Save our email

Wouldn't we all be prepared to sacrifice email anonymity if it meant a spam-free inbox? Unless, of course, you want that enhanced bodypart

KYLE MACRAE

Kyle MacRae has worked as a freelance journalist for six years, having abandoned a previous life in the rag trade when he discovered that IT blags were more useful than silk suits. He has authored several hardback computer manuals, regularly contributes features and reviews to computer magazines and the national press, and still gets out more than he should. Email internet_advisor@idg.com with your comments, suggestions and tips.

This time next year, spam will account for 103 percent of all messages to hit your inbox. You will finally crack under the pressure and grow your appendage quickly and safely whether or not you have one, while the entire email system will implode in an overdose of vapid verbosity and generic Viagra.

We always kill the things we love and the fact that 'we' in this context constitutes a handful of scumbag spammers is mere detail. Until the inevitable collapse, legislators will pursue the perpetrators with platitudes, ISPs will shrug off their responsibilities and the British Medical Journal will publish an article defining Delete Key (Chronic Overuse) Psychosis.

But it's all too late. The spam merchants have won and the game is already a bogey.

Ray of sunshine

Or is it? Entrepreneur Ray Taylor believes that a spam-free future lies in a commercial 'trusted server' model. The idea is that participating email service providers adhere to a strict anti-spam/anti-abuse code and take direct responsibility for their paying customers. Trusted servers will talk only to other trusted servers and any mail originating from a standard email account will be bounced out of hand.

"Anyone wishing to use the system would apply for an account with a trusted service provider. They would in turn be responsible for verifying your identity and ensuring that you sign a binding agreement to abide by the terms of use," explains Taylor.

"These would include, for private users, a complete ban on sending out any kind of multiple-recipient messages beyond a specified number of courtesy copies – say, up to five per message. Any abuse would mean instant suspension and, since your identity is known, you would find it difficult to open another account elsewhere," Taylor continues.

So, for example, if you wanted to mail me at internet_advisor@idg.com and IDG adheres to the trusted-server modus operandi, you could only do so if you also have a trusted account. If you don't, IDG can't tell if you are a porn peddler or a reader with a comment. But nor would it care or fuss with subject-line spam filters. If your service provider can't be trusted to nix your account at the first sign of abuse, you don't get in.

Sure, you could still reach me at an alternative bog-standard email address – I'd keep one going for a while. And I just might spot your message in my junk-ridden inbox, a morsel of filet mignon in a sea of spam. But equally I may not.

The incentive is for you to sign up with a trusted service provider and encourage the people you deal with to do likewise.

↑ Wham bam too much spam

Geek-free zone

"The trouble with the internet generation is that we are all so used to poor performance that we find it hard to believe a job can be done properly with a bit of planning and forethought," says Taylor.

"I have always thought that the nerdy hegemony that dreamt up the internet in the first place is also the cause of many of its weaknesses, not least the presumption that internet use should be free, open and anonymous. All this does is protect those downloading porn, preying on children and broadcasting spam.

"Any new email system should do exactly the opposite. It should require proper identification of the sender of each and every message. So let's kick out all this New Jerusalem nonsense about the internet being the new democracy and start treating it like any other business and consumer service. Or better still, empty out the bath water but grab a tight hold on the baby," proclaims Taylor.

Hegemonic nerds look away now, for I think he's on to something. Would you sacrifice anonymity for an email account that was guaranteed to be spam-free but only accepted messages from other trusted service providers? And what price would you pay?

Wee-mail continued

Sticking with email, I ranted last month about the near-impossibility of sending and receiving oversized file attachments via email. Enter Creo

↑ After all our praise for Claranet last month, the company has now admitted that 50MB is the maximum email size

Tokens (www.creo.com/tokens), a service designed for this purpose.

Rather than sending a file as an attachment, the software sends your recipient a tiny file called a 'token'. Double-clicking this token activates a direct connection with your PC and initiates an internet file transfer. Should a firewall at either end block direct connections, the file is routed through a Creo 'relay server'. But unless you go for the $600 (£350) option that lets you upload files to an intermediary storage server, file transfers can only take place if the sender's PC stays online for the duration – broadband territory.

Creo Tokens costs $49 (£29) per year with a monthly bandwidth allowance of 5GB – something of a bargain. That said, I found the service periodically flaky so try the 10-day trial before making a commitment.

Clara-fication

Last month I praised Claranet as an honourable exception to the rule that ISPs and web hosts impose archaic, arbitrary and needlessly restrictive limits on the size of attachments. Claranet seemed to buck the trend. "We do not place any limits on either the size of individual messages or on the overall size of a mailbox," I was told in writing and twice on the telephone. Two colleagues were given the same information verbally.

But having signed up for a Claranet hosting account to put these claims to the test, my first large inbound email bounced. I emailed technical support

↓ With his 'trusted server' email model, can Ray Taylor create a spam-free future

for an explanation. No reply for six days. Then came an autoresponder that included the curious and presumably intended-for-internal-eyes-only line: "Anyone know what the maximum email size is that we will allow?" This didn't so much answer my query as suggest that Claranet does indeed impose file size limits but, er, doesn't know what they are.

I 'fessed up to being a journalist a couple of days later and asked the press office to investigate. It emerged that Claranet does impose a 50MB inbound and outbound limit on file attachments. That's more generous than most but the honourable exception accolade is withdrawn. ⊠

There's nothing new about video email but Tiscali's Vmail offering is a good one in a jerky, low-res, slightly-out-of-synch kind of way. It's free to use, you can buy a brace of Creative webcams at a discounted £40 (or use your own) and it lets you record clips up to 10 minutes long.

Rather than clogging up the delicate email system with large file attachments (heaven forfend), missive recipients are emailed a link to a web page where they can watch your recording.

Snappy links

You know the way long URLs sometimes get 'broken' in emails and are rendered unclickable? For anybody out there who doesn't already know this – and guessing from the time I spend sticking emailed links back together, that's just about everyone – there are several free online web services that transform unwieldy addresses (à la Amazon et al) into something short and snappy.

Three of the best online services are Make A Shorter Link (www.makeashorterlink.com), SnipURL (www.snurl.com) and TinyURL (www.tinyurl.com).

↓ Send video emails with Tiscali for free
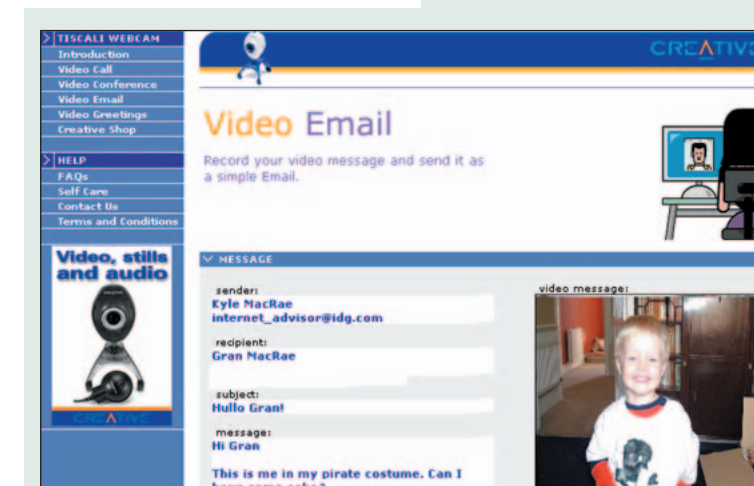
Oh for a simple life

As our mobiles are weighed down with ever more complicated and unnecessary features, the average user needs a degree in IT to access the facilities

JASON JENKINS

Jason Jenkins is the deputy editor of *T3*, the world's best gadget magazine. If it's small and has twiddly knobs, you can guarantee he's played with it, dropped it and rated it. Email mobile_advisor@idg.com with your comments, suggestions and tips.

It has an all-too familiar ring about it: the more functions a device has, the more difficult it becomes to use. Take mobile phones, for example. They started off as basic handsets used to make phone calls. But today's ultra-sophisticated devices can now take pictures and movies, store addresses, pick up email, browse the internet, play music and find the nearest curry house. I've not yet found a model that can make the tea, but I'm sure someone somewhere is working on one.

But this explosion of functions is having a detrimental effect. A recent survey for Interwave Communications found that one-third of people had problems working their smartphones, while 29 percent didn't know how to find and install new programs on their handsets. Furthermore, 20 percent of people didn't know how to send and receive email or back up data to their PCs, even though they wanted to.

Talking technobabble

I sympathise. I've spent many an hour swearing at a mobile phone trying and failing to get it to pick up my email. After a while, I must confess, I usually give up and wait until I can get to a computer and access my inbox from there.

There's no doubt in my mind who is to blame for all our problems. It's the mobile phone software writers who are at fault. They require you to know so many technical details of your mailbox

intimately and none of them bears any relation to common sense.

Hands up who knows what an APN is? Or linger time? I see. Let me guess – you're a particle physics graduate and your name's Dave. You're not normal! The point is, we shouldn't have to wallow in a load of technical guff to do what we want to – all this technobabble should be invisible to the user.

In fairness, some mobile operators are attempting to address the problem. T-Mobile and Orange,

for example, have both recently launched services that claim to configure everything for you. Simply type your email address and password into a specially written program and it will then deal with all the settings for you.

Leaves on the phoneline

It's a cracking idea, although when I tried it nothing happened. The reason? I've got the wrong type of email address, apparently. It's a bit like when the railways complain about the wrong type of snow, only less convincing. Looks like I'll need that PC for a little while longer... ⊠
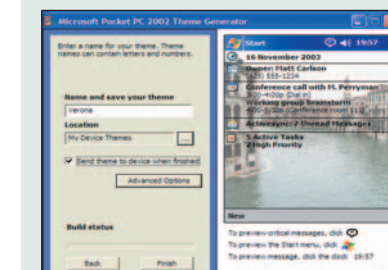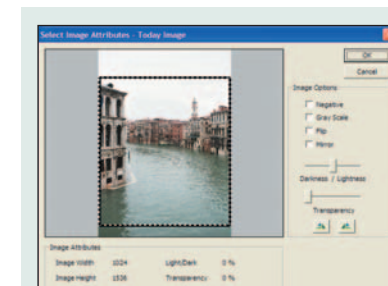
A recent survey for Interwave Communications found that one-third of people had problems working their smartphones, while 29 percent didn't know how to find and install new programs on their handsets

Too much to ask?

One person that definitely won't have problems using her handset to receive emails is Joan Guy. She says: "I do not have a mobile phone because I can't find what I want – a phone to telephone people. I do not want to text, take pictures or play games. I do not want monthly rental bills – I'll pay for calls as and when I make them. I also don't want complicated controls – just the dial buttons and on/off, plus possibly a lock for when the phone is in my handbag. Is there such a thing on the market?"

We'd like to say that your wish is our command, Joan, but unfortunately it's more complicated. The short answer to your question is 'no'. All new mobile phones have texting facilities and the ability to browse WAP sites. But one model that comes very close to what you're looking for is the Nokia 3410 from Virgin Mobile (www.virginmobile.com). It's got one of the easiest-to-use interfaces around and, at £79.99, it's relatively cheap.

The great thing about Virgin Mobile is that it doesn't suck you into a contract. Once you've bought the phone, you don't have to pay a penny more if you don't want to. Calls cost between 5p and 35p per minute depending on what number you're dialling and for how long. And what you spend can be deducted directly from your bank account via direct debit. Alternatively, you can buy vouchers to credit your account.

Okay, so the Nokia 3410 is guilty of texting and all that but if you're not interested in those features you don't have to use them. If you don't go looking for the facilities, you'll probably never know they are there.

Pocket watch

Timothy Sparrow from Derbyshire writes: "Love the mobile section but can you help? I have a Dell Axim X5 running Pocket PC 2002. I know that you can download different themes to change the way the menus and colours appear, but is there any way to create your own themes?"

There certainly is, Tim, and it'll work for anyone else that has a Pocket PC 2002 device. Point your browser to www.microsoft.com/windowsmobile and navigate to the Download page. Click on the PowerToys section, find an entry for Theme Generator for Pocket PC 2002 and download and install the program.

Happy memories

You can now change the picture on the Today screen which displays information such as your appointments and daily tasks. To use a holiday photo to cheer up your Today screen, press 'Create new theme' then select the relevant image on your hard drive.

A simulation appears of how it will look when it's on your Pocket PC. If it looks funny, click the button labelled 'Modify this image'. You'll see a new window with a dashed line to indicate the border of the picture. Microsoft's program will automatically crop the picture to fit it on to your PDA's screen.

To alter the crop, simply click and hold the box and drag it where you want it. It can be difficult to read the text on the Today screen with some pictures. If this is the case, the best thing to do is adjust the Transparency slider. The more seethrough you make the image, the easier it will be to read the text.

You can also make the picture look like a film negative, turn it black and white, flip it 180 degrees or make a mirror image. Once you're happy with your snap, return to the previous screen and select a colour for the menus and text, checking the box to send the new theme to your device.

Give your Pocket PC 2002 device a more personal touch. Use Theme Generator to add a holiday photograph to your Today screen's background

Operation Longhorn

Rumour has it that Microsoft's latest 'biggest upgrade since Windows 95' is set to hit our desktops in late 2005. Here's a sneak preview

MIKE HIRSCHKORN

Mike Hirschkorn is a freelance journalist and technical consultant who has been writing about computers for seven years. His first love was a Macintosh but he has seen sense and realised that Windows and the Mac can happily live side by side in today's cross-platform world. Email windows_advisor@idg.com with your comments, suggestions and tips.

What's the difference between a Mac user and a PC user? Well, the answer to that could encompass a whole lot of insults from both sides. What I am really getting at is the simple fact that Mac users love their computers, exhibiting a somewhat scary and slavish devotion to Apple's operating system, whereas most Windows users view the software that drives their PC as a necessary evil.

Mac users can easily spend hours at their computers marvelling at the gorgeous graphical user interface, playing around with all those clever features Steve Jobs and his software gurus have added for their amusement. PC users are more often to be found staring at their desktops for hours in despair as they try to get Windows to do whatever it is they want to do or download patches to fix all those nasty Microsoft glitches.

But this picture of black and white, the dark side and the light, Mac and PC, could be reversed if the predictions of Microsoft boss Bill Gates come true with the release of the next Windows operating system, codenamed Longhorn. Of course, as with all things Microsoft no one's quite sure when this holy grail of operating

↑ Longhorn will sport a fresh look, currently codenamed Aero

← You will be able to search for all data relating to a specific project or person

systems will actually hit our desktops. Current reckoning sets the release date as late 2005.

Gates is heralding Longhorn as the company's biggest OS upgrade since Windows 95. Call me picky, but wasn't that what Windows XP was supposed to be? A quick search on the *PC Advisor* website pulled up this quote dating back to the 2001 launch of XP: "Microsoft's chief executive Steve Ballmer says this is the 'biggest thing we've done since [Windows] 95'."

Still, if early previews are to be believed, perhaps Longhorn can fulfil this prediction in a way that its older sibling never quite has. The aim of the new OS is to change the experience of using a PC from a task we have to do into one we want to do.

Easy does it

To this end a whole host of new features are being built into the software, from back-end improvements making it easier to implement and manage to end-user enhancements designed to make using a computer as easy as we are always being told it should be.

One of the key features is a new search facility based on Microsoft's SQL Server 2003 technology. Called WindowsFS (FS stands for future storage), this database-style storage system promises to make complex searches of information stored on a PC far simpler.

Rather than opening up your My Documents folder and simply seeing all the files you have stored there, you will be able to search for all data relating to a specific project
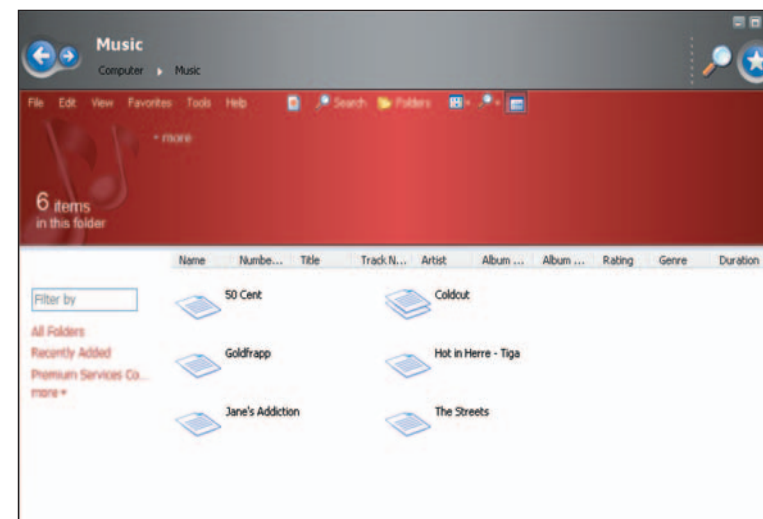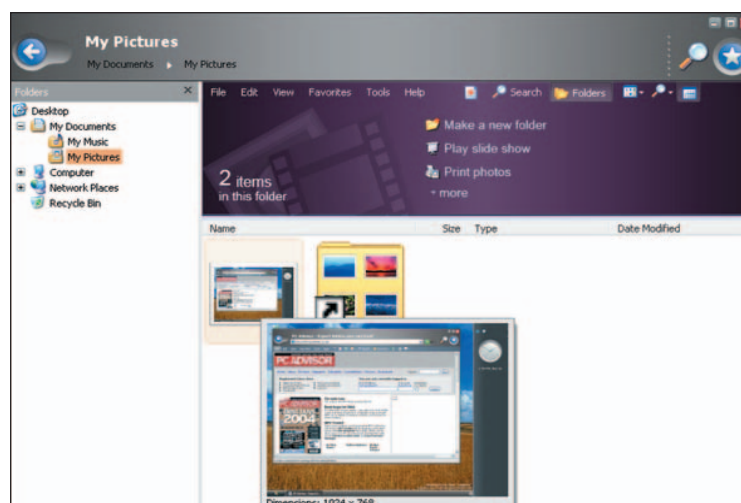
or person. So, for example, you could pull up an individual's email address, all the correspondence between you and that person and any other files relating to them.

WindowsFS will also make data available across applications. It will be stored at a platform rather than an application level, so you won't have be in your email client to pull up your contacts list or your audio player to access music files.

As with any new operating system Longhorn will sport a fresh look, currently codenamed Aero. Details of this interface have been drip-fed from the Microsoft camp, but some of the features have been leaked on the internet. Of course, until Microsoft confirms or denies these there is no guarantee of what will actually feature in Longhorn.

But from what I could glean Aero will, not surprisingly, be graphically rich. Microsoft is clearly still plugging away at giving us a reason to upgrade to the supercharged PCs

The aim of the new OS is to change the experience of using a PC from a task we have to do into one we want to do

← WindowsFS will also make data available across applications so you won't have to pull up your audio player to access music files

on offer from manufacturers. Indeed, some sources claim that it could require high-quality gaming graphics cards simply to run the OS as well as a minimum of 512MB of RAM – that's up from 256MB for XP.

New features that are slated to make their way into Longhorn include improved access to hardware and devices, making it easier to find out information about your PC's components and tweak settings.

Fingertip troubleshooting

A new Hardware and Devices user interface is due to replace the Device Manager and Hardware Installation Wizard found in previous versions of Windows. It is designed to offer easy device updating, troubleshooting and configuration. Each device will get its own Properties page, similar to those already found in Windows, but much more detailed. This should put information on your installed and connected devices at your fingertips.

The idea is that these Properties pages also provide control over devices. For example, a Properties page for a digital audio player would not only offer you information on the make and model of the device but also allow you to play and copy music, synchronise audio files and add software updates, among other things.

In the spirit of making your PC easier to operate, new volume control is due to be introduced. It

will be accessible from the desktop, doing away with both the volume icon and the Sounds and Audio Devices Control Panel. It will live on a pop-out sidebar on the desktop and will give quick access to volume on a device-specific basis. So, for example, you can adjust sound preferences for your headphones.

A new Control Panel for all audio visual tasks is also on the cards, allowing you to manage audio and video devices, sound schemes and so on.

Better late than never

Microsoft plans to embrace DVD burning, building a multiformat DVD recorder into the operating system. There are also rumours that it might take on Apple's iDVD (only four years too late) with its own DVD movie maker.

While details of the specifics of Longhorn are still sketchy, it's hard to tell if it will really fulfil the promise of turning Windows PCs from tools to lifestyle accessories. Given Microsoft's track record and stuffy corporate style, I am doubtful of the success of this particular aim.

But it does look like Longhorn may have enough to finally tempt us to buy new kit to benefit from its features – something, in a way, Windows XP never could. Shame it's not due out till the end of 2005, particularly as this could be way too late for the many PC manufacturers that are literally dying for a killer app to persuade users to upgrade. ⊠

↓ Some sources claim that Longhorn could require high-quality gaming graphics cards

All in the accessories

Everyone likes something for nothing. Log on to Office Online and you'll find a host of tutorials, tips, add-ons and templates that will improve your Office suite

MARY BRANSCOMBE

Freelance writer Mary Branscombe has spent 13 years looking for the perfect office suite, along with any other tools that make it easier to turn your documents into what you really want to say. Email office_advisor@idg.com with your comments, suggestions and tips.

Some office suites come with CDs of extra media such as fonts and clip art, but you can also find a huge number of freebies online – if you know where to look.

Microsoft has the best selection. Corel users can find clip art at www.designer.com, although the site is aimed at graphics designers, while the Lotus SmartSuite site at www-3.ibm.com/software/lotus/ support/smartsuite/support.html only has updates and administration tools. And although you can get the whole office suite there, OpenOffice.org site doesn't have anything much in the way of extra downloads.

OOExtra (http://ooextras.source forge.net) has templates and sample files while www.erack.de/bookmarks/ O.html offers add-ons, utilities and scripting tools for OpenOffice.

Get inspired

But it's the Office Online site at http://office.microsoft.com/home that offers a whole lot more

including tutorials, columns, tips, tricks and an entire section of templates. Most of these are for Word and Excel, with a few for PowerPoint, Visio and other Office applications. You could grab a range of useful business tools such as invoices, meeting agendas and expense reports, as well as calendar and schedule layouts that could save you from paying for preprinted office stationery.

There are also far more label layouts at Office Online than in Word itself. You can print anything from a sticker for a binder to placecards for a dinner party. And if you don't want to splash out on Money when you already have Excel there's a personal finance template to use instead.

Templates are great for inspiration even if they're not in the form you actually need. If you find it difficult to get a good layout in organisational charts and diagrams then this website has some handy files that you could use as a starting
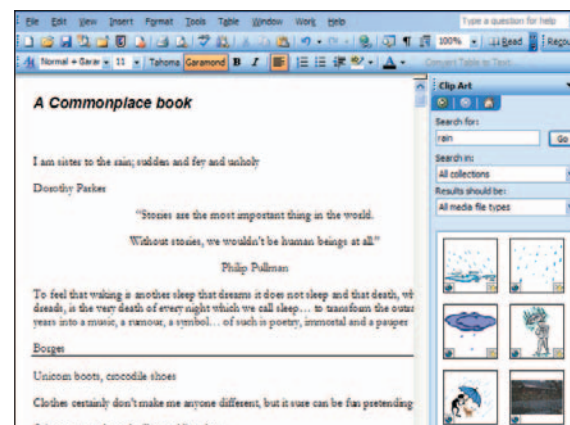
↑ Search Office Online from inside the Taskpane. As well as clip art, you can find templates this way too

point. Fill in your own details, delete the objects you don't need and you'll still get a nice neat look.

Office Online's Marketing Materials section has menus, gift certificates, flyers, booklets and newsletters that would be useful for projects at home and at school as well as in business. These templates can be used in both Publisher and Word. Browse around the site, pick a layout you like the look of and adapt it yourself.

And remember to be creative. You don't have to use the Real Estate postcards for selling your house if you think they'd make nice invitations for your New Year party.

Image is everything

The Clip Art and Media area is one of the most useful image resources on the web. You can search by keyword, browse through collections organised by theme or colour and look for photos or web page elements. New images are uploaded every week and, rather than grabbing individual snaps, you can mark the pictures you like the look of and download them in one go directly to your Office clip art collection.

← Pick the images you want as you browse the Office Online site. You can download them all in one go when you're ready

There are far more label layouts at Office Online than in Word itself. You can print anything from a sticker for a binder to placecards for a dinner party

If you use the Clip Art pane to search for an online image it also automatically searches the Office Online clip art area. And thankfully you don't have to click on the licence agreement every time you use the site.

The Downloads section has updates, patches and add-ins for Office applications, including the Update tool that checks your applications to see if they need upgrading. And you can try the free PowerPoint Producer tool which packages video and slides into a website for you.

Purchasing power

Everything on the Office Online site itself is free but the Office Marketplace section links to products and services that you can buy to work alongside Office.

You can sign up for the Factiva news service and search stories from the Office Research Pane, send a document to be professionally translated or design business cards in Word and send them over the web for professional printing (about £60 for 1,000 cards). There are some free tools here, too. If you use Avery labels you can download a copy of ProWrite to make it simpler to create letters and labels from Mail Merge from inside Outlook.

Not all the useful downloads are on the main Office Online site. It's worth checking out the Office Developer Centre at http://msdn. microsoft.com/office and the Office 2003 Resource Kit at www.microsoft. com/office/ork/2003. This is mainly aimed at people looking after Office in a business setting, but the tips on customising Outlook to avoid viruses are useful.
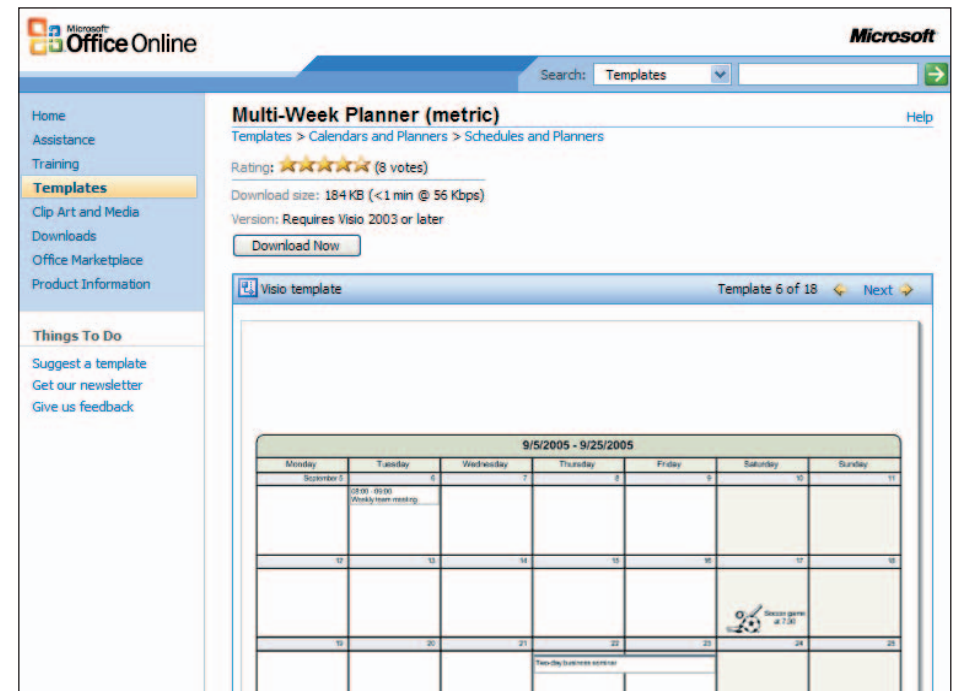
There are also more sophisticated tools in the Resource Kit than the ones in the Office Tools program group. For example, the Save My Settings Wizard is a great way to make sure you keep your customised toolbars when you move to a new version of Office but it doesn't back up all your settings. If you've added the Work menu to Word to give you links to frequently used documents, those links won't be included.

The Profile Wizard in the Resource Kit lets you customise the opw11adm.ini file to choose exactly which application settings, Registry entries, folders, templates and other files make it across to the new version of Office. Download the utilities from the Toolbox rather than the Downloads section which is mostly patches, updates and white papers. And don't worry: there are tools and articles for all versions of Office here, not just for Office 2003.

Formats and files

If you're a developer or just curious about the way Office stores formatting data in your files, you can download the reference schemas for WordprocessingML, the XML file format for Word 2003, SpreadsheetML for Excel 2003 and FormTemplate XML schemas

↑ Get a preview of the templates on the site before you download them. The star rating tells you how many people liked the template

↓ The Office Update tool checks your system to see what you need to install – there's a critical update for Office 2003 already

(InfoPath) from the Office Developer Centre. With the right scripts you could use these schemas to generate Office documents without opening Word or Excel or to translate a PowerPoint file straight into HTML.

And if you have XML files that you want to open in Word rather than in Internet Explorer (which makes it much easier to edit and convert them), put this line at the top of the document, after the <?xml version> tag:

    <?mso-application
    progid="Word.Document"?>

Open them in Word by double-clicking instead of right-clicking and using the Open With option. ⊠
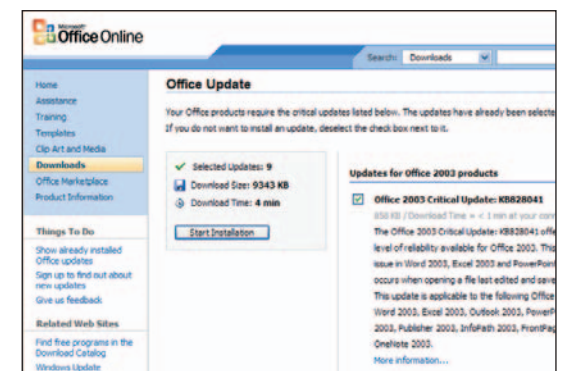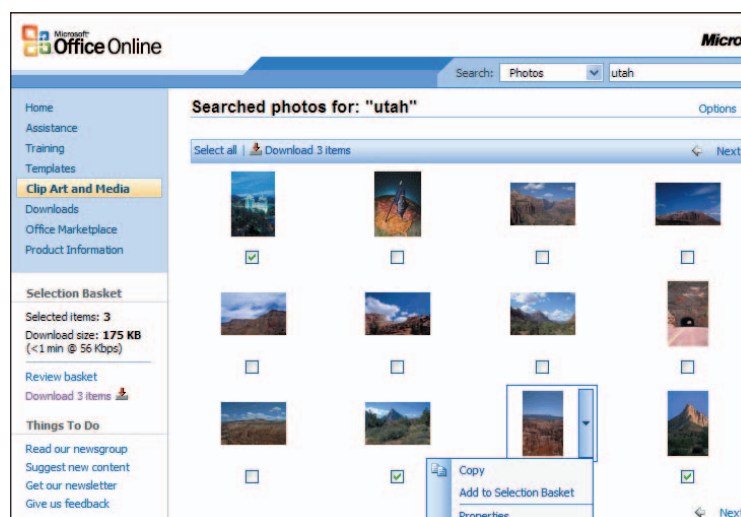
Lay down your lasso

Do you wish you could paint filters and colour adjustments on to a picture using brushstrokes instead of complicated lasso selections? Photoshop Element's layer mask lets you do just that

ALISTAIR DABBS

Alistair Dabbs is a freelance journalist and author with a 15-year history of writing about digital imaging and computer arts. He is also an experienced trainer and an Adobe Certified Expert. Email imaging_advisor@idg.com with your comments, suggestions and tips.

Graphics tablet specialist Wacom recently launched a new line of low-cost tablets under the Graphire 3 name. The £99 Graphire 3 Studio model comes with an A6 tablet, pressure-sensitive stylus and a collection of valuable imaging software. This software includes a copy of Adobe Photoshop Elements 2.0 and a compatible plug-in called penPalette LE.

I'm already a tablet user by choice, partly because of the work I do but also because it eliminates the kind of repetitive-strain injury you risk when using a mouse for long periods. Even so, the Graphire 3 Studio grabbed my attention for two reasons. First, it's virtually identical to my own professiona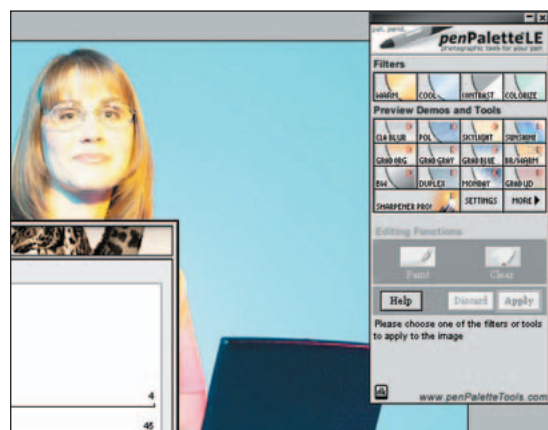l Wacom Intuos 2 tablet in terms of core graphics functionality but it is a fraction of the price. Second, the penPalette LE plug-in got me thinking about layer masks.

It lets you apply filter effects to an image using brushstrokes, giving you four free filters to get started plus a bunch of demos. Painting
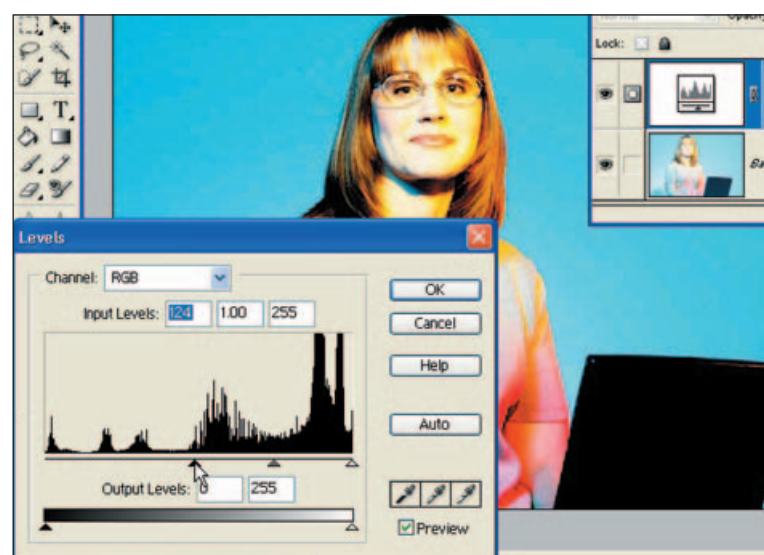
→ Create a Levels adjustment layer and drag the Shadow slider from the lefthand edge of the Histogram towards the right to strengthen the image contrast

↓ The convenient penPalette LE plug-in for Photoshop Elements comes free with Wacom's Graphire 3 graphics tablet

filters on to a picture is a great way of working, especially if you use a stylus instead of a mouse. Brushing or scribbling over the areas where you want the filter to take effect is intuitive and precise. And using a stylus lets you vary the strength, or opacity, of the effect as you brush it on.

Adjustment layers

But you don't need penPalette LE to paint with filter effects in Photoshop Elements 2.0. All you need are layer masks. Here's how they work.

Open a pale-looking picture in Elements 2.0 and drag the Layers palette out of the well at the top right of the program window. Click on the black-and-white circle at the bottom of the Layers palette and choose Levels from the pop-up menu. The Levels dialog box appears, ready for you to edit the image's highlights, shadows, contrast and brightness.

Before you edit anything, take a look at what's going on in the Layers

palette. The original picture is left untouched in the default background layer. Above it is a layer that appears to contain the Levels adjustment and a solid white rectangle. This rectangle is a mask which sits over the Levels adjustment. At the moment the mask is filled with white, making it completely see-through.

Click on the Shadow slider under the Histogram in the Levels window and drag it towards the right in order to increase the image contrast. Click ok. The change you have made is just a layer adjustment: you can hide it by clicking on the eye button in the Layers palette if you like, revealing the original background layer without the adjustment.

Re-show the layer then click on the black-and-white circle button at the bottom of the Layers palette again. This time choose Hue/ Saturation from the pop-up menu. The Hue/Saturation dialog window appears and a new adjustment layer

→ Create another layer, this time for Hue/Saturation. Drag on the Hue and Saturation sliders to make the woman's face less yellow
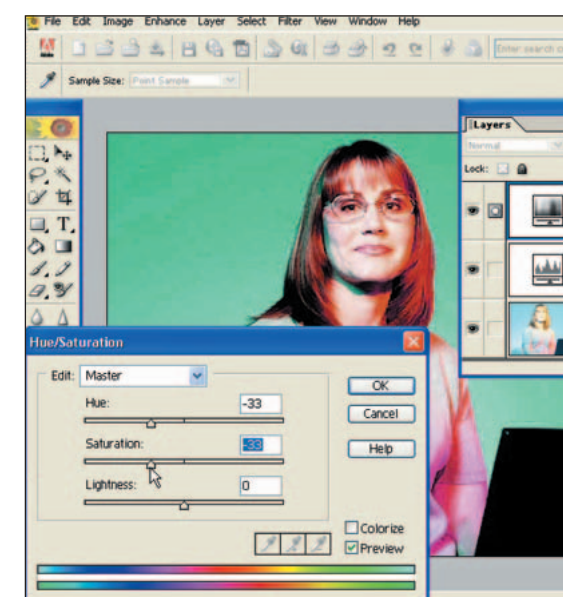
is added to the top of the heap in the Layers palette. Drag on the Hue and Saturation sliders so that the colours in the subject matter look more appropriate then click ok.

In my photo I shifted the hues to make the woman's face appear more red and less yellow, while decreasing saturation to keep the effect realistic. You may notice from the screenshot above that this had the side-effect of turning the pale blue background green. No matter, because that's what layer masks can fix.

Layer masks

Click on one of the white rectangles next to an adjustment layer in your Layers palette. Ensure that the Foreground and Background colours in the Tools palette are white and black respectively. You can do this with a keyboard shortcut – just type the letter D.

Go to the Edit menu and choose Fill. In the Fill dialog window, choose Background Color from the Use pop-up option and click ok. The mask fills with black and effectively hides the adjustment layer. Repeat this process with the second adjustment layer. The picture will now appear to have reverted to its original state.

With one of the now-black rectangles selected in the Layers palette, switch to the plain old Brush tool (not the Red-Eye Brush or Selection Brush). In the Options bar

↓ Fill the adjustment layer masks with black then use the Brush tool with white and a 50 percent opacity to paint the adjustment back in, stroke by stroke

at the top, reduce the Opacity setting from 100 percent to 50 percent. Click and drag – or if you are using a stylus, just drag – to start painting over the picture.

Each brushstroke adds white to the black mask, allowing the adjustment layer to show through. Because you are painting at 50 percent opacity, you can graduate the effect. If you are using a Graphire 3 tablet, you can use pressure sensitivity in the stylus to graduate the effect further.

Repeat this process with the other adjustment layer. In my photo, I painted the Levels and

Hue/Saturation adjustments on to the woman's head and body in order to make her stand out better from the pale blue background. But we could have painted only her face and arms, just her hair or whatever.

To correct mistakes as you use the Brush tool, tap the X key. This swaps the Foreground colour to black, letting you repaint over the mask and acting like an eraser.

Beyond Elements

Don't get confused between adjustment layers and layer masks. The only reason I have mixed them up here is because Elements 2.0 does not support independent layer masks. If you own a copy of the full Photoshop program, you can paint with any filter effect under the sun without having to worry about adjustment layers at all – Gaussian blurs, Stylize effects, anything.

For example, using the full Photoshop, duplicate the original Background layer and apply whatever special effect or filter you like to the new copied layer. Click on the Quick Mask button at the bottom of the Layers palette to create a mask for that layer then fill it with black to hide the effect. Switch to the Brush tool, make your Foreground colour white and start painting the effect back on, stroke by stroke. You may never want to use selection lassos ever again. ⊠
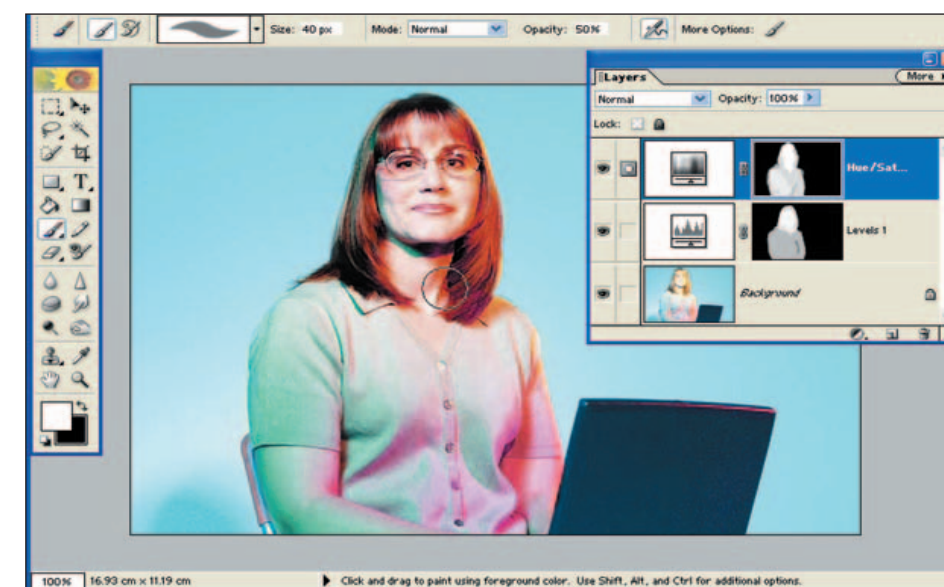
Which way is the stream flowing?

There is a bloody battle afoot to corner the market in multimedia streaming. And the outcome is far from clear...

TOM GORHAM

Tom Gorham is a technology journalist and author who has been enthusing about multimedia and design for more than a decade, even when nobody was taking any notice. Originally based in London, he now lives in Edinburgh. Email multimedia_advisor @idg.com with your comments, suggestions and tips.

What's the best streaming format to deliver it in? If you develop platform-independent multimedia, this is becoming the increasingly asked phone-a-friend question. Multimedia authors, once limited to producing for low-bandwidth web and CD, are now having to repurpose material for broadband and DVD at the same time. And consumers want to be able to view and interact with the same media on whatever device they choose to run it, whether this is a TV or a mobile phone.

Clear leader?

Choosing a single format has never been more vital, but the options are cloudier than a January morning in Edinburgh. Competing media delivery alternatives – Shockwave, QuickTime and Mpeg – have been trading blows for the past decade without anyone landing a killer blow.

Things could change quickly following the news that Microsoft is pursuing a ratification for Windows Media 9.0's video compression codec from the SMPTE (Society of Motion Pictures and Television Engineers). Never having been one to pursue open standards in the past, it's clear the company isn't making this move for purely altruistic purposes. Instead, Microsoft is keen to be at the centre of the booming digital hub market, where PCs, DVDs, mobile devices and set-top boxes are linked.

↓ Windows Media: about to dominate from the desktop to the television?

Witness the company's push behind its latest operating system, Windows XP Media Center Edition. It isn't surprising that Microsoft covets the multimedia market. After all, there's a lot of money to be made. At the moment, DVDs, DVD players and digital broadcasters have standardised on the Mpeg-2 format, which means the Mpeg Consortium makes a couple of pounds in licence fees from every DVD encoder and decoder sold around the world.

Centre of attention

That adds up to a fair sum. And if Windows Media was the default media format instead, that cash would be heading towards Redmond. The fact that Windows Media 9.0, or WM9, will be an open standard – allowing other companies to extend and alter it – doesn't change anything. As the original patent holder, Microsoft will still be entitled to royalties.

You might think there would be opposition towards the company's attempt to position itself at the centre of the digital hub. Content creators don't want to see domination by one player and neither is the SMPTE likely to rush to ratify WM9. But even if the process takes months, Microsoft has two things going for it.

The first is that it won't stop pushing the technology. At the point when WM9 is ratified it will already be embedded in a number of set-top boxes. Contrast this with the lack of momentum for Mpeg-4: seen by many as a natural successor to Mpeg-2 and proposed as a standard in the last century, licensing squabbles prevented it gaining a foothold in the multimedia world.

The second reason Microsoft is in a good position: WM9 has quality on its side and is a far better compression format than Mpeg-2. In practical terms, this means that you can squeeze an HDTV (high-definition TV) film on to a single DVD or stream it over a cable connection – something that isn't possible with the current DVD format.

Microsoft is also betting wisely that the tight DRM (digital rights management) technology embedded into WM9 will tempt content creators. To ensure mass acceptance, it's also pushing its cross-platform capabilities and has just released a decent Mac version of WM9.
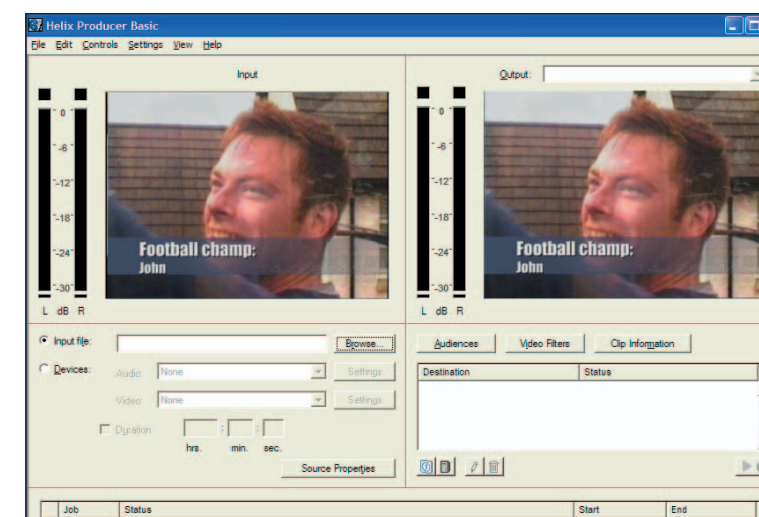
Competing standards

Microsoft isn't the only one attempting to grab a foothold in the emerging multimedia market. As mentioned earlier, Mpeg-4, an open standard adopted by Apple's QuickTime 6.0, is the obvious alternative simply because it is so scalable. Not only can it be used to deliver DVD-quality video, it also forms the basis for the technology used in 3GPP (3rd generation partnership project) mobile phones.

Microsoft would argue that WM9 is similarly scalable from PocketPC upwards. It even demonstrated high-quality digital TV over wireless earlier this year.

RealNetworks is also making huge efforts to become the multimedia standard. Its open-source Helix

← Helix Producer is an open-source multimedia creation tool, but now it's facing stiff competition

technology is designed to work on multiple platforms and RealPlayer software is already embedded on millions of handheld devices and mobiles worldwide. In late November Real announced it was co-operating with AT&T Wireless in the US to deliver multimedia content to mobile phones for a small monthly fee.

If you want to confuse things further, don't forget to throw Flash in to the mix. It has incorporated a streaming video codec for a couple of years now. And an honourable mention must go to the digital TV MHP (multimedia home platform), which uses technology based on Sun's Java Virtual Machine but also supports Mpeg-2, Mpeg-4, Java and XML.

Or course, there's no reason why these technologies can't work together. QuickTime, WM9, MHP or RealPlayer can act as a wrapper for other formats. But it's just as important to remember that, however bloody this battle for media control looks like getting, few of the combatants seem to have considered one outcome: the continued domination of Mpeg-2 which is embedded on every single DVD player bought this Christmas and works well enough for most.

For those who doubt the power of such a technology I point you towards the nearest video player. After all, we've survived 25 years of VHS in our living rooms without it ever approaching cutting edge. ⊠

The fact that Windows Media 9.0 will be an open standard – allowing other companies to extend and alter it – doesn't change anything. As the original patent holder, Microsoft will still be entitled to royalties

Hello and goodbye

Nearly every day I come across a new definition of pointlessness: a PowerPoint presentation online. Never mind the predictable dullness of the slides, what about the sights and sounds that accompany the original presentation?

Apreso (www.apreso.com) captures audio and video alongside your presentation and saves the result in a file that can be played back with PowerPoint. With a webcam attached to your PC, you can run through the presentation as if you were presenting it live. It even captures real-time mouse clicks.

Farewell LiveMotion

It isn't often that Adobe apps suffer from lack of attention but LiveMotion, the graphics giant's rival to Macromedia's Flash authoring tool, is one example. Adobe's announcement that it's no longer distributing LiveMotion might not have been a surprise given that few multimedia authors use it, but I always found it simple yet powerful. Losing an alternative to Flash is a shame, especially as it was LiveMotion that pushed Flash MX into being the tool it is now.
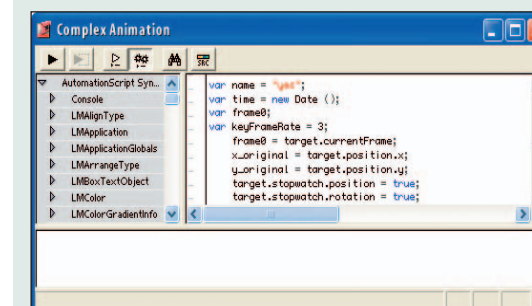
↑ LiveMotion was a powerful Flash authoring app and our Multimedia Advisor will miss it greatly
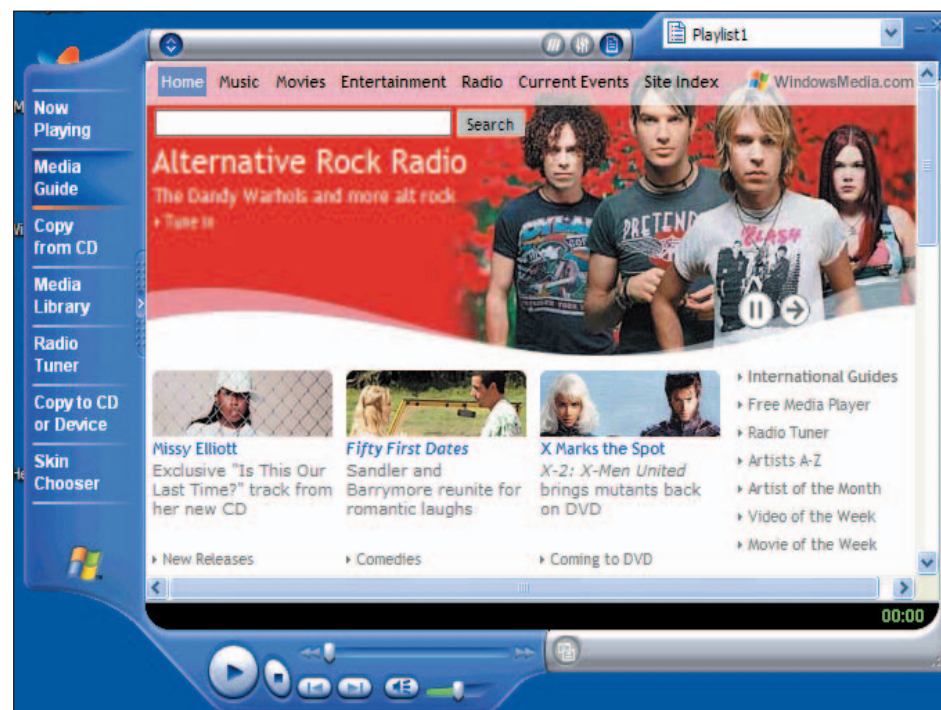
Only following orders

This month sees our Video Advisor getting aggressive with a garden implement, bringing order to chaos and wondering what happened to Hollywood

LAURENCE GRAYSON

More at home behind the camera than in front of it, Laurence is a freelance writer and producer who has been using and reviewing digital video equipment for longer than he'd freely admit. For some reason, he gets invited to a lot of weddings. Email video_advisor@idg.com with your comments, suggestions and tips.

I f I had a penny for every time someone asked me why the DVD they've just created is jerky and unwatchable even when they've encoded it at a high bit rate, I'd have, oooh, about four pence. Possibly five. Not quite the amount I need for that new chroma-key rig I'm after, but enough to suggest that perhaps this is a problem more than a few people (including myself) have encountered.

The symptoms are a relatively clean picture during static moments, which turns into a blurry, stuttering mess when things start moving about. To confuse things further, it may look fine when you play it on your PC, preferring to wait until you've spent four hours transcoding your project before revealing itself during TV playback.

No amount of tweaking the bit rates, quantisation settings or GOP (group of pictures) structure changes anything, other than wasting a shockingly large chunk of your life.

Restoring order

So what's the problem? The answer can be found in the field order setting. Unless you're working with progressive scan video (such as clips you've downloaded from the web), each frame in a PAL signal is made up of a pair of interlaced fields.

In both your recording and your Mpeg-2 transcode, these fields are combined before being compressed then unpacked by the signal processor in your DVD player and squirted out to your telly. If you use the wrong field order then your TV is showing each field out of sequence – in effect showing the last one first and the first one last – hence the unwatchable movie.

The reason that it looks okay on your PC is because your playback software is more flexible than your DVD player and your monitor is a progressive scan display that shows both fields at the same time.

To confuse the issue further, the two field order options are often

described in different ways by the various packages – Field Order A/B, Field Order 1/2 or Upper Field First/Lower Field First.

The good news is that none of this matters. If you're getting what looks like field-order nastiness on your Mpeg-2 transcodes, just pick the field order option that you're not currently using and it should all go away. If it doesn't, you might want to consider an eye test. Or a new TV.

Spotted dick

As you may have already gathered, there are many things in my life to which I take offence. One of these is my wife taking my laptop into the kitchen so she can refer to a recipe for spotted dick she found on the internet and then handing it back to me covered in a mixture of flour, suet and raisins.

But aggravating though this is, it doesn't annoy me as much as the blatant and excessive misuse of video transition effects. Just because your editing software comes with 488 different 3D transitions doesn't mean that you have to use them all – or any of them, for that matter.

The only reason you can provide that excuses the sight of a whirring, spinning, disintegrating clip that morphs into a cube and then drops into a teacup is that you're using Ulead Video Studio 7.0, an otherwise worthy editing package that appears to take a perverse delight in adding random transitions when you pull multiple clips on to the timeline.

As the row of shallow graves next to my greenhouse will confirm, showing me this kind of thing in

← Unless you want to annoy the hell out of your viewers, it's best to keep video transition effects to a minimum

> **Just because your editing software comes with 488 different 3D transitions, doesn't mean you have to use them all – or any of them, for that matter**

my own home tends to get you whacked over the head with a shovel and buried in the back garden. Removing them all manually is one way of saving yourself from death by dutch hoe, but a better approach is to stop it from happening in the first place.

Bring up the Preferences panel by hitting F6 and uncheck the Use Default transition effect option. Alternatively, you can keep on the Default transition function but replace the Random selection option with the more sensible Crossfade transition simply by selecting it from the drop-down list.

Disappearing act

Among the emails I received recently was a request from Paul Dolphin who was trying to find the right solution for converting his old VHS footage into digital files for editing and DVD creation. Under these circumstances I tend to recommend Dazzle's Hollywood DV Bridge as the simplest solution. But since Pinnacle Systems bought up Dazzle earlier this year, it's been proving tricky to get hold of.

The reason for this became clear when Pinnacle recently announced a rebranded and repackaged Dazzle range, which now uses Studio 8.0 as the supplied NLE (non-linear editor). No surprises there, then.

Unfortunately, the Hollywood DV Bridge doesn't look like it made the cut. This isn't too surprising either when you consider that Pinnacle already has a product that does virtually the same thing.

The hardware in question is the Studio MovieBox, an external capture device that comes in two flavours: MovieBox DV and MovieBox USB. Paul originally had his eye on the latter along with a USB 2.0 interface board, but I think that the DV version is a

← Pinnacle Studio MovieBox DV captures from FireWire and analogue connections, with the choice of Mpeg-2 or DV25 video compression
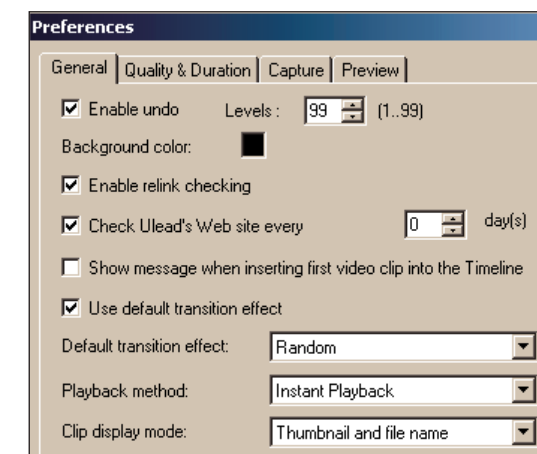
↑ Ulead Video Studio 7.0 automatically uses Random default transition effects. Switch it off for the sake of our Advisor's blood pressure, at least

much better option. Both are external capture tools but the MovieBox DV lets you capture from both FireWire and analogue connections, with the choice of Mpeg-2 or DV25 video compression.

The MovieBox USB only supports analogue captures to Mpeg-2, which isn't as well suited to editing as DV25. Although Paul doesn't have a digital camcorder yet, there was a hint in his mail that he's thinking about it so the MovieBox DV will let him graduate from analogue captures to the relative joy of digital batch capture without having to shell out for any more hardware.

Alternatively, since he's obviously confident enough to install a PCI USB card, Paul's other option would be Pinnacle Studio Pro. This internal analogue/digital capture card costs less than the combination of a MovieBox DV plus FireWire board.

Feel free to send me similar queries. My inbox is always open. Well, ajar at least. ⊠

← If your DVD looks fine on your PC but then becomes a jerky mess when you try to watch it elsewhere, it is probably a field order problem
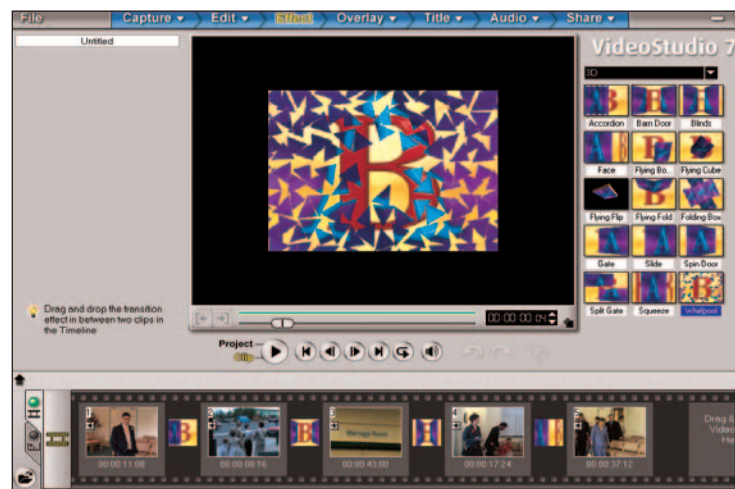
On active servers

Read on for our quick guide to Microsoft's Active Server Pages and .Net framework. We'll also take a look at two new design packages, Adobe GoLive and NetObjects Fusion

JASON WHITTAKER

Jason Whittaker has been a contributor to *PC Advisor* since the first issue and is also the author of a number of books on IT and new media, including *Web Production for Writers and Journalists* and *The Cyberspace Handbook.* He teaches and consults on web design and new media in the south west. Email web_development_advisor@idg.com with your comments, suggestions and tips.

The Adobe Creative Suite has finally arrived and is creating a stir in a number of design circles, particularly with the latest releases of Photoshop and InDesign – one long established as the market leader, the other a reputed QuarkXPress killer.

GoLive CS has a much harder task ahead of it in taking on Dreamweaver. But Adobe has done a great deal of work with the latest release of GoLive and has at least one trick up its sleeve that will make it worth considering.

First up the program has taken to CSS (cascading stylesheets) as offering real possibilities for enhanced design, including a dedicated editor to create sophisticated style elements separate from page content. Because of its importance in both the latest release of Dreamweaver and GoLive, we will discuss CSS in more detail next month. But the important factor here is that it enables designers to concentrate on design and writers on writing.

Second, as part of the Creative Suite, GoLive's interface is becoming increasingly streamlined and is now fully integrated with other apps in the suite – most notably InDesign, which includes a menu item for 'Package to GoLive'.

And this is likely to be the real secret of GoLive's success. It still lags behind Dreamweaver MX as a standalone editor, but as one application in the arsenal of creatives who are responsible for websites as well as print layouts, photography, illustration and so on, it will probably be turned to as the first choice.

New Fusion

Adobe and Macromedia may dominate the professional and semi-professional software market

but they are not the only companies producing useful packages. NetObjects caused a considerable stir when it released Fusion towards the end of the 1990s, offering probably the simplest interface around for creating sophisticated sites and incorporating some excellent management features.

Subsequent releases saw the program lose some ground, particularly because it was not easy to work with code behind the scenes – something that is vital for professional users. And the simplicity of its templates meant that it became far too easy to create websites that had a mass-produced feeling.

Nonetheless, NetObjects continues to innovate. The latest version – Fusion 7.5 – provides four built-in e-commerce solutions, meaning you have a choice of shopping carts to offer visitors. The program as a whole cannot rival Dreamweaver and GoLive, but if you want to sell online with as little fuss as possible Fusion is worth considering. It's also a third of the price of its two main competitors.

Active service

This month sees the final part of our roundup of the main technologies available to web developers. In an attempt to tie up loose ends as neatly as possible, we'll return to where we started in issue 100: the Microsoft way. The core Microsoft approach comes in two parts: its IIS (internet information server) and ASP (active server pages), or ASP.Net as it is now known.

ASP is a technology designed to produce scriptable and dynamic sites, the initial version of which was
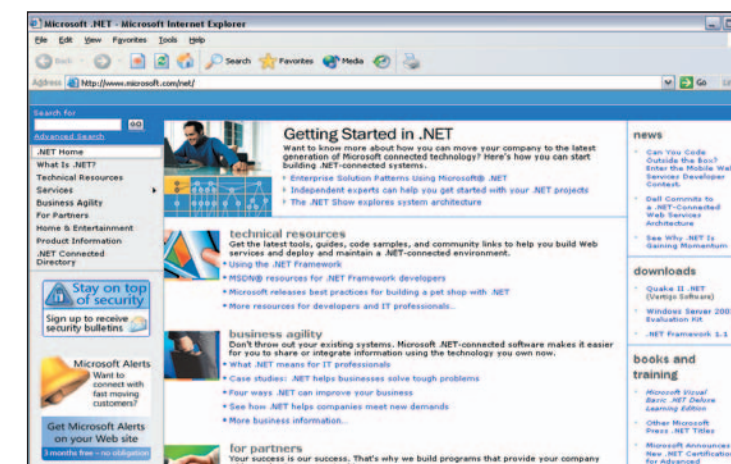
released by Microsoft at the end of 1996. Based on Visual Basic Script (or VBScript), ASP offered a fairly simple programming language that could interact with databases and was intended to work with the company's new web server, IIS.

Quick-and-dirty code

Coding with ASP is similar to working with PHP, which we covered last month. Because it is a scripting language, ASP does not require compiling into an EXE file. You simply write code in a text editor or a modern web editor such as Dreamweaver and load it on to your server. When a visitor downloads the file the browser then interprets the ASP code and displays the results.

ASP instructions have to be placed with <% and %> tags. The code works by calling a standard object such as a response or request followed by a method you wish to invoke separated by a dot, as well as any further parameters in brackets. For example:

    <% Response.Write("Hello world!") %>

This sends the instruction to write 'Hello world!' in the browser using the Response Object that's called when you need to send information to the browser, not only to display data in a window but also to redirect visitors to a different URL or create cookies.

More to the point, ASP offers an easy way of working with databases to produce dynamic sites.

Integrating with .Net

ASP is about to disappear, although you shouldn't expect to see old code evaporate any time soon. As a transitional technology, VBScript (the basis of ASP) was not really designed to deal with large applications used by hundreds or even thousands of visitors simultaneously – exactly what is required by today's popular websites.

ASP.Net offers the benefits of the .Net framework to web developers: a fully object-oriented environment. One main benefit is the use of Web Services. Now no one site has to contain all the code and applications required, but instead can call on other, distributed services around the internet. A particular advantage of Web Services is that it helps to avoid the 'code spaghetti' that quickly becomes a feature of advanced applications using older versions of ASP.

Microsoft's official line is that developers should write code for .Net and ASP.Net in its new language C#. While this language is meant to be easier to learn than C++, it is considerably harder than variants of Visual Basic. This is the future, particularly for large, professional sites, but it does mean that sites with legacy ASP code will appear for some time yet. ⊠
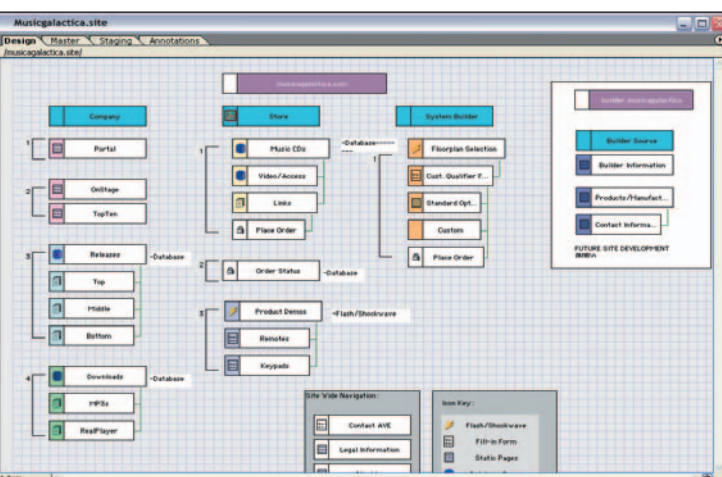
← Integration with the rest of the Creative Suite could be GoLive's killer feature

→ The future for ASP: Web Services and integration into .Net

↓ Fusion offers a highly structured approach to site creation

⊡ Site of the month

As ASP has developed over the past few years, a number of sites have sprung up offering advice and tutorials. A couple of good introductory ones are Brinkster (www.brinkster.com) and ASP.Net (www.asp.net). The latter is particularly useful as you are unlikely to outgrow it too quickly, with plenty of intermediate and advanced tutorials in addition to quick-start guides.

→ A good resource for tutorials, sample code and developer applications is ASP.Net

It's a Ping thing
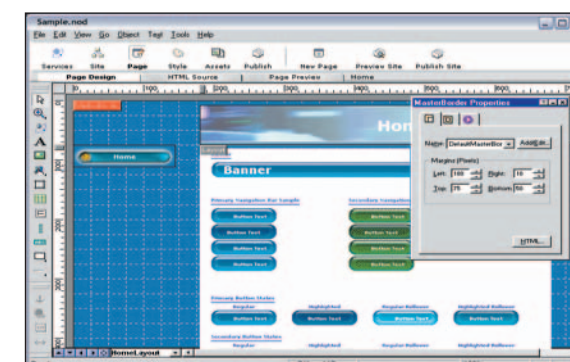
Despite its silly name, Packet Internet Groper is a great tool for taking care of your basic TCP/IP troubleshooting. And here's how to use it

ROGER GANN

Career dead-ends aside, for the past decade or so Roger has earned his crust as an IT journalist, producing the UK's first DTP-produced newsletter then editing the UK's first Windows mag. He's now a freelancer, writing about all manner of IT subjects. He also likes to fix other peoples networks when he can. Email network_advisor@idg.com with your comments, suggestions and tips.

I know it's hard to take a program with a name as daft as Packet Internet Groper seriously but, trust me, we should. In fact, we ought to take 'Ping', as it's more commonly known, very seriously indeed. After all, it's probably one of the most useful network diagnostic tools around. If you're having problems with your TCP/IP network then it's odds on that you can use ping to quickly check the connectivity of your network and diagnose where the fault lies.

The ping command is used to send an ICMP (internet control message protocol) echo request message to a target host. Effectively it sends a packet from one device, attempts to bounce it off another and listens for the reply. If you get a prompt reply then the bit of network between the pinger and the pingee is okay.

Ping can be useful for much more than simply determining whether a host is connected. It can also give some indication of network delays and how reliable packet delivery is for a given time. The other good thing about ping is that it's found on most computing platforms, so it has a near universal application. Having said that, Mac OS 8.0 or 9.0 users will need a tool such as WhatRoute.

Troubleshooting a TCP/IP network can be a daunting business (I know, I've been there) but the key thing is to work through the problem in a logical order. If you follow the steps I describe below you should be able to pinpoint where your TCP/IP problems lie and that's half the problem solved.

And once you've sorted your TCP/IP headaches, log on to http://ftp.arl.mil/~mike/ping.html and read about the guy who wrote Ping, the late Mike Muuss.

Getting started

First we need to gather some basic IP (internet protocol) info from our PC. To do this we use the IPconfig tool. Open a command prompt and type 'ipconfig/ all <Enter>'.

It will display Windows TCP/IP settings for all network adapters and modem connections – make a note of them. Alternatively, if you have Windows 9x, launch Winipcfg from the Run dialog box. This dishes up the same info but dressed up in a nice graphical user interface. Download a version that runs under Windows 2000 Pro and XP at www.microsoft.com/windows2000/techinfo/reskit/tools/existing/wntip cfg-o.asp.

Get pinging

Our first task is to ping your PC's loopback address. This is a virtual IP assigned to all network interface cards when TCP/IP is installed. Its IP address is always the same, 127.0.0.1. Open a command prompt and type 'ping 127.0.0.1 <Enter>'.

If you get the standard four-line ping response this proves that TCP/IP is installed and configured correctly on your PC. But if it fails the IP stack is not responding. This might be because the TCP drivers are corrupted, the network adapter might not be working or another service is interfering with IP.

Note that Ping normally only sends out four packets by default. Occasionally you'll want it to send out a lot more or maybe even a continuous stream of packets. The Ping command provides you with the -t parameter that configures it to continuously ping the target device until you manually terminate the operation 'ping -t 127.0.0.1 <Enter>'. To pause it and display the statistics press Ctrl, Break and to end it press Ctrl, C.

Network worries

Armed with the IP address info garnered with IPconfig, we now need to ping the IP address of our local computer to verify that it was added to the network correctly. If the routing table is correct, this forwards the packet to the loopback address of 127.0.0.1: 'ping 192.168.0.1 <Enter>'.

Here the IP address of the local computer is 192.168.0.1. If you can't ping your own IP address, make sure the IP details are correct in the Network Control Panel. If it is correct replace TCP/IP. If this doesn't work the network card may not be properly installed or 'bad', in which case you may need to reinstall the network interface card.

If you're on a network you could try pinging another PC on the same hub. If this works, ping a PC on a different hub – this will check the connectivity between hubs. If your network has one, try pinging a bridge or router and so on. Until you ping a few other places on the network, you won't know whether the configuration is correct.

Are you connected?

We now need to ping the IP address of the default internet gateway to verify that this is functioning and that you can communicate with a host on the local network. Your internet gateway would typically be a router. If you use a dialup modem, connect to your ISP then use IPconfig to determine the IP address of the connection and ping that.

External connectivity

Having completed the ping diagnostics within our network, we now need to test external connectivity. Once connected to the internet, ping the IP address of a remote host to verify that you can communicate through a router: 'ping 158.152.1.43 <Enter>'.

I tend to use the DNS (domain name system) server address of my ISP for this test. Do bear in mind that many popular websites now disregard ping requests, so if you get a failure result this isn't indicative of a problem at the other end. For this reason you ought to ping several remote hosts.

Testing the DNS

The next step checks your ability to resolve a URL web address into an IP address – it's a test of the DNS. Ping the name of a remote host to verify that you can resolve such a host name: 'ping www.webaddress.com <Enter>'. Even if the DNS servers don't respond to ping requests the result will still give the IP address for that URL, which tells you that DNS is working.

Ping results

If the network is working properly every ping request will result in four replies, each line showing you how long in milliseconds the packets took to arrive plus various other stats. But often the packets won't arrive and instead you'll get a failure message. These can sometimes give a clue as to what's wrong. The failure messages you might see are: 'No answer from <destination>' or 'No reply from <destination>' or 'Request timed out'. These mean that the IP address is valid but there's no reply. If the IP address is on a LAN, the most likely cause is a firewall program blocking the ping.

The error messages 'Unknown host <name>' or 'Ping request could not find host <name>' mean that the computer name doesn't exist on the LAN. Make sure that NetBios over TCP/IP is enabled.

If it tells you 'Destination host is unreachable' the IP address isn't on a LAN and the default gateway can't access it, meaning that your local system doesn't know how to get to the destination. Either there's no default gateway, its address is wrong or it isn't functioning. The most likely cause is a lack of routing information.

'ICMP host unreachable from gateway' means that although your PC knows it needs to get at the destination via a gateway, the gateway itself doesn't know how to route packets on. It may be because you have set the local gateway address incorrectly; it does not necessarily indicate a network problem. So don't think that Microsoft's site has gone toes-up merely because pings to www.microsoft.com aren't returned. ⊠

← If you use the '-t' switch, you can make ping send out an unlimited number of ping packets

← If all goes well, when you use Ping, this is what you should see

↙ Although in this screenshot no packets were returned, because the URL was resolved into an IP address, we at least know that we have external connectivity and that DNS is working

↓ You don't have to be stuck with the DOS-style Windows XP ping tool. You can download a flashy GUI version from Microsoft