

Extensis

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Kai's Power Tools

Eye Candy

SuperBladePro

Intelligence Pro 4.0

BlendingBar

KPT 5

PLUG AND GO

Plug-ins are an essential part of professional image editing, and the following three workshops show you how to get the best out of these utilities

The world of image editing is full of plug-ins: for Photoshop and compatible image editors, Illustrator (called Xtras), QuarkXpress (Xtensions) and Adobe Indesign (itself a collection of plug-ins). In addition there are Actions, Photoshop macros, which, while not strictly speaking plug-ins, achieve a similar function. It's hard to imagine a world without them as they offer a quick and easy way of creating special effects from glass buttons to fiery, furry and melting text, rendering them an essential part of the professional image

editor's toolbox. But they don't just offer simple filters – used properly they can produce a variety of eye-catching effects. We've decided to concentrate on plug-ins that operate on bitmap images, or Photoshop-compatible plug-ins. We've also decided to shy away from basic plug-ins that offer little more than a quick thrill. Those that are left can be broadly subdivided into two groups: creative and productivity plug-ins. The creative plug-in provides special effects that would be difficult or impossible to create any other way while productivity plug-ins allow you to perform a task such as creating a cutout, colour balance or

What the plug-ins have in common is that they make the difficult easy and the laborious effortless

THE SHELF LIFE OF PLUG-INS AND WHERE TO FIND THEM



Plug-ins are invaluable tools, but there is an ongoing debate as to their life expectancy. Successive versions of Photoshop, PhotoPaint and other image editors have assimilated them, or the more useful ones at least. Improved masking, eraser tools, web optimisation and export tools have put paid to third-party plug-ins that improved productivity as well as image quality by making it possible to carry out these difficult tasks quickly and easily.

The plug-in developers themselves recognise their tenuous position in the software evolutionary process. 'We do end up being treated like a free R&D department,' said Bob Campbell, of plug-in developer Extensis. 'Photoshop 6 virtually wiped out PhotoGraphics, and MaskPro, though still useful for Photoshop 5 users, inevitably has a short-term future. We need to keep running fast to stay ahead of the game.'

Of course, not everyone is a Photoshop user and of those who are, a large percentage will not be using the most recent version. Thankfully a large number of Photoshop plug-ins are compatible with earlier versions of Photoshop as well as other apps such as Corel Photopaint and JASC PaintShop Pro.

Inevitably, once the main market for these plug-ins has dissolved their life is limited, but in the meantime they provide an excellent way to add functionality to apps that weren't born with the advantages of Photoshop 6.

Sources of plug-ins

While some plug-in suites may cost a lot, there are many sources of free, demo and shareware plug-ins on the web. This is not an exhaustive list, rather the cream of the crop. The majority of these are also on this month's cover disc. Most plug-ins will work with Photoshop 4 onwards, Corel Photopaint, PaintShop Pro and other image editors conform to the Photoshop plug-in standard, but there are no guarantees, so check compatibility.

www.thepuginite.com

Here you can find Plugin Galaxy suite (a Windows demo that includes two free plug-ins) and Plugin Commander, a utility to organise and preview plug-ins.

www.extensis.com

The home of Intellihance 4.0 and PhotoTools 3.0. Extensis provides some of its plug-ins as an online service.

www.flamingpear.com

SuperBladePro creates worn metallic and stone textures for instant jewellery. A two-week demo is available to download.

www.xaostools.com

Download a demo of TotalXaos (a bundle of XaosTols, Terrazzo and TypeCaster) from here.

www.alienskin.com

The place to get Eye Candy 3, Eye Candy 4000 and Xenofex. The Xenofex demo includes two fully functioning plug-ins – crumple and stain.

www.futurefantastic.com

Genesis V2 Pro is a cheaper, and some say more versatile flare lighting effects generator than Knoll light factory, designed by Photoshop inventor Thomas Knoll.

www.autofx.com

Photoshop plug-ins Photo/Graphic Edges, Typo/Graphic Edges and AutoEye 1.0 are at this site.

www.plugpage.com

Get freeware and shareware Mac and Windows plug-ins here.

optimise for the web more quickly and to a higher standard than would otherwise be possible.

Right connection

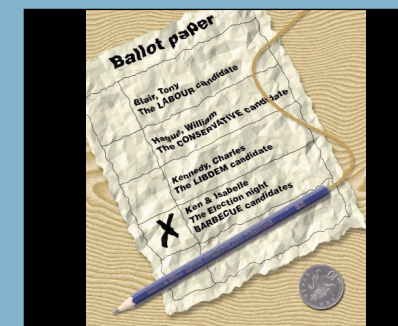
Since there's such an extensive selection of plug-ins it's hard to know, which one to, well, plug in. PCW has whittled down the contenders to a manageable six (we've cheated a bit by including KPT5 and 6 as one choice) and described what it is that makes them worth having. Some, like Alien Skin Eye Candy 4000, KPT5 and 6, Extensis Intellihance Pro and PhotoTools 3 are indispensable whatever your main photo-

editing application happens to be. Others, you could live without, such as Corel Knockout, if you're happy with the masking tools you already have, or if they offer features you rarely use. What they all have in common is that they make the difficult easy, the laborious effortless and sometimes the impossible possible.

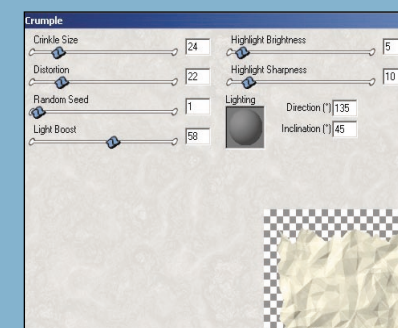
Extensis Intellihance Pro 4.0

Intellihance takes the guesswork out of image enhancement by providing 24 preset enhancements including clean up, image enhance, descreen, heavy cast removal and scratch

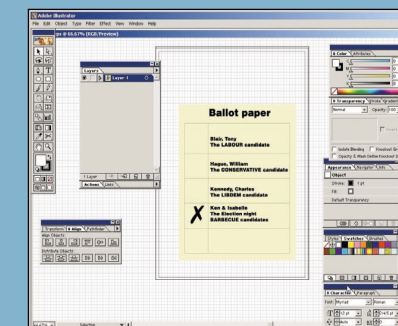
HOW TO CREATE AN ILLUSTRATION USING EYE CANDY AND XENOFLEX



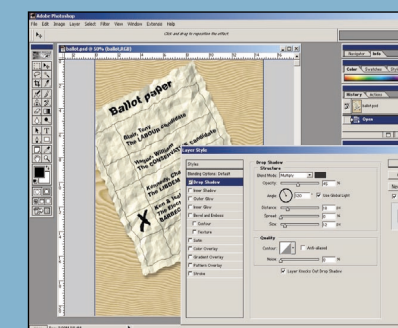
1 This illustration for a party invitation was created in Illustrator and Photoshop using Alien Skin's Eye Candy 4000 and Xenofex plug-ins (both on this month's cover disc). Eye Candy 4000 was used to create the wood background and Xenofex crumple (which along with stain is fully functioning in the free demo from www.alienskin.com) produced the screwed up ballot paper. The pencil and ten pence coin were scanned on a flatbed scanner.



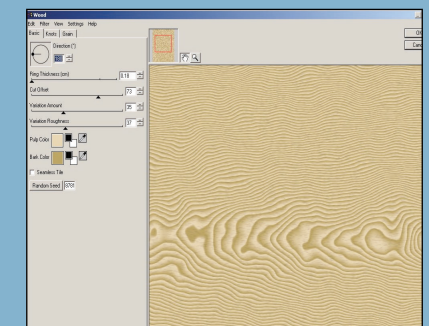
4 Make the ballot paper layer active and select the Xenofex crumple filter. There are a number of presets, but these may not give the effect you want. To make the paper look like it has been screwed up, then flattened out again we used the settings in the screenshot. The Preview window will only give you an accurate view at 100 per cent. Bear in mind that the same settings will produce different effects, depending on image resolution.



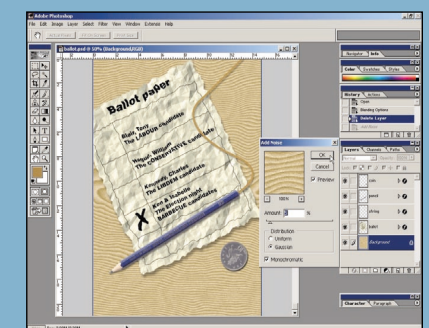
2 Create the ballot paper in Illustrator using the pen tool for the rules. Make the background a pale parchment colour. Convert the type to paths and save the document as an eps. In Photoshop create a new document 900 x 1,200 pixels and then open the Illustrator ballot paper with a width value of around 800 pixels in Photoshop's Rasterize dialog box. Drag the ballot paper onto the newly created Photoshop document to create a new layer.



5 Press Ctrl & T and rotate the ballot paper then select Layer/Layer Style/Drop Shadow and apply a drop shadow with an angle of 120 degrees. Check the Use Global Light box to use the same angle on all the image elements that use the drop shadow style. Scan in the additional elements and cut them out of their backgrounds, then drag them onto the composition. Arrange the new layers so that they are on top of the ballot paper.



3 Click on the background layer and select the Eye Candy 4000 wood filter and play with it to get some good-looking wood. The settings used here are Direction 180, Cut Offset 73, Variation 35, Roughness 37. The settings for knots and grain were left on the default. Alternatively, if you're in a hurry there are 14 wood presets including cedar, mahogany and knotty pine, most of these produce quite dark results, though you can change the pulp and bark colours to lighten them up.



6 The string was created using the pen tool to draw a path which was stroked and then had gaussian noise applied to give it texture. Then the same drop shadow style used for the paper was applied to the pencil, string and coin. Finally, five per cent monochromatic gaussian noise was applied to the wood background layer to add texture.

reduction. It also has preset enhancements for material from a variety of sources including digital cameras, flatbed and drum scanners and PhotoCD.

You could, of course, do all of this manually in Photoshop, but having multiple adjustments available as presets saves time and the Intellihance interface allows you to see exactly how the application of multiple adjustments affects the image. You can preview up to 25 variations in a 5 x 5 grid either as the same repeating portion of the image or the entire image in a multi-pane preview.

Power variations mode works like Photoshop variations,

but provides up to 25 variations of several adjustment settings including saturation and sharpness as well as colour balance.

If you don't get good result the first time, applying the same preset twice, or even three times often works. This is because Intellihance doesn't blindly apply the same adjustments each time, but changes them in order to try and match an optimum reference. For this reason it's also a good choice for batch processing where the degree of correction required from one image to the next might otherwise rule out automation.

QUICK TIP

When experimenting, work on a 72dpi image. Eye Candy 4000 uses the Photoshop preferences setting for units, so make sure this is set to something other than pixels or per cent. When you've got the effect you want, save it as a new setting and apply it to your high-resolution image.

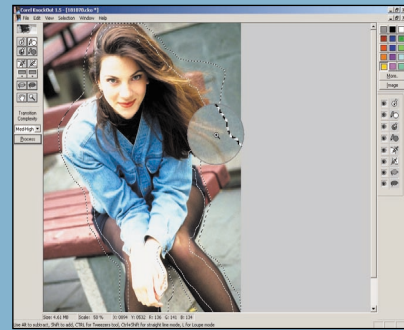
HOW TO DO CUTOUTS WITH COREL KNOCKOUT 1.5



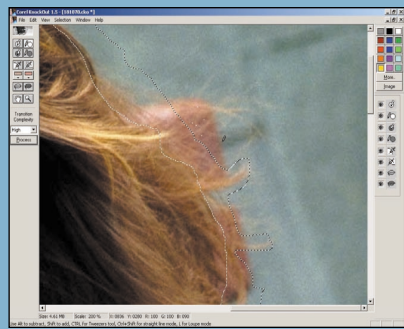
1 Corel Knockout 1.5 takes a lot of the tedium out of creating cutouts and often produces a better result than Photoshop or other image editors alone. Knockout's approach is to provide two specialist tools for defining 'inside' and 'outside' areas of a cutout and two 'syringe' tools with which you can fine-tune the selection. Knockout also has dedicated tools for dealing with shadow detail.



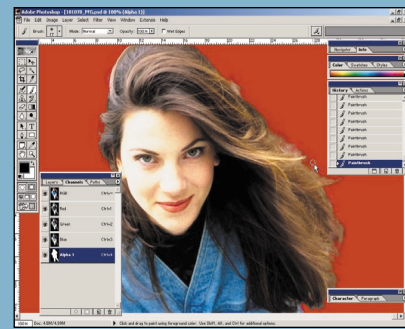
2 The first tricky subject is that old favourite wispy hair. This is one of the Corel stock photos that comes with Knockout. It's a shame the top of her head has been cut off, but she makes a good example nonetheless. We're not going to attempt to capture every single strand of hair, just enough to make the cutout look real when another background is substituted. The hard bit is not keeping all the hair but removing all the background.



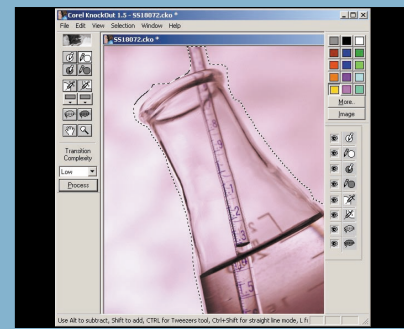
3 Use the Inside and Outside Object tools to define your two selections. Stay as close as you can to the boundary as this will save processing time and give you a more accurate first attempt. This is much easier with a tablet and stylus than a mouse. Modify the selection by using the Shift and Alt keys to add to or remove from the original marquee. Use the Loupe Zoom to magnify the area you're working on, press L once then hold down the Shift or Alt modifier.



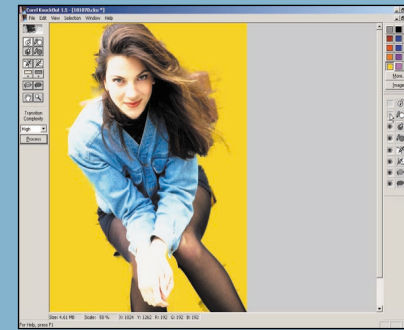
7 To sample the back of the bench we've cutout pixel perfect. All that matters is that all the foreground detail is there. Export it in Photoshop format, or as a tiff if you're using another image editor. The image is saved with the alpha channel mask which you can easily clean up in Photoshop or PhotoPaint using a brush. By first creating a narrow transition area, editing it to cut out problem areas and refining it using the syringes, you can produce first-rate cutouts from difficult subjects with minimum effort.



8 Don't kill yourself trying to get the cutout pixel perfect. All that matters is that all the foreground detail is there. Export it in Photoshop format, or as a tiff if you're using another image editor. The image is saved with the alpha channel mask which you can easily clean up in Photoshop or PhotoPaint using a brush. By first creating a narrow transition area, editing it to cut out problem areas and refining it using the syringes, you can produce first-rate cutouts from difficult subjects with minimum effort.



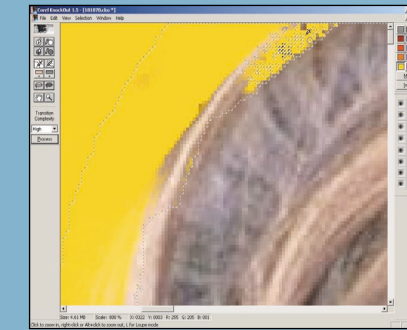
9 Another tough subject is a conical glass flask. If you cut this out in the usual way the purple background would give the game away when you placed the object on a different coloured background. We want to capture only the shadow detail that defines the flask shape so that when we place it on another image the new background detail shows through – maintaining the illusion of transparency.



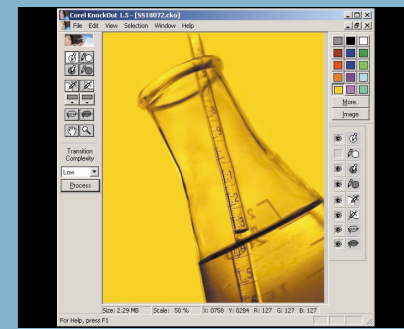
4 You can get an initial idea of progress by processing the image now. The Transition Complexity menu is set to high because there are multiple colours in the transition area – and it gives the best results. It's often hard to predict the results of the Transition Complexity setting so it's a case of trial and error. Change the underlay colour so you get a better view of any problem areas. The result isn't bad, though we haven't yet refined the transition areas.



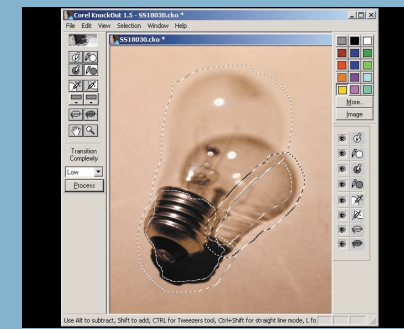
5 Press Ctrl & 1 to go back to the original view and F5 and F6 to display the inside and outside marquees. There are two problems. Some of the hair that we want to keep has been removed and some of the background – the park bench at the right side of her head – has been retained. To restore the missing hair detail, select the Inside Syringe tool and Ctrl & click in the foreground to sample from similar coloured hair detail to that which you want to restore.



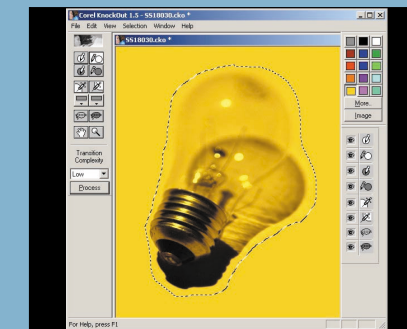
6 Inject the sampled colour into a selection of pixels in the missing hair strands in the transition area and click Process to see the results. Use Ctrl & 1, 2 and 3 to toggle between the original view, cutout and alpha channel. Once you've processed, you can use Ctrl & 2 and Ctrl & 3 to toggle between previous and current versions in cutout and alpha channel mode. If a lot of edge detail is missing, it's usually quicker and easier to redraw the inside selection.



10 As well as the background outside the flask, we want to lose the colour detail behind it. This time, don't bother with the Inside Selection, just draw around the flask using the Outside Selection tool. Because there are few colours in the foreground and background we've used the low Transition Complexity setting and the results are near perfect. Because no Inside Selection has been made, only pixels that don't appear in the background area are retained.



11 This lightbulb is more complex because it contains solid as well as transparent areas and a shadow. The by-the-book method goes like this. Draw an Outside Object selection around the bulb, an Inside Object selection of the screw thread, Ctrl & click pixel selections of the filament and glass highlights with the Inside Object tool and then draw Inside and Outside Shadow selections. The screw thread shadow is quite hard and could, of course, be included in the Inside Object selection.



12 A quicker and much simpler method is to draw around the entire bulb including the shadow with the Outside Object tool. Again, using the low Transition Complexity setting we get a perfect result first time. The total time to produce this cutout, including drawing the selection and processing it, is about 20 seconds. Although this technique relies on fairly monochromatic backgrounds for many transparent subjects it's a foolproof route to quick, flawless transparent cutouts.

QUICK TIP

In complex images with lots of variation in the transition area use the Loupe Zoom tool to get as close as possible to the subject edges when defining foreground and background areas. This will produce better results and speed things up considerably as there is a lot less processing to be done.

Alien Skin Eye Candy 4000

Eye Candy is a must for anyone who needs to create real-world physical effects and materials like fire, water, marble and glass. Essentially it's a collection of effects plug-ins bound together by a highly practical interface that includes a big preview window. Tabbed panels to the right of the preview provide settings and controls and most of the effects have a dozen or so presets.

Shadowlab, bevel boss and cutout are among those that have been made redundant by Photoshop, but there's plenty of great stuff left over including chrome,

drip, fire, smoke, melt and water drops. The fur, HSB noise, jiggle, marble, swirl, water drops and wood filters have a seamless tile option. Many of the filters work in a resolution-independent fashion so settings used for 300dpi print output will produce the same results used on a 72dpi web graphic.

Eye Candy 4000 will also work as a live effect with Macromedia's Fireworks 3 and Deneba Canvas 6, though, sadly, not with Photoshop 6, which means that in order to apply the filters to type you'll have to first rasterise the type layer.

Corel Knockout 1.5

We're cheating again here because Knockout is in fact a standalone application rather than a plug-in. Corel bought the Mac-only version from Ultimatte and produced a PC version too. Knockout is a masking tool for producing cutouts. It's particularly good at separating subjects that are difficult to define, such as wispy hair or glass from background detail (see workshop above).

To use Knockout you first define three image areas – foreground, background and transition. Knockout then determines whether pixels in the transition area belong

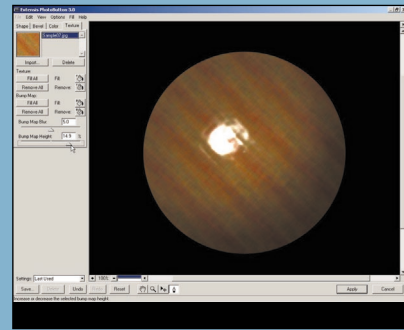
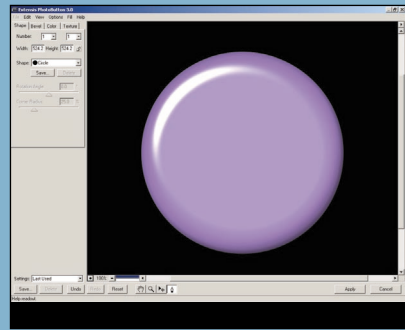
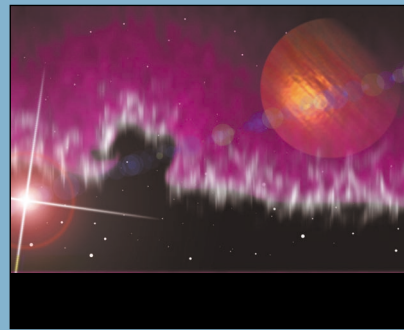
to the foreground or background. With complex images that have similar background and foreground colours you need to give Knockout a little help by using a syringe tool to substitute background pixels in the transition area that have not been removed with closely matching pixels from the background area. A similar process is used to restore foreground pixels that have been erroneously removed.

There is also a tool dedicated to cutting out shadows – which saves you the effort of having to re-add them later in Photoshop.

QUICK TIP

If you use KPT5's ShapeShifter to create plastic embossed buttons, use a preset or imported file as a top mask for text. After you've done the button layer, create a second layer for the type, fill it with black, make the type white and blur it, then save the type layer. Import this as the top mask.

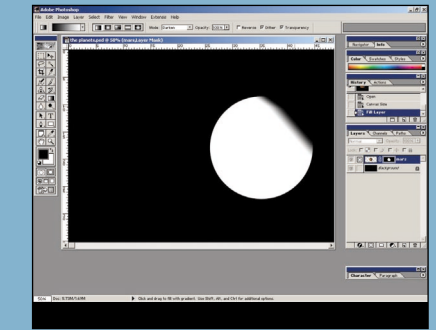
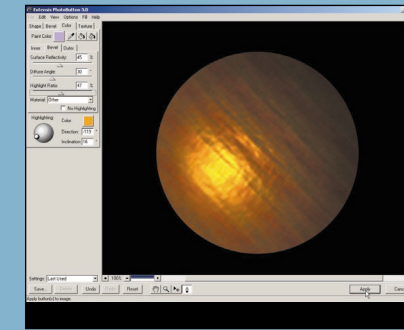
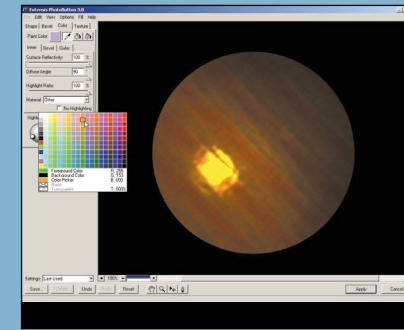
HOW TO CREATE A PLANETSCAPE WITH PHOTOTOOLS 3.0



1 In this workshop we're going to produce a space scene including a planet, stars and nebula. PhotoButton 3.0, part of the PhotoTools 3.0 suite is more often used to create 3D web buttons, but used in conjunction with the sample texture and bump fills provided it makes an excellent planet generator. The Horsehead nebula has been created using the corona and smoke filters from Alien Skin Eye Candy 4000.

2 Create a new document 2,000 x 1,000 pixels, fill the background layer with black and create a new layer called Mars. Select PhotoButton 3.0 from the PhotoTools menu, and select View Composite Layer so you can see how things will look against the black background. Select the circle preset and enter 300 pixels in the width and height boxes. It may look like a button now, but with the addition of a texture and bump fill you won't recognise it.

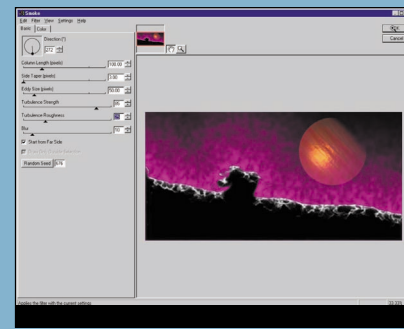
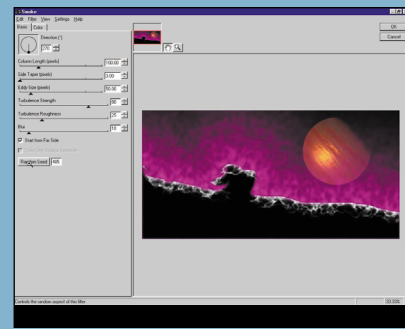
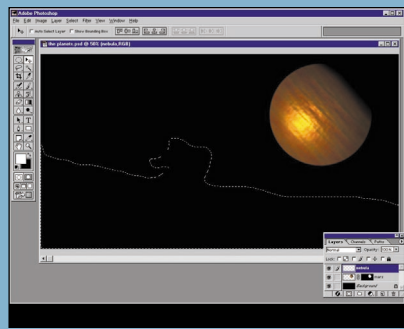
3 Click on the Texture tab and locate and import sample 7 from the PhotoTools texture samples folder. Click the Fill All buttons in both the Texture and Bumpmap panels. Set the Bumpmap Blur to about 5 and the Height to around 15 then go to the Bevel tab. To make the planet look less like a button and more like a globe set the Bevel Width to 100 per cent and the Bevel Height to 200 per cent.



4 Go to the Colour tab, select an orange or red from the swatch panel for the highlight (hover with the pointer to see a live preview) and drag to position the highlight spot. You can play around with the surface angle, reflectivity and highlight ratio settings all you like in the Inner and Outer Colour tabs, but it won't make any difference, because our button, or rather planet is all bevel.

5 Either using the Materials presets or by freeform slider experimentation you can produce a variety of surface effects. Once you've found something that works you may want to go back to the Texture panel and tweak the Bumpmap Blur and Height settings. Click Apply to load the planet into layer 2.

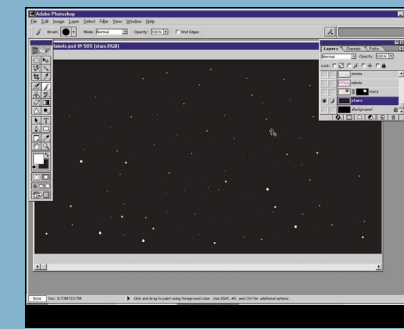
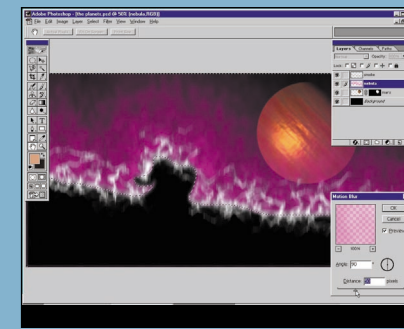
6 Both the surface detail and the edge of the planet are too sharp. To add realism apply the Gaussian Blur filter with a radius of 2. To make the top right, unlit portion of the planet disappear create a layer mask and apply a linear fill in Darken mode by dragging from just inside the circumference to about a quarter of the way in.



7 Drag the planet to the top right, create a new layer called nebula. We're going to create a nebula based on the Horsehead nebula – don't bother to write in to say it's nowhere near Mars, it's called artistic licence! Create a horsehead-shaped selection in the bottom half of the image and select Eye Candy's Corona filter.

8 Select a pinkish colour and input the following rough settings: Glow Width 999, Flare Size 30, Stretch 0, Waver 0, Blur 40, Overall Opacity 85. Check the Draw Only Outside Selection and Radiate from the selection checkboxes, then click the Random Seed button a few times until you like what you see. Save the selection as an alpha channel called Horsehead.

9 Create a new layer and call it Smoke. Select Eye Candy's smoke filter and apply roughly the following settings: Direction 270, Column Length 100, Side Taper 3, Eddy Size 50, Turbulence Strength 80, Turbulence Roughness 25, Blur 10. Hit the Random Seed button for a lucky strike, make sure the Start from Far Side box is checked and click OK.



10 Apply the smoke filter a second time. This time, change the direction to 90 degrees, extend the column length to 250 pixels, uncheck the Start from Far Side box and check the Draw Only Outside Box Selection and click OK. Press Ctrl & D to deselect and apply Photoshop's motion blur filter twice to the smoke layer with a 90 degree angle and 30 pixel distance. Then reload the Horsehead selection, invert it and apply motion blur to the nebula layer with the same angle and a 50 pixel distance.

11 Create a new layer just above the background layer and call it Stars. Fill it with the background colour (black) by pressing Ctrl & Delete and spot it with white stars of two or three different sizes using slightly soft edged brushes. You can throw in a few blue and red stars for the sake of variation. Because they are on a lower layer, the stars will appear to take on the hue of the nebula gas cloud.

12 Lastly, add a lens flare using KPT6 on a new, topmost layer. This is largely a question of playing with the parameters until you get the effect you're looking for. Streaks, halo and reflection provide slider control as well as numerous useful presets. You can drag the flare into position in the Preview window before clicking the Tick button to apply it. If you don't have KPT6 or another plug-in with flares use Photoshop's lens flare filter.

QUICK TIP

To produce seamless textures in PhotoTexture to use as texture fills or bumpmaps in PhotoButton, create a file of 100 x 100 pixels, fill it with colour and use whatever effects you want, and save it. In PhotoButton's Textures tab import the file and use either the Texture or Bumpmap Fill button.

Kai KPT5 and 6

In the 1990s Kai Krause was Mr plug-in. His plug-in suites were characterised by interfaces that were as strange and experimental as their effects. The interface of KPT3's gradient designer, Texture Explorer and Spheroid designer took some getting used to, but KPT5 and 6 are more practical.

One of the most useful filters is ShapeShifter, which produces custom bevels with bumpmapped surfaces, and FiberOptix, which adds fur-like texture to an image. Blurr, Noize and Smoothie are more sophisticated versions of the equivalents found in Photoshop and other image editors.

Depending on your viewpoint, Radwarp, Frax4D, Fraxflame, Fraxplorer and Orb-it are tools that create stunning 2D and 3D materials or an interesting, but useless way to waste time.

KPT6 includes Lensflare, Gel (which creates gooey effects) and two filters for creating seamless tiles – Materializer and Projector. The latter allows you to add variable perspective views. KPT6 includes a plug-in version of the Goo distortion tool.

Extensis Phototools 3.0

PhotoTools is a suite of plug-ins that combines tools for creating bevelled and embossed edges with a seamless

pattern generator, shadow generator, and glow effect filter. Rather oddly, there's also a standalone gif animation application, which, although it's quite good, is a little out of place in a plug-in suite.

PhotoButton provides a wide range of options from a tabbed settings panel and has a large preview window so you can get a good look at the results of your tweaking which are previewed live. PhotoGroove provides total control over bevel shape via a contour graph with adjustable points. Add to that PhotoCastShadow, which produces cast as well as drop shadows and provides control over noise, blur,

perspective blur, opacity and blend modes and you've got a handy suite of highly practical plug-ins.

SuperBladePro

While other plug-ins excel at creating bevelled edges and textured surfaces, SuperBladePro is the hands-down winner at creating realistic 3D surfaces like minerals and metals. It offers unparalleled control via two lighting adjusters, bump and reflection maps and a plethora of sliders that progressively add real-world effects such as tarnish, moss, dust and grit. It's a favourite for creating abstract jewellery.

QUICK TIP

To match reflections in metallic objects created in SuperBladePro to the background create a new image from the background layer, downsample it to 64 pixels square and save it as a bmp. Then in SuperBladePro click the Environment button and load your background swatch.