director for Europe, Africa and the Middle East.

Kodak's marketing director for its plates and consumables business, Kevin Cazabon, explains what these raw material cost rises mean, (and he probably describes the reality for all manufacturers): "If you consider that there is about 750 grams of pure aluminum in one square metre of 0.3mm plate, this represents a pure cost increase of €1.13 per m^2. However, if you consider manufacturing yields, and then subtract scrap values, that would add at least an additional €0.15/m^2 to the total. That means our costs have risen at least €1.28 per m^2 due to aluminium pricing alone."

Agfa, Fuji, Kodak and Presstek alike have also had to deal with the additional processing costs, as Cazabon elaborates: "Keep in mind that these prices are for the raw material itself only – there are also significant costs in converting the aluminium ingots into lithographic-grade coils and sheets. These costs have remained fairly constant, but [they] also represent a sizeable portion of the overall manufacturing costs. Those costs are non-recoverable in scrap values." Tony King of Agfa concurs: "All the plate manufacturers have been equally affected and all have found it impossible to absorb these costs – the result is increased plate prices." In the US, which is one of the world's largest consumers of virtually everything, including aluminium, prices have also been influenced by the loss of smelting capacity, due to bad weather and accidents. In 2003 and 2004 the US Defence National Stockpile Centre apparently also restricted the amount of aluminium it would release for sale and US prices rose by 25% from the beginning of 2004 to the beginning of 2005. In some ways this might justify even higher printing plate prices in the US, however plate manufacturers have been pretty even-handed across markets.

Over the last couple of years worldwide bauxite production has been stepped up in response to rising demand and prices have stabilised to some extent. This cannot last however, given the popularity of aluminium and its need in exploding markets such as China and India. Tony King explains: "Aluminium is traded as a commodity on the world's metal markets, along with many other metals. Aluminium is used in many

other industries – construction, automation, aviation etc. Worldwide aluminium demand is increasing faster than supply and prices have risen steeply. This is mainly caused by the increasing demand from the emerging markets, such as China and India."

Copyright London Metals Exchange. Prices shown in US Dollars.

Grade A Aluminium

There are other factors influencing prices. Kevin Cazabon says: "Kodak only uses high-grade lithographic aluminium for printing plates. There are two aspects to this: the quality and purity of the aluminium ingots themselves, and how those ingots are processed into coils. The most common aluminium types for lithographic use are 1050 and 1052 alloys, which are [over] 99% pure aluminium, with traces [of] other metals to give the properties desired for printing and durability. 3103 alloy is also used for some special purposes, mostly in the USA (it is a stiffer metal). Because of the purity of the metal used in litho plates, its scrap value is very high (generally 82-87% of the LME price)." He adds: "Used printing plate scrap has increased in value at almost the same rate as raw aluminium has. If customers have not been receiving this value from their scrap dealers, they should definitely shop around for better scrap pricing. This increased scrap value will in most cases more than offset the increases that we've implemented." This could help take the sting out of price rises for printers to some extent.

The New Black

But there is another factor influencing price rises, also energy related. Competition. Aluminium is also used to produce kitchen goods such as saucepans and cooking foil, but it is also very popular in the transport industry. Aluminium is used for cars, trucks, boats, planes, road signs and also for high voltage power lines. The transport industry accounts for around 26% of aluminium consumption with packaging and construction around 22% each, hence the recent high demand in developing countries. According to the London Metals Exchange, machinery, electrical and consumer durables account for 2% and the balance goes to 'other' uses, that is, printing plates in some relatively trivial albeit very important amount.

Worldwide development and engineering advances are leading to yet further increased demand for aluminium. Demand is rising not only in developing markets, but also in the developed world, where car engineers are looking at ways of using aluminium, for components such as brakes, because it is so light and can make cars more energy efficient. As Keith Dalton puts it: "Aluminium used to be a luxury metal. Now it's everywhere."

Worldwide, print continues to thrive and demand for conventional and digital plates continues to grow. Although plate manufacturers don't share sales and market data, King tells us that although "normally plate suppliers tend not to release such information as it tends to be more useful to competitors than to customers, needless to say that all the 'big three' plate manufacturers are believed to sell well over 100 million m^2 per year". We try to keep track of this and estimate that the worldwide market for printing plates is in the order of 550 million m^2 per year and the majority of these sales are to developed markets, such as Europe and America. For Agfa "Europe, the largest single market accounts for around 35% of global plate consumption, NAFTA is the second largest market, followed closely by China, the fastest growing market in the world, and then Japan."

Price Differentials

Plate prices vary across geographical regions, but manufacturers seem to have been consistent in their pricing policies. According to King: "The price increases have been implemented worldwide. These increases have taken into consideration the differences in pricing in the different regions, and also the cost of doing business, which is also different per region. Our price increase target is to compensate our increase in costs and we have taken these elements in consideration when we have defined our world pricing strategy."

Likewise Kodak cannot share this type of information because it is considered to be too sensitive, however Cazabon explains: "Historically, different markets have had different needs, and therefore there has been some variation in pricing between regions. However, increased costs have forced us to look especially hard in regions where pricing has historically been the lowest. The effect is that the regional differences are being reduced. Additionally, there is a difference in increase of rates between digital and conventional plate products. Conventional plates are in many cases today a loss-making or break-even business. As costs increase, demand for digital plates rise, and conventional plate volumes fall, and we are forced to make bolder moves in conventional plate pricing to justify sustaining that business." Keith Dalton of Fujifilm agrees: "There will be local minor differences depending on the local competitive situation. We're actually just passing on a manufacturing increase. Our value added element is going down. It's a cost increase, rather than a price increase."

Going Up?

So what can buyers expect for the future, say the next 12 to 60 months? Manufacturers can't say much about their pricing models, but Cazabon probably speaks for all of them when he says: "The increases that Kodak has implemented so far have not come close to covering the actual cost increases that we've absorbed to date. I suspect that this is also the case with all of our competitors". Dalton agrees: "If it keeps on its upward trend then it's not something people should expect manufacturers to absorb".

Keith Dalton, General manager of Fujifilm Graphics in the UK.

Unfortunately given the combined effects of rising aluminium and energy costs, increased demand and limited supply plate price increases are unavoidable. Suppliers have no choice if they are to maintain profitability. All manufacturers are in the same position, and as Cazabon says: "The extent of our increases versus our actual cost increases is minimal, and we have been able to absorb at least a portion of those costs through improved efficiencies and performance internally."

Presstek's response to our question about future prices was to quote the 2006 Vantage Strategic Marketing Study which states that "plate manufacturers will need to increase their prices by almost 30% if they are to fully recoup the additional cost of aluminium. No wonder printers around the world are being warned that the 10%+ increase levied by the major plate manufacturers during the first half of '06 is unlikely to be the final rise."

It takes a lot of energy to produce grained anodised surfaces like these violet CtP plates.

King believes that "This is difficult to predict because with the increase in demand, speculation is now playing an important role in the price of metals. Although we can expect high volatility in the metal prices, the underlying trend will be towards higher aluminium prices which will result in more expensive plates longer term."

According to the LME, the price of aluminium will rise in the short term along with other metals, reflecting a continuation of the current market excitement. However producers have not stood idly by watching the prices rise, and have responded with increased production. This could mean that prices will start to fall, particularly as the LME shows an excess of supply to demand for 2008, based on historic consumption patterns. In the context of development in Asia however, the reality is highly unlikely to be that supply outstrips demand.

Processless & Chemistry-free

The next big thing hitting the plate business is of course processless and chemistry-free plates. The raw materials cost for these substrates is equivalent. However for new customers facing budgetary constraints, price increases could actually enhance the attractions of processless and chemistry-free plates, which require no additional investment into a processor. Cazabon says: "The cost increases are a smaller percentage of the overall product price, due to the higher value of these products to start with".

Tony King of Agfa notes: "We don't see any negative effect on the uptake of new plate technologies such as chemistry-free. Right now chemistry-free plate technologies such as Azura are in fact the fastest growing plate technologies and are in heavy demand. Agfa's Azura has approaching 1500 users despite only being available for a couple of years. The drivers for the new technologies are simplicity, convenience and quality. Remember also that the plate costs typically represent less than 5% of the overall print production costs for a typical job (this will vary dependent on run length etc). The main print production costs are paper, ink, labour and press amortisation."

Keith Dalton adds: "If plate prices keep going up, then the relative difference between processed and non-processed plates is smaller, so [plate price increases] might increase the uptake of processless."

Presstek's spokesperson agrees: "With raw materials and energy costs on the rise, this is a good time to find savings where you can. Processless and chemistry-free plates offer the advantage of saving on the cost of buying, storing and disposing of chemistry. The average savings on eliminating chemistry from the platemaking process is 30%. There are also additional savings to be realized in eliminating the cost to inventory and haul-away chemistry and waste disposal." He also says that: "There is the issue of environmental sustainability. Eliminating chemistry is better for the environment in a range of ways from a protect-the-planet perspective down to providing a safer workplace".

Bring it On

2007 is an important year for plate costs and consequently for printing, especially as digital printing applications start to bed down and become commonplace. We hope to see more processless plates coming onto the market, and to see the printing industry start shouting its environmental credentials. Plate prices may be going up, but printers can recoup higher scrap values safe in the knowledge that their recycled plates will end up on someone's cooking stove, or shielding the power lines in some far flung land. And that's rather more than can be said for last year's iPod!

– Laurel Brunner

2007 is an important year for plate costs and consequently for printing, especially as digital printing applications start to bed down and become commonplace. We hope to see more processless plates coming onto the market, and to see the printing industry start shouting its environmental credentials.

Introducing Fujifilm's XMF

Following its preview at Ipex, Fujifilm has now formally launched its next generation workflow system, XMF. According to Naohiro Fujitana, general manager of the graphic systems division of Fujifilm Europe, XMF is just one of many interesting developments we can expect to see from the company over the next year or so.

Fujifilm appears to be doing well, with 2006 revenues at €18.3 billion versus 2005's €17.8 billion. Fuji Xerox of which Fujifilm holds 75%, contributed 42% to overall revenues and the information division, which includes the graphic arts, 36.1%. Both of these numbers are up on 2005, at the cost of the imaging division's contribution. So what does this have to do with XMF? Apart from the positive financial backdrop, it provides context for Fujifilm's strategy, especially workflow.

The Technology

The XMF workflow technology is already installed at a couple of sites and is a first of its kind, both for Fujifilm and for the industry. This is the first workflow system that we have seen built completely from scratch using a JDF database, and it is the first time Fujifilm has introduced a workflow system of such scale and ambition for many years.

XMF, as the first workflow built from scratch with a JDF database, is an ambitious project for Fujifilm.

It is also the first graphic arts workflow system based on Adobe's new PDF Print Engine (APPE) RIP technology. This technology makes it possible to process native PDF files in the RIP, without reverting to Postscript commands at any stage in the processing. Much as Agfa grabbed the PDF workflow initiative early on with Apogee, Fujifilm is doing the same with APPE and XMF.

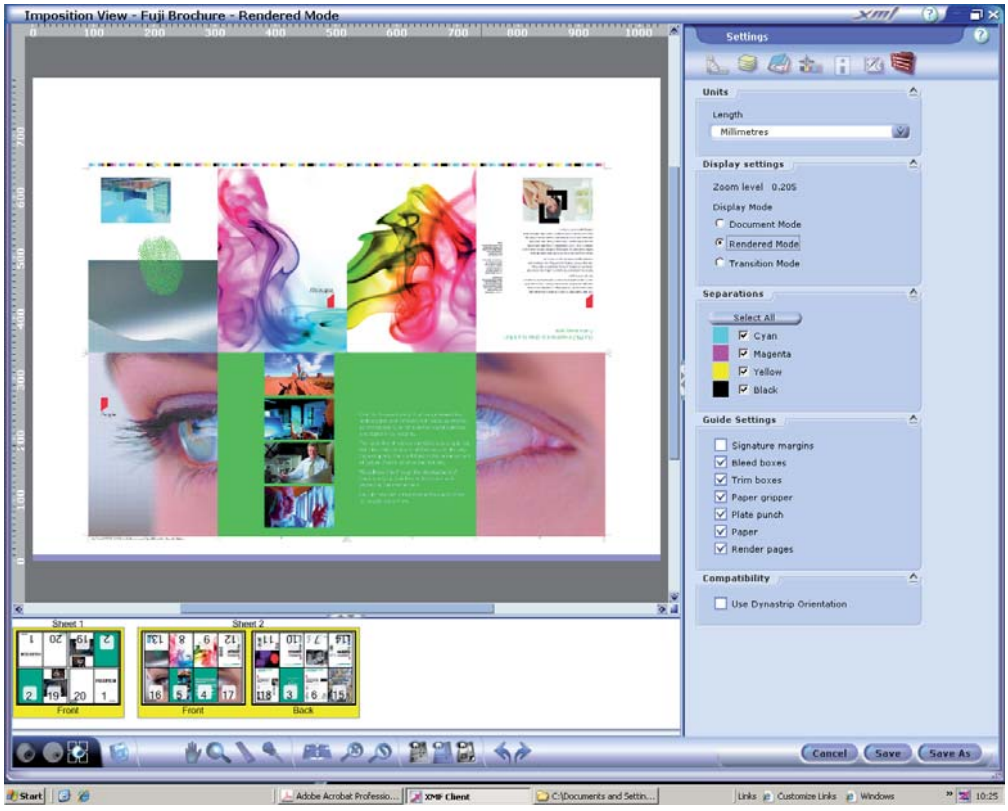
The XMF technology will eventually supercede Celebrant which Fuji developed itself and the Rampage Open Workflow which Fujilfilm sources from Rampage. XMF is thus an important strategic change in Fujifilm's development of its graphic arts related business interests.

We gave a detailed explanation of the XMF workflow technology just after Ipex (see Spindrift volume 4, issue 2), however to recap, XMF is Windows server-based with Mac and PC clients. XMF is a multi process business tool that is simple to use yet provides complete control over the workflow. It is designed to avoid the blind spots in many workflow systems, which tend to compromise the availability of full details, process and content visibility throughout production. XMF uses the Adobe PDF Print Engine (APPE) RIP plus JDF, with Fujifilm's colour management system based on RGB data and Fujifilm screening, both Co-res and Taffeta. This all gives XMF considerable flexibility and allows it to fully support cross-media workflows as well as conventional ones.

Changes to different output formats, for example, from 8- to 4-up plates, are instantaneous. XMF supports press streaming for reworking jobs for different presses, so users can maintain press independence for jobs and manage hybrid workflows. They can switch a job's output path to a digital press, or automatically rework it for different papers or finishing, with a single click of the mouse. The press stream hold function does everything to do with production except for the final, process-specific things, so users can work with complex preset output streams. Because it is written wholly in JDF, XMF has a direct connection to CS3 and XPress 7.0. This is a foundation technology for all aspects of a workflow from a client brief onwards and, rather more significantly, to any type of output.

Everything in Modulation

There are three products in the family: Prepare, Producer, and Complete. Prepare is the entry level product and consists of preflighting and colour management modules, so it's suitable for designers and some printers. To this base, Fujifilm adds modules for the Producer version which includes tools for advanced imposition, and JDF job management tasks. This is the version that will most appeal to printers with an existing PDF and JDF capable RIP. The Complete package is, unsurprisingly, everything that is in the other versions, plus the PDF Print Engine RIP for output processing to CTP devices and digital presses. XMF costs approximately €10,000 per module on average depending on the sort of module it is and the rest of the system configuration.



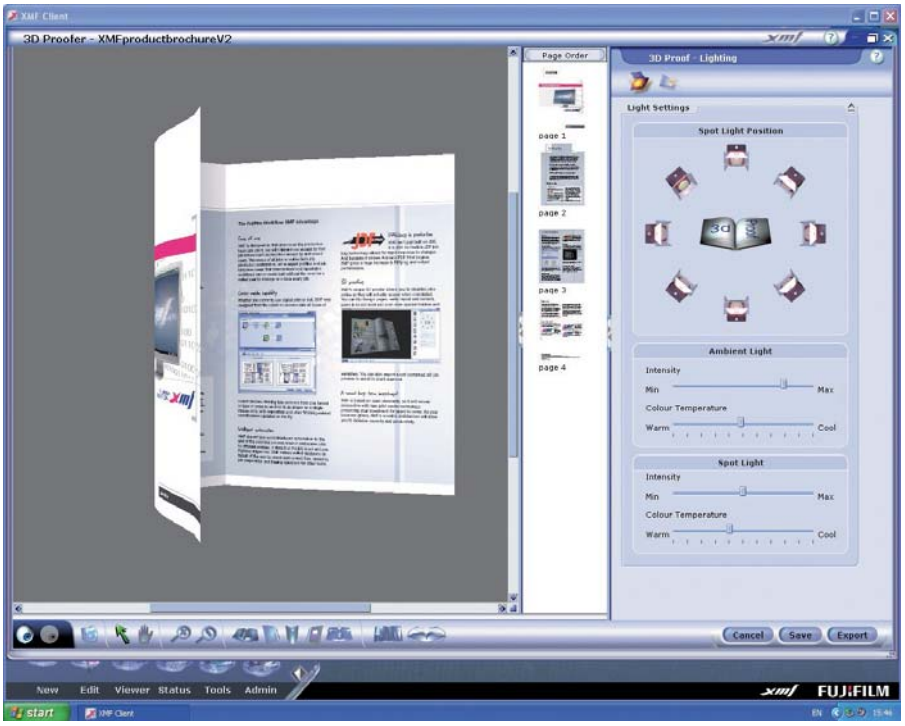
Imposition is handled via JDF Stripping rather than JDF Layout making it extremely flexible.

The modular products are designed so that XMF will fit into any workflow scenario, so for example, people can keep their existing RIPs such as Fujifilm Celebra or Rampage or a competing workflow technology. This not only provides a natural upgrade path for customers, but it also helps Fujifilm to sell against systems such as Agfa Apogee, or Kodak Prinergy because XMF works with anything according to Fujifilm. It is already installed and operational at Persson Offset in Sweden and Vertec in the UK; Persson anticipate a 35% increase in job throughput. Another three systems are installed so far in the UK and Fujifilm UK anticipate one more per week over the coming months.

These users are working with XMF and MIS fully integrated and Fujifilm has ensured that there is considerable intimacy between the two. For ex-

ample XMF derives job intent from the MIS, but allows operator access to all JDF data, regardless of where it was created. The processing underlying this type of system transparency is artificial intelligence assisted, and hidden beneath an incredibly easy to view and operate user interface.

The same applies to colour conversions which are made, depending on the user's context, without pause in processing or delay in the user interface. Fujifilm's Smart Colour management module ensures that black channel data is preserved so images are always colour accurate, wherever and however the file is viewed. The software will allow users to change job specifications within XMF using JMF messaging to pass the changes to other systems such as MIS.



The 3D proofer can show single pages as well as an animated virtual prototype of the final project.

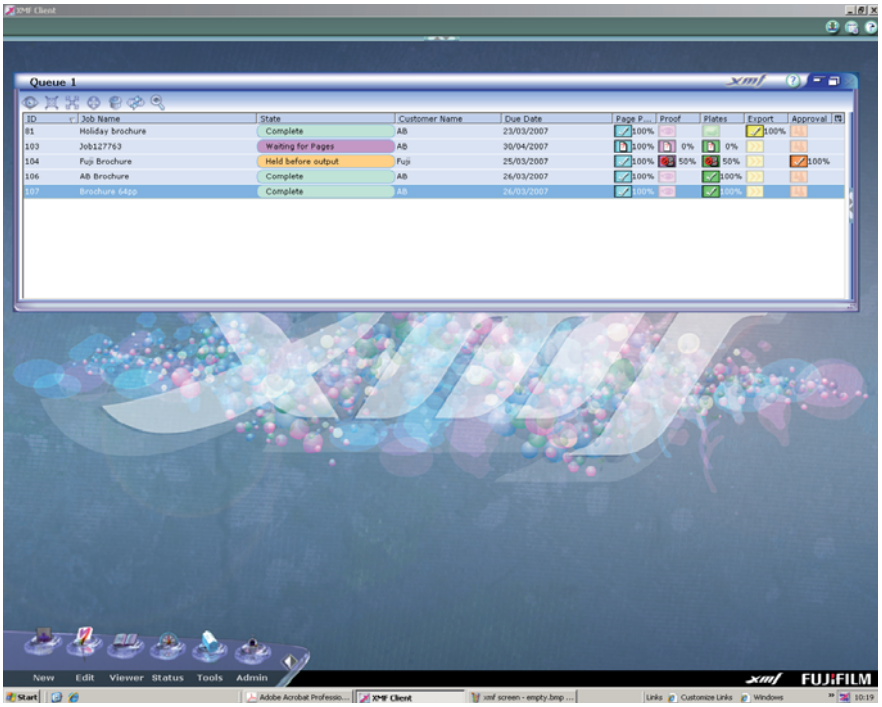
The complete XMF system is a combined RIP and JDF-based imposition server which can automatically re-impose jobs for any output device or press. Rather unusually, XMF uses JDF Stripping rather than JDF Layout to manage imposition data. JDF Stripping takes into account JDF intents rather than fixed criteria, which means that XMF imposition processes can take into account data such as colour management requirements, different press profiles and printing characteristics. The technology re-plans signatures for new impositions taking all of this information into account. It operates on layers rather than individual page components, so it provides operators with extreme flexibility and without the need for reprocessing. The XMF technology apparently supports both approaches, so if for some reason users prefer to work with JDF Layout, they can do so.

XMF also includes a 3D proofing module for viewing single page proofs, as well as alternative impositioning and complete digital job prototyping, including a fully rendered view. A double click on impositions shows the pages, and the 3D viewer includes colour intensity and lighting controls, to show the effects of coating, varnishes, and different paper types. There is as yet no costing information and pricing in this interface, however such an addition would allow print buyers to use the view for job and project proofing, rather than just single page proofing.

The Viewer can also be used to provide an animated virtual prototype on screen of the final project, with pages turning on screen as they would physically. It is also a powerful soft proofer for checking dots, individual separations, progressives and the composite page images. Via the Viewer operators can make changes to the screening on the processed, rasterised data.

There are some large holes in the current version of XMF, however, over the coming months most of these are expected to be filled. Such things as Internet-based file sharing and distributed system support via the Internet are not yet complete, and support for Microsoft's XPS (XML Paper Specification) is yet to be finished.

With this introduction it's clear that Fujifilm is changing, moving subtly into providing workflow support across a range of delivery mechanisms including conventional offset, digital print, both xerographic and inkjet, and in all formats large and small. Thirty per cent of the information division's €36.4 billion contribution to corporate turnover comes from the graphic arts, a market which is responsible for 11% of company revenues, but this does not include income from Fuji Xerox.



XMF includes Adobe's PDF Print Engine RIP.

Fujifilm acquired Dimatix (which used to be called Spectra) in July 2006 and this firm is one of the world's leading providers of piezoelectric inkjet printheads and fluid dispensing micropumps. The graphic arts business has a target for 2007 of €2.1 billion and has a 10% year on year growth rate that is primarily driven by computer-to-plate revenues. In Europe the graphic arts business has a target of over €500m and is aiming to achieve at least 30% CTP market share. We can expect new developments in thermal, violet and a 'new system' over the coming months with Fujifilm's ProV processless violet imaging digital plate to be launched later this year. Also a new inkjet printer is now under development.

According to Mr Fujitana, the company needs to increase plate production capacity, as well as expand business in general and establish new business. He said that the printing market is valued at €312 billion and Fujifilm is active in most of it, with substantial interests in newspapers, packaging, publishing and commercial print, plus business forms, through its collaboration with Xerox. These are all markets where digital printing technologies can contribute to business development. Fujifilm is now targeting wide format and industrial applications as well, such as digital replacements based on inkjet technology for conventional screen printing. Taken altogether, Fuji's interests will generate rather more than 11% coming from printing related activities. The brief for XMF is that the technology should have the scope to support all of this.

– **Laurel Brunner**

Océ OpenHouse

Océ has been in business for 130 years, has revenues of around €3.1 billion and employs 24,000 people across the globe. To commercial printers, it's a less familiar name than, say, Canon, HP Indigo, Xeikon or Xerox, but at the recent Océ OpenHouse in Poing, Germany it was abundantly clear that Océ means business.

Océ bills its OpenHouse as "Europe's largest digital printing fair" which, while possible true in some context, isn't really a fair description: only Océ digital printing engines are on show alongside nearly 70 of the company's software and finishing partners. However access is strictly invitation only, so it's certainly the world's most exclusive digital printing show.

Rokus van Iperen, CEO of Océ.

The A List

Most of the more than 5000 people invited to Océ's OpenHouse are either customers or high level prospective customers. Océ goes out of its way to ensure no-one wants for anything at OpenHouse, and this goes far beyond the impressive food and comfy chairs on the show floor. The staff were impressively well briefed and focused, intent on closing business. Guests are selected from Océ's international customer base, and include people from a range of industries such as pharmaceuticals, aerospace, construction, manufacturing, engineering and of course commercial printing. Océ has a huge range of commercial interests, with serious leverage to develop printing workflows across corporate and commercial sectors.

Océ's OpenHouse is all about signing contracts, learning what customers want, getting feedback on new technologies and providing the Océ sales force with enough leads to keep them on their toes for many months. However OpenHouse is also Océ's best chance to talk with customers and prospects in a controlled environment, and present their strategy for the future.

The most important part of OpenHouse is the positioning statements and technology announcements made by Océ's top brass, and duly noted by the analyst and financial boffins. Océ watchers probably spend a lot of time tracking those statements against the company's product news updates and interim financials.

Pillars of Wisdom

Rokus van Iperen, Océ's chief executive officer, has a three point plan for Océ's future. Not unsurprisingly the three points are innovation, lean organisation and method, and investment in distribution. This is the mantra for many large corporates, but what makes it interesting is how it gets put into practice. Océ is earmarking 7% of annual turnover for research and development, improving efficiency and reducing head-

count. In 2006, 800 positions disappeared, saving the company €50m in 2006/07. Manufacturing is being outsourced to Eastern Europe and Asia to yield considerable savings and account for some 60% of current Dutch manufacturing.

Eyes East

Océ is working with Founder Electronics in China and investing in distribution for this rapidly growing market. The Chinese printing market is around 98% offset and 2% digital printing, however Océ expects growth of 17.5 to 20% year on year until 2015. By then, according to Océ's executive vice president and board member Jan Dix, it will be "almost 90% of the German digital printing market".

Founder Group employs more than 20,000 people worldwide and has an annual turnover of over US$3.5 billion. Its business includes a chain of over 200 digital printing franchise outlets throughout China, with plans for over 1,000 more by 2012. The technology exchange between Océ and Founder might be bi-directional, however no details were divulged during OpenHouse. Founder Electronics has deals with Canon (a joint venture owned 70% by Canon China and and 30% by Founder Electronics), HP Indigo and Xerox for distribution which may preclude this.

Tom Egelund, executive vice president for Océ digital display systems.

Market Plans

According to Océ's executive vice president Tom Egelund, particular growth is expected in wide format printing for technical document systems. Océ already dominates the wide format market for monochrome output in display graphics and according to Mr Egelund, expects to be "the market leader in large format printing of technical applications by 2010. And that includes colour". The company has two new wide format devices (the CS2044 family sourced from Canon): the Océ CS2124 and 2136.

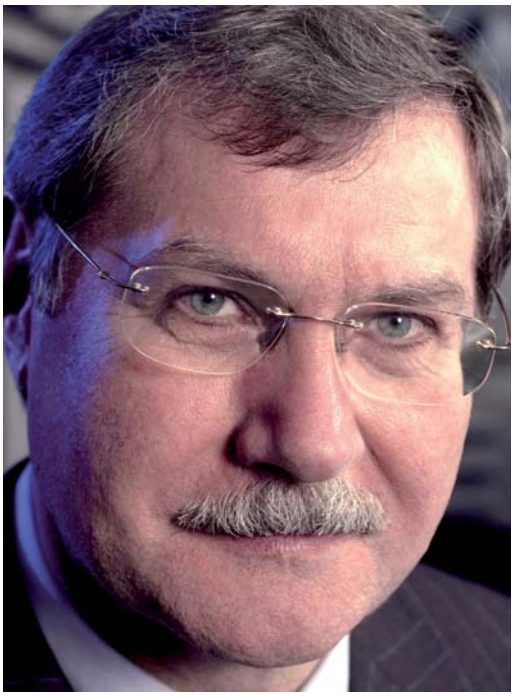
The new Arizona 250 GT, introduced at OpenHouse, has, according to Océ, a "fundamentally new imaging technology," Océ Variadot. Variadot varies the ink droplet size from 6 to 42 picolitres, for improved image sharpness, with apparent resolution of up to 1440dpi. The Arizona 250 GT is based on a new platform combining flatbed design and a separate, optional roll-to-roll capability. The 250 GT prints onto rigid media up to 1.25 x 2.5 metres and up to 48mm thick. It uses CMYK UV curable inks to print at sixteen m^2 an hour. Océ says the device is priced to sell "with a starting price that's half that of competitive printers". Océ can recoup this in inks and substrate costs, so cost of ownership needs to be considered as well.

The Variostream 9240

Océ already has a pretty dominant market position in continuous feed systems, having last year placed over 50 per cent of them worldwide. Jan Dix says that Océ is "the undisputed leader in continuous feed". The Océ Variostream 7000 continuous feed machine has been highly successful and according to Dix, Océ last year represented one third of market ship-

ments and the company expects the volume of documents that use colour produced on continuous feed systems, to double each year. This is where the new Variostream 9240 colour printer comes into the picture.

The 9240 is positioned for corporate applications and for commercial printing. Océ consider it to be unique in the market because it prints black and white, black and white with one spot, black and white with two spots, or full CMYK colour. There is an additional station for another spot colour however this is not yet functional. The 9240 prints 168 colour A4 pages per minute, and up to 800 monochrome duplex. Océ announced a higher speed of 1270 A4 pages per minute for the 9000 model, due next year and hopefully shortly thereafter for the 9240.



Jan Dix, executive vice president, and Oce board member.

Océ's engineers are also working on improving the 9240's colour quality, which is currently unacceptable for the markets in which Canon, HP Indigo, Xeikon and Xerox are active and which Océ is targeting. The concept for the Variostream 9240 is 'Colour on Demand': customers will grow into high volume colour printing, as the need grows only using and paying for the colours they actually require. The idea could make sense for companies doing mostly monochrome work such as transactional printing, where colour usage is still far from prevalent and where applications for colour aren't fully proven. Océ's 'Job Appropriate Colour' concept extends this idea to refer to whether or not colour enhances a job and is cost justified.

Océ is targeting transactional and book printing with this device, however even here the colour quality is unacceptable. The price, at around €800,000, may also be too high. The 9240 goes into a six to 12 month pilot testing in the autumn at sites Océ is selecting with local operations and customers. Given the very basic starting point for this engine it could be an interesting proposition for customers wanting to work with Océ to help sort out quality and performance priorities and position this engine more clearly in the market.

Softly Softly

The current somewhat hazy marketing chat belies Océ's serious intent and what could turn out to be a cunning plan: seeding the market with technologies that can be easily enhanced, and working with customers as they migrate monochrome applications to colour. In this effort the new relationship with Founder Electronics has a two-fold benefit. It gives Océ access to the Founder distribution network throughout China, but it also gives the company access to Founder technologies. At OpenHouse Océ announced the new Founder QuiQ printer controller for the full range of Océ CPS systems. This technology is based on Founder's own Postscript interpreter, the Eagle RIP, which is used in various proofing systems and capable of excellent output quality.

RIP'ing Yarns

With such a broad range of interests, technologies and markets to support, Océ's RIP strategy is to be all things to all comers. It wants to sup-

port customers equally well in transaction and graphic arts markets. Joerg Schmidt, vice president corporate software architecture, explains: "The Océ concept is to have an open and flexible approach according to the datastream we want to support," adding: "We have the same software on clients as in the RIP, to maintain the native data description as long as possible."

Océ's strategy is to move RIPs into machines, even for the graphic arts applications, rather than doing everything upfront. The goal is to optimise the dataflow for the engine and to ensure that data routing is completely unimpeded. This means that the intelligence for such things as cross device colour management or load balancing would reside in the networked printers, rather than externally. The architecture would use job ticketing to include late binding instructions in JDF as well as Océ's own job ticketing technology. For Océ the job ticket is important for its ability to provide connectivity to other systems. This is why Océ engines, plus those of its competitors, are largely job ticket agnostic.

Joerg Schmidt, Océ's vice president of corporate software architecture.

In order to maintain flexibility, Océ has to support all data formats. Schmidt says: "We work closely with partners to support different datastreams such as Adobe for PDF and Global Graphics for more flexibility for building our own algorithms into the RIP. In the more low end sector we work with partners for more efficient technology. Most of the current RIPs are Adobe and for some areas we use more flexible ones". Océ will definitely work with a native RIP vendor for future formats such as the XPS datastream because as Schmidt says: "The future could be PDF but many issues are missing if the data should be printed, which is why we need the job ticket [such as JDF]. But Microsoft has a different focus from the beginning and they have put everything together which could open more options for the future". As for Adobe PDF Print Engine Schmidt says that Océ needs to follow any trend which helps improving print performance and quality. "This is what our customers expect from us. Postscript is going to be out-phased in a longer term and PDF could be the future print engine data stream, but let's hope it gets faster because this is what the industry needs. Océ has APPE under investigation so it will depend on how the industry goes. It's just one more datastream for input and, as a vendor of printing equipment, you need to be flexible."

Sleeping Lion?

Océ is an extremely important and often underestimated player in the preproduction and digital printing markets. Xerox and HP Indigo offer formidable opposition in the commercial colour market, based on high octane marketing, commercial print market colour knowledge and experience that Océ appears to lack. Océ is fixing this, creating specialist sales teams focused on the graphic arts. According to Rokus van Iperen: "The graphic arts market is [worth] over €400 billion ... Océ is positioned to seize the 13 per cent annual growth for digital prints in this market through 2010." Océ's strength lies in its broad market position and its ability to leverage it.

But the technology's importance cannot be underestimated. The prepress industry is littered with corporate casualties who believed they could get away with inappropriate output quality. The argument that a given application demands nothing better just doesn't work, not for food and not for technologies. If OpenHouse is anything to go by, Océ is well aware of the importance of the former. Hopefully their scientists appreciate that whether it's for office applications, transaction printing, newspapers, books or magazines, print quality demands only rise: the more you have the more you want.

– **Laurel Brunner**

OpenHouse showcases all of Oce's products, plus a wide range of third party vendors, and not surprisingly attracts a lot of customers from around the world.

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