The small amount of foolery wise men have makes a great show.

– William Shakespeare

Dear Reader,

We are gearing up for the next round of tradeshows, with CrossMedia already underway in the UK and EcoPrint in Berlin coming up fast. Both of these shows break new ground to deliver new audiences and create new opportunities for event participants. All this while one of the most established industry events appears to be faltering. The organisers of IPEX 2012 are putting a very brave face on the loss of HP, Agfa and Heidelberg from the show floor.

To lose one of the industry's biggest names is bad enough, but to lose the leading manufacturers of both analogue and digital presses is serious indeed. And picking over the whys and wherefores is only interesting in the context of why some trade shows are thriving while others are not.

It comes down to a balance between cost and delivering value for money. With much of the industry still struggling to pay for all that drupa glitter, companies are clearly questioning the cost to value ratio of IPEX. HP, Agfa and Heidelberg appear to have reached the same conclusion. The question is, how many other sets of sums will yield similar results?

Enjoy!

Laurel, Nessan, Paul and Todd

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The Esko Enigma

Esko Graphics has gradually built up an enviable reputation as the default workflow for the packaging sector. Laurel Brunner takes a look at Esko's Suite 12 and its various components, as well as analysing the company's direction.

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Todd Brunner used InDesign CS6 when putting together this and the last issue of Spindrift, and so here he runs through all the new features – just don't ask him about the Paragraph and Character Style panels.

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Nessan Cleary concludes our look at the latest version of the Creative Suite with an overview of Illustrator and Dreamweaver, and asks if CS6 is a worthwhile upgrade.

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Regular Features & Special Treats

News Focus

Presstek has been bought by MAI Holdings Inc., an entity affiliated with American Industrial Partners Capital Fund IV, L.P. Presstek's shareholders will receive $0.50 in cash for each share of Common Stock, a premium of 16.3% over closing share price of the Common Stock on August 22, 2012. The agreement is expected to close during the fourth quarter of 2012. AIP already owns Mark Andy, which specialises in label and packaging print.

HP has posted a loss of $8.9bn for the most recent quarter. CEO Meg Whitman has said that it will take some time to turn the company around. HP took an $8bn write-down against the shrinking value of Electronic Data Services, the services firm that HP bought in 2008 for $13bn. Revenues have also fallen in the PC business, although profits have risen slightly in the commercial print business.

Agfa has published its second quarter results, which show strong performance of industrial inkjet and healthcare IT and an improvement to the gross profit margin, over the same quarter of the previous year. Revenue has improved by 2.1 percent to €779m, with profit up to €226m, making it 29 percent of revenue.

Xeikon has released its figures for the first half of this year, which show a healthy net profit of €4.6m from sales of €56.4m and an operating income of €57.7m. However, the figures are down on the same period of 2011, where the net profit was €5.9m, on sales of €66m and operating income of €67.8m. Xeikon has blamed drupa, saying that sales always shift from the first to the second half of the year in drupa years.

Ricoh has made a significant investment in PTI Marketing Technologies, which develops web-to-print and personalised marketing solutions for enterprise users. Coleman Kane, president and CEO of PTI Marketing Technologies, commented: "Ricoh's investment, combined with their expertise and worldwide footprint, will allow PTI to expand rapidly and deploy our MarcomCentral and FusionPro software globally."

Pageflex has updated its web to print program to Pageflex 8, with new globalisation features that localise all aspects of the software and simplify the process of promoting products through social media and SEO. It includes a new dashboard that provides customers with a graphical display of the information they need to manage their sites. Pageflex 8 also includes a web-based tool that aggregates status and performance information from multiple sites and displays that data on the dashboard when used with the Storefront module.

Adobe has made new features for its Illustrator program available to Creative Cloud members, as part of a program to push new features out through its cloud service first. The new features include: Package Files, for automatically collecting all the files used in an Illustrator project, including linked graphics and fonts, into a single folder; Unembed images, to unembed images previously embedded into an Illustrator file; Links Panel Enhancements, for tracking information on any artwork placed in an Illustrator file more quickly.

VIGC has developed its own Output Essentials panel for Adobe InDesign, a free tool simplifying the design process and helping to prevent errors. The panel covers two different workflows: one for EPUBs, web and tablet publishing; and one for print and 'hybrid' documents. It deals with such things as preflighting profiles and packaging files for exporting. There's also a smaller panel for Adobe Photoshop, providing direct access to several

functions related to colour and colour management. Both can be downloaded from vigc.org.

Quark has previewed a new app for designing standard document types such as ads, posters, newsletters and brochures on an iPad. DesignPad allows for a grid-based design and lets users experiment with different layouts using simple multi-touch gestures. You can download the preview for free from the App store.

Roland has launched a new print and cut wide format machine, the VersaArt RE640, a 64-inch eco-solvent printer. It has an eight channel print head taking two sets of CMYK, giving it a fairly fast maximum speed of 23.1 sqm/hr. It uses variable sized droplets and has automatic cleaning of the nozzles. It comes with Roland's VersaWorks RIP.

Océ has announced a new wide format ecosolvent printer, the CS9300. It's available in two versions: the CS9360 is 162.5cm wide and runs at 29 sqm/hr; the CS9350 is a 137.1 cm wide model that prints at 27.9 sqm/hr. These are built on the same platform as the CS9160 and CS9050 models and offer intelligent interweaving print technology, which offers good quality with low ink consumption and four colours.

Ricoh has announced a new range of MFPs, the 6002, 7502 and 9002, which offer speeds of 60, 75 and 90 ppm respectively as well as copying and scanning. They are built on Ricoh's new technology platform and the chassis is made from recycled steel. The user interface includes access to the web and cloud services for document management and has a variety of security features including overprinting and HDD encryption.

Quark has issued the 9.3.1 updater for its XPress desktop layout program. It's a free upgrade for registered users and includes support for the recently launched Mac OS X 10.8 Mountain Lion. It also supports Apple's new Gatekeeper security feature.

The Hubergroup has added new mineral oil-free ink options for offset users. The new inks are called Reflecta, Resista and Quickfast for web offset with process inks, Corona MGA and Natura GA offset inks for packaging printing. There's also Evolution for heatset web offset, Eco News for coldset web offset, Printlac for sheet-fed and web offset and special inks for all kind of offset printing processes. These inks are composed of about 80 percent of renewable raw materials.

Dalim will use the Cross Media show to demonstrate new features of its ES and Virtual Library products. These allow users to turn print-ready PDFs into interactive, browser-based HTML 5 flipbooks. Previous versions used Flash, but with HTML5 they will be suitable for use with the iPad.

Axaio has developed a version of its MadeToPrint Auto and Server editions, to integrate it with Vjoon's K4 publishing system, as a plug-in for InDesign CS6. MadeToPrint aims to streamline output processes.

Meadows Publishing has updated its DesignMerge software for InDesign CS6. DesignMerge Pro is a suite of plug-ins that allow users to create variable data output from any Adobe InDesign document. New features include a PDF Driver module that produces variable output in both PDF as well as PDF/VT formats. It also supports embedded variable links and 2D barcodes.

Lucid Dream Software has added a Live Chat feature to its ArtAffirm cloud-based web-to-print program to aid one-to-one communication with end customers. The feature notifies customers when a client has logged onto the website so that they can offer assistance.

Markzware has a new version of its PDF2DTP plug-in, which now lets users convert PDFs to Adobe InDesign CS6, regardless of which program was used to create the original PDF. It will also recover embedded images and save them in a job folder, as well as place the text, frames, images and colours back into the InDesign document.

A new subscription based tool, **Fractal,** claims to allow designers to code their emails in the same way as they would a web page, using divs, floats and margins. It will automatically convert the XHTML into an HTML email with nested and stacked tables, and address any display compatibility issues. There's also an API so that it can be integrated into other software packages.

Apple has tasted victory in its ongoing patent conflict with Samsung, with the jury from a US court finding that Samsung had copied some of Apple's ideas for its phones and tablets and awarding Apple some $1.05bn in damages. Apple has now moved to have some of the infringing Samsung products removed from shelves. However, Samsung has appealed the decision, though it risks the appeals court possibly tripling the fine, since the jury found that Samsung had willfully copied from Apple.

News Analysis

Kodak appears to have failed to sell its digital imaging patent portfolio, which is likely to be a major blow to the company as it struggles to exit its Chapter 11 status. Kodak had expected the sale to raise several billion dollars, but this now seems unlikely. Kodak has extended the deadline for the patents sale but has also said that it could keep the portfolio.

However, it appears that plan B is to sell its Personalized Imaging and Document Imaging businesses in a bid to raise more money. The Personalized Imaging business consists of Retail Systems Solutions (RSS) including the picture kiosks, Paper & Output Systems (P&OS), which includes traditional photographic paper and still camera film products, and Event Imaging Solutions (EIS) such as souvenir photos at theme parks. Kodak has said that it wants to complete the sale as quickly as possible, within the first half of next year.

CEO Antonio Perez commented: "We are reshaping Kodak. We continue to rebalance our company toward commercial, packaging and functional printing – in which we have the broadest portfolio solutions – and enterprise services." The company also still has its Consumer Inkjet and Entertainment Imaging divisions as well as the Commercial Film and Specialty Chemicals businesses

Perez continued: "We are confident that our competitive advantages in materials science and deposition technologies, as well as our know-how in digital imaging, will enable us to capitalize on those opportunities and extend our leadership in key growth markets."

However, this has to be set against continuing losses, most recently a net loss of $78.7m in July. Kodak has steadily reduced its monthly losses since the start of the year, but has also made cut backs in its R&D spend and its selling, general and administrative expenses. But its cash reserves have also fallen, from $682m in February to $438m by the end of July.

Green Shoots

As part of our efforts to raise awareness of matters environmental amongst printers we have been writing a weekly blog for the Verdigris site. In case you missed them, here is the last month's worth.

Carbon Footprinting Walking Wide and Loose

One of the world's biggest advertising agencies is BBDO, based in New York and the first ad agency to set up its own in-house printing facility, way back in 1894. FedEx and Gillet are amongst BBDO's clients and the company boasts some great achievements in its history. One more can be added: Cut! CO_2, the Carbon Film Quote, although it's odd that they couldn't come up with something a little bit snappier, given their line of business.

The initiative is all part of BBDO's effort towards becoming the first certified low carbon advertising agency in the world. We don't quite know yet the whos and hows of the certification but the basic idea is one that we salute. Quite how an auditor would certify lowness is also a bit nebulous.

According to BBDO more than 11,000 television adverts are shot worldwide every year, and it costs 30 million air miles and $1.6 billion to film them. In terms of CO_2 tonnage, BBDO claim that all these ads produce the equivalent of the total amount of CO_2 that California generates at around 200,000 tonnes per day. Of course California would generate a lot less if its citizens used their state's native sunshine instead of tumble dryers to dry their clothes, but that's another story. Back to BBDO, which has essentially developed a carbon calculator.

The calculator takes into account all aspects of a film shoot including travel, locations, accommodation, equipment, catering and energy, and works out what the carbon footprint is for each. It then works out how the overall footprint can be reduced through improved planning and logistics. The purpose is "to design and plan more CO_2 effective productions" which is what printers do every day except that their purpose is generally to reduce cost rather than CO_2. But the point is the same: nine tenths of anything is preparation.

The BBC, Greenpeace and Proctor & Gamble are among a number of clients that have already embraced the calculator. It even includes a print module, however the data's robustness is not really clear. But at least BBDO is making an impressive effort. Check it o ut:
http://www.youtube.com/watch?v=MrI8RqjG_hg

United Nations Environment Programme (UNEP)

The United Nations (UN) is even more fond of initials and acronyms than the International Standards Organisation (ISO), so it is with a certain degree of weariness that we see yet another truckload heading our way. The latest, United Nations Environment Programme (UNEP), is a programme that is meant to help countries to improve peoples' quality of life without jeopardising that of generations yet to come. Lofty ideals indeed, but how can it be possible to reconcile both objectives within a single strategy?

The problem is that the concept of caring for the environment is vested in the ethos of developed nations. Until only a few decades ago the environment was just there, taking care of itself and more something to be battled against than embraced. It wasn't treated and considered in the abstract, but as a resource to be exploited. Whether one agrees with the climate change data or not, exploitation of natural resources from fish through to air was the byword for capitalism until lately.

Suddenly people started to realise that resources previously taken for granted are in fact finite, even the air. The environment is everyone's responsibility and so UNEP wants to marry two apparently opposite sets of values. UNEP's goal is to inspire countries and their peoples to improve their lives, but to do so without wrecking the environment. It seems an almost impossible task, particularly since it is the developed countries who are

most strident, and yet who have also wrought the most damaging havoc on the environment in pursuit of their own interests.

As part of its efforts, UNEP is working with Climate Action and hosting the Sustainable Innovation Forum on the 6th December this year in Doha, alongside the UNFCCC COP18 (United Nations Framework on Climate Change & 18th Conference of the Parties, which means the countries involved). This is a top dogs only event and it will be looking at ways of bringing the global green economy into existence. The event used to be called the Climate Action Networking Reception so the name change should give it a bit more gravitas, with the emphasis more on work than on what sounds like wine and canapés.

A series of panel sessions will consider various elements, including: public-private-partnerships, creating effective alliances for building green economies; sustainable cities, examining the future for our urban population; and technology and innovation, accelerating the green economy. This event is restricted to representatives of governments and NGOs, specialised agencies and related organisations but not specifically people from industry.

This seems a little weird because it is industry that will drive environmentally aware and green economic development. So we urge printing industry associations everywhere to consider getting involved in this event. Details at **bit.ly/ JegFnY**

Performance Enhancing

The Olympics motto of faster, higher, stronger has never before had the airplay it's had in this Olympic year. It's everywhere and, in the UK at least, it's at risk of becoming meaningless. But it's a motto the printing industry could readily adapt, especially in terms of environmental performance improvements. In the green room of carbon footprinting, calculating footprints is a preamble to the main event of reduced environmental impact.

Not that we want higher carbon footprints, rather higher standards of control. And we do want to be able to calculate

them faster and for those calculations to be as robust as possible. Of course when it comes to standards for doing these complex calculations it is very easy to forget that industry needs them far more than their authors and publishers do. Whether it's printing or sports equipment, standards provide a framework and tools with which great things can be achieved. There is no room for squabbling or religion in the development of environmental standards.

There is however, plenty of room for understanding how industry sectors can implement standards, because they are not about defining perfect scenarios. It is important to

> The graphic arts industry needs standards in order to establish benchmarks for performance improvement. We do not need them in order to prove the viability of print versus electronic media...

remember that there are no absolutes, and that very few things can ever be definitively nailed down, particularly in environmental science where change in the variables that affect it is constant.

The graphic arts industry needs standards in order to establish benchmarks for performance improvement. We do not need them in order to prove the viability of print versus electronic media, although that may come. The first step is for industry and for standards writers to start measuring carbon footprints, so that we have data against which to compare, not so much with our competition but rather with our own performance.

Standards authors working on environmental impact and carbon footprinting standards need to keep this in mind. There is no magic pill that will make the process any less tortuous. But there is an industry desperate to improve its edge, going for gold on behalf of its customers. They may

▶

not always know it, but customers are the people ultimately driving standards development because the work benefits them at the end of the day.

Olympic Gold Medal sprinter Marlon Devonish fronts a brilliant ad for GlaxoSmithKline, the official testing body for the London 2012 Olympics. Fabio Abram of TBWA, one of London's major advertising agencies, scripted the Devonish line: "The crowd is my only drug". Standards bodies and volunteers should keep this in mind. We work for our industries, not our vanities.

Recycle At Your Cost

We all know that recycling is the way to go if we are to preserve our planet's natural resources. But are we all fully on board with what it will cost to do so? Our concept of commercial success is profit and all too much effort goes into maximising it without necessarily appreciating that the bottom line isn't the only line we should not cross. Perhaps it's time for some renewed thinking on the nature of success and profitability?

A number of companies serving the printing and publishing industry have already recognised this. The cynic would say that selling presses as carbon neutral is just a gimmick to get the manufacturer's foot in the door, a salve to the printing companies wracked with guilt about waste and dead trees. Manufacturers and printers alike should understand and promote the fact that print is sustainable so no guilt applies. Their critics should also understand that whatever the motivation for offering carbon neutral products, it doesn't matter as long as said products are available, and their carbon neutrality is based on transparent and tangible fact. The journey towards understanding the importance of balancing commitment to the environment with a company's profitability is long.

Few companies have been on that journey as long as Ricoh, which recently introduced the 9002 series of office printers, MFPs, made using a new form of recycled steel provided by Tokyo Steel. The steel sheets are made in

electric furnaces entirely from scrap metal but, in a world first, these sheets behave in the same way as steel made from virgin ore roasted in traditional blast furnaces. They can be shaped in the same way and behave as conventional steel sheets do. The only difference could be in their appearance, as Ricoh describes them as having "appealing surface characteristics" which could mean anything.

But the point is that this stuff must be more expensive than virgin blast-furnace steel, if only because of economies of scale. And in this economic climate if Ricoh wants to remain competitive, the company can only push so much of the costs onto customers. The underlying message is that companies are increasingly willing to compromise profitability in order to build up a new form of capital, in the form of environmental commitment and credibility.

We hope to see other companies serving the graphic arts following a similar path.

For more green news, check out The Verdigris Project:

Verdigris ∽

http://verdigrisproject.com

The Esko Enigma

Only one name crops up everywhere in the packaging supply chain: Esko Graphics. Packaging for nine out of ten brand names is produced using this company's technology.

This is quite an achievement to say the least. The company's ancestry is best described as blue-blooded and at worst a muddle. Some big names from the glory days of graphic arts digital innovation are there: Barco, Aesthedes, DISC and Purup to name a few. But incorporating technologies, absorbing disparate product lines and keeping a smile on a massively diverse customer base has yielded a tangled legacy.

Over the last few years the numerous strands of that legacy have been untangled and rewoven into the fabric that is today's Esko Graphics. Now owned by Danaher, a buyer of brands with a $17 billion business, Esko Graphics technologies, or those of its subsidiary Enfocus, provide the digital front ends for some HP Indigos, Epson Surepress, Durst TAU 150 and Stork digital presses, plus others. These engines and much else in the graphic arts, have 'Esko Inside'.

By far the most complex Esko Graphics legacy technology is that of workflow systems, with several options in the mix each of which has its own strengths, architecture and customer bases. Nowadays 40-45% of Esko's revenues come from software, which means that a substantial slab of its resource goes into developing and supporting software and services related to it. Indeed software and services are two of the three pillars supporting Esko. The third is hardware (Kongsberg cutting tables, flexo CtP) but that's for another day.

Since acquiring Artwork Systems several years ago Esko has had three workflow systems: Nexus, primarily used in commercial print; Backstage, used in packaging; and Odystar, used more in commercial and sign and display. It made sense to pull the various options into a single offering, Suite 12 which is based on Esko's Automation Engine 12, WebCenter 12, Colour Engine 12 and various other bits and pieces. Automation Engine 12 is the backbone and combines the strengths of all three workflows, but most of it comes from Backstage, originally developed by Barco Graphics.

Suite 12 is a collection of technologies for packaging that supports a growing range of tasks including management tools and especially colour management. Automation Engine 12 has the lovely Odystar user interface and native PDF processing, with various other bits of Nexus. Backstage provides database driven job management and JDF-based MIS. This robust foundation was reinforced with Esko's acquisition of Stonecube in 2007 which brought 3D expertise.

According to Esko, revenue for Automation Engine consistently rises 50% a year as customers turn to automation to protect margins. According to Geert de Proost director of software engines, Esko is "in very solid shape right now". Following drops in sales of 15% in 2009, the company saw 25% growth in 2010 and continued growth since 2011 when Danaher acquired Esko. This year Esko anticipates double-digit growth in all areas of its business, reinforcing its dominant position, especially in the flexo market where it has a 70-75% market share.

Automation Engine 12

Automation Engine 12 consists of the Automation Engine Server, which remote clients access via web browser using Automation Engine Pilot. Pilot provides client and server administration access from a single login screen and Esko has recently introduced portal access using Webstart. Java Webstart technology makes it possible to deploy standalone Java software applications over the network, in Esko's case working within the Safari browser. This ensures that client upgrades are in sync with server upgrades.

Automation Engine 12 is a base to which modules are added. These include job management, viewing and quality assurance, reporting and various other tools that together aid project organisation, data asset management and automation of routine tasks, with links to ERP and MIS.

Once commoditised, Esko moves task modules into the base Automation Engine configuration so that it evolves

in a structured way, rather than following a 'pizza topping model'. This makes management more orderly and the system easier to support. Automation Engine 12 is not yet available as a cloud service but this is under consideration.

Automation Engine 12 fully exploits the Mac OS X functionality, for instance search filters and a user interface that looks like iTunes or Mail using multiple Rules criteria and saving views for reuse. A fully loaded XML database provides the fuel for multiple views and tightly defined workflows such as for labels.

Esko has used Odystar tools for building workflows with rule-driven routes from task to task and rule-based decision trees. Version 12 adds scripting borrowed from the Nexus, Odystar and Enfocus Switch models, plus

To do lists can be automatically created whenever operator intervention is required, for instance, to correct errors in preflighting or correcting for dot gain.

Javascript, Applescript, ExtendScript (this is Adobe's version of Javascript) and batch processing. The batch processing functionality enables more powerful volume processing and exceptions handling for more efficient file routing.

Job details come from MIS courtesy of JDF or XML. Despite the initial frenzy about JDF, 70% of what Esko sees in the market is XML rather than JDF. This is probably because it is important for customers to make a workflow that is powerful and robust without compromising system configurations for specific businesses and applications. It may be that JDF, an XML application, is becoming too constrictive for many of today's workflows.

It is now possible to create 'To Do' action lists in applications such as Photoshop and Illustrator for which Esko Graphics has developed a series of powerful plug-ins. Illustrator is the basis for most of the Esko editing

tools for packaging and sign and display. To do lists can be automatically created whenever operator intervention is required, for instance, to correct errors in preflighting or correcting for dot gain.

Actions are a result of rule application and this can be user defined, such as sending an email to customers if files pass or fail preflight and so on. There are also tighter links to Esko's Webcentre Portal with a bidirectional connection between Automation Engine 12 and the portal.

Increasingly Esko is finding that Webcentre acts as a front end to Automation Engine 12, a trend that is likely to continue as computing goes mobile. Webcentre is available as a free iPad application for more efficient order processing, checking of job parameters and ensuring that customer details match with those on the MIS.

Automation Engine's architecture makes it possible to nest workflows within workflows, for instance trapping, which relatively few systems handle automatically. For the packaging sector, which uses so many colours and such complex designs, trapping is vital. The PowerTrapper trapping module has incredible functionality that reflects the depth of Esko's experience in packaging applications. For instance, traps can be checked and corrected vertically and horizontally on nested files. Trap parameters can vary with different orientations and print directions and orders.

Reporting can be set up as a fully automated task within an Automation Engine 12 workflow using templates for reports which can include 3D dynamic previews for structural design files either on page or independently. Tracking reports monitor a job's progress for quality assurance, providing remote status reporting via Webcentre. Reporting for quality control is one of the most used tasks for Automation Engine 12. Milestone task reports are similar to Reports, but mainly send information back to the MIS.

Another recent addition has been the ability to route files to different RIPs for different output types, such as flexo or offset. This can be extended to include different trapping routines based on the output path along with preflighting routines, which are based on Enfocus Pitstop 11's library.

Automation Engine 12 now accepts any JDF delivered imposition file not just Esko's own FastImpose files. For sign and display applications Esko is developing a task that automatically nests files destined for output on the same substrate. The iCut tool creates cut paths per ink, image or other criteria prior to nesting files.

Automation Engine 12 and Webcentre use a common viewing technology for checking production information. Automation Engine 12 Viewer assures a consistent view with common version and settings for instance, and control over views, such as viewing print channel areas that are out of press gamut. These can be values-based views, such as registration errors to check traps, and Esko is implementing more functionality along these lines in the viewer for greater quality control. This includes support for barcode and Braille reading, checklists, and deadline alerts.

Automation Engine pricing is scaleable, starting at €6000 and €3000 per option and is limitless in terms of scale. Pixart in Venice, Italy is one of Esko Graphics' largest customers and has sixteen processes running to produce 500 jobs per day. Pixart has ambitious plans for its Suite 12 system particularly for sign and display work.

Colour Engine 12

This is the other cornerstone of the Suite 12. Colour is critical for brand execution and the cost of correcting it rises as files advance through the workflow. Accurate colour communication leads to cost savings. Esko Colour Engine is a reworked version of the Kaleidoscope colour technology originally designed for proofing. Esko's antecedents had strong colour credentials, back to Barco Creator, which was Photoshop on steroids. When Kaleidoscope came out in 1994 it introduced patented spot colour overprint modelling that predicts how a colour will behave in an overprint context. This technology is still an important component of Colour Engine 12.

Files link to the Colour Engine via plug-ins such as the retouching plug-in that enables Photoshop to use the spectral data on which Colour Engine is 100% based and which bypasses the Adobe CMM. Esko Graphics call

spectral data the "DNA of colour" and work entirely with it because it is easier to make colours respond to different lighting environments virtually using spectral data rather than the mathematical model that underlies colorimetry. Thus Colour Engine 12 has excellent spot colour management and multicolour processing capabilities.

It is a database of colour that CGS and GMG users can also access. Colour Engine is at the heart of Pantone Live so it works as a cloud application. It is embedded with all Esko Graphics technologies and those it supports. However, apart from Pantone Live, Colour Engine is LAN-based so Esko Graphics is looking to make it enterprise-wide like the rest of Suite 12.
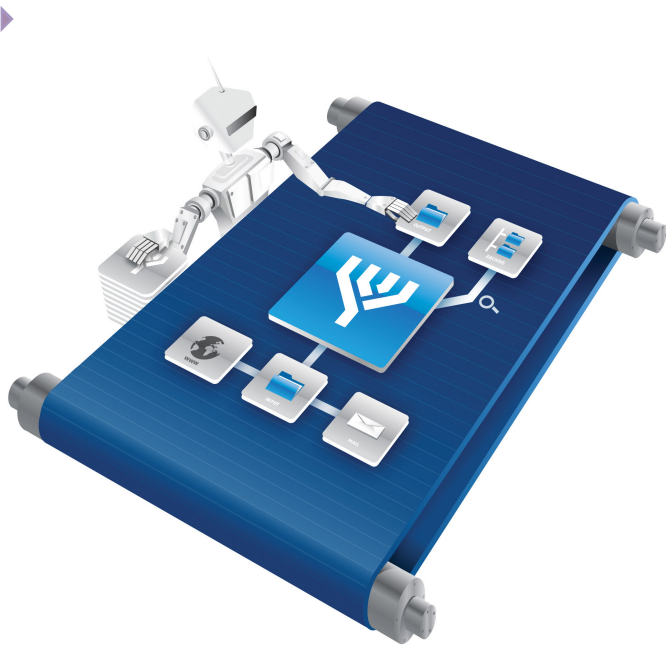
Pantone Live

According to Esko Graphics, major brand owners are already pushing Pantone Live. X-Rite sells Pantone Live plug-ins to Illustrator that use the Colour Engine 12 rendering engine. This ensures colour consistency not only in Pantone colours, but also in all other colours. The what of this model is Pantone Live, Esko Graphics is the how and X-Rite provides the quality control.

Enfocus Switch in Focus

Switch 11 has been completely overhauled and is now configured as a base system with modules. Operators can set up their own configurations based on the Switch 11 core in combination with other modules. There is now a configurator for Automation Engine 12 which costs €1500, so Switch acts as a content feeder to a larger workflow system such as Suite 12, Agfa Apogee, Kodak Prinergy, or Fujifilm XMF, effectively automating the links between file delivery and the launch of the workflow.

The Automation Engine 12 configurator uses all Switch input methods such as via e-mail, web-to-print systems, FTP, to deliver files to Automation Engine 12 matching job names and customer names sourced from Automation Engine.

In some ways Switch 11 looks like a DIY version of Automation Engine 12, but much less powerful with modular pricing ranging from €200 for the Scripting module up to the Web services module which is €3000

The Switch Core Engine is now an automation solution for common daily tasks.

subjective values rather than fixed ones with variables defined in Switch for use in the preflight programme.

At drupa Esko Graphic's main message was that it is taking "a leadership role in the industry for integrated preproduction … [for] packaging … signs and displays … [and] commercial print". The company already has many digital fingers in many graphic arts pies. The question is, how long will it take before most print workflows are indeed declared to be 'Esko Inside'?

– Laurel Brunner

and integrates with web-to-print systems which would route files to Switch. Enfocus has developed Switch Proxy for opening up Switch to the wider Internet beyond a local area network or Pitstop Connect. This security measure lets printers safely ensure that customers preflight files correctly and that they can deliver them via the Internet. If customers can directly access Switch, Switch Proxy adds an extra firewall.

There is also a performance module for faster throughput, for instance to feed files to Automation Engine 12, which limits the number of concurrent processes. This allows Enfocus to distinguish between different customers' IT capacity, as some IT infrastructures are more powerful than others.

Switch's purpose is to drive third party applications and to facilitate process automation. But it is seamlessly integrated with Pitstop Server and Pitstop Connect. With well over 160,000 users worldwide this technology has become the *de facto* option for preflighting. Pitstop Server 11 adds Smart Preflight. According to Leen Vanmaele, Enfocus Product Manager, until this technology was introduced "…creating specific Preflight Profiles for each job was time consuming or the situation resulted in having very general Preflight Profiles". With Smart Preflight profiles are created dynamically, so that they match a specific job's requirements. Preflight checks can include

To print or not to print

It's 28 years on from the dawn of desktop publishing and a lot has changed. Print media is quickly becoming just one option, rather than the lonely standard it once was. With published content increasingly being viewed on electronic devices such as iPads, Kindles and Nexus 7s, Indesign has had a lot of catching up to do in a very short time. Good news though, with Indesign CS6 Adobe has succeeded in providing some very useful new features for digital publishers, as well as excellent new workflow and layout enhancements.

There are no major interface changes to Indesign CS6. Things look pretty much they way they did before, but there are both delights and disappointments beneath the surface of the familiar UI. Like the extension of the 'placed' content model, which now allows placed objects to be linked between layouts. You can define one frame as a Parent frame and others as Child frames within the same or other layouts. When the Parent content changes, each Child indicates the change with a warning flag. This is accomplished via the new link icon attached to any box of linked content. This is an excellent addition as it is very easy to see at a glance when content has been changed. Also rolling your mouse over the link icon gives you pop-up info on the placed files and Child/Parent status.

Layouts

In order to facilitate this and other new features, Adobe has (finally) adopted the multiple layout model that Quark users have been enjoying for years. Each document can have multiple layouts with linked content shared between them, as mentioned above. Layouts are somewhat similar, but far more flexible, to Sections in previous versions of the software. A new option to create alternate layouts now appears in the menu of the Pages panel. This creates a new duplicate layout based on the existing layout, with optional new page size and orientation. This is very useful for assisting users to repurpose layouts for different devices (more on this later).

Indesign provides many ways to reformat pages in different layouts, from simple Scale to the more sophisticated object-based adjustments. The object-based Liquid Layout feature, by the use of little handles or the new Liquid Layout panel, allows you to pin content (objects) to edges of the page. When the page is then resized, the
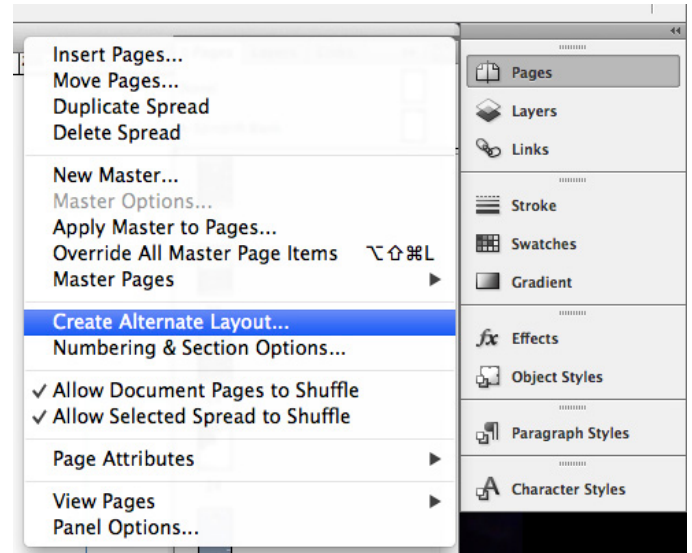
It's easy to add new layouts with the Create Alternate Layout... addition to Pages panel menu.

object retains its position from the edge relative to the new page size. This is only the starting point though and of course more precise adjustments can then be made to get the desired results, which is fortunate, as the initial results after pinning can be a bit coarse.

Liquid Layout seems so obviously useful that it is surprising this feature has not been included in previous versions of the software. But unfortunately, as with so many Adobe product features, it's not exactly intuitive and requires a bit of initial legwork on the part of the user to get to grips with. Well worth the effort though, if you are publishing for both both print and electronic media.

To augment the new layout features there is now a new split view mode to allow viewing of two layouts side by side for comparison. This is a far superior option to having to switch between tabs to look at alternate designs.

PDF Forms

You can now create PDF form items within Indesign, something that formerly required the use of Acrobat to
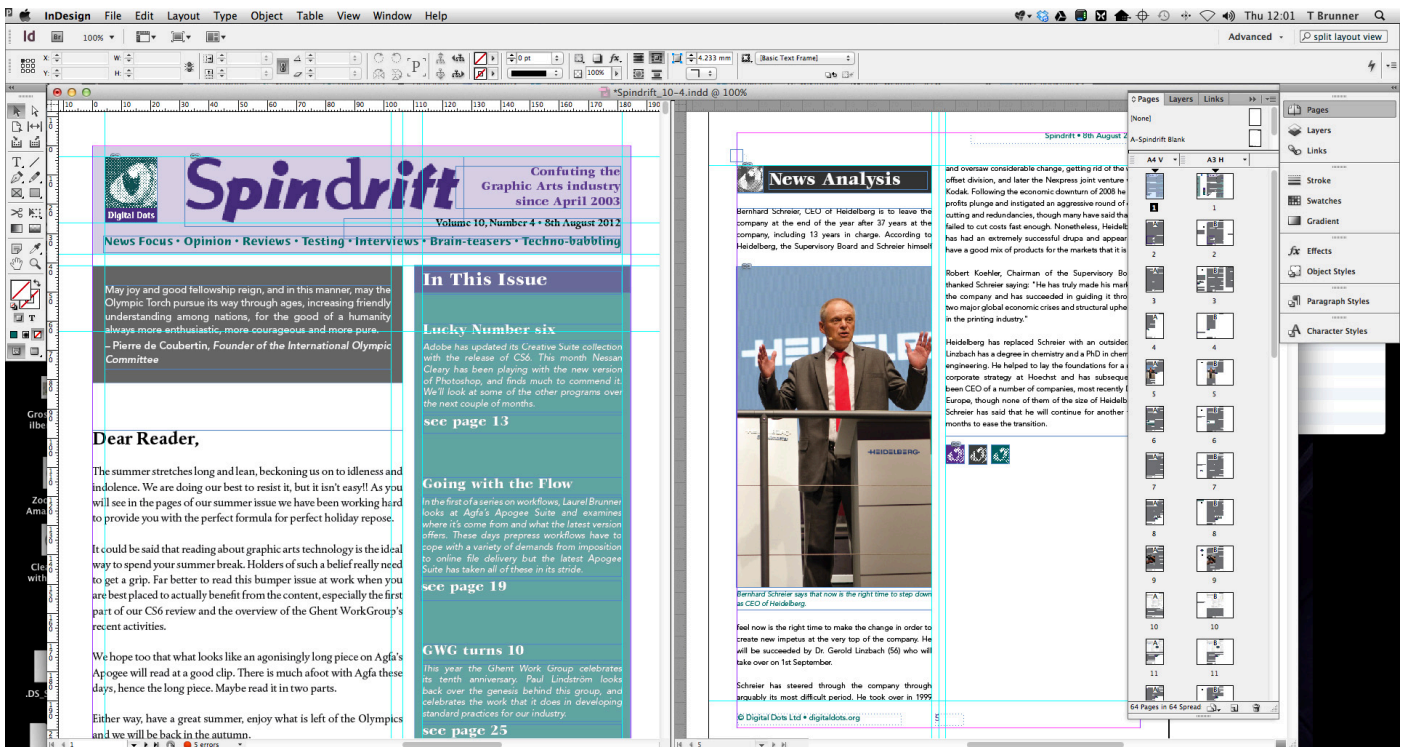
The new Split Layout View, each side with its own magnification and rulers. Note the pages for two alternate layouts in the Pages panel.

do. Check boxes, combo boxes, list boxes, radio buttons, signature fields and text fields can now be added and configured via the new Buttons and Forms panel, or existing objects can be converted to any of these (with sometimes bizarre results, if you like to get experimental). Of course it is still necessary to preview PDF forms in Acrobat, so having this feature in Indesign in no way eliminates the need for Acrobat if you are seriously working with PDF.

Another new feature is the ability to export a PDF as a greyscale file, thereby reducing file size and complexity when printing with only black ink. You can proof this in View/Proof Colors which now has a greyscale option. It is also now possible to export pages as separate pages instead of spreads, again avoiding the need for using Acrobat to do this.

Some new text features

There is now an option when creating a new document to create a Primary Text Frame on the Master page which allows text to flow from one page to the next without having to do this manually with the Place Cursor on each document page. So, when you add a new page to your document it already has a text frame that flows from the

previous page. Add 10 new pages and they are already populated with text when added. Nice! This will be hugely useful for long documents with text flowing from page to page. This feature also makes changing the document orientation or general text box size very easy: just go to the Master page, adjust the size of the Primary Text Frame and you're done; all 300 text-populated pages of your document just got changed!

In line with what Microsoft Word has been doing for at least a decade, font menus now group recently used fonts at the top. Hallelujah! Why this has not happened before is a mystery, but its inclusion here finally is a real time saver.

In the Text Frame Options panel there is now a nifty new option called Auto-Size. This allows you to determine which directions a text box can automatically expand when text is added. This can be very useful in preventing accidental overset, but could also create some extra resizing work if not controlled properly.

Text frames containing columns can now automatically add or remove columns as the frame is resized. This is controlled by specifying a maximum column width and letting Indesign handle creating and removing columns
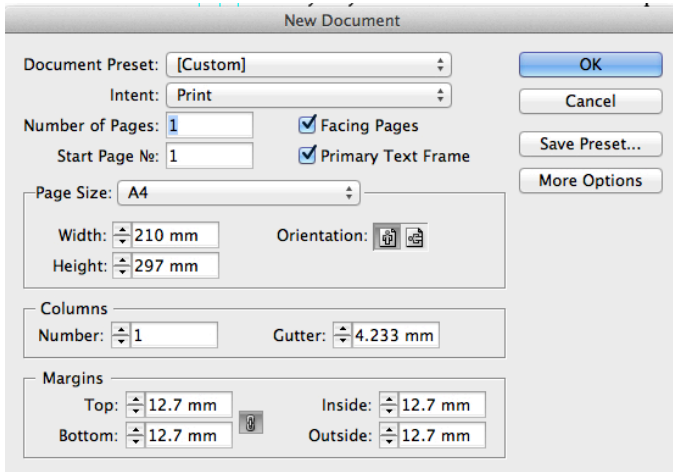
Above: The New Document setup panel now has the option to create a Primary Text Frame. Below: Text Frame Options now includes the Auto-Size tab, which allows text boxes to auto expand according to parameters set here.
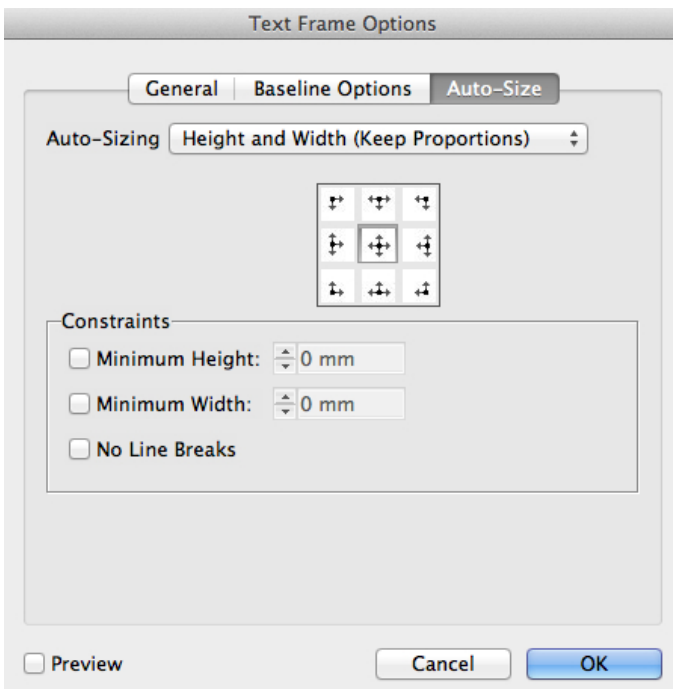
according to these parameters and the size of the box. And if you allow a frame to expand in both height and width, there is an option for keeping the box at the same proportions.

Collect, Convey, Place

There are some great new productivity tools in Indesign CS6 and the Content Collector is one of the best. It is represented by a new icon in the toolbar (the only new one in this version) which brings up a window, the Content Conveyor, where you can temporarily store items that you want to quickly move elsewhere in your document, to another layout, or to another document. Any item can be clicked into the window and can then be placed in the new location by simply hitting the Content Placer Tool button and clicking the items back into a document. When you do this the mouse pointer becomes a small representation of the item you are placing, allowing for fairly accurate placement. The items are deposited in the same order as they were collected, so as soon as you place one, the mouse pointer immediately becomes the next item ready to place. This entire process is so straightforward, easy, streamlined and fast that it's hard to believe it's in an Adobe product!

This is not a replacement for the Library as a repository for master items though, as each item disappears from the Content Collector as soon as it's placed. But don't worry about selecting and using another tool before you've placed your items. They will still be waiting for you in the Conveyor until they're finally placed or until you close the document. Better to think of the Content Collector as a very advanced and very cool supercharged cut and paste tool. We'll be using this a lot from now onward for the production of Spindrift!

E-publishing

Adobe has made some significant e-publishing enhancements in Indesign CS6. You can now insert interactive HTML as objects into a page layout, while retaining all interactivity when published to ePub or Folio formats. There is also now support for including multiple CSS files and JavaScripts. This will make life easier for e-publishers who are re-purposing web content for standalone use on handheld devices. And because of this, ePub output is more likely to pass ePub validators and therefore look closer to intended on readers.

What about Flash? Is Adobe trying to wring the last bits of life out of the dying 'standard' before it completely retires it? Actually no. The company is instead encouraging users to use Adobe Edge Animate (a product that has yet to see commercial release) to produce real standards-based animations using HTML 5, CSS 3 and JavaScript. Good news again, for a variety of reasons, but mainly because this content can be easily imported into Indesign, as mentioned above.
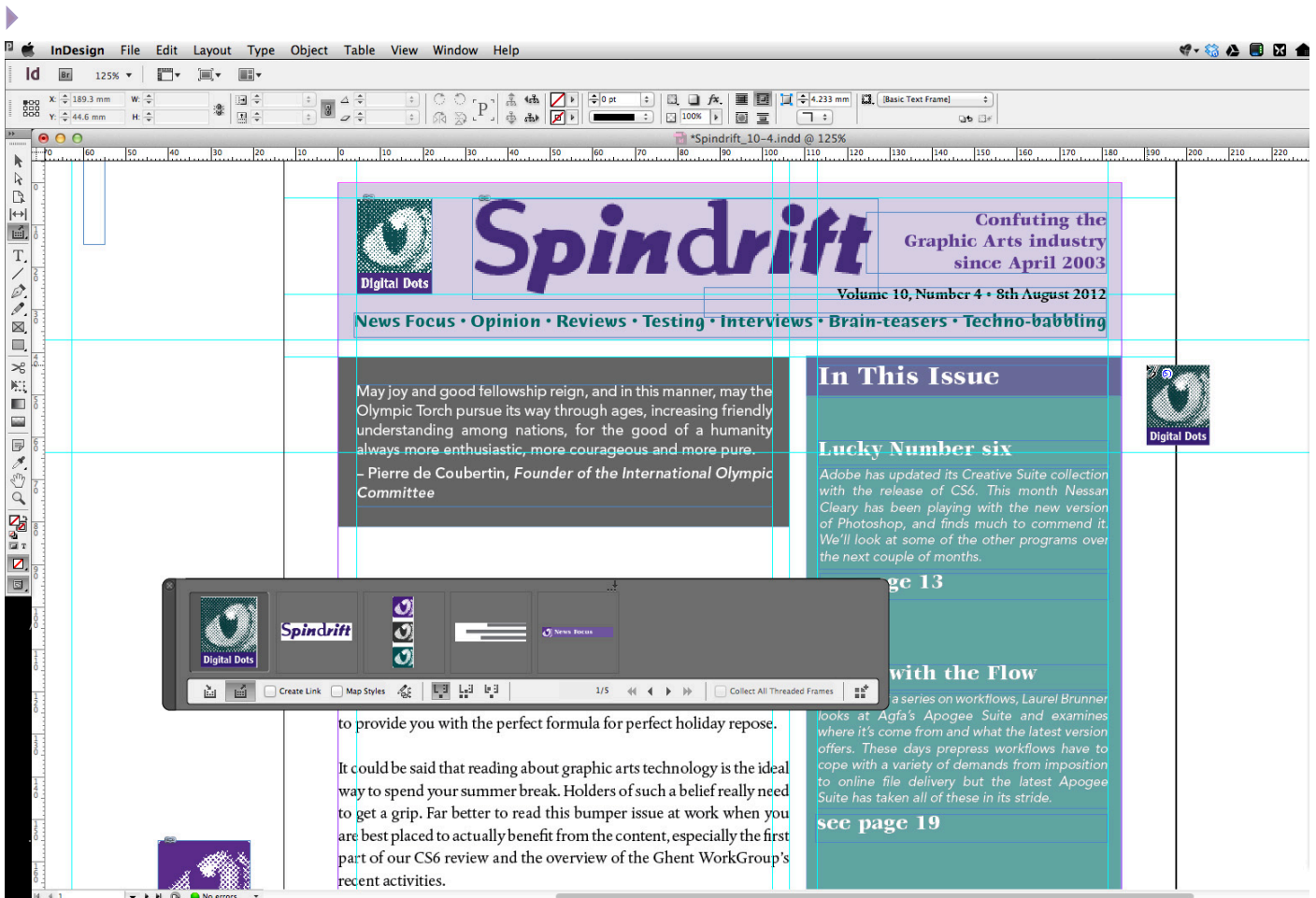
The Content Conveyor with some items previously picked up from the document with the Content Collector. Now with the Content Placer activated, the mouse pointer becomes the first object to be placed (the Digital Dots logo to the right of the screen - note the arrow on the top left corner of the object denoting the placement point).

There are lots of new tools that make creating ePub files much easier than it was in CS5.5. Split Document allows the splitting of pages based on paragraph style sheets. The Export Options dialog box has been revamped and now supports custom bullets and numbers, and tables. An inline frame can now maintain its background colour, frame width, and inset, while graphics anchored in the text flow can now be exported with their text wrap. Support for the upcoming ePub 3 format allows the importing of audio, video and JavaScript, but strangely Adobe has chosen to include its own proprietary ePub 3 layout option, rather than wait for the standard to be completely ratified. Sounds a bit like the Microsoft approach to HTML in the late 90s, but we're not bitter.

With all the emphasis on digital publishing, it's puzzling that Adobe hasn't included the Folio Builder and Folio Overlays tools in CS6. As the .folio format is Adobe's own, it's a bit strange to be instructed to use the Help menu to

download the latest updates when you first open the Folio Builder. Bizarre.

Conclusion

In anticipating each new version of Indesign, there is always the hope that some of the problems and niggles from the previous versions will get fixed or changed. We're not talking about bug fixes here, but actual features that don't make sense or are particularly difficult to use. All Adobe products are packed with these and version to version, few of them ever get changed or improved. This is the problem with producing enormous production software products with huge legacy user requirements. It's much easier to add new stuff than to change something long standing and risk impacting longtime users' workflow.

While we understand this, in the hope that some Adobe decision makers may get their eyes on this review (and
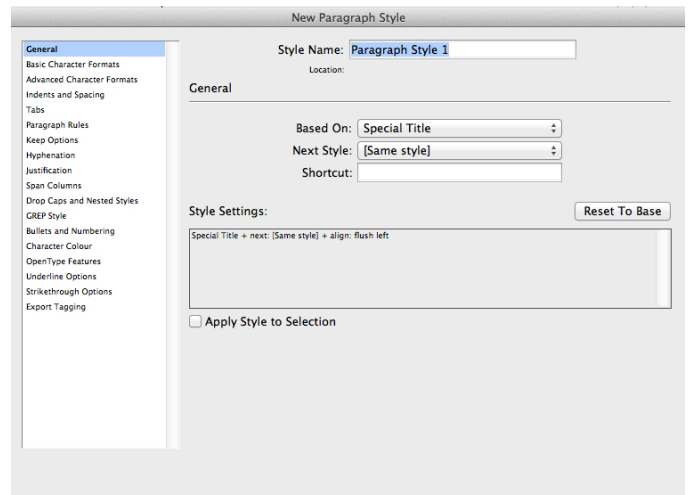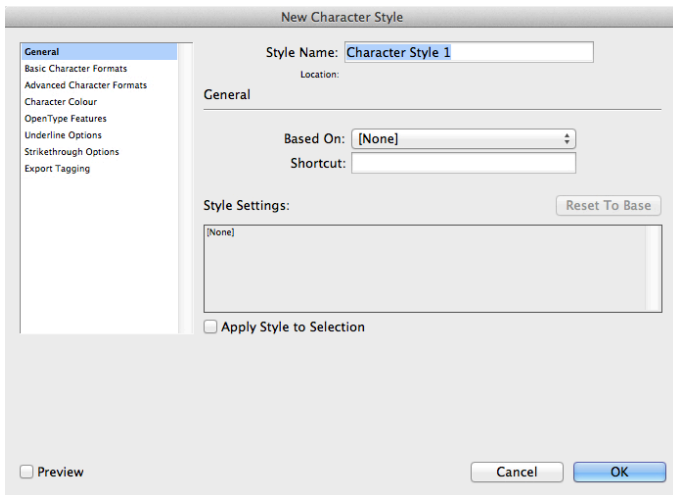
Compare the options of the Character Style and Paragraph Style panels. Note that Paragraph Style duplicates all of the options of Character Style but offers additional options as well. So, why do we need Character Style?

because it has been an annoyance since version 1), one such feature bears mentioning. What is going on with Styles? Why are there Character Styles and Paragraph Styles and not just 'Styles'? This is a great example of how some software is unnecessarily bloated with redundant features. In Character Styles you can set parameters for the type and arguably some paragraph elements such as leading and kerning. In Paragraph Styles you can do all of this PLUS any other paragraph adjustment, such as hyphenation, etc. So if you have one Style type that does everything and one that doesn't, why do you need the less featured one? It's not like one is easier to use than the other as the editing process for both is identical. It's a very ambiguous distinction and very confusing for new users, while experienced users simply don't use Character Styles at all. Why would they? A lot of time was lost on the first few volumes of Spindrift battling with this inexplicable methodology, and alas, no changes have ever been made with each new version of the software.

So here's a heartfelt suggestion for Indesign CS7 Adobe: Make Paragraph Styles just 'Styles', get rid of Character Styles altogether and give us the ability to organise our styles into folders within the 'Styles' panel. THAT would be useful and sensible.

Apart from this, Indesign CS6 is an excellent upgrade, providing lots of useful new features and workflow enhancements. If you are working in e-publishing or with long documents it is a must have, but as the upgrade price is very reasonable (Around €199 from all the way back to CS3 until the 31st December) it's hard not to recommend it for everyone.

– Todd Brunner

Roll of the dice

In last month's issue we looked at Photoshop CS6, and on p12 of this issue we've given InDesign a thorough testing, but for this story it's time to cover the new versions of Illustrator and Dreamweaver

The great strength of the Creative Suite has always been that it's based around a number of class leading products. Nowhere is this more obvious than with Illustrator, one of the jewels in Adobe's crown, having been around for roughly a quarter of a century now. It's a mature tool, firmly established as the default vector drawing tool for many designers, yet this update does bring a few new features.

Illustrator gains the new darker interface that we saw last month with Photoshop, though it's a lot simpler in Illustrator as you just select the overall colour with none of the finetuning for the colour of the text in menus and dropshadows. By default, the interface is set for a medium grey, though you can change this easily in Preferences via a slider. Adobe has also taken the time to tidy up the menus and panels and generally the program feels more modern, though some menu items are larger so it might feel cramped on smaller screens; then again, it's hard to imagine anyone doing serious graphics work on a small monitor.

Illustrator also gains the Mercury Performance System, which contributes to an overall faster performance, although Adobe says this differs from the Mercury graphics engine used in Photoshop. It also gains native 64-bit support for both Mac and Windows versions and it certainly seems to be much faster and more responsive than the previous edition.

There are some nice new features, most notably Gradient on Strokes, which lets you apply a gradient, rather than just a solid colour, to a stroke. You can do this within a stroke in a linear fashion, or along the length of the stroke from one end to the other, or across the width of the stroke. It sounds simple, but this is going to save a lot of time.

There's also a new pattern creation tool, which lets you repeat objects on an art board. There's a Pattern options panel for controlling the pattern and its repetition. There's also a Pattern Editor that lets you rotate, resize and recolour the copies, with the preview updating in real time. When you've finished you can add the pattern to the Swatches panel. Double-clicking the pattern in the Swatches panel allows you to edit the patterns further.

Live Trace has been replaced with a new bitmap tracing engine, which is called Image Trace, which is quite effective at turning pictures into vector artworks and is certainly

Creative Suite Collections

As before, there are several collections to choose from. Design Standard includes Photoshop, Illustrator, InDesign and Acrobat and costs €1500. Design and Web Premium includes all these plus Dreamweaver, Flash and Fireworks, for €2,100. Production Premium consists of Premiere Pro, After Effects, Photoshop, Audition, Speedgrade, Prelude, Illustrator, Encore and Flash and weighs in at €2,100. Of course, you can still buy the full Master Collection, for €3,000. These prices don't include VAT, and it should be noted that prices do vary between countries, so that in the UK, for example, each of the Creative Suite collections is roughly €200 cheaper than the rest of Europe.

an improvement on Live Trace. There's a new Image Trace panel for finetuning settings for Image Trace, determining the colours and the complexity of the tracing. You can even choose if the tracing abuts or overlaps.

There are a couple of other nice touches, so that you can now double click to edit texts in panels, letting you name items such as brushes, and you can do the same with layers. Gaussian Blur has also been updated, and there's a new preview option.

In truth, if you are buying Illustrator as a standalone product, then it largely comes down to whether or not you use the program enough to really benefit from the performance increases. But as part of the Creative Suite, it's a welcome update and, depending on the work that you are doing, the new tools should prove useful.
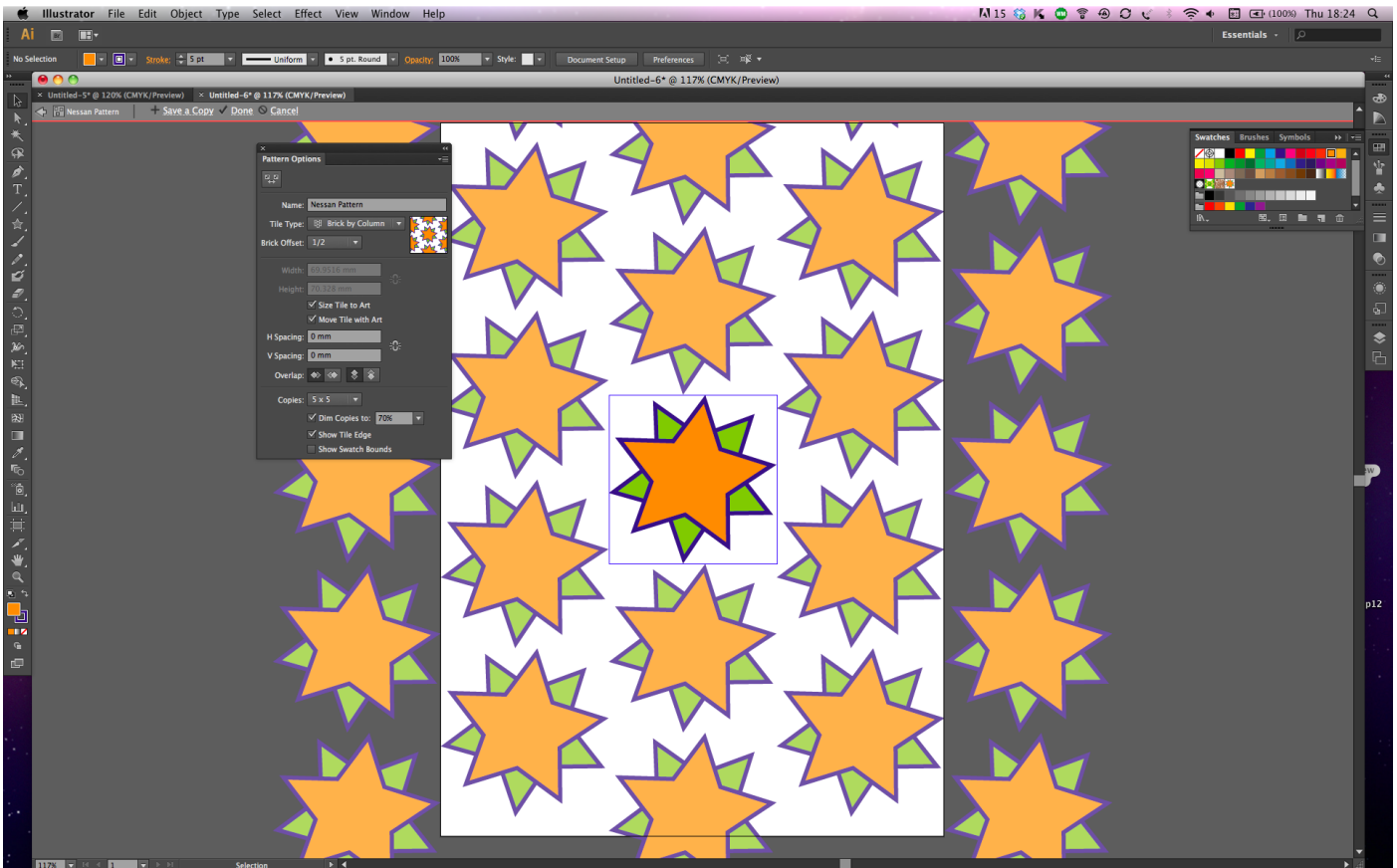
The new Pattern Options makes it easy to create patterns out of objects, and to control how they repeat. Simply select the object, and click Make Pattern, and it's added to the Swatches panel.

Dreamweaver

Dreamweaver continues to be Adobe's flagship product for designing web pages, but website design is clearly undergoing changes. Perhaps the main issue is the rapid replacement of Flash for HTML5 for adding interactive elements to websites, coupled with the other big change across the web, the increasing use of mobile devices and the need to design mobile-friendly web pages. To this end, Dreamweaver has been reimagined as a cross media authoring platform.

Consequently, it gains a new fluid grid layout tool that lets you build a basic design from a template and then rescales the pages for different sized screens. There's a wizard to set up the grid for smartphone, tablet or desktop and then Dreamweaver creates a HTML5 file together with an associated CSS3 file. You simply add containers for blocks of content to the grid and Dreamweaver adapts the design to display the content on different sized screens. There's a multiscreen preview so that you can test how it looks for all of the screen sizes and change any of the screens.

It works quite well and is a lot better than the previous versions of Dreamweaver.

You can also use Dreamweaver to build apps for mobile devices, via Phone Gap. Adobe bought this company last year, so Dreamweaver CS6 benefits from a much tighter integration. There's a new PhoneGap palette that lets you sign in to an account, and build an app for any of the major platforms, including iOS, Android or Windows Mobile, though you really need to use a Mac for full on developing of iOS apps.

Dreamweaver has also gained better integration with jQuery Mobile, a JavaScript-based platform for creating browser-based apps for phones and tablets.

There's a new panel for creating CSS transitions for things such as animating rollovers. You can use it to animate most CSS properties, including background colour, font size, positioning and margins. There are some limitations as to what you can do via CSS, but it's a quick, effective
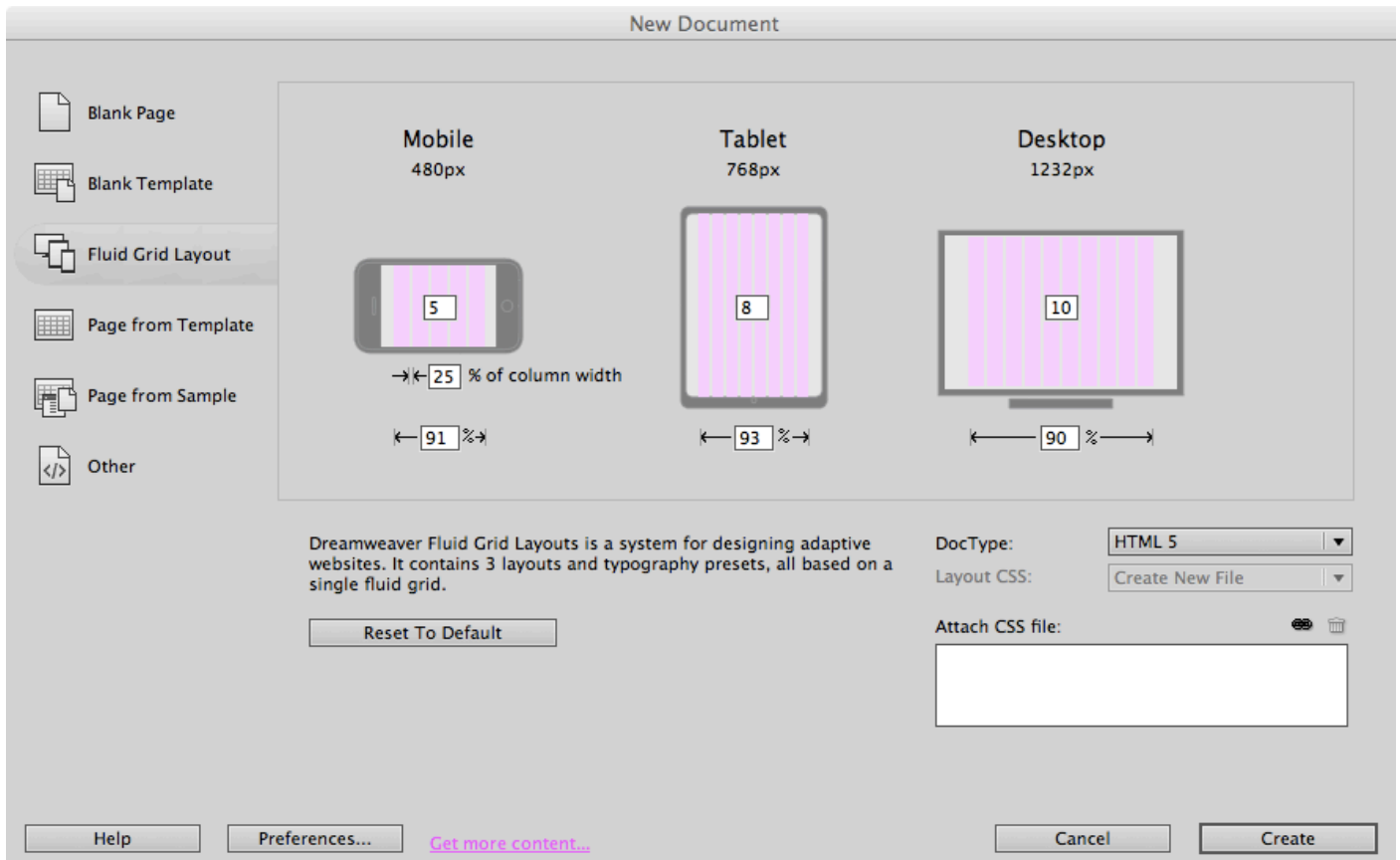
Dreamweaver has gained the new Fluid Grids option, which really makes it much easier when designing pages to be viewed across multiple devices.

way of adding useful effects without having to resort to Flash or JavaScript.

Adobe has also improved the Live View function, which now lets you make some changes to code whilst using Live View, and then have those changes updated in the Design pane.

This new version also comes with support for web fonts, which can now be installed on a web server and then applied to the page via a new Web Font Manager. This in turn means that designers can opt to work with any font they want, rather than having to stick to the small number that could reasonably be expected to be found on any users computer, now that modern browsers can download fonts from a server. It's a little clunky to use – you have to load the fonts one at a time – but hopefully this is something that will improve over time.

Adobe has also improved the FTP tools and there's better integration with Adobe's Business Catalyst service, which includes online hosting and ecommerce.

All in all, this is definitely a worthwhile upgrade. The new features help keep Dreamweaver relevant in a changing environment, something that most users will definitely benefit from.

Conclusion

So, is this latest version of the Creative Suite worth buying, or upgrading to? This largely depends on exactly which programs you want to use. If you want Photoshop and InDesign, then the Design Standard would be a good deal, effectively giving you Illustrator and Acrobat for free. But the only way to buy Photoshop and Dreamweaver would be the Design and Web Premium collection, which would not be very cost effective. However, for anyone looking to upgrade, Adobe has probably done enough to most programs to make it worthwhile to update each of the collections.

But perhaps a better question would be, is there still a need for the Creative Suite? Bundling so many programs together brought two main benefits. The first was to help

Colour management

While there are no radical changes or additions related to colour management in CS6, there are some enhancements and features related to colour corrections, which are welcome. It's now possible to create a pure greyscale PDF directly from InDesign, even if the output intent still will show up as being the CMYK profile assigned to the document. At some point it would be nice if both InDesign and Illustrator could be set up with a Greyscale ICC profile as the output intent, and the document mode set to Greyscale, as in Photoshop. One would have thought that this would be possible by now after all these years of user feedback – surely it has been requested repeatedly?

We mention this because Black and White production is still common, and as with other colour management you would like as a designer to make sure the output intent is respected, and have a good preview of what your images will look like in print. For Illustrator there isn't even a greyscale mode to assign, only CMYK or RGB.

For Photoshop any re-rendering of the pixels seems to benefit from what is called the Mercury Graphics Engine. It makes better use of the CPU on your video card.

Not related to colour management as such, but a tool that has the potential to enhance both colour management and quality management in general, is the updated Adobe Configurator. This is a tool for creating custom panels in InDesign and Photoshop, and allows them to be pre-set according to the preferences for the workflow at hand. This could be selecting the correct ICC profile, and/or selecting a preflight profile, selecting the correct fonts et cetera. For a production manager at a publication, or in a prepress department, the Adobe Configurator should be worth spending some time exploring.

– Paul Lindström

The second reason behind the Creative Suite was that putting all the programs together made it easier for customers to budget for a single upgrade to all the software, rather than a steady stream of programs throughout a year. But this idea has evolved with the Creative Cloud, which does make it easier for people to budget for the software they use, as you only have to pay a license for the programs you want, when you want them. Adobe has already added programs that are not in the Creative Suite to its cloud offering, and this surely makes for an easier way to sell software in the future. (But with one caveat, you can't resell a program you rented from the cloud when you're finished with it, as you can with a boxed version.)

For now, Adobe is trying to push the Creative Cloud, tempting upgraders with lower prices. So ultimately, it might be worth upgrading to CS6 to take advantage of the lower cost of moving to the Cloud option, but all depending on which programs you use, and how much you depend on them.

– Nessan Cleary

sell the lesser programs, notably InDesign, struggling to establish itself at the time against Quark. Adobe has achieved this, largely by including everything but the kitchen sink, but in today's more mobile world there is a strong demand for leaner programs that will run on tablets and notebooks, an area that Adobe has not really addressed.
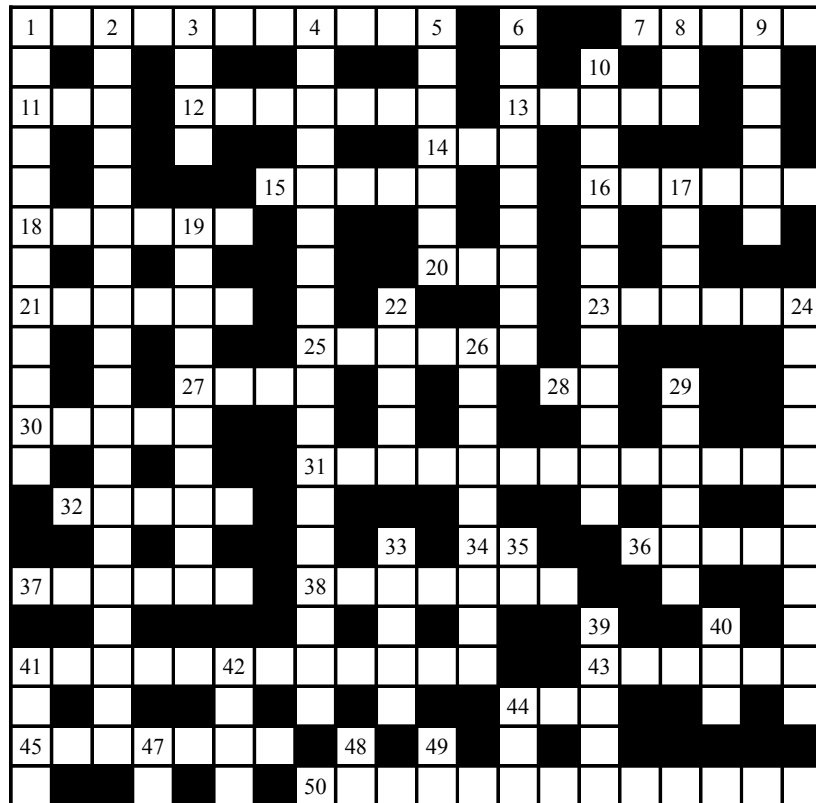
X-word Puzzle

Number 39*

This month's crossword is a lot easier than last month's but we hope you will enjoy it just as much.

Across

1. The main thing to remove during the recycling process. (7, 4)

7. Fake it, like in poker. (5)

11. Opposite of in. (3)

12. The purpose of print is usually to communicate this. (7)

13. The clickable rodent. (5)

14. What gets us all. (3)

15. Repeat. (5)

16. The latest mobile option. (6)

18. A trick of the light. (6)

20. Intelligence agency in US. (3)

21. European body overseeing the recycling industry. (6)

23. A press with plates and inkjet heads? (6)

25. Do it with gears, lovers and print media customers. (6)

27. Printers need to do more of this. (4)

28. One of the electrical states for digital processing. (2)

30. Area coverage from 0 to 400% is always this. (5)

31. The goal of preflight checking and correction software is to do this. (8, 5)

32. Something to watch, a harbinger. (5)

34. The Common Era? (2)

36. US slang for booze. (5)

37. Finishing kit of sorts? (6)

38. Edges added for strength. (7)

41. Double-click an icon and this happens. (3, 4, 5)

43. Lights, camera …? Ready for YouTube. (6)

44. Work, it's in the bag. (3)

45. Error. (7)

50. Publish to these as well as paper. (6, 7)

Down

1. What efficiency is all about. (12)

2. Keeping the industry afloat or MFDs? (11, 8)

3. Direction or stickiness? (4)

4. The goal of an efficient prepress system, held together but moving? (10, 8)

5. Devilish. (7)

6. When you want a result. (9)

8. London School of Economics. (3)

9. File returned for this reason. (6)

10. Cross media? (5-7)

17. To tell a secret, talk too much. (4)

19. Do this: E (9,1)

22. Locum or representative. (5)

24. When UV lamps cure? (5, 3, 3)

26. Weights of paper. (9)

29. What every writer needs, preferably a good one. (6)

33. Straw, hay, paper and board waste? (5)

▶

35. Germany. (2)

39. Light, look-up, times? (5)

40. Drop silently, place it now, for registration accuracy? (3)

41. It is ever the enemy. (4)

42. Facebook is basing its business on you clicking on this often enough. (4)

44. The average man (3)

47. Preposition that marks an infinitive. (2)

48. Not yes. (2)

49. US slang for hello. (2)

Number 38 – Answers

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