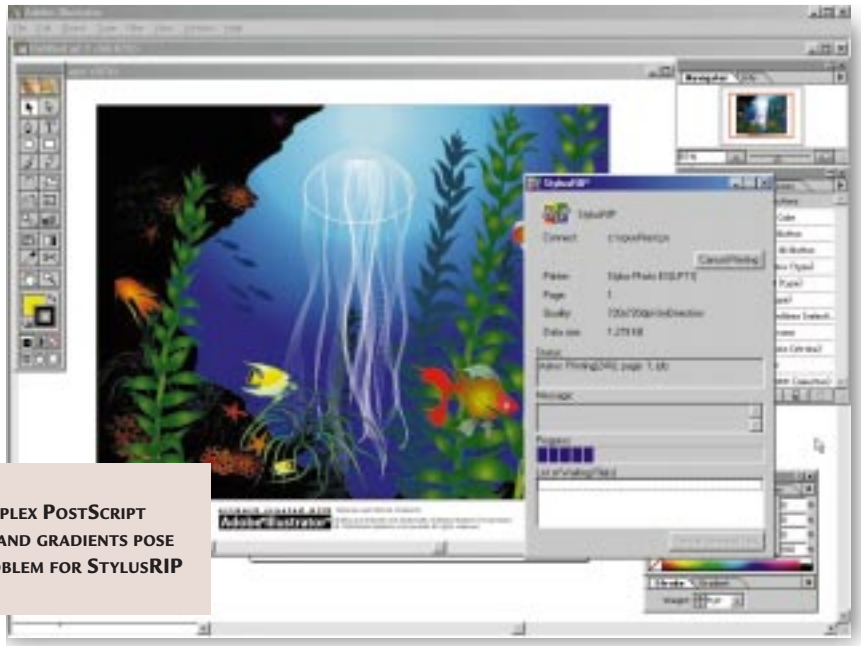
Do it in Stylus

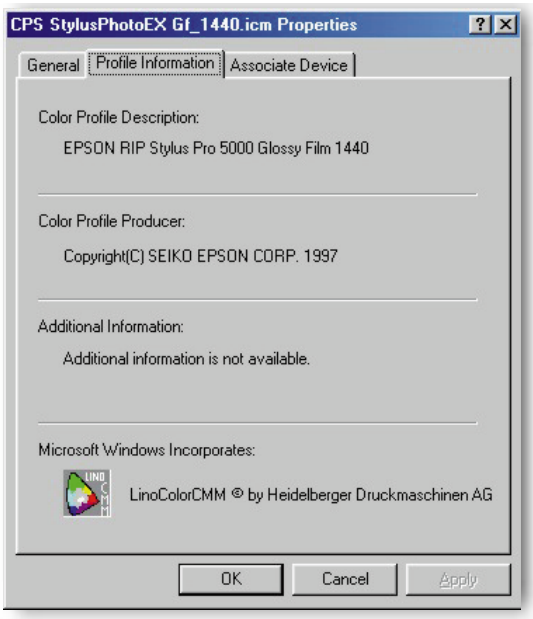
Ken McMahon looks for low cost PostScript printing with StylusRIP.

You might recall that last month, while on the hunt for a cheap alternative to a colour PostScript printer I happened upon Aladdin GhostScript 5 which proved better than I expected — mainly because it worked when I hadn't expected it to. In other respects, though, it was pretty limited. There had to be a better solution — which didn't involve spending the kind of money that would be put to better use on a month's holiday in the West Indies, a decent hi-fi, or a superbike — and Epson looked like it might have it.



▶ COMPLEX POSTSCRIPT BLEND AND GRADIENTS POSE NO PROBLEM FOR STYLUSRIP

Epson's level 2 PostScript rip, StylusRIP, in combination with the A3 Stylus Photo EX, seems to have it all. A proper implementation of genuine Adobe PostScript and larger-than-A3 output means you can create bleed proofs with trims and photo-quality reproduction. Combined with good quality paper and colour management, for less than £500 you have a workable alternative to Epson's Color Proofer 5000, so called to reflect the price. And if you already have an Epson colour printer, StylusRIP works with the Photo, Color 800, 850 and 1520, you only need £129 for the software.



◀ INSTALLING COLOUR PROFILES FOR THE STYLUS PHOTO EX: THESE ARE THE SAME AS FOR THE MORE EXPENSIVE PRO 5000 MODEL

StylusRIP comes on a CD with an accompanying floppy disc. There is a once-only install process that downloads an 'updater' (software dongle) to an Eprom in the printer, and driver software is loaded onto your PC from the CD. My suspicions that this was not going to be trouble-free were initially aroused by the unclear and confusing documentation.

My initial problem was that the PC wouldn't communicate with the printer, despite the fact that I could print a test page (and anything else come to that) using the Windows driver. Furthermore, Epson's printer control panel, which allows you to check print head alignment, clean the nozzles and informs you about the ink levels in the cartridges, wouldn't play ball. I've had this problem many times before, so I wasn't all that surprised, but had a feeling that the two things were related.

Call number one to Epson's tech support failed to get to the route of the problem after going down all the obvious avenues. Eventually, somebody at Epson suggested it might be the cable. As I had been able to print this was the last thing that would have occurred to me — ah, but if it's an old cable it might not be bi-directional, came the reply.

I didn't have another cable around, so I had to go and buy one. The watchword when you're buying a parallel printer cable is 'IEEE1284'. If it's compliant with that standard then it's bi-directional and when your PC talks to your printer the printer can say 'hello' back. With my goodness-only-knows-how-ancient cable, there was nothing but a rude silence — roll on USB.

With the new cable fitted, Status Monitor worked fine, but unfortunately StylusRIP was still not co-operating: with this you do not print directly from your application but, as with GhostScript, you first have to 'print' the PostScript file to disk using the PostScript driver supplied. In practice, this doesn't make a lot of difference as you just 'print' the

Questions & answers

from where it can be sourced? Thank you in anticipation.

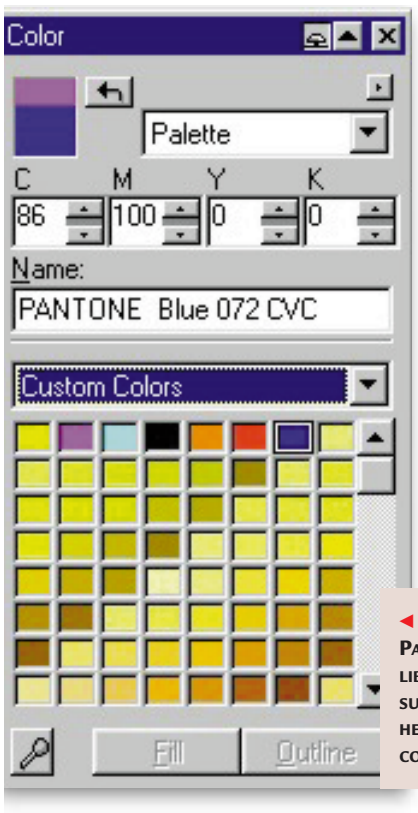
NICK MULCAHY

Q I enjoy *PCW* very much and I especially like your new look. Could you tell me the name of the body typeface that the magazine now uses and

***A** You can find out for yourself from the PCW CD-ROM which contains all of the Hands On columns as Adobe Acrobat pdf files. For a list of all the fonts used in the document just select file/document_info/fonts. The typeface in question is ITC Legacy Sans — a modern face designed by Ronald Arnholm in 1992 and based on Jensen. The serif version is used in our boxouts and as a body copy font throughout the rest of the magazine. According to Adobe 'this type has easy-to-read character shapes and comfortable proportions which make it very legible for a sans serif typeface. It has open counters and a modestly-proportioned x-height which make it readable without being overpowering'. You can find out more about it at www.adobe.com/type/browser/F/P_362/F_LEGA-10004000.html*

document to the StylusRIP spool folder and it takes over from there. Or rather, it sits there and does nothing.

I tried several approaches. The first was to print a simple bit of display type from CorelDraw 7. When the file is saved to disk in the spool folder, StylusRIP recognises it for what it is and begins to rip it through to the printer. The first time I tried this, a progress bar appeared and my simple document was printed in about a minute — except it wasn't. StylusRIP had gone through the motions and was happy it had printed my file yet the printer hadn't so much as flickered an LED throughout the entire process.



◀ CALIBRATED PANTONE COLOUR LIBRARIES ARE SUPPLIED, SHOWN HERE IN DRAW 7'S COLOUR ROLL-UP

Further attempts to print with various applications and by a variety of routes produced even less success. Eventually, StylusRIP rightly decided it was a waste of time printing jobs that disappeared into thin air and simply queued them, while at the same time displaying a belligerent 'status – idle' message. What I did next, I know, will gain me no friends among readers of this column, but you have to understand, I was desperate. I phoned Epson and asked them to send me a Mac version of StylusRIP.

You're not going to like this, but installing StylusRIP on a Mac couldn't have been more different than on my first attempt: within ten minutes I had the software installed and was printing PostScript directly from any application that took my fancy. I wonder — has this anything to do with the Mac software having reached the maturity of version 3.3 whereas the PC is a juvenile 1.10?

What I did next will gain me no friends...

Buoyed up by my success I transferred the Stylus Photo EX back to PC, called Epson Technical support and began a new offensive. The first suggested line of attack was to delete everything from the original spool folder c:\stylusrip\tmp and create a new spool folder c:\spool. No joy. Next, it was suggested that the parallel printer port settings in the bios might be the problem and, sure enough, changing from ECP mode to bi-directional did the trick. I'm sure the reason it was originally set that way was to get the Stylus Photo 700 working under Windows.

Initial teething troubles aside, I'm impressed with StylusRIP. It is very quick, managing to print the troublesome Illustrator jellyfish picture on which both GhostScript and my Hewlett-Packard Laserjet 5000N choked.

Epson supplies ICC colour profiles for the Photo EX and other supported printers, as well as various paper options and Pantone colour charts in EPS and raw PostScript format, in addition to various application files. The only remaining problem is the cost of consumables. At around £12 each, the five-colour cartridges are more reasonably priced than they used to be and last a reasonable length of time. One problem though is that if you use a predominance of one colour you have to replace the entire cartridge, even though four of the chambers may be quite full, which is rather wasteful.

Another gripe is the cost of Epson's inkjet paper. The A3 stuff costs around £1 a sheet and I've tried other coated paper options without much success. Even if you did get a reasonable result and accurate colour is important to you, you'd still be stuck for ICC profiles.

All the same, with the Stylus Photo EX retailing at just over the £300 mark (ex VAT) and StylusRip at £129 (ex VAT) this becomes a very cost effective alternative to colour laser output from a bureau.

PCW CONTACTS

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Ghostly image

Ken McMahon discovers a no-cost way of PostScript printing.

Given the choice between a PostScript and a non-PostScript printer, which would you choose?... OK, everyone who chose the latter see me later. PostScript has many advantages over Windows printers which print a bitmap image, making use of the same Windows GDI that produces the image you see on-screen.

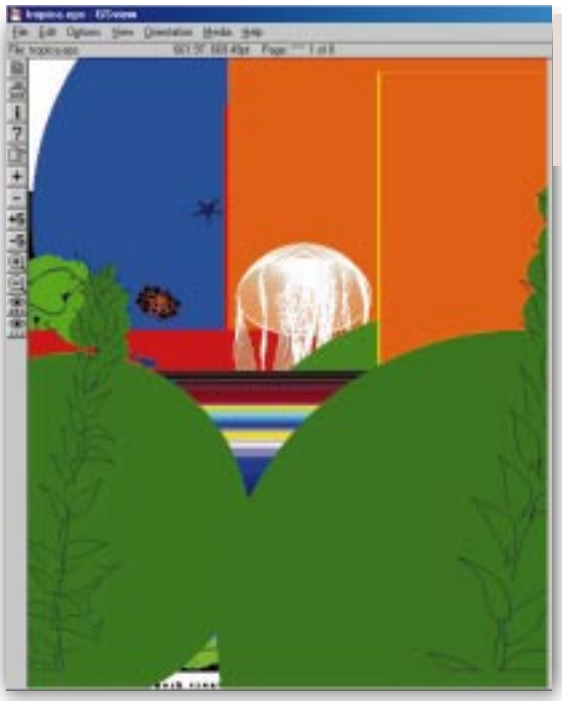
PostScript describes images as mathematical vectors and fills which are not rasterised (converted to dots) until you print them. They are therefore resolution independent — you get the best quality image your printer is capable of delivering.

To print PostScript files you need a PostScript interpreter, often called a raster image processor (rip). Ripping is processor-intensive work and so rips have tended to reside in expensive hardware, either in mono and colour laser printers or as part of a standalone print server in output bureaux. This and the additional cost of licencing PostScript from Adobe has put PostScript printing beyond the reach of many — until now, that is.

The increased power of desktop systems now makes it possible to implement PostScript rips in software and these are available for PCs and Macs. Combine a software PostScript rip with an inexpensive colour inkjet printer and you have a colour proofing system that is a match for professional systems at a fraction of the cost.

If you want a no-cost introduction to PostScript printing via a software rip a good place to start is www.cs.wise.edu/~ghost/aladdin/get550.htm where you will find Aladdin GhostScript 5.5. The developers point out that GhostScript is not shareware but you can download it and use it on a personal licence at no cost. You'll need to download two zip files: GhostScript itself and a previewer called GS view which also acts as an installer. I installed the product without problems. It took around 10Mb of disk space and ran first time without a hitch.

GhostScript differs from most software rips in that it has been developed independently of Adobe, which invented and developed PostScript into its present-day industry standard format. Consequently GhostScript suffers from the kind of occasional glitches you'd expect from a non-standard implementation.



◀FIG 1 GHOSTSCRIPT EXPERIENCES PROBLEMS WITH COMPLICATED POSTSCRIPT

I tried it out by choosing a selection of Illustrator files and printing them via GhostScript as well as in the usual fashion, from Illustrator 8 using the Epson driver. To view and print the files in GSview it's first necessary to save them in eps format although GSView will open and display PostScript files which have been printed to disk, as well as pdf files. For the most part the Illustrator eps files opened and previewed perfectly and for freeware using a non-Adobe interpreter I reckoned this was good progress. Having selected print from the file menu you need to select a GhostScript printer driver (a couple of Epson versions were provided) and then direct the output to the relevant printer queue.

A few seconds later and you can imagine my delight when line after line of textual garbage spewed forth from the Stylus Photo 700 [Fig 1]. Revisiting the print dialogue and swapping to the mswinpr2 driver, as suggested in the help file, did the trick [Fig 2].

I printed a number of Illustrator files and GhostScript handled nearly all of them without complaint. However, I had hoped to see evidence of superior output, particularly with complicated blends,

▶FIG 2 HOW THE PICTURE SHOULD LOOK, BUT PRINTING IT IS ANOTHER ISSUE

Questions & answers

Q Windows 98 is meant to have colour management built in but the pre-built profiles do not match my system (Gateway G6-450 with an Epson Stylus 600 and Plustek scanner). The only profiles appear to be for my printer using specific paper types. There are profiles for some monitors but not the Gateway. Is there a way to create new profiles or modify the existing ones? And what's the best place for profiles on the web?

KISH WOOLMORE

***A** One of the biggest problems with colour management is finding profiles for output devices. You can create your own using Agfa's Colortune software. You'll find details at www.agfahome.com. Colortune creates a profile of your scanner by comparing a scan you make of the supplied IT8 colour target with a reference file. In a way this is better than using a profile supplied by the manufacturer which, while it gives a close approximation of the characteristics of your scanner model, won't account for any of it's individual idiosyncrasies. In the absence of a profile for the monitor try Windows 98's sRGB colourspace profile. If this doesn't give good results there are other generic monitor profiles you could try. My version of Windows 98 includes profiles for a number of Epson printers including the Stylus Photo 700, but not the Stylus Color 600. You can find this and profiles for other printers at www.corel.com/support/ftpsite/pub/coreldraw/colorprofiles/. For more colour profiles go to www.pantone.com/support/printerlist.asp. It's important you choose the correct profile for the printer/paper combination you are using. A profile for plain paper will not do the job if you are using photo-quality inkjet paper.*

graduated fills and text. But aside from more saturated — not necessarily more accurate — colours, much better quality photographic images and a rather annoying tendency to resize the image to fill the page, there was little to choose between the two methods.

GhostScript managed to open Illustrator 8 files with some wickedly complicated gradient mesh blends but was seriously disorientated by one image which contained a number of quite complicated blends and graduated fills, though to be fair this file also gave my HP Laserjet 5000 PostScript mono laser rather bad indigestion.

I refuse to give up at this early stage as the prospect of cheap PostScript proofing is just too irresistible. I'm saving GhostScript as an emergency backup for those problem files where, for no apparent reason, pieces of text just disappear and the contents of clipping paths spill outside their boundaries.

For those who are short on utilities for handling PostScript files, GsView has a lot to offer. If you've ever been given an eps without a preview, all you get to look at when you place it is a grey bounding box and of course you won't be able to print it. Gsview provides an instant solution with its 'Add eps' preview command. You can convert single page PostScript files to eps, and even create pdfs from a PostScript file and vice versa [Fig 3].

◀FIG 3 PLENTY OF OPTIONS INCLUDING MULTIPAGE POSTSCRIPT AND ACROBAT PDF DOCUMENTS

The lack of colour management makes GhostScript a non-starter for serious colour proofing work so if that's your aim I'm afraid your going to have to spend some money. There are a couple of options here: Epson's StylusRIP 3.2 is an obvious choice for anyone who already owns an Epson inkjet, and the Birmy PowerRIP 5.1 is configured for Epson and Canon inkjets and has the advantage of support for PostScript Level 3 features.

PowerRIP provides custom colour calibration controls including a number of presets for Epson paper types. StylusRIP relies on you having already calibrated your system using ICC colour profiles, so you'd need to find profiles for your printer/paper.

My initial foray into low-cost PostScript colour printing has not been the success I had hoped for. Lack of colour calibration together with the uninspiring quality of output places GhostScript out of the picture, though if you're short on applications and utilities for handling PostScript and pdf files it's worth having around. My next step will be to check out Epson's StylusRIP 3.2. At £129, if it can better GhostScript it will be worth the money. Watch this space.

PCW CONTACTS

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Font friends

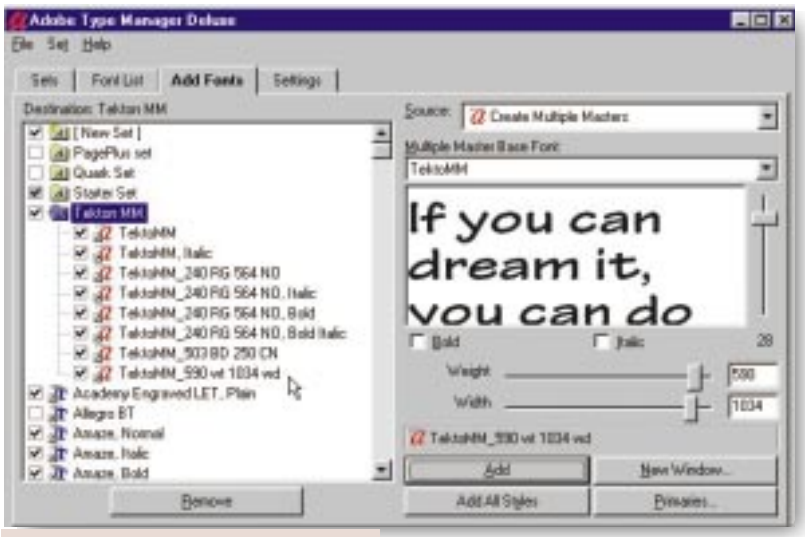
With Multiple Masters fonts you can achieve typographic control. Ken McMahon explains.

Ever wish you had more weights in a particular font family? Bold too heavy, regular too light, but no semi-bold to be had? Then you need Multiple Masters. They are an extension of Adobe's Type 1 font format. Multiple Masters differ from conventional Type 1 fonts in that they contain a number of font outlines, or master designs, for each character and software that morphs between them.

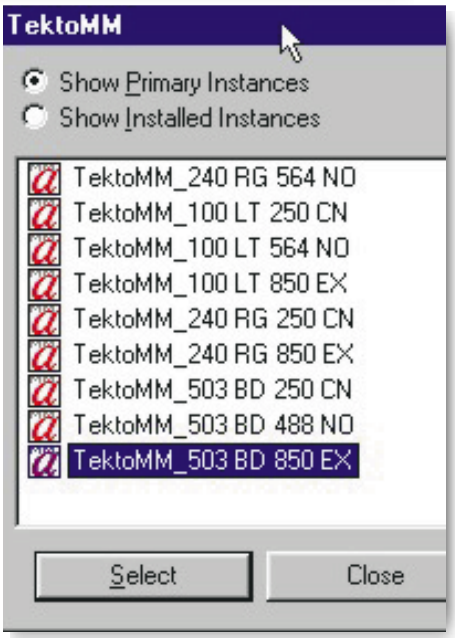
Multiple Masters enables you to vary a font's attributes in one of up to four ways: weight, width, style and optical size [Fig 4]. Imagine the master designs as being at opposite ends of a design axis controlling each of these four attributes. By picking a point anywhere on that axis you can determine the appearance of the font. No more extra light, bold, semi-bold and heavy — just a smooth, incremental increase in weight, width and so on, controlled by means of a slider.

Since Adobe introduced Multiple Masters (MM) in 1996 there has been a slow but steady stream of fonts appearing on the market. At the last count Adobe boasted 33 and other type foundries have produced Multiple Master versions of their fonts. As you'd expect, Adobe's applications provide MM support and you can create Multiple Masters from within PageMaker and Illustrator 7 and 8 as well as using the editor that comes with the MM font itself [Fig 1].

You can also create and edit MM fonts using ATM deluxe 4.0 which comes with its very own MM font, Tekton MM. As well as the Master designs (those at the extremes of the axes) most MM fonts are supplied with 'primary instances' created by the font designer.

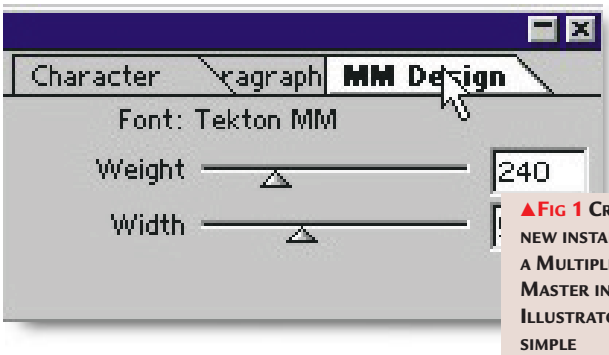


▲Fig 2 ATM's preview window shows you exactly how the new instance will look before you add it to a font set



▶Fig 3 ATM lists the entire font designers 'primary instances'

Primary instances are versions of the font created by adjusting the design co-ordinates, moving the sliders along the axes until you achieve the desired combination of weight and width. Tekton is a two-axis Multiple Master so you can alter its weight and width. Other Multiple Master fonts also allow you to alter the style from sans to serif, as well as the optical size, optimising a font's appearance for any point size.



▲Fig 1 Creating new instances of a Multiple Master in Illustrator 8 is simple

To install a primary instance of Tekton MM in ATM Deluxe 4.0, click the 'Add Fonts' tab and select 'Create Multiple Masters' from the source pull-down menu. Select TektonMM as the Multiple Master Base font — unless you have bought others, this will be the only one — and click the Primaries button.

These [Fig 3] are all the Tekton Primary Instances created by the font designer. In case you're wondering about the weird names, the first part is the font family name, the first group of numbers

Questions & answers

Q I am looking for an application to simplify the tweaking and enhancement of photos. I don't have Adobe Photoshop (I can't justify the price as a home user) but visited the Extensis web site for more info because I wondered whether there might be a version for PaintShop Pro 5.0 (PSP). There isn't. Can you recommend similar software which might also produce good results — either standalone applications or compatible with PSP? Are there plug-ins for PSP?

ANDY WILLIAMS

a *Good news. You can use Extensis Intellihance (reviewed in Hands On Graphics & DTP, January) and any other Photoshop-compatible plug-ins with PaintShop Pro 5. You don't need a special version of the plug-in for PSP 5.0, or any other application. Any image editing application which supports the Photoshop plug-in architecture will do the job.*

Q Why tell Michael Phoenix [*PCW*, January] to upgrade when it's very easy to do what he asks with CorelDraw3? That is: type the letters, draw a rectangle, combine text with rectangle, place in front of flag available in CD3 Clipart. *PCW* starts to look like a tool of the computer industry when most advice includes the suggestion to upgrade.

DAVE SPATHAKY

a *If I still had a copy of CorelDraw 3 I'd give it a go. But if I recollect correctly, having spent the best part of an afternoon installing it I'd most likely spend the rest of the day trying to get it to print without error, which is probably why I binned it. Printing imported bitmap graphics with vector clipping paths is one of the things most likely to generate a PostScript error or other, more serious, problems — stability was not one of CorelDraw 3's big features. I know that my suggestion works because I've tried it, without problems. If yours does, too, thanks for the tip and Michael Phoenix can save himself a few quid.*

On the general point about upgrading I would agree that upgrades are a waste of money if the application version you are using does everything you need. But there are so many reasons for upgrading from a product that was designed more than five years ago it's hard to know where to begin listing them.

Just some of the things I would find it hard to live without if CorelDraw 3 were my only vector drawing application, would be decent colour support including four-colour process separation and Pantone support as well as colour style sheets. Web support including HTML export, would be on the list as would vector to bitmap conversion, png and jpg file support, special effects filters and lenses, transparency, blends, natural pen tools, scripting, style sheets, the object manager... I could go on, but I'd better stop there as I'm beginning to sound like a tool of the software industry.

If you were dogged by PostScript printing errors then I'd advise you to check out Laurens Leurs' PostScript Panic Page at bewoner.dma.be/lleurs/. Here you'll find out what PostScript errors are and how to avoid the abject misery of having to overcome them. If it's too late for prevention, there's a small database of error messages, together with fixes. There's also information on software to help track down and destroy Postscript offenders before they become a threat to your printed words and pictures and there are links to other sites dedicated to the eradication of the scourge of PostScript errors.

Laurens handles customer support for Agfa Imagesetters in Belgium so he should know his stuff. He reckons the time spent on his site varies in proportion to the dire quality of Belgian TV; the worse it gets, the more time he spends compiling his database of PostScript errors. We can only hope that the Belgians are top of the list for British TV exports of anything featuring Cilla Black or Carol Vorderman.

Are there plug-ins for Paint Shop Pro?

◀FIG 4 THE APPEARANCE OF MULTIPLE MASTER FONTS IS INFINITELY VARIABLE ACROSS FOUR DESIGN AXES

is the weight and the second the width. The uppercase two-letter labels are Adobe's standard type attribute identifiers — LT is light, EX is extended, and so on. So you already have much more than you would get with a standard Type 1 font. But you can go further. To create your own customised 'instance' just start with one of the primaries then drag the weight and width sliders until you like what you see in the preview window, then click the add button [Fig 2]. This time there are no Adobe-style symbols, just the two numbers — in this case 590 and 1034 followed by lower-case symbols indicating weight and width.

You can find details of all Adobe's Multiple Master fonts including two recent releases, Verve MM and Reliq MM at www.adobe.com/type/browser/c/c_4e.html. `

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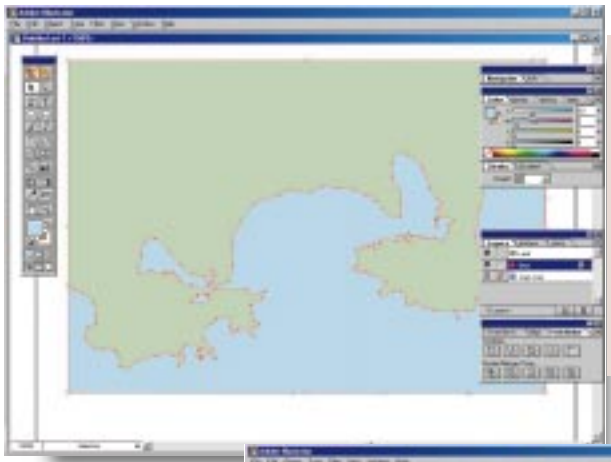
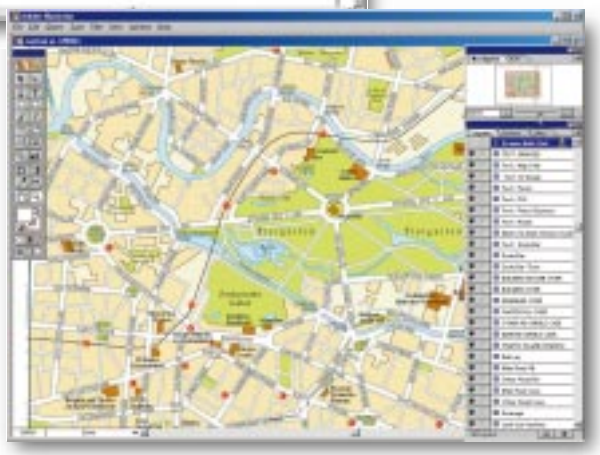
Road sense

Ken McMahon produces a map that, hopefully, will show him the way to go home.

Given the past interest in map making, and the sad fact that I can hardly make it from the pub to my front door without persistent directional guidance, now seems like a good time to take a more detailed look at the art (science?) of cartography. In this month's column we'll take a look at producing the basics — coastal outlines, roads and labels — in Illustrator 8, although it would be much the same process in any good vector drawing package.





◀DUPLICATING THE COASTAL PATH TO PRODUCE LAND AND SEA OBJECTS
▼LAYERS APLENTY: DETAIL FROM THE MAPS IN MINUTES BERLIN TOWN PLAN

1 The first stage in producing any map is to find and scan a source image. If this is a rough sketch you've produced yourself, fine. If you're using an existing image, check the copyright details. Save your scan as a greyscale tiff and import it into Illustrator using the Place command. Ensure the link box is checked, otherwise the file will be embedded in the Illustrator document. Select Options for layer 1 from the Layers palette menu and check the Template box — this dims the layer to make it easier to trace, locks it, and makes the image non-printable. It also means that when you switch to Artwork mode, the scan will still show in Preview mode. This is useful because you can get filled objects out of the way, allowing you to trace underlying detail.

▲MAKE YOUR SCAN LAYER A TEMPLATE AND YOU'LL BE ABLE TO SEE IT IN PREVIEW MODE

2 Create a new layer and call it sea. Using Illustrator's new pencil tool, trace the coastline. You can set the fidelity and smoothness of the pencil tool by double-clicking on it. If you make a mistake, just go over the incorrect path with the pencil tool and Illustrator will delete the old path section, replacing it with your new effort.

3 When the path is finished, create a new layer and call it land. With the coastline still selected, choose Transform/move from the Object menu, enter zero values and press the Copy button to duplicate the coast path on top of itself. To move the new path to the land layer, drag the coloured dot that appears to the right of the layer name in the layers palette to the land layer.

4 Use the pen tool to finish off the land and sea areas by clicking on one of the endpoints and completing the box. You can now fill the land and sea areas with appropriate colours. This is one of many ways of producing coastal areas. You could create a rectangle for the sea and overlay it with the coastal outline on the land layer, or use the Divide pathfinder filter to divide a rectangle in two with a coastal path. Having filled the land and sea you now cannot see your map scan, so select Artwork mode from the view menu.

5 Create a new layer and call it roads. As with coastline, the new pencil tool is great for creating roads — the pen tool can be used as well. Trace off all the roads with a 2pt black-stroked path and check all the intersections, ensuring the paths join neatly. Turn off all the other layers, press Ctrl-A to select all the roads and duplicate them using Objects/Transform/Move/Copy and set a new stroke width of 1pt white.

6 You may need to do some cleaning-up at the junctions, but you should now have a network of 1pt white roads with a 0.5pt black outline. If you need to edit any of the road paths, it's simpler to

MAPPING WEB SITES

www.garmin.com/cartog.html
Cartographic information from the GPS people.

www.digiwis.com
Producer of Mountain High digital maps.

www.ocad.com
Ocad is a shareware mapping program we looked at in Hands On last year. You can get it from this web site.

www.mapsinminutes.com
Telephone 01840 212135

www.cartography.org.uk
BCS is regarded as one of the world's leading cartographic societies and its web site promotes all aspects of cartography.

http://acorn.educ.nottingham.ac.uk/ShellCent/maps/
These web pages summarise a research project that set out to discover some of the factors that make maps easy to read and use.

http://www.pcug.co.uk/~MapMaker/
The web site of MapMaker Ltd, developer of MapMaker Pro software reviewed in *PCW* February 1997.

The web site has shareware, free maps of the world and the UK, plus mapmaking articles.

http://www.geo.ed.ac.uk/home/giswww.html
This is a comprehensive index of web sites likely to be of interest to map makers. It's maintained by Bruce M Gittings and Anup Pradhan at the Department of Geography, University of Edinburgh, in collaboration with the Association for Geographic Information.

http://www.shef.ac.uk/uni/projects/sc/index.html
The Society of Cartographers. This web site is not yet available, but it will be starting a PostScript library of copyright-free maps. FTP archive also includes free software downloads including specially designed cartographic fonts.

http://uk.multimap.com/partners.htm
Multi Media Mapping has created an interface that enables web-site designers to include maps in their web pages. You just put the full UK postcode in a URL, and Multi Media Mapping will return a map showing the location of that postcode.

COPYING OS MAPS

It is highly advisable to ensure you're not breaching copyright when using a map as a reference for tracing. Crown copyright exists only for 50 years, so if you've any maps older than that you can do what you like with them.

☛ **To copy Ordnance Survey (OS)** maps you must obtain a licence and pay a per copy royalty charge. This ranges from two and a half pence (there is a minimum charge of £16 for 30 copies of A6 size) for copies up to A6 size, to £6.40 for A0 size.

☛ **The OS produces** five leaflets with detailed information about its copyrights and royalty charges. You can get this in Acrobat format from the Ordnance Survey web site at www.ordsvy.gov.uk or you can contact the OS at:

Copyright Licensing
Ordnance Survey
Romsey Road
Southampton
Hampshire
SO16 4GU

Phone: 01703 792703/792705
Fax: 01703 792535

get rid of the white overlay, edit the black and then re-duplicate it. I've tried simplifying things using Illustrator's new art brushes to create a "road" brush, but this doesn't work too well because the black outline stroke doesn't maintain a consistent width. If anyone knows why this is, I'd be glad to hear from them.

7 You can add other geographical features — railways, footpaths, boundaries, etc — in the same way. Using a separate layer, editing is easier and you can switch individual features on or off to customise your maps. If you're creating maps with boundaries it's often useful to create a filled object for each segment and have overlapping common borders. The easiest way to do this is to create the overall outline, draw in the borders and then use the pathfinder filters to carve up the cake.

☛ **Just a minute!**
If you want maps without the effort, there are a number of vendors who provide detailed maps in PostScript format. Some of the best are produced by Maps in Minutes (MIM). MIM products include maps of the British Isles at 1:5 million, 1:2 million, 1:1 million and 1:750,000 scales. There's also a vast selection of world maps at various scales and projections. MIM provides more detail than you're ever likely to want and intelligent use is made of layers, so if you don't want a grid, water features, small towns or the Channel Tunnel, you can just turn them off.

If you've a lot of map work to do, MIM could be a big timesaver. The only drawback I see is the licensing arrangements. Though no more restrictive than that from the OS, it's not exactly a "pay once and do what you like" affair. There's an annual licence fee, a requirement to publish a copyright credit, and restrictions on sales to third parties and book, magazine, CD and internet publishing. MIM supplies files in Illustrator or Freehand format. The MIM people are very accommodating and a phone call will provide the answers to any questions you have about formats or anything cartographic.

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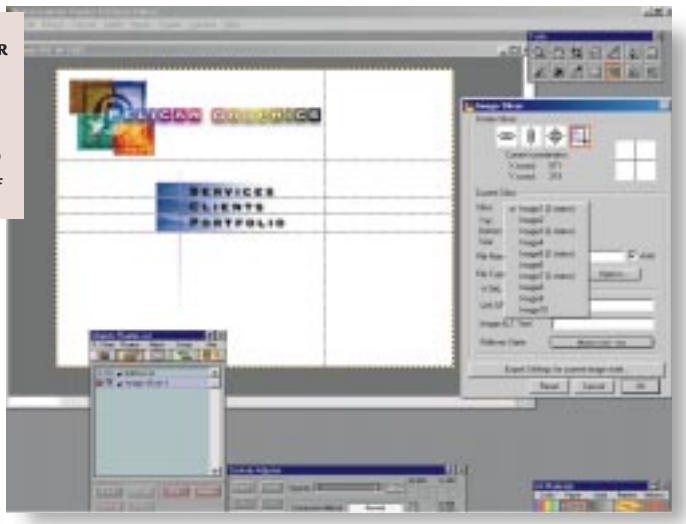
Push the button

Interactive web pages are a doddle... if you do them the Ken McMahon way.

Why do so many web pages look so dull? At least part of the reason must be that producing exciting, interactive graphic pages requires a degree of technical know-how most people don't even want to think about. So anything that makes the task easier has got to be A Good Thing. Step forward Metacreations Painter 5.5 Web Edition. The software best known for its "natural media" tools which mimic the real stuff — oil, canvas, watercolour, pastel, crayon and the like — has been upgraded to include a raft of web authoring facilities.



▶ THE IMAGE SLICER AT WORK. EACH SEGMENT IS NAMED AND OUR THREE BUTTONS HAVE TWO STATES, ON AND OFF

Slice and dice

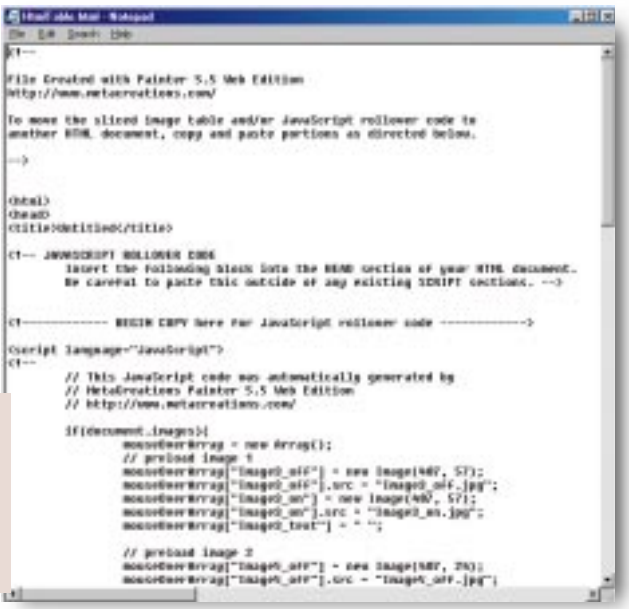
Most exciting of these, for me at least, is the Image Slicer which, like most of the additions, is a plug-in floater. The Image Slicer pretty much automates the task of dividing up large images into bite-sized chunks and slotting them back together in an HTML table. Why? Because big images can take several weeks to download, so slicing them up means you can compress the bits that will take it (flat colour backgrounds, for example) while maintaining quality in the bits that won't, e.g. photos. Painter's new Image Slicer takes on another real chore: the creation of Javascript Rollovers. So now you can have interactive buttons without all the grief of having to code and test them yourself.

Anything that makes the task easier has got to be A Good Thing

Very briefly then, here's how to create a sliced-image HTML table with Javascript buttons in Painter 5.5 Web Edition. Before you do anything else, make sure you have all the components ready. My graphic has three two-state Javascript buttons and they alter their appearance when the Javascript events *mouseout* or *mouseover* occur — in other words, they change colour when your mouse pointer is over them. You can use three-state rollovers which have a third appearance (mouseclick) if you like. Since my buttons have two states, there will be two export operations: one for the mouseout state and one for mouseover. I've therefore got two floaters: one with all the buttons in the off state and another with them all on. Designate the "on" floater the bottom one and make sure it's not visible on-screen by clicking the "eye" icon in the floater list.

Let's deal with the default "off" page first. Select the Image Slicer from the front drawer of the plug-in floaters palette and click Apply to pull up the Image Slicer dialogue box. There are three slicing tools, for dividing the image horizontally and vertically, and for creating an intersection. The fourth tool is a segment selector. Each time you divide the image, the segments are named sequentially from left to right and down the page, and then added to the pulldown list. You can enter a link URL and an ALT label which will display in the window while the image is loading.

The page is now divided into ten segments. We are only going to export images one, three, five and seven, since there is nothing in the other bits. But they could, for example, contain other images or dynamic text. If you don't want to export part of the image, you can just select "No export" in the File-type pulldown. If you inadvertently create a slice in the wrong place, you



▶ PAINTER 5.5'S AUTOMATICALLY GENERATED HTML AND JAVASCRIPT, COMPLETE WITH CUT AND PASTE INSTRUCTIONS

Questions & answers

Q I took one of my three CorelDraw books on holiday with me to give me a chance to read it properly.
I noticed the "Creating Images for the Web" section and thought I'd have a go at it. I'm adequately familiar with HTML but not Java and definitely not Corel Barista. I created a drawing and used the "File/Publish To Internet" option to save it, and all I can ever see on my browser is a large square box, whether I use Netscape or Explorer and whether I publish a drawing or text.

The book says I can publish directly to HTML or Corel Barista, but I'm stuck with Barista as the only option. Any ideas on how to proceed would be most appreciated.

FRED BURNETT

***A** There are four options for exporting files using the Publish to Internet command from the File menu in CorelDraw 7. You can simply export your graphic as a gif or jpeg bitmap image, you can create a Barista file, or you can export your graphic as an HTML image map. In this last case Draw creates two files — a gif file of the map graphic, and an HTML document containing a reference to the gif and all the relevant HTML code to make it work as a client-side image map.*

Once you assign a URL to an object in your drawing, you can define the hotspot — the area you click to access the linked document. To use an object as the hotspot, click Toolbars from the View menu, enable the Internet Objects check box and click OK. Select the Internet Object with the Pick tool and click the Use Object Shape to Define Hotspot button in the Internet Objects toolbar.

If the internet toolbar isn't displayed, right-click any toolbar and click Internet Objects from the pulldown menu. When you export to the image map, Draw will save the graphic as Graphic1.GIF and the HTML as Graphic1.HTM. If the Export to Image Map option is greyed out or not working, it's probably because you haven't got the image map filter installed. You need to insert CD 1 and re-run the installer. Select Custom Setup and uncheck every single box in the Component panel (so you're installing no applications), then hit the Next button which will take you to the Filters panel. Expand the Internet Filters menu and check the second option — the Corel image map htm — then follow the rest of the installation procedure.

can delete it by Ctrl-clicking. The five sections on the right — two, four, six, eight and ten — can be grouped. The documentation states that if these contained a single background colour, you could export it as a single gif file with a small palette, say 4 bits per pixel. However, I'd be worried that adjacent areas with the same background but a different file format and palette, would display differently.

Once the slices are defined, you're ready to export the HTML table and images. Don't forget to define the rollover state for the buttons using the pulldown at the bottom. Click the Export settings for the Current image state button and in the Export Slices options panel specify the location for the HTML and images, click the Include Javascript button and set the rollover state — mouseout. Check the location you specified to make sure you have an HTML file for the table and an image for each of the segments exported.

Float away

Next, turn all the buttons on by making the "on" floater visible in the list, and, still in the floater list, double-click the Image Slicer floater to bring up the dialogue again. If you add a new floater at this stage, make sure to reposition the Image Slicer floater at the top of the list, as it only works on floaters below it. In the Export Slices options panel select mouseover as the state and uncheck the export HTML box. You should now have an HTML table, image one (the logo) and two files for each of images three, five and seven in on and off states.

▲ SUCCESS, AND SO QUICK! THE FINISHED ARTICLE IN EXPLORER 4

This was the first time I'd attempted this with Painter 5.5 and, to be quite honest, I wasn't expecting it to work. At best, I thought, I'd get everything in the right place but the rollovers wouldn't work. So you can imagine my surprise when the page appeared in Explorer 4 looking absolutely perfect and with three working rollovers.

I'm no Javascript or even HTML expert, so I couldn't say if Painter's automatically generated code is particularly elegant but I do know it works. I also know that creating this first effort took me about half an hour, and the first, last and only time I ever attempted to hand-code an HTML page with Javascript rollovers took me the best part of a week.

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Gloria in Extensis

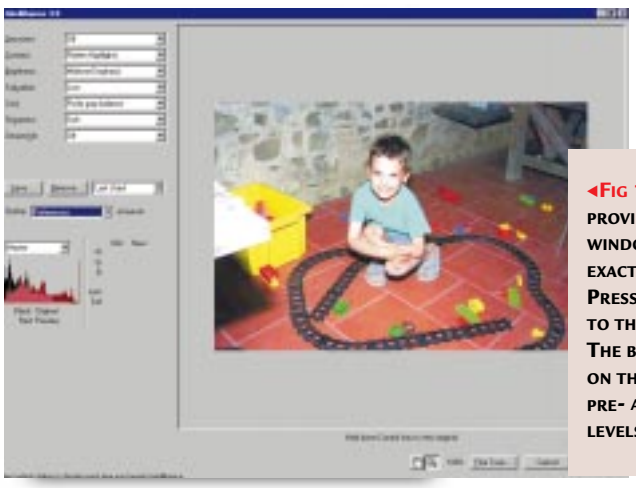
Extensis Intellihance is heavenly for improving your images. Ken McMahon sings its praises.

It's more than a year since I took stock of the myriad plug-ins available for image editors. They're generally referred to as Photoshop plug-ins but you can use them with any application which supports Adobe's plug-in architecture. This month, though, I want to concentrate on one that's earned its keep many times over in the past year, and that's Extensis Intellihance.

Intellihance is a multi-faceted plug-in which improves your images by first evaluating them, then making adjustments to the contrast, brightness and saturation, and applying sharpness and despeckle filters. You can alter the settings to reflect your own personal preference and save the alterations as presets. Say, for instance, that images grabbed from your camcorder always had a particular colour cast and grainy-looking shadow areas, you could optimise Intellihance's preferences and save them as a preset to be used when processing video images. Used in combination with an image editor which supports scripting or batch processing, Intellihance becomes just about the quickest and easiest way to bring your images up to scratch.

Intellihance becomes just about the quickest and easiest way to bring your images up to scratch

When you select Intellihance from the plug-in filters menu of your application, you are presented with a not very impressive dialog box with three buttons: enhance image, preferences and cancel. The enhance image button does what it says. Using the default settings you can give it a try, but you'll do better to press the preferences button which gives you more of a hand in the process. The preferences dialog is shown in Fig 1. This is one of a series of pictures I took outside at night, with a flash mounted on the camera. Inevitably, the highlights in the foreground are a little burned out and the illumination falls off rapidly (in inverse proportion to the square of the distance, for all you technical types) resulting in some very dense shadows. Using the default settings, Intellihance has done a pretty good job of bringing some detail back into the shadow areas. The "before" version can be viewed in the preview window by pressing Control. The highlights are still looking harsh, though, and the contrast is way too high, probably not helped by Intellihance's bucketload approach to unsharp masking. So there's still plenty we can do with this image.



◂Fig 1 Intellihance provides a nice big preview window so you can see exactly what's going on. Press Control to revert to the pre-adjusted image. The black and red areas on the histogram indicate pre- and post-adjusted levels respectively

▲Fig 2 You can fine tune adjustments but regrettably all the fine tuning in the world cannot be saved as part of a preset

Before you start, it's probably worthwhile selecting Preferences from the "display at launch" pulldown so you come straight here next time you select Intellihance from the plug-in's menu. Another thing worth doing right away is maximising the window to full-screen. Oh, and I should have told you to make sure that you crop your picture nice and tight, as any areas of white or any flat colour around the edges will throw Intellihance off the scent.

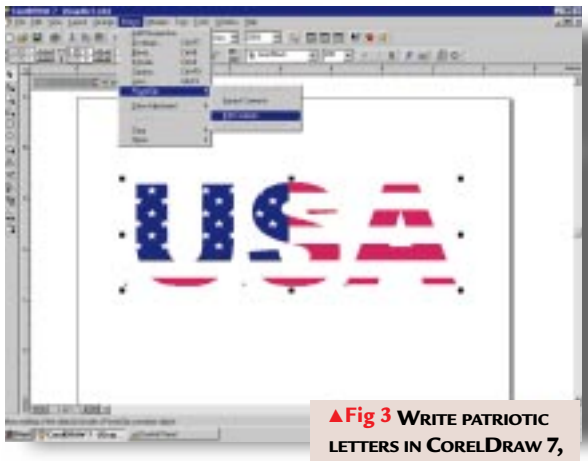
In the top left of Fig 1, you can see pulldown menus from which you can select presets for all the adjustments. The contrast pulldown has seven options, ranging from Off to Hard, Snappy, Flatten Highlights and Flatten Shadows. Soft seems to do the trick well with this kind of image. The saturation presets range from Low to High with a few in-between settings: all increase the saturation of the original, and changing

Questions & answers

Q I want to have the letters USA filled with stars and stripes clipart. How could I do it? I have Microsoft Publisher 97, CorelDraw 3, SerifDraw Plus 2 and Pageplus 3, yet no matter what I try, it doesn't seem to register the clipart. I have tried everything to achieve this but nothing seems to work. What I had to settle for in the end was a stars and stripes flag placed behind the text with a clear fill colour.

MICHAEL PHOENIX

A *My advice is to upgrade to CorelDraw 7 which, in the form of Powerclips, provides exactly what you need. Here's how to create text filled with the stars and stripes flag. First, create the USA text by clicking in the draw window to create artistic rather than paragraph text. Set the text using the font and size pulldown (I've used 200pt Arial Black). Next, import the flag from the Corel clipart CD, which contains just about every flag ever flown, including semaphore flags and the skull and crossbones. With the flag still selected, choose "Powerclip — place inside container" from the effects menu, then click on the USA text. You can position the flag artwork within the text by selecting Edit Contents from the same menu.*



▲Fig 3 WRITE PATRIOTIC LETTERS IN CORELDRAW 7, COURTESY OF POWERCLIPS. THE CONTENT, THE US FLAG, CAN BE POSITIONED ACCURATELY USING EDIT CONTENTS

it from medium to low will tone things down without losing colour from the skin tones. The sharpness settings, like the others, increase the overall sharpness of the image. The lowest setting is Soft, but don't expect it to soften or blur the images: it just sharpens things up by a soft degree. Because it's so contrasty I don't think this image, nor others like it, will benefit from sharpness, so I'm turning it off. Bear in mind that you're trying to optimise these settings, not just for this one image but for all of the images you're going to process using these presets. The next thing to do is save the preset; I've called it "night flash".

Fine tuning

If you want more control than the pulldown settings provide, hit the Fine Tune button at the bottom of the preview window. Fine-tuning adjustments can be made manually only to individual images: you can't save the adjustments as part of a preset [Fig2]. This replaces the pulldowns with a tabbed palette, giving greater control over each of the image adjustments.

Instead of a few presets you get access to sliders and other tools which provide an infinitely variable degree of control. Using the tone panel I've put detail back into the highlights by bringing the highlight slider back up to 255 and lightened up the midtones using the midtone slider. There are three eyedropper tools you can use to set the white, black and midtone points from the image, and a lightmeter which you can use to select an area of the image on which to concentrate when making tonal adjustments. The final adjustment I've made is to fine tune the cast in order to remove the green tinge that's crept into the wall.

There really isn't too much wrong with this image to start with, but by using Intellihance I've managed to make real improvements in no time at all. What's more, other similar images on which I've tried these settings all benefit from similar improvements, in some cases bringing out background detail that previously was not visible.

COLOUR MANAGEMENT CUES

Following the Colour Management workshop in the September issue, a number of you wrote in to ask for further information about ICC-compliant colour management systems.

There seem to be relatively few books on the subject, although I can wholeheartedly recommend Agfa's *The Secrets of Colour Management* which you can order online from www.agfahome.com/publications/dcp5text.html. Chapters include: The Digital Reproduction Workflow; What Is Light?; How Do We Perceive Colour?; Why Colour Management?; Monitor Limitations; Characterizing Output Devices; Colour Separation; and Colour Management Today.

There is also an Agfa colour management FAQ at www.agfahome.com/faqs/colormgmt.html, although this is rather heavily Agfa-product biased.

Other useful web resources include:

- The International Colour Consortium at www.color.org which has good links to most of the relevant sites.
- Try www.apple.com/colorsync/index.html for details of Apple's ColorSync CMS.
- And at www.adobe.com/supportservice/custsupport/TECHGUIDE/PSHOP/CMS3/cms_gen.html you can find Adobe's excellent and comprehensive technical guide to colour management.

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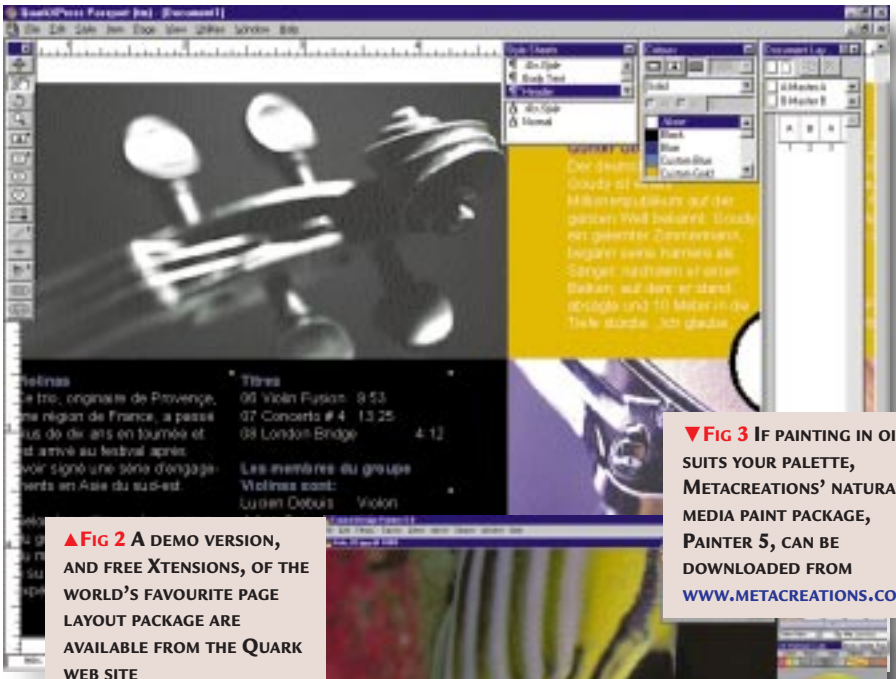
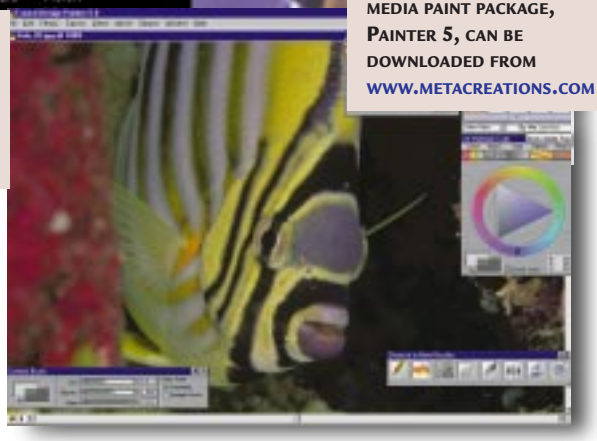
Do the site thing

Ken McMahon takes you on a trawl of some of the best free software on the web.

Now is a good time to think about getting your hands on lots of lovely software to keep you occupied between Christmas and the last New Year's Eve we'll be able to enjoy without the threat of "millennium armageddon" hanging over our heads. As you will be completely skint, having spent all your money on presents for relatives and bottles of Baileys, I have trawled the web searching out free demo applications, beta versions, plug-ins, extensions, fonts and other graphics-related free stuff for you to enjoy.



▲Fig 2 A demo version, and free Xtensions, of the world's favourite page layout package are available from the Quark web site

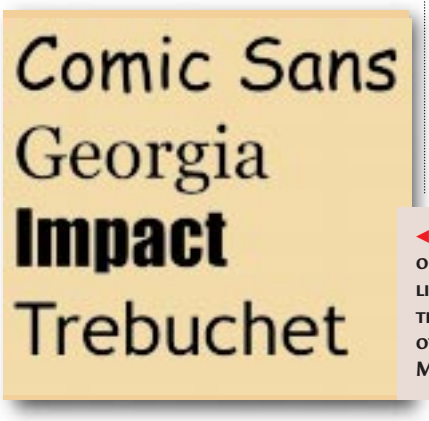


▼Fig 3 If painting in oils suits your palette, Metacreations' natural media paint package, Painter 5, can be downloaded from www.metacreations.com

Check 'em out

☛ **www.microsoft.com/typography/ fontpack/default.htm**
Microsoft is encouraging developers to use these fonts on their web sites. You install these, and when you visit web sites that incorporate them, you will see them exactly as they were meant to look. They are a nice collection to have along with typefaces such as Impact, webdings, Monotype.com, Trebuchet, Georgia, Verdana and comic Sans. And, check out Microsoft's links at www.microsoft.com/typography/links/ to people who give fonts away. You will find font foundries as well as shareware fonts [Fig 1].

☛ **www.microsoft.com/typography/grayscal/smoother.htm**
Still at the MS web site, if you have not yet upgraded to Windows 98 and cannot afford a copy of Adobe Type Manager Deluxe, download the Windows 95 font-smoother which will anti-alias your screen fonts making their jaggy edges appear oh-so-smooth. You can, of course, achieve the same effect by drinking an entire bottle of that Baileys!



◄Fig 1 As well as plenty of typography news and links, you can download these free typefaces and others from the Microsoft web site

☛ **www.mindworkshop.com/alchemy/gifcon.html**
That's enough Microsoft. Time to head to a shareware demo version of Alchemy's excellent gif construction set. It allows you to create and manipulate transparent gifs and animated gifs using animation wizard.

☛ **www.equilibrium.com/ProductInfo/DBLite/DBLite.html**
Here you will discover a free download of Debabelizer Lite LE. DeBabelizer Lite is good for simple image translation and slideshow functions. For RGB, bitmap, scan or paint files it offers a translation capability which is similar to DeBabelizer 3 but without the CMYK capabilities, internal scripting, image processing or palette manipulation. Slideshows can be used to create and translate on-screen thumbnails of images in a folder.

☛ **www.adobe.com/newsfeatures/tryadobe/main.html**
This is the place where you can try out most of Adobe's products including Photoshop, Illustrator, PageMaker, Pagemill, Premier, Streamline and After Effects. All these versions are "save disabled" which is not as good as a 30-day trial, but I guess that's why they're called tryouts. Who knows? You might like the software so much you'll want to pay for it.

☛ **www.livepix.com/download/index.htm**
Pick up a 30-day trial version of Livepix 2.0, the image-editing package that uses the flashPix file format to keep things fairly zipping along. This version has the same features as the fully-licensed version of LivePix 2.0 Deluxe but without the

Questions & answers

Q I have a P133 with 16Mb of RAM, with MagnaRam installed taking me up to 20Mb. I was trying to piece together a picture taken from two shots using a camcorder. First, I fired up Adobe PhotoDeluxe, which crashed and burned after the splash screen. Then I tried Adobe Photoshop, which broke down trying to paste a picture. I tried this with all my graphics programs and they all died on me. In the end, I managed to piece together the photo using Microsoft Paint. Why is this happening? And would the result be any better in Photoshop or PhotoDeluxe?

(NAME NOT SUPPLIED)

A *The problem is almost certainly that you do not have enough RAM – real RAM that is, as opposed to the virtual kind provided by MagnaRam. The 4Mb additional virtual RAM you are getting with MagnaRam is hardly worth the bother. You do not say which version of Photoshop you are using, but as 4.0 needs a minimum of 16Mb RAM and 3.05 needs 10Mb, you're sailing pretty close to the wind anyhow. With the price of RAM now at around £1 per megabyte, there is really no excuse not to upgrade. So go out and buy a couple of 32Mb modules and you will enjoy faster, more reliable performance with all your applications. In answer to your second question, yes, it would look better and the job would be far easier in Photoshop or PhotoDeluxe, both of which have a much wider range of more sophisticated tools than Paint. The tricky part of joining two halves of a picture is first to get the halves aligned (by using rotate, and then nudging one half of a pixel at a time with the arrow keys) and then make the join invisible by selective use of the clone and smudge tools.*

Q I have a TV card which will only save captured single frames in the Microsoft Windows DIB format. I can't find an application that will allow me to view this. Is it possible to convert the file to a different format?

DAVID SMITH

A *It's Paintshop Pro 5.01 to the rescue once again. It will open and convert your DIB file to pretty much any other format. It's on our cover CD, or you can get it from www.jasc.com.*

In September's Q&A, reader Alex Pounds was looking for a way to get a GIF out of Internet Explorer in another format. Ben Curthoys suggests setting the GIF as wallpaper: right-click the GIF and select "set as wallpaper". This creates a file called "Internet Explorer walpaper.bmp" in the Windows folder. You can open this in MS Paint or any other image-editing package that supports the bmp file format.

Novita LiveLetter email application or the Xaos Tools special effects filters, and with only two sample templates. If you have LivePix SOHO, you can also download a new SOHO project every month.

☛ **www.macromedia.com/software/downloads/**

Stop off at Macromedia to download Shockwave and Flash players so that you can view "shocked" sites which include interactive animations. While you're here you can also pick up demo versions of Macromedia heavyweights Director and Freehand (both are save disabled) as well as Authorware, Dreamweaver, Fireworks, Flash and Generator (these are mostly 30-day trial versions).

☛ **www.quark.com/ftp001.htm**

At the Quark XPress web site [Fig 2] you can take the opportunity to play with the page layout software that is used by so many people, for the simple reason that it's really quite good. The bad news? Files cannot be saved, new libraries cannot be created and printing is limited.

☛ **www.quark.com/xtensions/**

Here you will find a whole barrowload of filters and extensions for Quark XPress versions 3.3x and 4.0. Most are available for MacOS and Windows and many are beta versions. Here are some of the more interesting ones available for XPress 4.0:

- **MS-Word 8 Filter** (Beta2) works for documents imported from (or exported to) the release of Microsoft Word 8.0, which is called Word97 for Windows and Word98 for MacOS. And if you have seen the mess when you try to import these files without it, you'll know just how useful that is.
- **PDF Import/Export XT** (Beta) allows you to save a page or range of pages from a Quark XPress document as a PDF file. The filter saves the pages in PostScript format and uses Adobe Acrobat Distiller (which you need to have installed) to create the PDF file. The filter also allows you to import a page of a PDF document into a Quark XPress picture box. It only works with Quark XPress or Quark XPress Passport 4.02 or later.
- **TypeTricks 1.01** features include Make Fraction, Make Price, Remove Manual Kerning, Word Space Tracking and Line Check. This one requires Quark XPress 4.0 or Quark XPress Passport 4.0.
- **Jabberwocky** (which is MacOS only) enables you to fill a text box with random text for testing and placement purposes.

☛ **If you want** more Xtensions, you should head for www.extensis.com/products/download.html. Xtensis products include Preflight Pro, QX-Tools and QX-Effects for XPress, and Photoshop plug-ins Intellihance, Mask Pro and Phototools, to name but a few. Thirty-day trial versions of each can be downloaded free of charge. Additionally, there are free, fully-working tools available for download, among which are PhotoBevel, QX-Drag&Drop and VectorFrame.

Christmas crackers

No Christmas shopping expedition would be complete without a trip to www.metacreations.com/downloads/ [Fig 3] where, among other things, you can pick up demo versions of Bryce 3D Convolver, Dabbler, KPT, Painter 5 and Ray Dream 3D. Have fun!

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Plug-in perils

Beware those forgotten extensions, temporarily loaded: they can cause all sorts of cross-platform infestations. Ken McMahon relates his own tale of woe and finds some fixes.

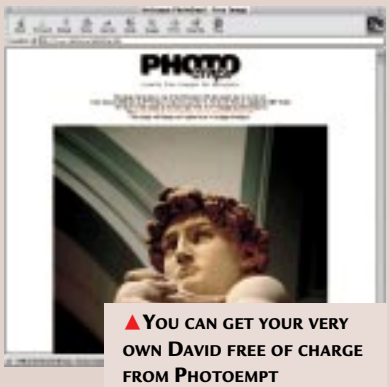
This month it's my turn to ask you lot for help. I was producing a brochure for a client who, for reasons best known to themselves, decided to have the cover produced elsewhere. When the cover arrived — a Quark XPress 3.32 Mac document — we were unable to open it without loading a couple of extensions, Resize XT 1.1.3 and Scitex Polygon 3.1. Of course, I forgot to remove them from the extensions folder afterwards, and every document I subsequently saved will not now open without the extensions present.

On the offensive

This is tantamount to a virus infection. We cannot send our "infected" Quark files to the output bureau without the offending extensions present, and this exposes the bureau and all of its other customers to the same problem. The last time something like this happened was with a nasty piece of work called Pasteboard XT which provided the not very staggering improvement of a large pasteboard area. Then someone came up with a lifesaver called Pasteboard Xterminator which, if present in your Quark extensions folder, allowed you to open Pasteboard "infected" documents. The problem travels across platforms, so if someone sends you a Mac Quark file created with any of these monsters, you won't be able to open it on a PC. You can get both Mac and PC fixes for Pasteboard at www.markzware.com.

The Scitex ones are more of a problem. I have a Mac workaround; anyone who's interested can email me for details, but this doesn't help if you want to open an "infected" Mac file on a PC. Pasteboard is available in PC format; as far as I'm aware, the Scitex ones are Mac only.

Finally, on the subject of Quark plug-ins, by the time you read this, **version 4.0 of Extensis QX-Tools** will be available for Windows (95, 98 and NT4) and MacOS. QX-Tools is a nifty suite of plug-ins which includes things like group scaling, palette docking and attribute find-change. The last one is a dream for changing all your box line weights at a stroke — and it only costs £99.



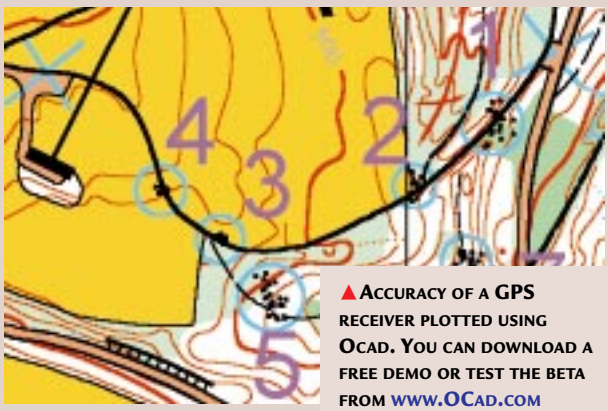
▲ You can get your very own David free of charge from Photoempt

PICTURE THIS

Still looking for that elusive image of a church door, autumn leaves, a Tuscan landscape or a suburban semi? Then Photoempt's collection of royalty-free images could be the answer to your prayers. At the moment they've got a mere four-CD collection, each with 100 images at 800x600 pixels. Each CD costs $99 (Canadian) which is about £40, and you have to phone or email to order. Repro-resolution images are available individually. Photoempt will never compete with the likes of Corel, Photodisc or Digital Vision in terms of volume or service, but you can't have too many sources of good pics, and there's a free sample, changed regularly, on the web site at www.rjsid.on.ca/photoempt.htm.

SWISS ROLL

Mike Godfree's solution to the mappers problem raised by Ian Cargill in the July issue is to use a Swiss application, OCAD, designed for orienteering. "The user can define his or her own symbols and the Win95/NT version (OCAD 6) has a set of symbols for city maps and tourist maps. Demo versions can be downloaded from www.ocad.com and the only limitation is a maximum of 500 objects, which is probably adequate for the type of map Ian Cargill talks about. Version 6 allows tracing of a template in bmp format but does not allow the use of a digitiser. Version 5 allows a digitiser as well as tracing over a template, will run on Windows 3, but does not have the extra pre-set symbols. The main advantage is the small size of the program and the subsequent speed. Full versions cost around £250 (it is priced in Swiss francs)." The developer has even written an interface for GPS receivers, so you can create your own maps "in the field", as it were. The results of his tests, which are on the web site, show an accuracy of, at best, plus five metres and, at worse, plus 25 metres. Clearly room for improvement if you don't want to find yourself in a river when you should be in the bar of the pub next to the church with a steeple.



▲ Accuracy of a GPS receiver plotted using Ocad. You can download a free demo or test the beta from www.OCad.com

Questions & answers

Q I have around 400 fonts on my Windows 95 machine. They don't appear to slow things down as they did under Windows 3.x, but that really is an unmanageable number. Even with font management software, I cannot face going through and comparing all those fonts, a slow and inexact process if you do not have wide experience of the subject. Is there a useful working set that would cover most bases without excessive duplication?

DAVID THORPE

▲ ATM LETS YOU CHECK OUT FONTS BEFORE INSTALLING THEM — HANDY IF YOU'RE LOOKING FOR A FACE THAT FITS ▶ YOU CAN SET UP DIFFERENT SETS FOR DIFFERENT APPLICATIONS AND KEEP YOUR FONTS ANYWHERE YOU WANT. YOU JUST DRAG FROM THE RIGHT WINDOW TO THE LEFT TO ADD FONTS TO THE SET OF YOUR CHOICE, AND ACTIVATE SETS SIMPLY BY CHECKING THE BOX

A *The trouble with the Fonts folder is that it does have a tendency to grow unnoticed, particularly if you frequently install new packages which come with free fonts. The problem is exacerbated by the way TrueType font files are displayed. One font will usually have at least four "styles" — roman, italic, bold and bold italic, each with a separate font file. Fonts like Universe, which come with more weight variations than you're likely to want to count, pose even more of a problem.*

A quick way to make things look tidier without actually deleting fonts is to hide the numerous variants that make up a particular font family. In the control panel, double-click the fonts icon and simply select <hide variants> from the View menu. If you want to actually remove the fonts so that they don't appear on application fonts menus, play safe by copying all of your fonts into another folder before removing any from the Fonts folder using the Fonts tool. If you later decide to reinstall the removed fonts, select "copy fonts to the Fonts folder" option. If you don't do this and subsequently remove the font a second time from the Fonts folder, you will no longer have a copy to restore.

A far better option in my view would be to get yourself a copy of Adobe Type Manager Deluxe 4 which, among other highly useful things, allows you to easily manage all your TrueType and Type 1 fonts without having to mess around copying them from one folder to another.

ATM lets you install and uninstall typefaces using a drag-and-drop interface and allows you to create custom sets of fonts that launch at start-up, with a particular application or a specific file. So if, like me, you only ever use Word to write things without formatting them, you can configure ATM to use only a very basic font set. You can tell it to launch a more comprehensive set with your page layout application, to load your company fonts when opening any stationery files, or a special web font set when you launch your browser or web authoring package.

ATM also simulates missing fonts using Adobe's Multiple Master font technology, has its own Type 1 smoothing engine, allows you to print font samples prior to installation, and improves output to non-PostScript printers. For £49 for the full version and £35 for an upgrade, it's undoubtedly the best way to get your TrueType and Type 1 fonts organised.

Q Can you give me any information on colleges that offer desktop publishing and graphic design courses? I am currently employed by a local publishing house as a DTP operator and would like to extend my limited knowledge of PageMaker 5 and CorelDraw 6.

LINAH@AWS.GAIA.CO.ZW

A *I just couldn't resist the challenge of tracking down some course information on the web, so I tried hotbot with the string +"higher education" +courses +UK +graphic design" and came up with 241 matches, including the Government's National Grid for Learning web site at www.ngfl.gov.uk. This place is a mine of information. You have to complete a very short registration form to access the site, but the links that the search engine throws up are well worth the effort. I was quickly able to track down information on institutions offering higher education courses in graphic design and related subjects, course information on NVQs in design, reviews of software on the curriculum, information about exam bodies (tip: don't type examination bodies into the subject field of a search engine — it won't yield what you expect) and links to other useful resources.*

PCW CONTACTS

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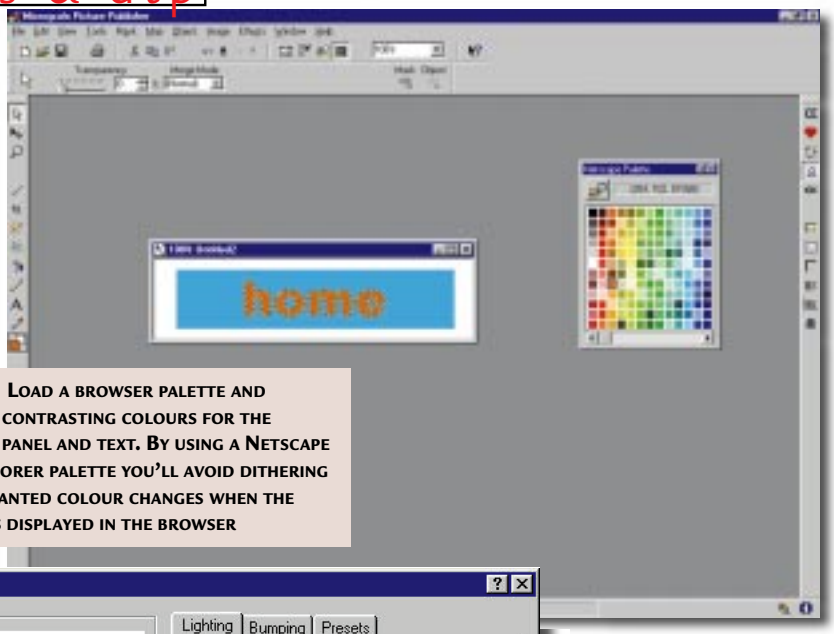
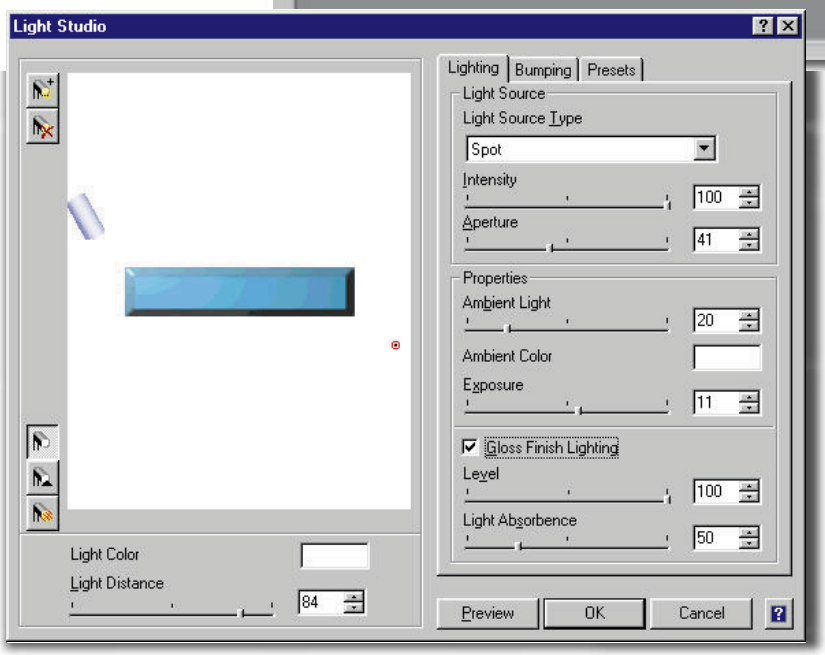
Button up

Ken McMahon looks at fasteners — buttons, that is. With lighting controls and bevel filters it's now easier to create them for your web sites.



▲ FIG 1 LOAD A BROWSER PALETTE AND CHOOSE CONTRASTING COLOURS FOR THE BUTTON PANEL AND TEXT. BY USING A NETSCAPE OR EXPLORER PALETTE YOU'LL AVOID DITHERING OR UNWANTED COLOUR CHANGES WHEN THE IMAGE IS DISPLAYED IN THE BROWSER

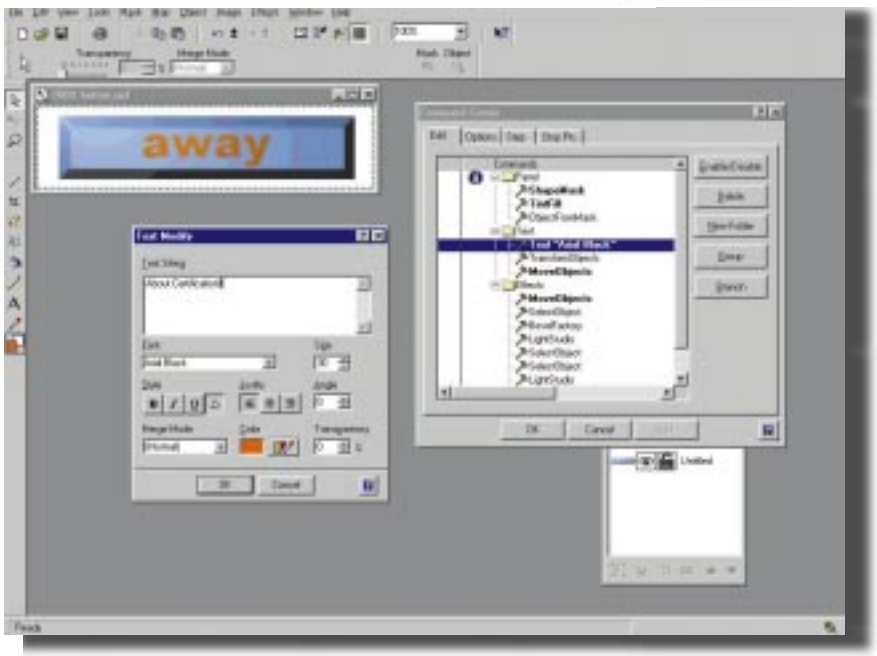
Creating great-looking buttons for a web site is a much easier business than it used to be because most bitmap editors now include lighting controls and bevel filters. For all but the most simple web sites you need to produce quite a few buttons, so it will speed things up if you can automate part of the process. By using Picture Publisher's Bevel Factory and Lighting Studio to enhance the look of your buttons, and using the command centre to automate the process, you can quickly create a bucketful of excellent-looking buttons. You can use broadly the same technique in any application that supports scripting, like Adobe Photoshop, Corel Photopaint or Metacreations Painter.



◄ FIG 2 USE THE LIGHTING STUDIO AFTER BEVEL FACTORY TO CREATE A SPOTLIT EFFECT. IF YOU HAVEN'T COMBINED THE TEXT AND PANEL OBJECTS YOU'LL HAVE TO DO THIS FOR EACH. MAKE THE APERTURE AT LEAST 40 OR YOU'LL GET UNPLEASANT SHADOWS AT THE EXTREMITIES

1 CREATE A NEW DOCUMENT of 400 x 100 pixels at 72dpi (it's easier to work on at this size). Next, select the rectangular mask tool and set the option to a constrained size of 350 x 75 pixels.

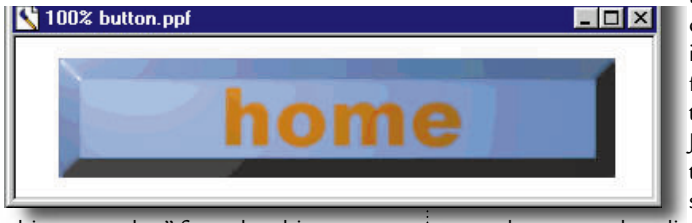
2 PRESS F7 TO BRING UP the swatches palette and load either the Internet Explorer or Netscape palette, depending on which browser your site is optimised for [Fig 1].



► FIG 3 IN THE COMMAND CENTRE YOU CAN GROUP OPERATIONS TO MAKE EDITING EASIER, BUT ALL YOU REALLY NEED TO DO IS DOUBLE-CLICK THE TEXT COMMAND AND SUBSTITUTE THE NEW TEXT. TO CHANGE THE PANEL COLOUR YOU WOULD SIMILARLY DOUBLE-CLICK THE TEXTFILL COMMAND FROM THE PANEL GROUP, THEN PRESS RESET AND PLAY

3 SELECT A COLOUR for the button and use the active colour fill tool to fill the mask. Then convert the mask to an object by pressing Ctrl-W or by using the object menu.

4 PICK A CONTRASTING COLOUR from the palette, select a suitable sans serif font (I've used Arial Black) and use the text tool to create the button wording. Don't worry if it doesn't fit exactly: you can use the transform tool to resize the text before moving it into position. Remember to leave sufficient space around the edges for the bevel we're going to apply later, and to leave space top and bottom for ascenders and descenders. It's also a good idea to start with the biggest word first, so you can be sure all the others will fit. If you create your template for the "home" button (as I have done) you're going to have problems with "about certification" or any other long text. If you combine the button and text objects using "combine objects together" from the object menu, the subsequent light effects will apply to both the text and the panel but you won't be able to move it independently, which you may need to do for subsequent buttons [Fig 2].



Effective lighting

If you don't combine the text and panel, you'll need to apply the same lighting effects independently to each.

1 SELECT THE NEW OBJECT (or just the panel if you haven't combined) and choose Bevel Factory from the effects menu.

2 DRAG THE PREVIEW WINDOW so that you can see the top left corner of the button and set the parameters until you get the desired result. I've used a bevel width of 12 with a smoothness of 6, light intensity 85, highlight 95 and shadow depth 32.

3 IF YOU CHECK the light studio box and click OK, you'll go straight to the light studio dialog, but via this route it behaves strangely and gives unpredictable results. Instead, leave the box unchecked, click OK, then select Light Studio from the effects menu.

4 IN LIGHT STUDIO use a spotlight positioned at the top left of the button and position the focus point at the bottom right. Use a fairly wide aperture setting (I've used 50) and an intensity of 100. Check the gloss lighting box and click OK.

5 SELECT SIZE from the image menu and change the width to 100 pixels. The height will size proportionately, using the default settings.

That's the button finished. Save the file as a .ppf, remembering to check the save command list box. Then open the command centre from the edit menu. It helps to see what's going on if you group the steps. I've organised them into three folders: panel, text and effects. Just shift-select the relevant steps, hit the group button on the edit panel and rename the folder [Fig 3]. To create new buttons, double-click on the text step and insert your new text in the dialog that appears. Then select the steps tab, click the reset button and press play. You can edit the button colour in the same way, by double-clicking on the tintfill step.

Finally, if you want a transparent background, export the button in gif format: use the eyedropper to select the white background as the transparent colour. If you want to check how your button will look against a tiled background, hit the browse button and select your web page tile, then hit the full-screen preview icon.

Map copyright

Following Ian Cargill's question about reproducing maps (*PCW* July) a number of you wrote regarding the copyright position on copying OS maps. Andrew Newton thinks we're on dangerous ground. "As I understand it," he writes, "the law is very strict in stating that written permission must be gained before copying a map...". My personal opinion is that if you are creating a new map, rather than a direct facsimile, and are only using an OS map as a reference, there's no problem. But where copyright is concerned, it pays to check. Andrew has provided contact details (*below*).

BOOKS

Adobe Photoshop 5.0 Classroom in a Book

I looked at this one last month but Adobe has now released a new edition for version 5.0. It has almost doubled in size and is virtually completely rewritten. There is a chapter on using spot colour and a section at the back on Adobe Image ready. Disappointments? There's still only a 14-page colour section and little on using the new layer effects and history palette.

ISBN *1-56830-466-8*
Price *£41.50*

Fine Art Photoshop — Lessons in digital drawing

by MJ Nolan and R LeWinter

Here's a Photoshop book with a difference. Where numerous others attempt to enlighten you on the innermost workings of a package, this one shows you how to do something creative. Forget all those watercolour and charcoal effect filters, this book shows you how to draw and paint the traditional way, using Photoshop as a digital aid. If you are interested in developing your traditional drawing and painting skills in a digital direction, this would be an excellent tutor.

Published *Hayden Books*
ISBN *1-56205-829-0*
Price *£37.50*

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OS Copyright Branch *01703 792913*

A touch of **class**

Why wallow in mono when you can delight in duo? Duotones can be any colour you like and bring an air of sophistication to those dull two-colour documents. Ken MacMahon explains.

Duotones have emerged as something of an artform. The depth, quality and subtle colouring of duotones, tritones and quadtones conveys a quality that is impossible to achieve with either monochrome or full-colour reproduction.

Duotones can be any colour you like and are an inexpensive way to add some class to a two-colour document. You can print duotones on an inkjet or colour laser printer with excellent results. The only problem is that you'll need a PostScript printer, and PostScript colour printers can be expensive.

One option is to convert your duotone image to CMYK prior to printing, although it has to be said that this doesn't do an awful lot for the quality. A better option is to buy a software PostScript RIP (raster image processor) which will enhance your printer's capabilities considerably.

Subtle gradations of shade can be captured with duotoning, as demonstrated with this sundial

Choosing your subject

Producing good-quality duotones isn't difficult; it just takes a little care. The first thing to understand is that colouring a greyscale tif in an image editor or DTP program does not a duotone make. This just substitutes another colour for black which, technically, is a monotone and will, more likely than not, reduce rather than increase the tonal range of your pictures.

First, open the picture you want to use in Photoshop. It can be a colour or greyscale, but if it's colour, first convert it to greyscale by choosing Greyscale from the Mode menu. Pictures with subtle gradations of tone (misty landscapes, lots of fabric, sand, snow) make good subjects for duotones.

Next, select Duotone from the Mode menu and the duotone dialog will appear. This shows a pull-down menu and four swatches. For duotones you use only the first two, the remainder are for tri- and quadtones. Next, click the Load button and find the Pantone duotones directory within the Photoshop directory on your C drive. In here you will find a broad selection of Pantone spot-colour duotone curves. Each colour has four associated curves; the first produces the strongest tint of the second colour, and the fourth the weakest, with two stages in-between.

Notice that the black ink is at the top and the lighter Pantone underneath. If you specify your own colours, make sure you descend from darkest to lightest as this is the order in which the inks print if outputting the image directly from Photoshop.

Curves and colours

You can either edit the curves or select your own duotone colours. I find the best approach is to select a Pantone curve close to the colour I want from the Photoshop presets, and then double-click the colour swatch to select the precise Pantone for which I am looking.

p268 ➢

If you edit the curves, you are not making pixel adjustments but editing a transfer function determining the distribution of inks on the two plates. Boxes to the right of the curve indicate the percentage of ink present at that point of the tonal range for that ink. The trick is to remove black and substitute the second colour in those mid-tones, to highlight parts of the curve that would benefit from enhanced tonal range.

In the shadows

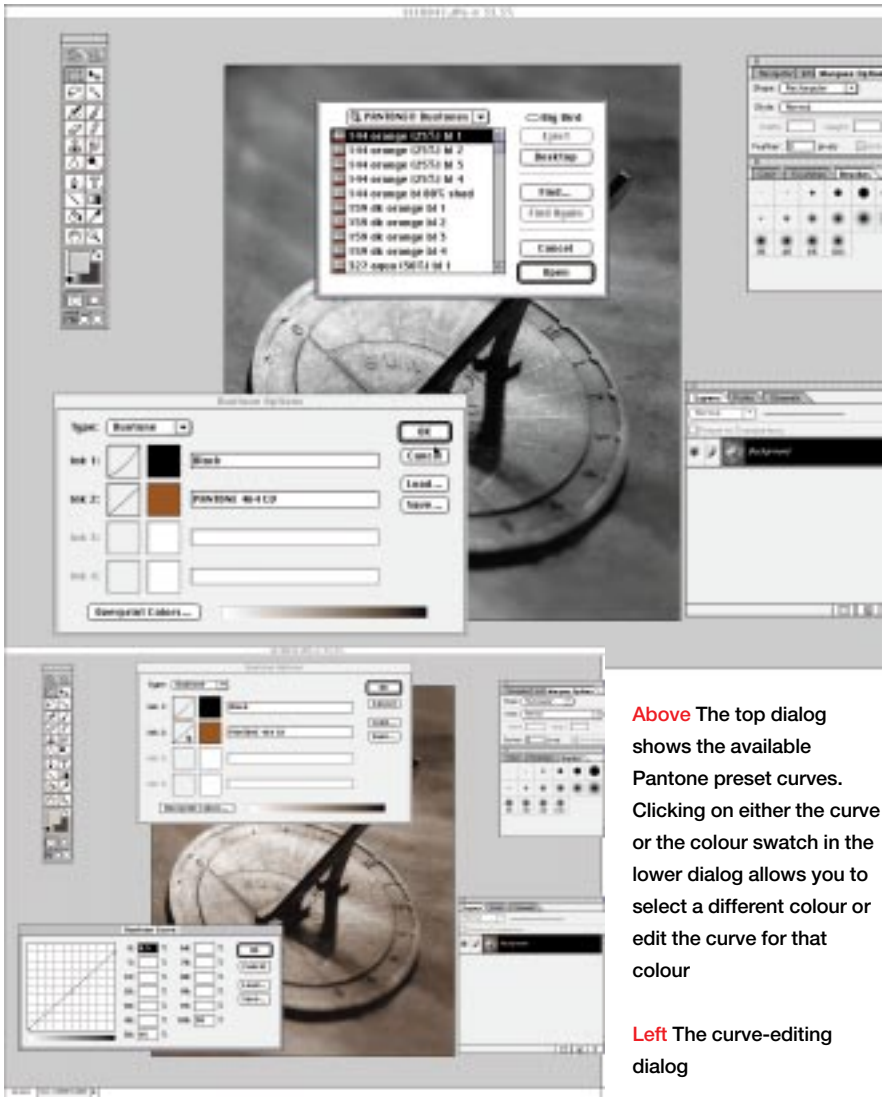
Generally speaking, greyscale images which have been converted to duotone tend to look dark and muddy, particularly with warm second colours, so you often need to adjust the black plate curve to remove ink, particularly in the shadows. What you do with the second colour will depend very much on the kind of end result you're looking for.

If you want make a visual check on the ink distribution on the two plates, convert to a multi-channel image, again from the Mode menu, but don't forget to undo before making any other edits because the separate channels cannot be recombined into a duotone image.

If you want to import your duotone into another application, you'll need to save it as an eps file as only this format can retain the separate plate information. It's essential to use identical names for the spot colour, both in Photoshop and the package you intend to import into. Quark XPress, Adobe Illustrator or MacroMedia Freehand will add spot colour to the palette and give it the same name. But if you're importing the image into a document you're already working on, make sure you haven't already defined your spot colour with a different name or you'll end up with three plates instead of two.

Angle on spot colour

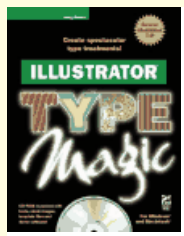
You also need to make sure that the spot colour is set up to print with a suitable screen angle. Using Quark XPress I've had good results assigning any of the remaining three process colour default screen angles. According to the Photoshop manual different screen angles produce different results, but it doesn't say how or why and I, for one, would be interested to know. Crucially, make sure you do not select black (assuming that black is the other colour in your duotone) because this will result in the colours overprinting. This is particularly important for XPress users: the default for spot-colour screen angles is black, so ignore it at your peril.



Above The top dialog shows the available Pantone preset curves. Clicking on either the curve or the colour swatch in the lower dialog allows you to select a different colour or edit the curve for that colour

Left The curve-editing dialog

Book review



Title Illustrator Type Magic
Author Greg Simsic
Publisher Hayden Books
Price £37.49
ISBN 1-56830-334-3

This is a very hands-on kind of book. Following a brief Basics section for Illustrator novices, it gets straight into the business of creating all kinds of type effects, alphabetically arranged from Accordion to Transparent.

Each section is around half a dozen pages long and, after a short explanation of what can and will be done, it gets straight down to business with a step-by-step explanation of exactly how to reproduce the effect. Accordion produces type that looks as if it's printed onto a concertina-folded piece of paper. At 17 steps it's one of the more complicated effects, though the first eight are to do with creating the folded paper. Then, it's really just a question of creating the type, converting it to paths, using it to crop a copy of the concertina, shearing all the bits and changing the colour. After Accordion you can try out, among others, antiquing, bevelled, fake 3D, filters, paths, patterns, scribble and shadows. There's also a section on taking paths into Photoshop to create raster effects. Some of the sections give advice on how to adapt the technique just described to produce variations on the theme.

There's a companion CD with examples from the book as well as a selection of free fonts from 16 type foundries, a few stock photos, plug-in demos including KPT vectors, Extensis Vector Tools and Alien Skin Stylist. Also included are demos of PhotoShop 3.05, Illustrator 6, Streamline 3.1 and Fontographer. It's a disappointment, though, that they are not more recent versions, particularly as the book covers Illustrator 7 and you'd assume anyone interested in buying it would be using at least version 6.

I very much like the direct approach of Illustrator Type Magic. Whenever I need to create type effects in future, this is the first place I'll be looking for ideas.

MICROMART CLASSIFIED

Questions & Answers

Q As an experienced user of CorelDraw 6 I am used to being able to import a scanned logo (two or more colours) into a publication and then make the background (usually white) invisible using "bitmap mask". So far I have been unable to achieve the same in PageMaker 6.52. Any clues as to how I might achieve this?

Kelvin Yue

A PageMaker doesn't have anything like CorelDraw's bitmap colour masks. You will first have to create a clipping path around the logo in a bitmap editing package such as Adobe Photoshop or Corel Photopaint, then save the graphic as an eps file with the clipping path and place it in PageMaker.

This is a much more accurate way of doing it than with a bitmap mask, because you don't have to rely on all the background pixels having the same value (often they don't, even if they all look the same). You can also choose exactly where you want the path to be. In a scanned photograph, for example, you might want to exclude distracting background detail like trees or lamposts.

Q I want to include a gif on a page in other applications. The gif in question came from the internet. IE will load it but no other applications will, giving me an error message.

Alex Pounds

A The easiest thing is to resave the gif in a format supported by the application you are using to import it. There are any number of free and shareware graphics file converters available on the internet. Paintshop Pro 5 will carry out this simple task and much more besides, and is available from www.jasc.com or on our *PCW* covermounted CD.

Q I have recently created a web site and have been scanning photos and posting them to my site. What is the best combination of scan resolution and jpg compression to display 5 x 4in prints at a similar size on-screen, without the filesize going through the roof? The pics online have a fine checkerboard pattern on them: is this the result of jpg compression? They have been scanned at 200dpi and have a compression of two (the "small file" end of the 1-10 scale in Photoshop.)

Jon May

A Screen resolution is 72dpi so you should scan for same-size reproduction at 72dpi. Most flatbed scanners these days don't go below 100dpi, so scan same-size at 100dpi then resample the images to 72dpi before saving them in jpeg format.

The halftone screen, or dot pattern, is causing an interference pattern, sometimes called a moiré pattern, when you scan them. Your scanner may have a de-screen option which will reduce this. Alternatively, you can remove the pattern by either blurring the image slightly or, better still, by using the median filter to reduce or eliminate it. Often the pattern is more pronounced on one or two channels of the image because one of the four original CMYK screens was at the crucial angle which caused the interference pattern in the first place. Selecting only the affected channels before applying the filter will increase your chances of a good result without adversely affecting the overall image quality.

One last thing. If you are scanning images from published sources, be sure to check the copyright position before publishing anything on your web site.

Q An extremely annoying feature of Paint Shop Pro 3.0 is its habit of generating upper-case filenames for new files I create, even though I enter these names in lower-case type. Since I am generating components for a web site which runs on a Unix system, these names must be in lower case to work. I have to edit them by hand, which is tedious. How do I tell PSP not to do this upper-case translation?

Chris

A At the risk of sounding like an advertisement, why not upgrade to Paintshop Pro 5, which most certainly does *not* do this? Look at www.jasc.com.

PCW Details

Ken McMahon can be contacted by post c/o the *PCW* editorial office (address, p10) or via email at graphics@pcw.co.uk.

With **compliments**

Now that the cost of colour inkjet printers is falling, you can afford to print your own business stationery: letterheads, cards, comp slips… Ken McMahon advises on how to go about it.

Business stationery is expensive, but it is money well spent. Your headed notepaper, compliment slips and business cards are often the first chance you get to project an image of your company or services to a client, whether you're an individual working on a freelance basis, a small business with a few staff and a single premises, or a global corporation.

These days, you can create the right impression without spending a fortune. Time was when four-colour logos and business stationery were out of the reach of all but the wealthiest.

But with the price of A4 colour inkjet printers tumbling, you can buy a printer, graphics software and a pack of good-quality paper for less than it costs to have your business stationery commercially printed, which is the way I used to do it. We designed it ourselves and supplied two-colour (all we could afford) separated film to the printers. Even so, the total cost of 1,000 A4 letterheads, 1,500 compliment slips and 500 business cards for two named individuals didn't leave much change from £500.

Two into four does go

Now we do it all ourselves. Firstly, we forgot about restricting ourselves to just two colours because there's no need. We bought an Epson Stylus Color 500 inkjet printer for less than £200 last December (they are now even cheaper). At the time of writing, Hewlett-Packard, Canon, Lexmark and Epson all offer budget colour inkjets at around the £100 mark.

Next, we redesigned our company logo in four colours. We designed a new range of business stationery around the new logo, and printed letterheads and compliment slips on 100gsm Conqueror hi-white laid business paper, which you can get from any good paper merchant or office supplies company. It costs around £17 for 500 A4 sheets. Cards are a bit more of a problem. There is a limit to the thickness of what you can get through most inkjet printers, and the Epson Stylus Color 500, being no exception, draws the line at about 170gsm. So, you either have to make do with flimsy cards, or go down the commercial route for a heavier-quality card.

Simply striking speaks volumes

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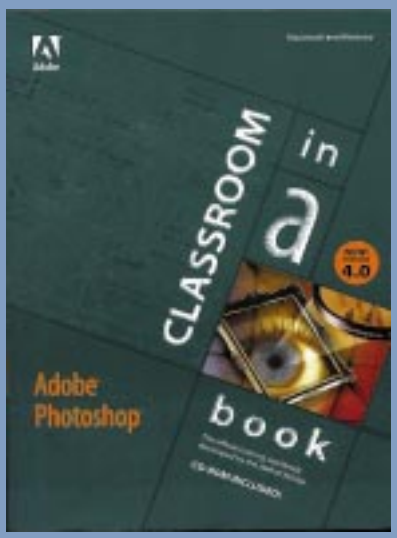
Adobe Photoshop Classroom in a book

ISBN 1-56830-317-3
Price £41.50
Contact Adobe Press
www.adobe.com/adobepress

There are many good reasons to buy books on how to get the most out of Photoshop. As applications go, it's about as versatile as they get, and the manual can take you only so far. Classroom in a Book is designed to complement the program's documentation by presenting a series of lessons and projects aimed at familiarising you with tools and techniques, as well as explaining many of the concepts central to digital imaging. This version of the book is current for Photoshop version 4 and no doubt it will soon be revised to include the new features in version 5.

There are 13 lessons and four projects, interspersed at intervals to allow you to practise the techniques you have learnt in the preceding lessons, which include the Photoshop work area, Image Basics, colour calibration, Selections, Mask and Channels, Advanced Layer Techniques and Special Effects. Projects include creating a CD cover, creating special effects, and photo retouching. Files for all of the lessons and projects are included on the accompanying CD.

I would not recommend Classroom in a Book to anyone who has already worked their way through the user guide — anyone who's got that far will probably find it a bit basic. Nevertheless, if you're about to start, or have become bewildered at an early stage, this would be a good book to have around. It reinforces the material in the user manual, and the lesson-and-tutorial structure, with reviews at the end of each chapter, make a more interesting way to learn.



Fully booked: Photoshop 4 Classroom in hardcopy. Not for experts or old hands, but a good adjunct to the user manual

If you're just finding your Photoshop legs, Classroom in a Book would be an ideal way to firm up your knowledge and digital image-editing skills. If you feel confident and want to step up a gear, there are numerous Photoshop bible-type books full of hints, tips and techniques for power users that might be more to your liking.

Left This is a series of logo designs we did for a local radio award: all different, but the radio theme comes across in each. The client chose the middle one on the left Below Do your comp slips three-up on A4

Where do you begin with the design? Well, if you don't have a corporate logo, you need to start there. Needless to say, you could write books about logo design, and it's far too big a subject to cover here. So let's just say this: try and keep it as simple as possible. Logos that work usually express a simple concept in a strikingly visual way.

You'll also need to consider how your logo will reproduce on a limited-resolution inkjet printer, but here you can rely on trial and error. Our Pelican Graphics logo [see opposite page], admittedly to our surprise, produces a rather nice pastel crayon effect when printed on the Epson.

In fact, it looks better in standard 360dpi mode than in high-quality 720dpi mode. Because the Epson is not a PostScript printer, it doesn't handle text that well, so we use it just to preprint the logo on every sheet, then suppress it (if your DTP package won't suppress items, just delete them) and then run everything through our 600dpi laser printer for crisp, black text.

You'll also need to consider where your logo is going to be used. As well as on business stationery, you might want it to appear on a web site, in advertisements, on packaging or on vans, buildings and uniforms. Here, you won't be able to rely on your inkjet, so you'll need to consider the cost of commercial production.

An eye-catching position

Once you've got your logo sorted, it's time to think about how it's going to appear on your stationery. Your graphics package may give you any number of layouts for business stationery, but in my experience there are two options that always look good. The first is to centre the logo at the top, and the address and other company details at the bottom.

The alternative is to range everything down the right-hand side. Which works best will depend on the logo itself and the amount of copy you have.

For compliment slips, simply arrange the letterhead information into one third the depth of your letterhead. An A4 sheet is 297mm deep by 210mm wide, so compliment slips are 210 x 99mm. Copy everything and paste it twice so you get three up on one A4 sheet. After printing, trim them out with a scalpel or a guillotine.

In business, your card is your image

For business cards, as with most design, the object is to present a lot of information in as clear and readable a fashion as possible.

There's a lot more to get on business cards these days than there used to be. In addition to company address and telephone details there are also mobile phone numbers, email and web site details.

You have two options with cards, portrait and landscape. Whichever you choose, the important thing to remember is to separate the information with space. Break it up and make the name and title, telephone numbers and other information separate and distinct blocks.

Here, there, everywhere

With cheap, in-house colour printing facilities you can extend your company image to every aspect of your stationery: simply printing your logo on all of your envelopes does a lot for your image.

Use a black-and-white version on fax header sheets and any other forms you need to produce. We use ours on estimate sheets, timesheets, parcel labels, bureau output request forms, and even T-shirts!

Questions & Answers

Q I have an annoying problem which occurs on the few occasions that I use CorelDraw in "DTP mode".

I can draw text frames fine. I tend to draw them and leave them empty first, so that I can copy the layout for additional pages. But then, when I try to link them, the damned things are invisible and I have to guess where the frame I want to link to might be on the page.

Surely I can't be the only one to find this a tricky exercise? Am I doing something stupid? Having wasted considerable time and money trawling the web and newsgroups for a solution, I decided to throw the problem at you!

Andrew South

A As the CorelDraw 7 manual helpfully points out: "Keep in mind that a frame is invisible when it isn't selected and it contains no text".

Why not link the paragraph text frames as you draw them? Then you'd only have to locate the first one: the linking arrows would show you the position of the other text frames on the same page. Alternatively, you could create a separate layer for your text frames and use Select All from the Edit menu (or double-click the pick tool) to find out where they are.

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Readers write about local printing and 4-sight

Get a Print.quote

Thanks to JJ@softrax for pointing me in the direction of www.print.quote.co.uk. This is a free online service which, as you'd guess from the URL, provides quotes from a local printer. You just click on a map of the UK to indicate your local area, fill in a form, and you receive (it claims) quotes from your selected printers within 24 hours. There are 12 sheet-fed litho printers from which to choose in the London area. I haven't used the service myself yet, but the next print job I do will get the print.quote treatment as well as my usual three phone calls. I'll let you know how I get on.

4-sight in hindsight

In the May issue I said that 4-sight didn't have a PC ISDN card. Mr A Lake knows differently: "Actually, they have had one for some time and I use this at work to transfer graphics files to agencies that run Mac and PC systems." It's a shame 4-sight doesn't have the extensive knowledge of its product line-up that Mr Lake does, because they told me they didn't do one and had no plans to! The company could always find out about it by visiting its own web site at www.4-sight.com.

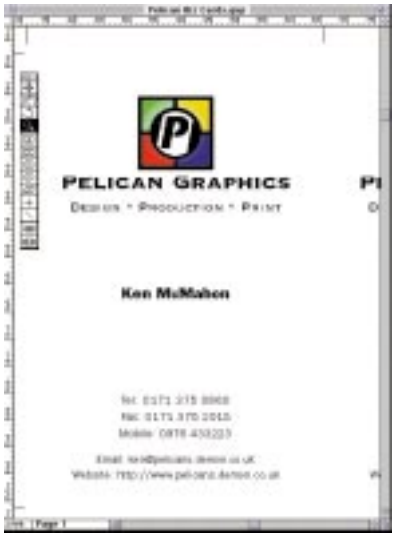
PC output bureaux

The PC bureaux are now coming in thick and fast. Here's the latest batch to add to the Corel list which we published in the June issue. I'll keep track of these, and when there are a reasonable number of new additions we'll publish an update. Thanks to everyone who sent in details, even if you were just plugging your own business!

The Electronic Imaging Co	Buckingham 01280 812197 (fax 01280 815633)
Design Type	Cheltenham 01242 221608 (fax 01242 226604)
Visual Data-Graphics	Edinburgh 0131 445 7909
Cordfall	Glasgow 0141 332 4640
Graphic Media	Glasgow 0141 226 4480
Castle Bureau	London 0171 436 3339 (fax 0171 436 1627)
Colour Bytes	London 0171 580 4271 (fax 0171 580 8162)
Imagefile	Nottingham 0115 9784505
Exeit*	Nottingham 0115 945 2525
Claughton Press	Preston 01772 335928 (fax 01772 316012)
	www.claughton-press.co.uk

*Exeit is Peter Gill's local bureau and he obviously recommends it, although he laments the general lack of support for PC-based designers. His solution is to use a Mac-based bureau, outputting PostScript files directly from the application (in his case PageMaker) and copied onto Mac-formatted removable media. Peter uses MacOpener to mount the Mac-formatted disks (he's tried it successfully with Syquest, optical and zip cartridges).

Our expanding bureau list is hopefully proof that PC users won't have to resort to this kind of thing for much longer. In the meantime, this strikes me as an excellent workaround.



Above The Epson Stylus Color 500 gives our logo a terrific hand-coloured look

Left With cards, try and keep the information in separate, distinct blocks, and keep the type small (10pt maximum)

PCW Details

Ken McMahon can be contacted by post c/o the *PCW* editorial office (address, p10) or via email at graphics@pcw.co.uk.

Flash in the plan

When you've seen one poor-quality web image too many and your own scanning sessions don't quite cut the mustard, you need Flashpix, PhotoCD and your local branch of Boots.

Now seems a good time to take a closer look at Kodak's Flashpix file format, which seems to be rapidly gaining favour with developers of image-editing applications.

What prompted my interest in Flashpix was a particularly disappointing scanning session. I was scanning in some 35mm transparencies for a web site, and while the quality didn't need to be brilliant — sharp and bright at 72dpi would have done — the Umax Vista S6E, which is great with reflective stuff, just wasn't up to the job.

Right **The Pictureworks viewer, included in the CD with your scans in Flashpix format, allows you to view thumbnails of all the images, flip, rotate and make basic enhancements**

Below **One of my 35mm transparencies from the Flashpix CD. The quality is easily good enough for web use — and much better than my Umax Vista S6E with transparency hood could manage**

Boots to the rescue!

As I wasn't about to pay ten quid a throw for professional high-resolution drum scans, for a moment I was stumped, and even considered reshooting the pics on print film. Then I remembered PhotoCD, and shot down to Boots with my trannies in my hot little hand.

To put my 35mm transparencies on a CD cost 65p per image plus £4.99 for the CD. If you walk in with a 24-exposure film, Kodak will process the film, provide a standard set of prints, and transfer all the images to CD in Flashpix format for £17.99 including the cost of the CD. It's a multi-session CDR, so thereafter the cost is £13.99 per film and you can fit 300 images on one CD. The turnaround time is one week.

The quality was more than adequate for web use, and on a tight budget I'd certainly consider using it for print, say at small sizes in a catalogue or something like that.

Flashpix is a resolution-independent format; or to put it another way, it stores images in a hierarchy of multiple independent resolutions. The hierarchy is created by starting with the highest resolution, which is determined by the scanner, digital camera or whatever the input source happens to be.

The next resolution level is created by halving the horizontal and vertical resolutions. This process is continued until

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Questions & Answers

Q My wife needs to produce some maps to accompany articles on country walks that she writes for a local paper. Currently they are done by hand, by tracing over an OS map and adding various features and place names.

She would like to do this job on her PC, so I am looking for a fairly simple software package that would do the trick. I am assuming it would be best to get an inexpensive graphics tablet to do the input — there seem to be a number available. Mice always drive me up the wall when trying to do this sort of thing.

Can you suggest a suitable package? Also a possible recommendation for a good, inexpensive graphics tablet.

Ian Cargill

A You need a vector draw package which will allow you to import the map scan, then trace over it using a pen tool to draw paths, roads and add features. Most vector packages will do this, the most obvious choices being Adobe Illustrator, Macromedia Freehand and CorelDraw 7. These packages are neither inexpensive nor simple, but they do provide more sophisticated drawing tools, layer features, path editing and effects, and the option of colour-separated output.

A less expensive option would be to go for an earlier version of Draw. Draw 5 has all the features you need and is bundled with CorelTrace, which you could use to do some of the initial legwork tracing the scans.

As for the digitising tablet, it's not absolutely necessary but will make life easier. If you're tracing over a bitmap scan using a Bézier curve tool, it's actually very easy to precisely control the shape of the path using the mouse. What the tablet will allow you to do is dispense with the scan: you can just pop your map on the tablet and trace over it using the stylus.

Most digitising tablets have user-definable function pads so you can, for example, cut, paste and undo just by touching an area on the tablet with the stylus. At £99 the Wacom Artpad is pretty good value at the moment. It has a 4 x 5in area and comes with Wacom's Ultrapen — you flip it over and the other end works like a pencil eraser. In choosing your software, make sure you pick an application which supports the Artpad's 256 pressure-sensitive levels.

■ Starting this month, in common with other *Hands On* contributors, I'm going to give away book tokens to readers who I think are deserving. So this month's book token goes to whoever can answer Kyle Lamb's question about apparent inaccuracies in CorelDraw 7:

Q I am a professional user of CorelDraw 7, with familiarity of all the suite range since version 3.

A client recently gave me over 100 graphical images of fish, which they want printing in similar sizes, maintaining proportion. This was only one part of the job, which is why my method might seem longwinded. I've worded the instructions so you can follow them:

1. Create a new A4 landscape page within CorelDraw 7. Open the Transform - Size box (making sure "Proportional" is ticked).

2. Insert a new, small JPG from a file, as an object (don't link it).

3. In the size dialog box, make a note of the image's dimensions. Change the Vertical length to 171mm. Make a note of the image's dimensions:

/* V: 14.39 H: 27.09
V: 171.0 H: 292.344 */

4. Click and unclick the "proportional" box twice.

5. Change the Vertical length to 171mm.

6. Make a note of the image's dimensions:

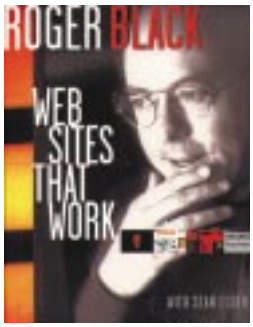
/* V: 14.39 H: 27.09
V: 171.0 H: 321.917 */

There is a difference between the two horizontal lengths. Why? If you calculate the difference using a calculator, the later dimensions are correct. I can't see any reason for this change, and the difference is considerable.

Corel, what do *you* think?

Two people are ineligible from earning a book token — Mr Lamb himself and anyone from Corel, though they are of course welcome to help out if they can.

Book reviews



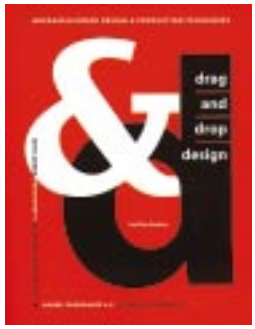
Web Sites That Work
Author Roger Black with Sean Elder
Publisher Adobe Press
Price £41.50

As you'd expect from someone with a background in print design — Roger Black was art director of the *New York Times* and *Rolling Stone* magazine — *Web Sites That Work* is more about design than implementation. If you're looking for tips on how to produce Javascript buttons or animated gifs, you won't find them here. In fact, a cursory glance at *Web Sites That Work* could easily leave you with the impression you'd just read Magazines That Work, Posters That Work or Covers That Work. Which is not a bad thing, because of course web sites, like any other media that bring together words and pictures, benefit from the application of broadly similar design principles.

Web Sites That Work progresses from fundamental principles of design with a nod in the direction of the history of design and typography, through to online considerations like writing for the web, video and navigation, then on to broader issues like the web's suitability for commerce, how to build a web publishing team and handling clients.

The book is filled with hundreds of examples of design, from the covers of *Esquire* and *Rolling Stone*, book jackets, adverts and magazine spreads. As the content becomes more web-centric, so does the illustration, and we're treated to screenshots from the Discovery Channel, Infoseek, Pointcast, MSN and Hotwired to name but a few.

Accompanying these beautiful visuals, Black's text, supplemented by short sections from colleagues, friends and clients, provides a valuable insight on those important aspects of web-site design and production that most "how-to" manuals don't even touch on.



Drag and Drop Design
Author Clay Andres
Publisher Adobe Press
Price £36.50

While this book will undoubtedly be of some use to anyone who spends their working day hopping in and out of Photoshop, Illustrator and PageMaker, with the occasional visit to Pagemill, Dimensions and Acrobat, reading the evangelistic introduction you can't help raise an eyebrow here and there. Where, for example, it makes the claim for Photoshop, Illustrator and PageMaker "each... the leader in its product class, setting the standard by which all other programs are measured", you can't help but think, Photoshop, OK; Illustrator, maybe; PageMaker? Give it a rest. Once you make it past the introduction, there is a great deal (more than 300 pages) of information on things like how Adobe's applications utilise memory under MacOS and Windows, how the various file formats work, and when and how you can drag and drop between applications.

The trouble is that this book should be half the size and better organised. It's padded out with a pile of inappropriate little sections on everything from colour theory to pocket design tips (where to put drop caps, for example). Speaking as someone who enjoys reading technical manuals, I found this approach hard going. It would have been more accessible, and much more useful, as an indexed collection of tips.

you are left with one 64-pixel square tile.

Another fundamental feature of the Flashpix format is that it divides the image into 64-pixel squared tiles. Tiling allows Flashpix-optimised applications to work much more quickly as edits can be selectively processed — only those tiles affected by an edit need be read.

Flashpix records edits as "viewing parameters" — operations to be applied to the original file. It currently supports cropping, filtering, rotation, scaling, shearing, colour correction, contrast adjustment and stretching in the image view.

This approach not only saves you time, it uses less disk space. This is because there is no need to save the original image in addition to any edited versons: in Flashpix the original image data and the edit are part of the same file. Flashpix employs Microsoft's OLE Structured Storage as a "wrapper" around Flashpix files, making them interoperable with OLE II and OpenDoc applications. Image views can be stored as separate, structured, storage "container" files and linked to the original image. So you can have as many image views as you like, but only one copy of the original image.

Multiple-resolution file formats that make use of selective processing to speed image editing, are nothing new. Live Picture introduced the idea with its image editor of the same name in the early nineties, and it's clear that Flashpix has a lot more in common with the original Live Picture format than just the concept. Macromedia's Xres also uses a similar format. But while both these applications trashed Adobe Photoshop in terms of performance, the professionals decided their interests were best served by sticking with what had become the industry standard and packing their Macs with as much RAM and hard disk as they could get their hands on.

A friend indeed

Flashpix faces a friendlier future. For one thing, it's aimed at home users for whom ease of use is a bigger priority than it is for professionals. It also has the support of just about every application developer worth mentioning. Applications which currently support Flashpix include Adobe PhotoDeluxe 2 and Photoshop 5 (you can get a plug-in for Photoshop 4), Corel Paint 7, Debabelizer 4.5 and Kai's Photo Soap.

You can find out more about Flashpix on the Kodak web site at www.kodak.com. If you want to look at some Flashpix samples, check out www.kodak.co.uk/daiHome/flashPix/flashPixSamples.shtml. You will need a Flashpix-enabled application. The Kodak web site has a link to pictureworks.com where, it says, you can download a viewer, but in fact it just gives you a US toll-free number to call which won't be much use. Try downloading Paintshop Pro from www.jasc.com instead.

Feedback on fonts bundle

To all those eagerly awaiting my promised shareware fonts bundle, I can only say hang on, it's in the pipeline. Following the suspension of the waughzoo font archive while they sort out the copyright situation on some of the fonts they were offering free to all and sundry, I've come over all cautious about potential copyright infringement and am being scrupulously careful about what to include.

PCW Contacts

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