Getting great graphics onto a web page is a totally different ball-game to conventional image editing, but we've checked out a selection of software packages that can help you produce great results

When you look at a web page what do you see? Unless you've had the misfortune to lose your way in some dried-up backwater last updated before the war, chances are you'll be looking at lots of graphics.

Yes, there will be text, but even some of this will be created and displayed in a graphic format. We get around the web thanks to graphics – nav bars, image maps, buttons and banners provide the links we use to navigate our way around the planet.

Web graphics are a breed apart from their paper-bound relatives. Regardless of their physical size on the page, file size needs to be kept to a minimum so download times are no more than a few seconds.

Waiting for a slow graphic-burdened site to appear on a screen is as much fun as standing in the queue at the supermarket checkout. Slow sites don't attract or keep visitors.

Although the situation is changing, many displays do not support 24bit colour, so web graphics must be carefully formatted to appear at their best on these screens.

Animation has brought the web alive. Animated gifs and new formats like swf and svg are pushing the boundaries of what's possible on the web.

The web graphics authoring applications reviewed in this group test do all these things and more. At their simplest they provide a means of reducing the file size of web graphics by removing colour information and by file compression. Some of them also provide tools for assembling graphics created in other applications into an animated sequence.

More sophisticated applications provide a raft of tools for adding HTML and JavaScript functionality to web images and offer an integrated pathway to the web page via wysiwyg HTML authoring applications.

Thanks to these applications creating good looking, fast moving web graphics has never been easier.

contents

• *Software tested and reviewed by Ken McMahon*

Internet image

Adobe ImageReady

IMAGEREADY WAS initially released as a standalone application. Adobe didn't want to burden Photoshop with a raft of tools and features that wouldn't be needed by its core users – mainly producing high-quality graphics for print – but couldn't ignore the growing market for web graphics tools.

But with Adobe's relentless quest for tighter integration of its products it was only a question of time before the two products were brought together. Now a button at the bottom of the toolbar allows you to switch between Photoshop and ImageReady.

Actions, history, layers and almost everything else make the journey across with your image file and the interface is near identical. So the web features are there for those who want them and invisible to those who don't.

Not all of the web tools reside in ImageReady. Photoshop provides a save for web feature so you can compare image size and quality given particular file types and compression options, but for anything else ImageReady is where the web action is.

When you first jump to ImageReady from Photoshop, everything looks pretty much the same, except for a couple of web-specific tools and palettes.

The image-editing window is tabbed, enabling you to easily toggle between your original image and a preview of the optimised version. As with the save for web dialog box in Photoshop you can display optimised previews two or four-up to make visual comparisons – file sizes and predicted download times are displayed below each thumbnail.

You can select file format, compression settings and palette options in the optimise palette and these can be saved and added to a pulldown menu of commonly used pre-sets. A neat droplet feature lets you save optimised palette settings to a desktop icon. You can then drag and drop folders of images onto this for batch optimisation.

The final giveaway that this is ImageReady and not Photoshop is the floating palette at the bottom of the screen that holds the animation, slice and rollover tabbed palettes.

Image slicing facilities are comprehensive, flexible and easy to work with. ImageReady automatically creates one big slice including the whole document. You add user slices with the slice tool to carve the page up into rectangular segments. Gaps are automatically filled in for you and each slice is sequentially numbered. You can also create slices automatically from guides or a rectangular selection.
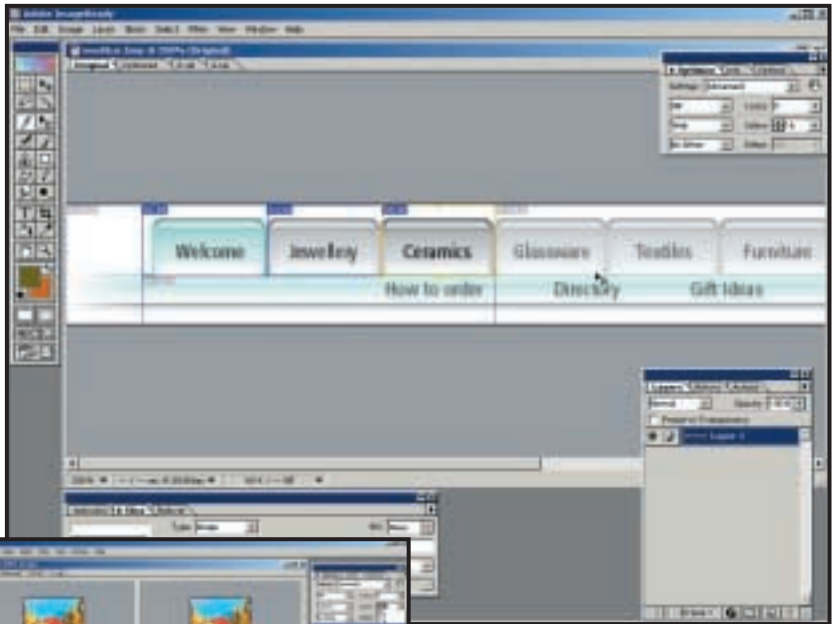
Slicing the ImageReady way: The slice boundaries snap to each other and additional slices (5 and 6) are automatically created to fill gaps
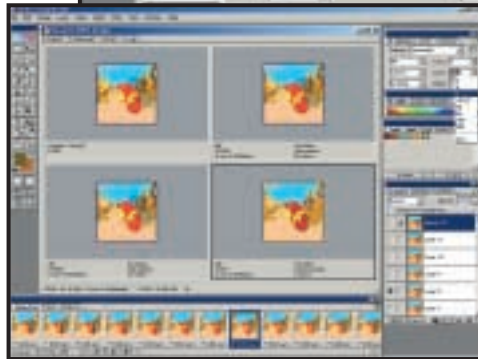
Optimising animated gifs four-up in ImageReady using the optimise palette and colour table

To optimise slices just apply settings from the optimise palette to the selected slice and you can apply the same settings to a group of slices. ImageReady provides plenty of scope for slice editing, allowing you to combine, divide, duplicate, resize, arrange and order slices.

In the slice tabbed palette you can define slice content as image and no image, the latter containing solid background colours or text. Here's where you also define the link URL and, if you're using frames, the frame in which the linked page is displayed.

Rollovers are layer-based; changes you make using layer palette commands and options affect only the current rollover state, and anything that changes the layer's pixel values affects all states. Layers can be turned on and off selectively for any of the rollover states, making the creation of multi-state rollovers from layer-based graphics simple. Like Macromedia's Fireworks, you can also create rollovers where the action occurs in a different slice to the trigger, and you can display animations in rollover states.

ImageReady has nothing to match Fireworks' rollover preview facilities, though, so it's back to the browser to check that everything works.

Animation is also based on layers –

the contents of each animation frame being determined by layer visibility. Each frame is displayed as a thumbnail in the animation palette and you can set inter-frame delay rates with a pop-up menu.

Tweening – the automatic creation of intermediate frames – is also layer-based. ImageReady can insert frames displaying a smooth transition of layer opacity, position or effects.

For anyone working with Photoshop, ImageReady is perfect for producing web graphics as it works in the same way.

If you're already using another image-editing application you'd need to think carefully before investing in a package that duplicates much of what you already have. You can do most if not all of this with standalone applications and shareware, it's just not all conveniently to hand in one place.

DETAILS
★★★★★

PRICE £468.83 with Photoshop 5.5 (£399 ex VAT)
CONTACT Adobe 020 8606 4001
www.adobe.com
SYSTEM REQUIREMENTS Pentium processor, Windows 95/98/NT4, 64MB of RAM, 125MB of disk space, CD-ROM
PROS Great slicing, animation and rollover tools
CONS Lack of previews
OVERALL ImageReady has the best graphics tools, but it's just pipped into the runner-up position when it comes to the web side of things

Anark Emotion 3D

ANARK'S EMOTION 3D is unlike anything else reviewed in this group test – it takes a totally original approach to developing web graphics. The software is the web equivalent of the Playdoh Fun Factory – the children's sausage machine toy where you shove brightly coloured plasticine in one end and, depending on the template, starfish, flowers or plasticine sausages come out of the other.

Emotion's brilliance lies in the combination of a wide range of superbly animated graphics, a large degree of control over their appearance and a simple linear interface to tie it all together.

You don't need the manual, although one is supplied, because everything is obvious right from the start and the temptation to play is, in any case, irresistible.

There are no conventional menus, dialog boxes, or any of the other tools you'd expect to find in a normal image editor. Eight buttons take you to any one of the editing processes, or alternatively you can follow through sequentially using the wizard.

The first step is to select a template. The sample templates that Anark provides are divided into classic and fun. The former features bullets, check marks and symbols, which are more suited to serious business use, while the latter offers a collection of cartoon flowers, birds, fish and other unlikely looking objects.

This is the first taste you get of Emotion's stunningly smooth animation. If you've seen the Pixar Trademark animation featuring an anglepoise lamp, you will have a good idea both of the smoothness and realism of the movement. Of course, these are running at 24 frames per second (fps), so when it comes to exporting gif animations there will be a considerable quality hit.

Before you move on to the next stage there's actually quite a lot you can do to customise the template animation. You can rotate the object around three axes, scale it and change its position on the background. This is achieved by clicking on the appropriate adjuster button below the display and simply dragging with the mouse. You can also change the light source and rendering style.

Next you can add a background from a template selection in the same way as you chose the animation object. Given
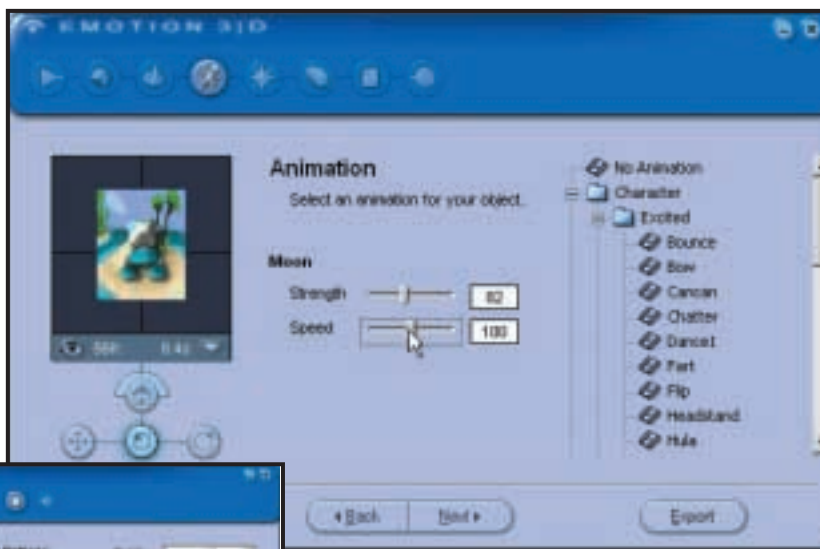
Adding character to animations in Emotion 3D
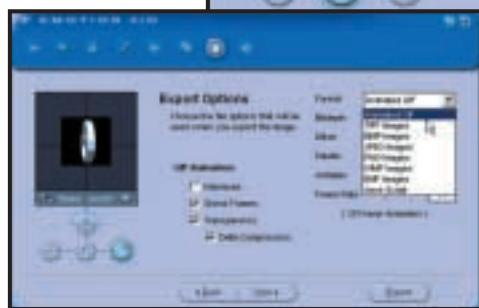
Emotion's export options: You can go back to any editing stage using the blue buttons at the top

the profusion of fish it's a shame there are no sea backgrounds, but you can always create your own and there's an option to create any plain coloured background you want.

The next bit is where it starts to become really fun. The animesh engine is where you apply a range of animation effects to your object. These range from simple rotation and looping to complex effects that simulate human activities like bowing, laughing and breaking wind!

Even the simplest of these is more sophisticated than you'd expect. Applying a 'bend up and down' loop effect to the dolphin object makes its fins and tail oscillate, other body parts – the head and eyes – move in harmony to give a fairly realistic impression of the mammal swimming.

Character animations are categorised as excited, goin' places and mellow, providing a wide range of possibilities from walking, skipping, dancing and sneaking to merely looking, breathing or snoring. Strength and speed of effect can be adjusted by slider controls.

Next in line is the effects department, which provides a fair degree of image adjustment, including brightness and contrast, hue/saturation, transparency and posterisation, in addition to mosaic, shadow, blur and glow effects.

Emotion has a limited JavaScript

rollover capability. You can select which of the effects is displayed on mouseover. You could, for example, have the animation activate on mouseover, or change the transparency, or add a glow. The program exports the two states as gifs and the JavaScript in an HTML document.

The penultimate panel provides comprehensive optimisation and export options. You can set the frame rate, check the preview and export an animated gif, or export individual frames in a variety of formats and work on them in another application.

Gif options include bit depth (in sensible 1bit increments), dither, palette and anti-aliasing. A small status bar under the preview window can be configured to display the frame rate, duration, file size, or download time.

Emotion 3D is so simple to use, a child could produce an animated gif in minutes that would outshine most of what you see on the web, or anything you could create in the other applications reviewed here given all the time you wanted. It has a good range of templates that, in combination with the animation pre-sets and user controls, provides diverse output as well as being a lot of fun.

DETAILS
★★★★★

PRICE $24.95 (free trial version also available for download)
CONTACT www.anark.com
SYSTEM REQUIREMENTS Pentium 133, Windows 95/98/NT4, 32MB of RAM, 75MB of disk space, OpenGL
PROS Easy to use, stunning animation
CONS Limited, but great at what it does
OVERALL Emotion 3D is simple quick, cheap, easy, lots of fun. All in all, it's just brilliant

Beatware e-Picture Pro

COMBINING DRAWING, animation and export tools in a sophisticated package, e-Picture Pro takes a bit of effort to get used to, especially if you are not familiar with timeline-based animation techniques. The rewards, however, are impressive 3D animations that would be difficult to produce using conventional frame-based packages. In terms of what it does and how it works it's probably closest to Macromedia Fireworks.

The list of features is impressive. It can do all the usual stuff such as image slicing, JavaScript rollovers and optimisation, but it also provides powerful image-editing tools and supports a wide variety of object types. These can be created in situ, using an array of drawing tools, including text on a path, 3D text and a Bezier pen. A wide range of image types can be imported including Photoshop and Illustrator files, as well as 3D models in 3ds and dxf format.

The interface is pretty scary to start with, but once you find your way around it's less intimidating. The document window is surrounded by an overscan area that makes it possible to animate objects outside the image boundaries, or you can just use it as a pasteboard.

The document window is hemmed in by a plethora of palettes, although you don't need all of these open all the time. The most important are the Inspector – where you change object attributes; the Object palette, which lists all the objects in the document and can be used to select them; and the Animation Palette. This displays objects down the left-hand side and frame numbers along the top in a timeline-type format familiar to anyone who's used Flash or a home video-editing package. Most of the editing action takes place within these palettes.

The Objects Palette is tabbed into several context-sensitive sections. If you select a 3D object the front tab displays model info and provides rotation through three axes, as well as rendering and lighting options. The next one provides layer opacity and blend options, followed by one for applying filters. Lastly, you can apply one of five shadow and glow effects, these are fully editable and can be removed at any time.

It is easy to produce complicated animation effects using tweening. Short for in-betweening, tweening refers to the process of creating the intermediate frames of an animation between the start and end points.

To create tweened animation you first select the start frame in the animation palette, draw or import the object you want to animate and position it where you want it to start. Then you
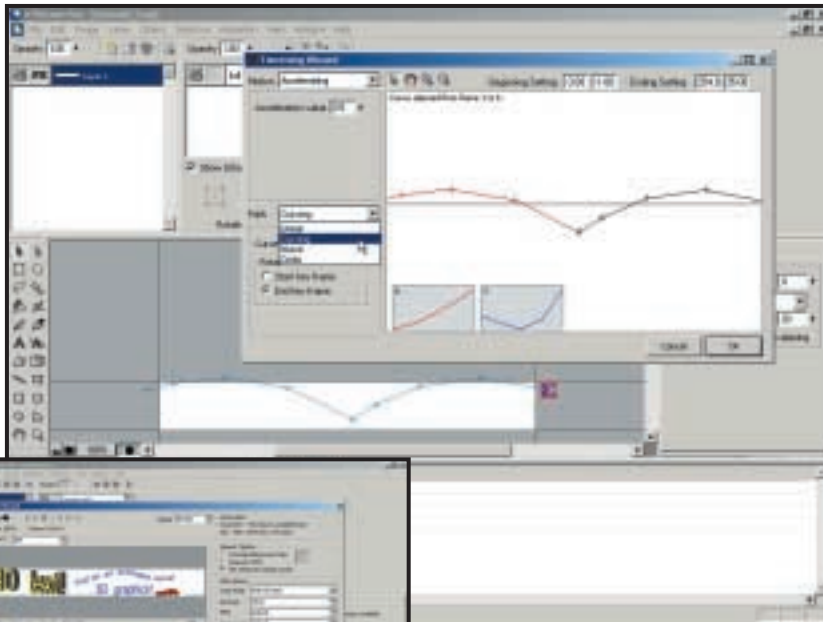
Above: Using the tweening wizard to create a bouncing ball animation
Left: e-Picture's export wizard provides two and four-up file format comparisons
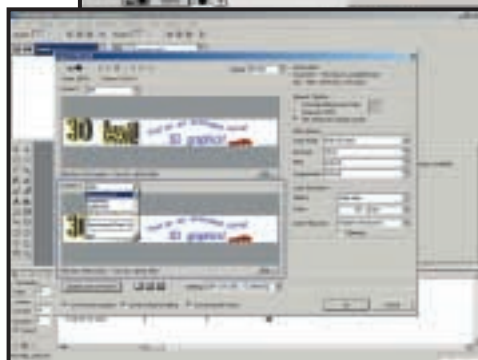
click on the end frame and drag the object to its finishing position. As you drag, a motion line appears between the start and end positions with a square dot representing the tweened object position in each intermediate frame.

Pressing the Play button confirms that your object moves from start to end position in a straight line at a constant speed. That's all there is to it. To add keyframes you go to the relevant frame and drag the object to a new position.

For more complex tweening, the tweening wizard provides a high degree of control over every aspect of an animated object's appearance. Attributes, which are displayed in nested Explorer-style format in the Animation window, include Visibility, 3D Properties, Text Properties, and Transformation. So, as an object progresses along its path you can make it change colour, fade in and out, rotate, speed up and slow down.

Tweening wizard path pre-sets provide a quick method of setting up curved, circular and wave-shaped paths, as well as applying simple formulae to vary the object's speed. Complicated animation effects, such as a bouncing ball or falling leaves can be produced fairly effortlessly this way.

Inevitably, these sophisticated effects work best at high frame rates that, due to bandwidth considerations, are impossible, or at least unwise to maintain when exporting for web use. Animation export formats include

RealVideo, Quicktime, svg and Macromedia Flash, making it an ideal tool for all kinds of animated content creation in addition to animated gifs.

The Export wizard provides no means of reducing the frame rate, though, so you need to think about the intended destination before you start. Having said that, a 19-frame animated banner came down to just over 3KB with a 128-colour websafe palette, which is small enough for even the most demanding users.

The export wizard dialog box has a big preview window that can display two or four-up comparison previews. So it's possible, for example, to compare gif and Flash versions of the same banner.

Macromedia has some serious competition on its hands. Put simply, e-Picture Pro provides the means to create and generate good-quality animated graphics with a fraction of the learning effort required to master more complex authoring applications.

Compression and file formats

Compression and file formats are so closely bound together that it's hardly possible, or even desirable to talk about one without reference to the other. The most important thing to be aware of with compression is whether it is lossy or lossless, or to put it another way, whether the reduction in file size is achieved through removal of image data or by a more efficient method of representing and storing it.

The most widespread lossy compression algorithm is jpeg, which is also the name of the file format which uses it. Jpeg stands for Joint Photographic Experts Group, the committee that established the format.

The jpeg format stores images as either greyscale or 24bit (sometimes called true) colour. It's well suited to photographic subjects because of this and also because the compression algorithm works on the basis that the colour data removed is largely unnoticed by the human eye.

One of the great things about the jpeg format is that you can dictate by how much the images should be compressed. It is capable of compression rates up to 20:1, but the greater the compression, the lower the quality of the resulting file.

Most applications provide a sliding scale from 0 to 100, with the best quality and lowest compression settings at the top of the scale, but

What jpeg does to text. Notice the halo effect at the dome edges

though they cover the same range the scales aren't uniform and a 50 setting in one application may not render the same results as another.

Settings are also fairly arbitrary and don't give any indication of compression ratio – using the 50 setting won't necessarily compress your files by a factor of 2:1.

Using a setting of 70 to 80 usually produces results that are indistinguishable from the original; anything less than that and you'll start to notice a degradation in image quality.

The jpeg format has most difficulty dealing with contrasting boundaries and this is where you start to get problems at the lower quality settings. To compensate, some apps provide a softness setting – basically a blur filter.

Another thing to watch for

216 websafe colours as displayed in ImageReady's colour table palette

is recompression. If you continually open, edit and resave a file with jpeg compression the quality of the image will cumulatively degrade. If you need to do this, save the file in a lossless intermediate format and only save the final version as a jpeg.

Its inability to cope with edge detail makes jpeg unsuitable for line art, illustrations using flat colour, (logos, typographic art). For non-photographic subjects gif is a better choice, not just because of its compression, a lossless algorithm called LZW (though there's a lossy gif option available), but for the control over the colour palette it provides.

Jpeg is a 24bit colour file format. Whether your image has one colour or several million all 24 bits are used to display the colour information for each pixel. With gif you can alter the colour palette, or bit depth, to suit the image. If there are only four colours in the image you need use only a four-colour palette – two bits per pixel to display them.

Reducing the colour bit depth has drastic consequences for file size. A 468 x 60 pixel banner contains a total of 28,080 pixels. A 24bit uncompressed file would be around 82KB. Gifs use an 8bit 256-colour palette (216 if you are using websafe colours) so, uncompressed and using the full palette, the file would come out at 27KB. But if you reduced the palette to eight colours (3 bits) that would come down to 10KB. The LZW compression would further reduce this.

One way to represent more colours in a gif than are available in the palette is dithering. This doesn't mean taking forever to decide which of the limited colours is the best option, but combining two colours using a pixel pattern block to create a third. Dithering can give poor results when viewed in a browser, though some applications provide safe colour combinations for two-colour dithers. On the whole it's best to stick to the websafe palette, reduce the bit depth as far as possible without compromising image quality too much and don't dither.

A new file format called png (Portable Networks Graphics, pronounced ping) has recently been developed to replace gif. Like gif, png offers (slightly more efficient) lossless compression. Unlike gif, it supports up to 48bit colour, multi-level transparency, gamma correction and faster interlacing. Another advantage of png for software vendors is that they don't have to pay a licence fee to Unisys, which owns the patent on the LZW compression algorithm used by gif. One disadvantage is that browsers have only just begun to support the png format.

All this fiddling with bit depth and optimising to websafe palettes is only necessary because there are still many people in the world using graphics cards incapable of displaying more than 256 colours. As 24bit-capable displays become the norm, gif and websafe palettes will be rendered obsolete.

To dither or not to dither. Clockwise from top left: original, websafe dithered gif, websafe undithered gif, jpg

Equilibrium **DeBabelizer Pro 4.5.1**

DEBABELIZER PRO is an industrial-strength application for editing and optimising images for the web and multimedia applications. DeBabelizer's powerful and flexible scripting and automation features make it ideal for busy studios or people who have many hundreds or thousands of images to knock into shape on a daily basis.

DeBabelizer's interface is a little intimidating to begin with and can quickly become cluttered. This is possibly the price you pay to be able to do so much to so many images.

The program was last updated in 1998 and then only minor features were added, such as support for Quicktime 3, improved handling of other video formats, scripting enhancements and better plug-in support. However, it was well ahead of the game to begin with and DeBabelizer remains the best way to optimise images in quantity.

Although best known for its optimisation and batch processing, the software provides a set of image-editing tools, including competent selection tools, cloning, transparency, compositing, text and resampling. These are, however, beginning to look extremely dated by comparison with what's available in even the most limited of home digital darkroom applications.

DeBabelizer gives as much precedence to palettes as to images. Other editors provide a single palette that displays the colour table for the current image, but DeBabelizer shows each image with its associated palette below.

Superpalettes – custom palettes that work across groups of images – are central to the optimisation process. When you create a superpalette, equal weight is given to all the images that contribute to it. You can, however, skew the palette in favour of a particular image or group of images.

The action arrow is a handy way of applying attributes from one window to another. To add an image to the superpalette you just drag its action arrow onto the superpalette window. The more times you do this, the more the palette is skewed to favour colours in that particular image. You can likewise apply the superpalette to individual images by dragging the action arrow in the opposite direction.

Although you can optimise small groups of images like this, say for an animated banner, website, or CD-ROM, DeBabelizer's real strength lies in its scripting and batch-processing features. The WatchMe feature records actions to an open script as you execute them in the workspace, or you can drag and drop operations from the log window.

In the script window you can edit,
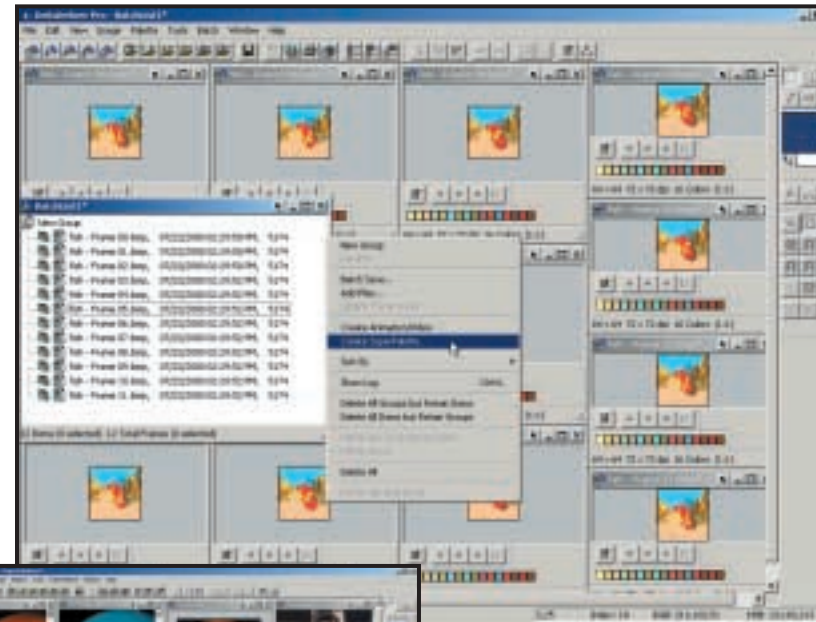
Above: Creating a Superpalette for an animated gif from the batchlist
Left: Applying the superpalette to the open images in the batchlist

delete and re-order actions, add special operations such as pauses and loops and change operation parameters.

Scripts can be applied to individual images or animations, but when combined with a batchlist, DeBabelizer's real power becomes apparent. Batchlists let you create and organise groups of images, animation frames, palettes and superpalettes for automatic processing, either directly in the workspace, or by scripts.

Batchlists are reference pointers to files so you can use files from any source and organise them as you please without affecting the location of the source files.

Batchlists are easy to create and edit. You can drag images into a batch window using the action arrow, right-click on the batchlist window to add files, or drag them in from Windows Explorer. When adding an animation file to a batchlist, DeBabelizer creates a new file for each frame and adds the file-name to the batchlist. You can also easily extract files from an HTML page into a batchlist, run a script, then re-save them. You can even drag in the entire website folder and DeBabelizer will create a group for each page. This makes it possible to quickly optimise all the graphics in an existing website.

Applying scripts to batchlists provides a convenient way to automate

all kinds of processes, from simple file-format conversion to image editing and optimisation. DeBabelizer also provides off-the-peg batch-automation processes – essentially script templates.

Automation process commands include Create Superpalette and Remap, Save With Superpalette, Compare and Composite. Compare works on two files and generates an alpha channel with differing pixels, while Composite overlays pixels from one image onto another.

ProScripts wizards take batch automation a stage further, providing an easy way to create scripts for generating common graphic types.

Much of what DeBabelizer pioneered has been adopted by more mainstream web-editing applications over the past few years. All the same, if you want complete control over optimisation and need the sheer muscle of an application designed with bulk processing in mind, then there's no better way to do it.

DETAILS
★★★★

PRICE £328.88 (£279.99 ex VAT)
CONTACT Computers Unlimited
020 8358 5857 **www.equilibrium.com**
SYSTEM REQUIREMENTS 486 processor, Windows 95/NT4, 16MB of RAM, 20MB of disk space, CD-ROM
PROS Powerful scripting and batch processing
CONS Too much on-screen clutter; steep learning curve
OVERALL With all the control DeBabelizer offers, it's a real image-processing workhorse

Fluffy Clouds Ignite 2.0

IGNITE CAN BE USED either as a standalone application or as a Photoshop-compatible plug-in. It's produced by a British company, Fluffy Clouds, and a 30-day trial version is available at www.ignite-it.co.uk. The install file is only just over a megabyte, so it doesn't take long to download.

When we downloaded the installer it recognised several compatible image editors on the test PC including Corel PhotoPaint and Paint Shop Pro, as well as Photoshop, and installed a plug-in for all of them. With the plug-in installed you can export files directly to Ignite from your image-editing application.

Ignite does not claim to be a graphic-design application. Like most of the products in this group test it provides a range of tools you can use to make your images better suited to web display. Those tools include optimisation, animation and image slicing.

The Ignite way of working is a little unorthodox. Rather than working on an image file, then exporting the edited/optimised file, you set up and save output files at the outset, which you can then view alongside the original source file.

To experiment with different formats or palette settings you simply create several output files. The original source view, along with any output files you have created, are then displayed in a tabbed viewing area. You can toggle through them simply by clicking on the appropriate tab.

There's no limit to the number of viewing windows you can have open at one time so it's possible to make side by side comparisons between the original and numerous output files with different palette settings.

With animated gifs, the frames are displayed in filmstrip fashion, with rulers in the source view and trim marks in the output view.

In practice, with something like a banner, use more than four windows and things start to get a little cluttered. This is especially true if you have a number of floating palettes open as well as the excellent cue card feature. You can quickly set things up to emulate something like ImageReady's more ordered layout, but the window layout can't be saved with the file, so you'll need to do this every time you open the application.

Editing changes made to the source file are automatically updated in the output file. The inspector panel provides access to all the editing tools other than those you select from menus or the five toolbars docked at the top of the screen. The inspector is context-sensitive, displaying editing tools and feedback
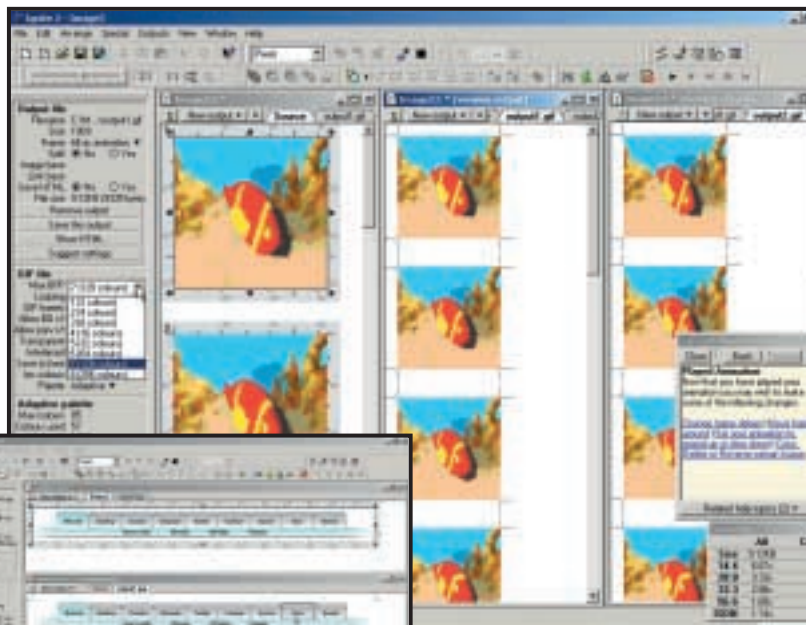
Changing the bit depth for one of the output files — download times are displayed bottom right
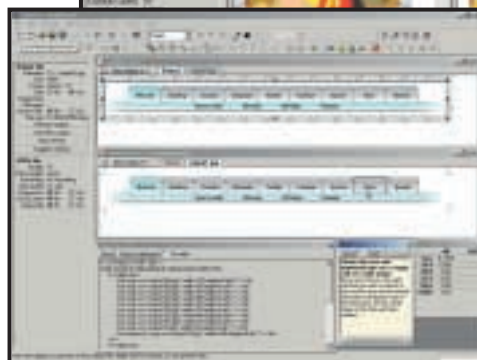
Displaying the HTML for a sliced navbar — the cell download times are only displayed for gifs

when a source window is active and palette information for output windows.

Clicking on the split image divides it into four and you can further subdivide and join cells using a floating toolbar. The HTML code can be viewed in a separate window and copied to the clipboard for insertion into an existing page. Alt text, hyperlinks and the image slice name are all input to fields on the inspector.

In output mode, the inspector allows you to set the gif file parameters – transparency, interlacing, looping and so on, and choose the palette. Three options are available, websafe, adaptive and specified and you can choose the bit depth via another pulldown menu.

Using the inspector in combination with the output views in this way you can quickly find the optimal palette settings for an animation. You can preview the animation using the cassette-style buttons on the toolbar, or open it in a browser. The built-in preview is more useful, offering 256-colour and Apple simulation. There's also a handy animation sequencer which you can use to rearrange frame order and set delay timings. This has a linear change feature which sets delays of decreasing or increasing length for each frame, allowing you to produce animations that get progressively faster or slower.

Ignite hasn't quite got to the stage of having a really hot product, but it's

smouldering nicely. The interface is flexible enough to be organised to suit your personal preferences, but needs to be more tightly ordered to prevent confusion. Far too much information is presented textually and with several output windows open at once it can be difficult to know to which file the inspector information applies. More use could be made of drag and drop. Being able to drag the tabbed output panels to create a new window would be an improvement, as would some kind of docking system for the multitude of floating palettes.

It could also use a little more automation, some palette pre-sets would be a good start, and basic batch processing should be a priority for the next release.

Despite those shortcomings it's basically a well put together piece of software with everything you need to create animated gifs from individual source files.

DETAILS
★★★★

PRICE £99.88 (£85 ex VAT)
CONTACT Fluffy Clouds 01865 318103
www.ignite-it.co.uk
SYSTEM REQUIREMENTS Pentium 100, Windows 95/ 98/2000/NT, 16MB of RAM, 20MB of disk space
PROS Sound features; good guidance
CONS Needs work on interface and automation
OVERALL Well crafted basic gif animator held back slightly by its cluttered interface

Shareware and plug-ins

Creating web graphics on a budget couldn't be easier. There's very little worth having that's absolutely free, but there's an abundance of cheap plug-ins, shareware and demo software to try out.

If you have a full copy of Photoshop 5.5 you probably won't want to bother with them as most of what they offer is included in the latest version of Photoshop, or ImageReady 2.0.
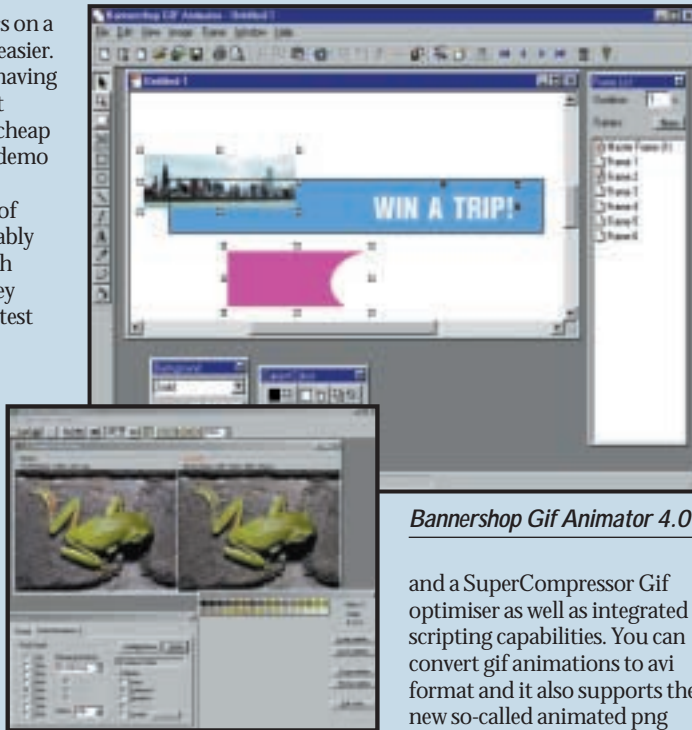
If, on the other hand, you're working with an older version of Photoshop, or another image-editing application that is plug-in-compatible, such as Paint Shop Pro or Corel PhotoPaint, these shareware plug-ins can provide many of the functions of our group test applications at a fraction of the cost.

One place that is a goldmine of applications for optimising and compressing web graphics is www.boxtopsoft.com. It's not strictly speaking shareware, rather commercial applications that you can download in demo format. Some of these are save disabled, others have limited functionality, for example **Supergif** cannot batch process.

All the Boxtopsoft products are available for Windows and Mac, they feature simple elegant interfaces which enable you to do optimisation quickly and without fuss. **ProJpeg** has a dual-image preview window with live file size, compression ratio and download time info and supports progressive (the image displays at progressively higher resolution as it downloads in the browser window) and baseline encoding.

PhotoGIF also provides comparative previews, good palette editing and control features and an edge tool for cleaning up anti-aliased edges on transparent gifs.

Colorsafe is a Photoshop plug-in that allows you to create hybrid browser-safe

Bannershop Gif Animator 4.0

Webgraphics Optimizer 4.2

colours from a combination of two existing colours in the browser palette, thus expanding the range of websafe colours. A program called **Ditherbox** made such an excellent job of this technique that it was bought by Adobe and incorporated into ImageReady.

At www.spinwave.com you'll find **HVS ColorGIF 2.0**, a Photoshop plug-in gif optimiser. It includes programmable pre-sets, live previews and a gif animator. Other spinwave products include **JPEG Cruncher**, **GIF Cruncher** and **OptiVerter** – a scriptable command-line batch converter and optimiser for more than 50 file formats including eps, tiff, gif, jpeg and hvs animator. All are available as free trial downloads, or you can crunch online.

At www.mindworkshop. com/alchemy/gifcon.html, you'll find **Alchemy's Gif Construction Set Pro 2**, a fully featured shareware application for producing animated gifs and optimising files. It's a 4MB download and the registration fee is $20. It has an animation wizard and banner generator, transition effects,

and a SuperCompressor Gif optimiser as well as integrated scripting capabilities. You can convert gif animations to avi format and it also supports the new so-called animated png format mng.

Gif Master 1.4 (http://kote nev.hypermart.net/GMaster/ info.htm) is a suite of applications comprising Gif Viewer, Gif Optimizer, Gif Explorer, Gif Comment and Gif Convert. The Optimizer can work on an entire folder of single-frame or animated gifs. As well as gif, jpg, and png file formats are supported. GIF-Explorer is a gif file browser that supports animations, returns palette and header information, and provides some basic editing techniques. Version 1.4 is a beta with a registration fee of $35.

Webgraphics Optimizer 4.2 software automatically optimises images for you using its intellioptimize feature, which analyses your images and decides optimal settings for you (www.webopt.com). So even if you haven't read the page on compression there's no excuse not to produce small perfectly formed gifs.

If you want to take a more hands-on approach, up to five variations can be compared while you change the file format, compression ratio, colour depth, dithering and colour palette in real time. Optimizer reads 24 file formats and writes 16,

including gif, jpeg, png, Photoshop 3 and tiff. It also has a wide range of effects filters, colour manipulation functions and TWAIN support for scanner input, all presented in a slick professional interface. The professional version also provides batch optimisation features.

Newly released **Bannershop Gif Animator 4.0** has a built-in image editor with drawing, retouching and text tools for creating single-frame and animated gifs http://www.selteco.com/.

It has an optimisation wizard and uses plug-in extensions to provide a range of animation and effects tools. Fly, fade, motion blur, zoom, stretch and peek extensions are included. You can download a limited time demo, or own it forever, as they say on the Disney video commercials, for $39.

Best of the rest
http://www.agentur-simon. de/pedit/
PEdit 0.8: Simon Bertram's PEdit is a simple, but powerful manual palette editor plug-in.

www.jpg.com
Pegasus imaging: Jpeg Wizard and PicPress.

http://www.risoftsystems. com/palexp.asp
RI Soft Systems: Palette Express Palette editor.

http://www.crayonsoft.com/
Crayon Software: Magic Viewer v1.2 shareware batch converter and optimiser.

http://www.coffeecup.com/
Coffeecup Software Shareware Gif Animator, Image Mapper and Button Factory.

http://stud1.tuwien.ac.at/ ~e8925005/
www Gif Animator v1.1 (that's not a URL by the way) Shareware Gif animator with lots of effects and transitions.

http://www.spg-net.com/ product1.html
SPG Webtools 4.0 pro Expansive suite of plug-ins

Jasc **Animation Shop 2.0**

THIS IS A COMPONENT of Paint Shop Pro 6.0 and you can download a 30-day trail from www.jasc.com. Version 1.02, which accompanied Paint Shop Pro up to version 5.01, was a basic application for stitching together gif animations. It had a clean filmstrip interface and a few transition effects, but little else. Version 2.0 adds new banner and optimisation wizards, editing tools, support for opening and saving Autodesk flc and fli plus avi file formats, more and better transitions and effects as well as enhanced integration with Paint Shop Pro.

That said, working from scratch in Animation Shop is not recommended. Its level of functionality would have been considered primitive a decade ago. There is a limited range of drawing tools for producing simple shapes and lines, a paintbrush, fill bucket, and eraser text tool.

All of these work in the conventional destructive pixel mode of old – anything you produce with them is instant bits and can't be moved or otherwise edited (other than filled with a different colour from the bucket). If your text ends up not quite in the right place, or the wrong size or colour (there's no preview to help you judge this) you hit undo and start over. In the absence of layers, or any kind of selection tools, this is a big obstacle to any kind of productive work.

Were Animation Shop a standalone application, that's all you'd need to know, but tightened integration with Paint Shop Pro makes it less of an issue. You can drag layered images from Paint Shop Pro into Animation Shop where each layer will appear in its own frame.

You can also create new frames in Paint Shop Pro and drag to replace, or insert in an open Animation Shop file. Working in the opposite direction, animations can be exported to Paint Shop Pro, edited, then updated back to Animation Shop.

Transitions have a new preview dialog box that displays the start and end frames with a big preview in the middle. There are 24 available transitions including all the usual suspects – blinds, chequer wipe, dissolve, fade – and a few more interesting candidates such as spin and twist.

All the transitions are customisable to a degree and you can set the length and frame rate with sliders. Image effects work in a similar fashion and include motion blur, shakycam, spiral, underwater and wave. These can be run in reverse direction, which means you can use them to bring text or images into sharp focus from a blurry, shaky, or watery beginning.
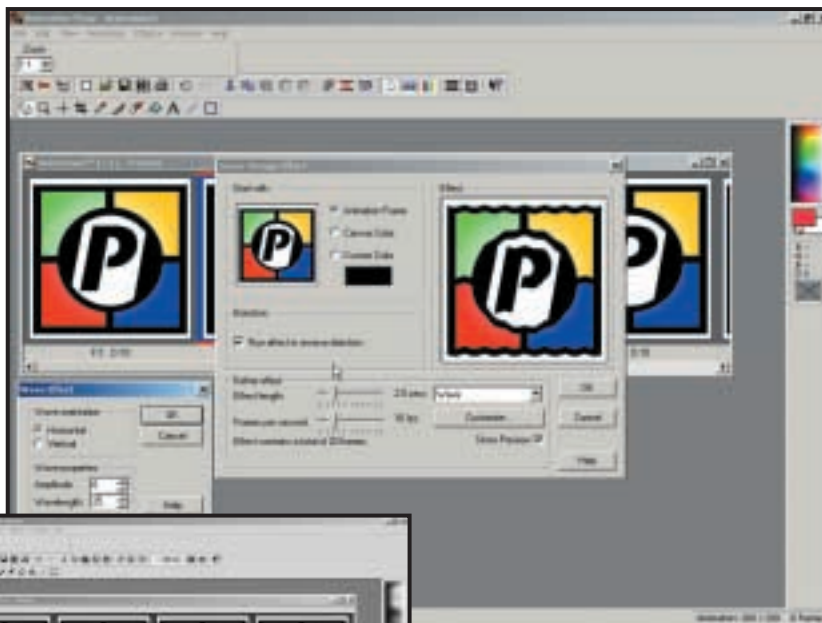
Above: Adding transition effects is easy and Animation Shop has a good selection
Left: The wizard has no visual feedback so it's pot luck with settings sliders

Text effects combine a text input dialog box with an effects engine so you can generate woozy text in one step. As with all of these things, some are more useful than others, depending on your personal preferences. Marquee provides quick-scrolling banner text, while wheel, flag and backlight are also worth a look.

The animation wizard has changed little, if at all from version 1.0 and is basically little more than a sequence of steps for importing several files into an animated file. Given that you can now do this more easily from a layered Paint Shop Pro file, it's hard to imagine anyone using it other than to import files from another source and standardise frame size. You can set an arbitrary frame size or opt to standardise to the first image and the wizard scales each image as required. Other than selecting the frame rate and a couple of other gif parameters and ordering the images, that's about it.

The banner wizard has little more to offer. You can select a background colour or image, choose from a selection of standard template sizes, set frame rate and looping options, enter text and specify a transition. The big drawback here is that you don't get a really good look at the text until you get to the final panel, inevitably it's the wrong size so you have to backtrack, amend it then take another look, but this is a minor quibble.

The optimisation wizard can be used

on two levels. The simple way is to drag the slider that appears on the first panel to one of four positions that range from low quality at the bottom to best quality at the top. A status panel to the right tells you what settings will be applied.

The second option is to press the customise button that gives you control over the individual settings via three tabbed panels for colour depth, optimisation parameters and transparency settings.

You can specify the bit depth from a pulldown menu, but at anything less than 256 colours it isn't possible to choose a browser palette, although you can select custom palette and then select a saved browser palette.

Animation Shop is a basic gif animation application with good transitions and effects. In combination with Paint Shop Pro you have a more powerful and versatile solution that, for the price, offers good value at this level.

DETAILS
★★★★
PRICE £93.94 (£79.95 ex VAT)
CONTACT Digital Workshop 01295 258335
www.jasc.com
SYSTEM REQUIREMENTS Pentium processor, Windows 95/98/NT4, 32MB of RAM, 12MB of disk space
PROS Transitions and effects; integration with Paint Shop Pro
CONS Limited toolset; lacklustre wizards
OVERALL While not stunning, Animation Shop 2 is a good value basic animation package

Macromedia **Fireworks 3**

LIKE ADOBE, MACROMEDIA wants to integrate its products so that you can get everything you need without having to venture outside its product suite. You can buy Fireworks 3 with Macromedia's web authoring application Dreamweaver, or as a standalone product.

Because Macromedia has no mainstream image-editing product with which to integrate Fireworks (unless you count Freehand) it needs to provide everything you might require to produce stunning web graphics. Although it lacks many of the tools you'd expect to find in an image editor, it is nonetheless a very self-contained application.

It provides all you need to produce optimised graphics, buttons, nav bars, rollovers, animated gifs and other web graphics. It offers tighter integration with Dreamweaver, greatly improved previewing, and a history panel that can be used as a sort of mini script player.

Macromedia has hedged its bets, or as it would see it, broadened Fireworks' appeal, by making it Photoshop-friendly. You can import psd files with layers intact and text layers editable. Photoshop plug-ins, which appear on the Xtras menu, can be applied as live effects, so the object to which they apply remains editable in the Fireworks file.

The Fireworks interface is clearly designed to appeal to Photoshop users. The central editing window is tabbed to provide original, preview, two and four-up optimised views. A profusion of complicated looking palettes down the right-hand side of the screen looks a little intimidating, but once you get to grips with Fireworks' object-based approach they provide the most direct means of defining object attributes.

Like Flash, Fireworks makes use of symbols to short-circuit the production process for repeating objects. Eventually, everything is rendered into bitmaps, HTML and JavaScript, so this doesn't help to reduce file sizes, but it does cut out a lot of the repetitive work.

The new button editor is where you create simple two-state buttons and more complex nav bars, including down and over while down states. For more advanced rollovers, including what Fireworks calls disjoint rollovers – where the pointer over one graphic causes another graphic to change – you need to attach JavaScript 'behaviours' to objects using the Behaviours inspector.

Animation in Fireworks is frame-based, so if you want to create a two-state button frame one would contain the up state and frame two the mouseover state. To attach a behaviour to an image slice you select the event
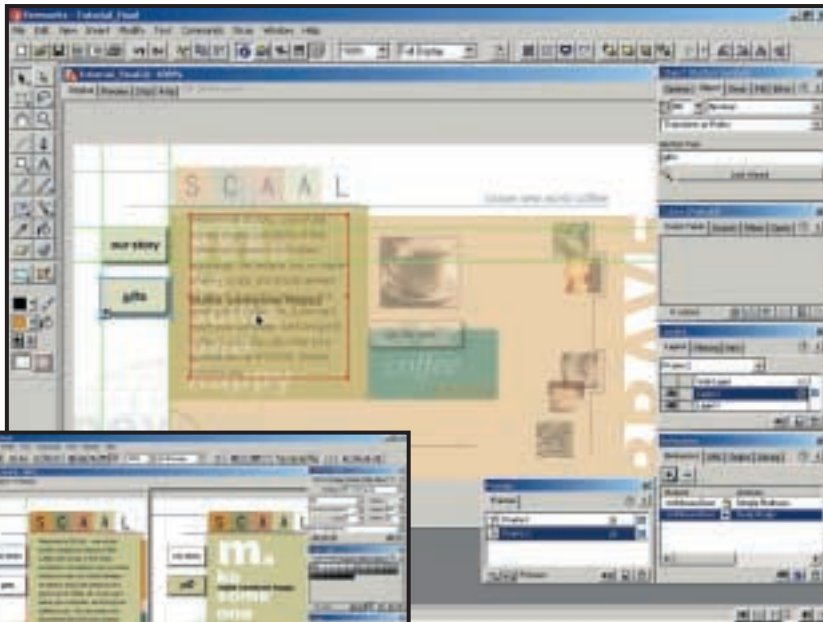
Above: Creating disjoint rollovers – mouseover on the gifts button changes the panel to its right
Left: And you can preview the rollovers in situ – no need to fire up the browser

and choose from the available JavaScripts. Swap image, for example, changes the contents of a specified slice with another frame under the same slice and Swap Image Restore brings you back to the default frame. The two behaviours are combined to provide a simple rollover behaviour that uses frames one and two of the selected slice.

Gif animation uses the same frame-based approach. The combination of frames and layers makes deciding what will appear and when less complicated. You can share a layer so that its contents appear in every frame and distribute multiple selections to separate frames for sequential display.

Rollovers and gif animations can be previewed from within Fireworks, so you don't have to fire up a browser every five minutes to check the results. As a means of checking everything is functioning, this is convenient, but when combined with Fireworks' optimisation controls it's an absolute godsend.

Again, it's impossible not to draw comparisons with Photoshop, which Fireworks' Optimize palette resembles very much. The palette provides the kind of pre-sets you would expect – jpeg at various compression settings and gif using a variety of palette and dither options – there's even a lossy gif option, just like Photoshop.

By selecting an individual slice you can specify optimisation settings for it alone, regardless of the general setting for the rest of the image and in this way you can go through the image, piece

by piece, selecting the optimal settings.

Likewise with animated gifs you can mess about with the optimisation settings while previewing the animation.

An export wizard automates the optimisation process to a degree, and provides an option to specify the file size, useful now so many sites have file size restrictions on banner ads, though you may prefer to do your own tweaking.

Fireworks' combination of bitmap and vector features, JavaScript routines, animation and optimisation tools makes a compelling combination for designers who want to pack graphics with HTML action while at the same time squeezing files until they squeek. It's not as simple to use as ImageReady, so not ideal for quickfire bits and pieces, but well suited to more demanding projects that require lots of graphics with ready to run JavaScript and HTML functions built in.

DETAILS
★★★★★

PRICE £163 (£139 ex VAT) £299 Fireworks/Dreamweaver 3 Studio
CONTACT Computers Unlimited 020 8358 5857 **www.macromedia.com**
SYSTEM REQUIREMENTS Pentium 120 (III recommended) Windows 95/98/NT4, 64MB of RAM, 60MB of disk space, CD-ROM
PROS Creative tools and web functionality perfectly integrated
CONS Steep learning curve
OVERALL Fireworks is the only choice for dedicated web designers

Ulead **Gif Animator 4**

THERE'S SOMETHING about Ulead's Gif Animator 4 that makes your heart sink. The grey interface has no life and certainly doesn't entice you to delve into the software further to produce moving graphics for websites.

Like many animation programs, Gif Animator works on the assumption that you will create the frames of an animation in an image-editing application. The grandly titled 'animation wizard' is a dialog box that you use to browse for and arrange in order individual frames. You can also opt for dithering and set the frame rate.

Our test animation, consisting of five sequentially numbered tif files came in order 5,2,3,4,1. Although you can drag and drop to change the order, the wizard dialog box isn't wide enough to view the filename, only the first section of the path so, unfortunately, you can't tell which file is which.

The tabbed editing window provides four functions: compose, edit, optimise and preview. It's surrounded by an attribute toolbar at the top, a palette toolbar at the bottom, a layer pane on the left and a toolbar that appears on the right when you select the editing tab on the workspace window. Other options are compose, optimise and preview.

The compose section doesn't appear to serve any function, so you may as well click on the Edit tab. This provides access to the editing toolbar that has a few basic image-editing tools like crop, rotate, fill and erase. In addition, there are zoom buttons, an onion skin button that displays the previous frame underneath the current one, and a magic wand.

Additional image-editing functions can be accessed from the menu bar, available in any of the editing modes. If you buy Gif Animator as part of the WebRazor 2.0 suite you get a bonus set of video transition and filter effects.

The layer pane displays each frame either in list, thumbnail, or filmstrip format. Whichever format you're in you can't drag and drop the layers to rearrange them, you have to go to the layer menu and select move layer up, or down (there is, though, a keyboard shortcut and a toolbar button). Unfortunately you will be doing a lot of this because Animator is unable to import files in the correct order.

The layer menu is also the route to a whole bunch of effects, including video transitions, a rotating cube animation, a banner text applet, scrolling, and something called moving sprites. There's an abundance of these

Quickly add scrolling to your banners with Gif Animator's one good feature
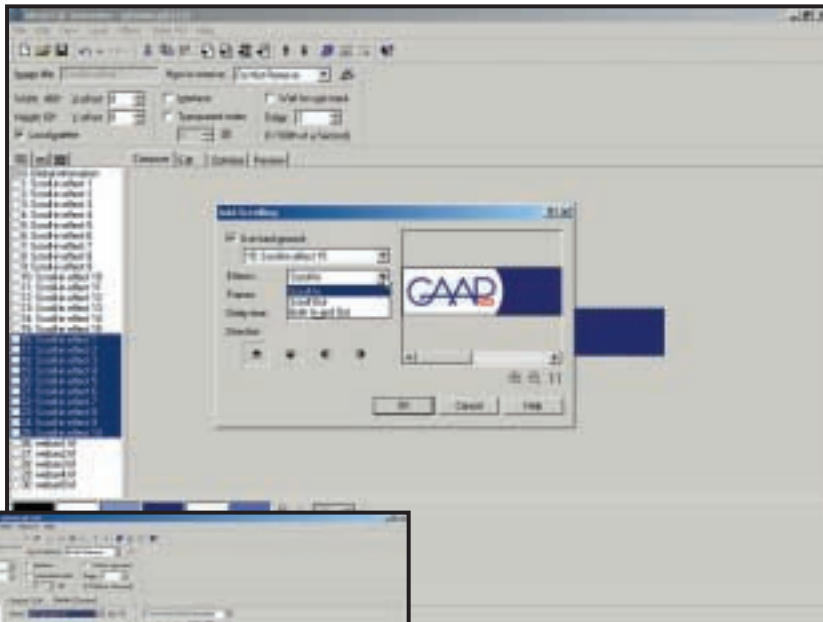
The optimise panel — but where the preview thumbnail should be — a big grey area

effects and features, but the question is do you want them? Mostly, they exist because they are easy to program, rather than for any aesthetic or productive reason.

Moving sprites is a sort of poor man's tweening that applies an offset to a series of duplicated frames to produce movement. Colour animation creates new frames with all pixels of a particular colour changing to another colour. Have you seen those delightful banners where the background, text and anything else visible cycles through every luminous colour perceptible to the human eye?

One effect that is worth having and produces quicker results than by hand is add scrolling. This allows you to scroll the frames of your animation (most likely a banner) into and out of the frame from any side. As well as the scroll direction you can set the number of frames used to achieve the effect, delay time and background colour and a small preview window shows you how it looks. Sadly, there doesn't appear to be a way to scroll a frame out while the subsequent frame scrolls in.

There are two options for optimising animated gifs. A three-step wizard takes you through palette selection, dithering and removal of redundant pixels, comments etc, then gives you a report

and you can view a preview, but you can't compare it with the original.

Alternatively, you can choose from a number of pre-sets. There are two pulldown menus, one for bit depth and another that gives three palette options: optimise, browser safe, and user defined. You don't get the report until you've pressed the Optimise Now button and if you don't like the results you have to undo and start again with different settings.

To see the results of the optimisation you go to the preview pane and try to guess how your latest effort compares with the previous effort, or the original.

Web graphics packages have reached a stage of sophistication where, to have something to offer, they need to be easy to use, provide powerful editing features, or have an original approach.

Gif Animator 4 is none of these things. It provides the kind of features that shareware applications have been offering for years, bound up with a miscellaneous collection of effects and filters of little practical use.

Ulead **SmartSaver Pro 3.0**

ULEAD SMARTSAVER PRO 3 neatly covers the four core areas of web graphics production – image slicing, JavaScript rollovers, image maps and optimisation. It can be run as a standalone application or Photoshop-compatible plug-in from your image editor. You can download a free 15-day trial version from www.ulead.com, alternatively SmartSaver 2.0 is available as part of Ulead's WebRazor Pro 2.0 suite, which also includes Gif Animator 4 (see previous review), Cool 3D 2.5 and Photo Explorer 5.0, but you'll need to upgrade to version 3.0 of SmartSaver Pro.

Utilitarian, but functional, SmartSaver's tabbed palette approach lets you get straight down to business. Clicking on the Function tab above the Edit window displays the properties panel, colour palette and floating panels for the task in hand and activates the tools in the toolbar.

Three tools are provided for slicing, a 'slice evenly' grid – enter the number of rows and columns in a dialog box – an 'add sliced line' tool, and a slice line eraser. The last of these is crucial as the first two tools provide a less than ideal way of dividing up the image.

The slice line creates a horizontal or vertical line at the exact spot on which you click, you can't drag to place the line more accurately, though you can edit it afterwards. Once you get the hang of it it's easy enough, but not nearly as intuitive as Photoshop's slicer and it lacks the editing features.

Moving on to the Optimizer, the properties panel houses three tabbed palettes, the first of which provides all the settings and pre-sets for file format and compression settings. First you pick your file format by clicking on the gif, jpg or png button, then you can select from a list of pre-set options on a pulldown menu. If you choose gif or one of the png pre-sets the colour palette is displayed.

You can optimise individual slices, either by clicking to select or highlighting the relevant cell in the frames and cells panels, but there doesn't seem to be a way to apply these settings to multiple slices.

Having selected your pre-set you can then tweak the palette to try and skim bits without sacrificing quality. The gif settings give you the choice of an optimised palette based on image pixels, a websafe palette, or a user-defined one. The degree of dither, number of colours in the palette, and adherence to the websafe palette can all be set by sliders.

The Optimization tab – plenty of control, but no way to optimise multiple cells

In practice dither will be set either on or off, and the same goes for the websafe colours – you either use them or you don't, there's no half way, so the provision of sliders is a bit daft.

As for number of colours, some indication of the boundary at which you lose bits would be helpful. Reducing the number of colours from 256 down to anything above 128 isn't going to make any difference to file size, but will have an impact on image quality.

You can give portions of unsliced images a quality boost using the emphasize area tab. For jpegs you use a slider to set a higher quality/lower compression setting, with gifs you can give precedence in the palette to colours that fall within the selected area.

On the face of it, facilities for creating JavaScript rollovers are good, but let down by the need to reference external files for additional states. In Fireworks and ImageReady you make use of layers to create alternate button states, it's easy to see what you're doing, keep elements in register and judge the impact of changing elements.

SmartSaver provides all the right controls and even lets you assign audio to a rollover, but when it comes to

Tags on JavaScript for rollovers, but the real work needs to be done elsewhere

displaying the rollover graphic you have to specify an existing file. This means you really create the rollover in an image-editing application, all SmartSaver does is provide a convenient front end for adding the JavaScript.

The toolbar at the top of the screen adds some nice convenience features. Show project info displays a dialog box with details of each cell's size and type together with total download time on a specified bandwidth link. Full-screen preview mode shows your graphic against a specified colour background and a buttonbar provides 256-colour preview, and a Mac preview (graphics display lighter on Macs). Furthermore, you can drag and drop your graphic for absolute positioning on the HTML page.

If your primary requirement is for image optimisation and you don't want to spend a fortnight reading manuals, SmartSaver will get you there quickly and with minimal effort, while providing plenty of control if it's in your nature to tweak. If you want to create JavaScript rollovers there are many better options.

DETAILS
★★★

PRICE £29.95 (£25.50 ex VAT)
CONTACT Bit 01420 83811
www.ulead.com
SYSTEM REQUIREMENTS Pentium processor, Windows 95/98/NT4, 32MB of RAM, 16MB of disk space
PROS Easy to pick up and get going
CONS Not a good choice for rollovers
OVERALL Not much to shout about beyond the optimisation

Table of features

MANUFACTURER	ADOBE	ANARK	BEATWARE	EQUILIBRIUM	FLUFFY CLOUDS
PRODUCT	IMAGE READY	EMOTION 3D	e-PICTURE PRO	DEBABELIZER 4.5	IGNITE 2.0
Price inc VAT (ex VAT)	P'shop £468.83 (£399)	$24.95	$179	£328.88 (£279.99)	£99.88 (£85)
FEATURES					
Image slicing	✔	✗	✔	✗	✔
Image maps	✔	✗	✗	✗	✗
JavaScript rollovers	✔	✔	✔	✗	✗
Gif animation	✔	✔	✔	✔	✔
Tweening	✔	✗	✔	✗	✗
Colour table editing	✔	✗	✗	✔	✔
Hex colour values	✔	✗	✗	✗	✔
Comparison preview	✔	✗	✔	✗	✔
256 colour preview	✔	✗	✗	✔	✔
Size/download time display	✔	✗	✔	✗	✔
Batch processing	✔ (in Photoshop)	✗	✗	✔	✗
Scripting	✔	✗	✗	✔	✗
Auto banner creation	✗	✗	✗	✗	✗
Gif optimisation	✔	✔	✔	✔	✔
Jpeg export	✔	✔	✔	✔	✔
Png export	✔	✔	✔	✔	✔
HTML export	✔	✔	✔	✗	✔
Notes		15-day full version trial	30-day full version trial		

Table of features

MANUFACTURER	JASC	MACROMEDIA	ULEAD	ULEAD
PRODUCT	ANIMATION SHOP 2.0	FIREWORKS	GIF ANIMATOR 4	SMARTSAVER PRO 3
Price inc VAT (ex VAT)	£93.94 (£79.95)	£163 (£139) (£299 Fireworks /Dreamweaver 3 Studio)	£29.95	£29.95
FEATURES				
Image slicing	✗	✔	✗/✗	✔
Image maps	✗	✔	✗	✔
JavaScript rollovers	✗	✔	✗	✔
Gif animation	✔	✔	✔	✔
Tweening	✗	✔	✗	✗
Colour table editing	✗	✔	✔	✔
Hex colour values	✔	✔	✔	✔
Comparison preview	✗	✔	✗	✔
256-colour preview	✗	✔	✗	✔
Size/download time display	✔	✔	✔	✔
Batch processing	✗	✔	✔	✔
Scripting	✗	✔	✗	✗
Auto banner creation	✔	✗	✔	✗
Gif optimisation	✔	✔	✔	✔
Jpeg export	✗	✔	✗	✔
Png export	✗	✔	✗	✔
HTML export	✔	✔	✔	✔

Editor's **Choice**

There's a lot of talk about how rapidly the web is developing, how increased bandwidth and convergence is pushing the drive for new kinds of rich visual content.

Despite this, many web graphic tools are focused on producing content in a format that owes more to the last century than this one and will soon, hopefully, be obsolete, namely the gif, both in its single-frame and animated format.

Ulead's SmartSaver Pro and Gif Animator, Jasc Animation Shop 2, and to a lesser extent Ignite and DeBabelizer, all offer little in addition to file optimisation and basic frame animation tools.

So what should you be looking for in a web graphics application that will still be in the running when everyone has a true colour display and an ADSL connection, and when web banners rival TV commercials in terms of sophistication of content and leave them standing where interactivity is concerned?

First, it must integrate seamlessly with the application being used for wysiwyg production of web pages and sites. Integration with other graphics applications providing both vector and raster-based images and the ability to import common vector and raster file types also matters. Web graphics production is only one part of the workflow and it has to fit as seamlessly as possible with all the others.

It must be able to export a wide range of formats and, of course, it must provide support for the web technologies that improve performance and enhance interactivity.

The winners

The application that fully meets all these criteria is Macromedia Fireworks 3, which wins our **Editor's Choice** award. Fireworks is about much more than optimisation and animation. Its drawing tools combine vector and bitmap approaches in an object-based environment that provides a high level of editing control.

It happily opens Photoshop, Freehand, Illustrator and CorelDraw files with layers intact and with drag-and-drop support for all of these plus Microsoft Office 97 onwards, IE and Netscape 3 onwards and Flash 3 onwards. Fireworks' native file format is png.

It has a broad range of colour options including accessible palette optimisation and editing as well as transparency, anti-aliasing and halo removal tools and has the kind of compositing and masking tools usually only found in high-end image editors.

Fireworks' JavaScript and HTML features may take a little more effort to get used to than some of the other packages featured, but time spent here will be amply repaid later. There is an unprecedented degree of control over the appearance and behaviour of graphic elements plus many export options.

It takes a while to get your head around Fireworks' method for creating rollovers, which requires juggling frames, layers, objects and behaviours, but once you get the hang of it you wonder if there could be any better way to do it anyway. The new Set Nav Bar Image and button editor further simplifies the creation of common page components.

It's not too difficult to imagine a future where Fireworks, Flash and Dreamweaver play the same dominant role in web production that Quark Xpress has established in the print world. Certainly on the basis of what it currently has to offer, there's nothing to touch it.

The first of our **Highly Commended** awards goes to Beatware's e-Picture Pro. It deserves this on the basis of its tweened animation features alone. Add to this a well-organised interface (albeit one with scope for improvement), excellent compression performance and a raft of export formats including gif, png and Flash and you have what adds up to one of the best ways to produce web animations that doesn't involve pyrotechnics.

While e-Picture falls some way short of Fireworks in terms of features, tools and overall scope, it does, however, offer unsurpassed animation controls that are relatively easy to use. It is also particularly strong in its support for 3D graphics and text handling.

Anark's Emotion 3D takes our second **Highly Commended** award on the grounds that, by any definition it's just a great piece of software. Download it, play with for 10 minutes and if you don't think it's for you, at least it will have given you something to smile about.

You just can't help but warm to the sight of stupid looking cartoon characters bouncing about the place in a very human sort of a way. Emotion is one of those products that quickly attracts a crowd around your monitor, so, if for no other reason than it enhances your popularity it's well worth a look.

Macromedia's Fireworks is streets ahead of other web animation software
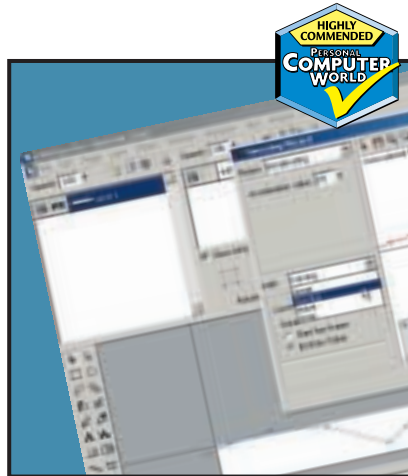
e-Picture's tweening features and compression performance impressed us
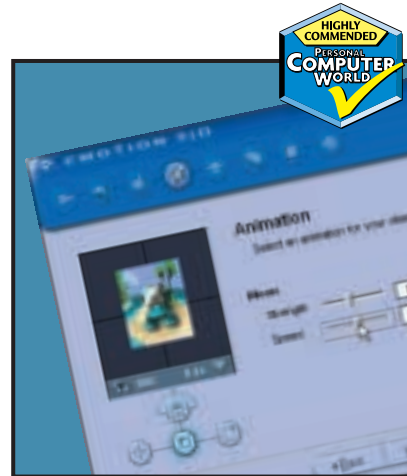
Have a play with Emotion 3D's cartoon characters and you'll be hooked

Shareware and plug-ins

Creating web graphics on a budget couldn't be easier. There's very little worth having that's absolutely free, but there's an abundance of cheap plug-ins, shareware and demo software to try out.

If you have a full copy of Photoshop 5.5 you probably won't want to bother with them as most of what they offer is included in the latest version of Photoshop, or ImageReady 2.0.
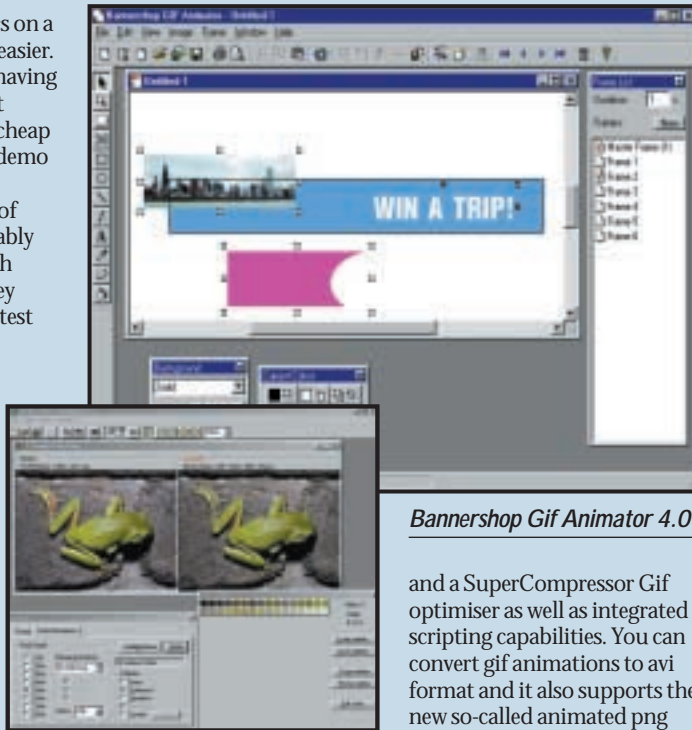
If, on the other hand, you're working with an older version of Photoshop, or another image-editing application that is plug-in-compatible, such as Paint Shop Pro or Corel PhotoPaint, these shareware plug-ins can provide many of the functions of our group test applications at a fraction of the cost.

One place that is a goldmine of applications for optimising and compressing web graphics is www.boxtopsoft.com. It's not strictly speaking shareware, rather commercial applications that you can download in demo format. Some of these are save disabled, others have limited functionality, for example **Supergif** cannot batch process.

All the Boxtopsoft products are available for Windows and Mac, they feature simple elegant interfaces which enable you to do optimisation quickly and without fuss. **ProJpeg** has a dual-image preview window with live file size, compression ratio and download time info and supports progressive (the image displays at progressively higher resolution as it downloads in the browser window) and baseline encoding.

PhotoGIF also provides comparative previews, good palette editing and control features and an edge tool for cleaning up anti-aliased edges on transparent gifs.

Colorsafe is a Photoshop plug-in that allows you to create hybrid browser-safe colours from a combination of two existing colours in the browser palette, thus expanding the range of websafe colours. A program called **Ditherbox** made such an excellent job of this technique that it was bought by Adobe and incorporated into ImageReady.

At www.spinwave.com you'll find **HVS ColorGIF 2.0**, a Photoshop plug-in gif optimiser. It includes programmable pre-sets, live previews and a gif animator. Other spinwave products include **JPEG Cruncher**, **GIF Cruncher** and **OptiVerter** – a scriptable command-line batch converter and optimiser for more than 50 file formats including eps, tiff, gif, jpeg and hvs animator. All are available as free trial downloads, or you can crunch online.

At www.mindworkshop. com/alchemy/gifcon.html, you'll find **Alchemy's Gif Construction Set Pro 2**, a fully featured shareware application for producing animated gifs and optimising files. It's a 4MB download and the registration fee is $20. It has an animation wizard and banner generator, transition effects,

Bannershop Gif Animator 4.0

and a SuperCompressor Gif optimiser as well as integrated scripting capabilities. You can convert gif animations to avi format and it also supports the new so-called animated png format mng.

Gif Master 1.4 (http://kote nev.hypermart.net/GMaster/ info.htm) is a suite of applications comprising Gif Viewer, Gif Optimizer, Gif Explorer, Gif Comment and Gif Convert. The Optimizer can work on an entire folder of single-frame or animated gifs. As well as gif, jpg, and png file formats are supported. GIF-Explorer is a gif file browser that supports animations, returns palette and header information, and provides some basic editing techniques. Version 1.4 is a beta with a registration fee of $35.

Webgraphics Optimizer 4.2 software automatically optimises images for you using its intellioptimize feature, which analyses your images and decides optimal settings for you (www.webopt.com). So even if you haven't read the page on compression there's no excuse not to produce small perfectly formed gifs.

If you want to take a more hands-on approach, up to five variations can be compared while you change the file format, compression ratio, colour depth, dithering and colour palette in real time. Optimizer reads 24 file formats and writes 16,

Webgraphics Optimizer 4.2

including gif, jpeg, png, Photoshop 3 and tiff. It also has a wide range of effects filters, colour manipulation functions and TWAIN support for scanner input, all presented in a slick professional interface. The professional version also provides batch optimisation features.

Newly released **Bannershop Gif Animator 4.0** has a built-in image editor with drawing, retouching and text tools for creating single-frame and animated gifs http://www.selteco.com/. It has an optimisation wizard and uses plug-in extensions to provide a range of animation and effects tools. Fly, fade, motion blur, zoom, stretch and peek extensions are included. You can download a limited time demo, or own it forever, as they say on the Disney video commercials, for $39.

Best of the rest
http://www.agentur-simon. de/pedit/
PEdit 0.8: Simon Bertram's PEdit is a simple, but powerful manual palette editor plug-in.

www.jpg.com
Pegasus imaging: Jpeg Wizard and PicPress.

http://www.risoftsystems. com/palexp.asp
RI Soft Systems: Palette Express Palette editor.

http://www.crayonsoft.com/
Crayon Software: Magic Viewer v1.2 shareware batch converter and optimiser.

http://www.coffeecup.com/
Coffeecup Software Shareware Gif Animator, Image Mapper and Button Factory.

http://stud1.tuwien.ac.at/ ~e8925005/
www Gif Animator v1.1 (that's not a URL by the way) Shareware Gif animator with lots of effects and transitions.

http://www.spg-net.com/ product1.html
SPG Webtools 4.0 pro Expansive suite of plug-ins