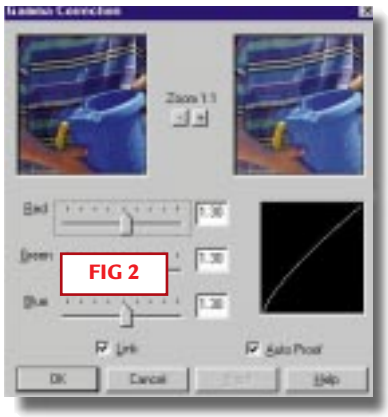
Picture perfect

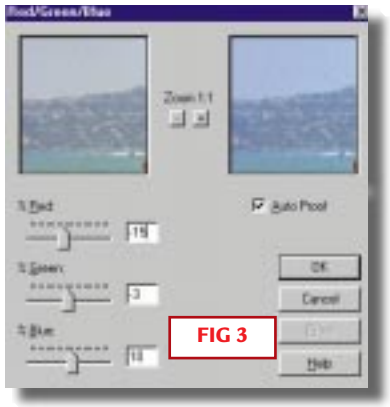
With some simple retouching, your photos could really sparkle. Ken McMahon shows you how.

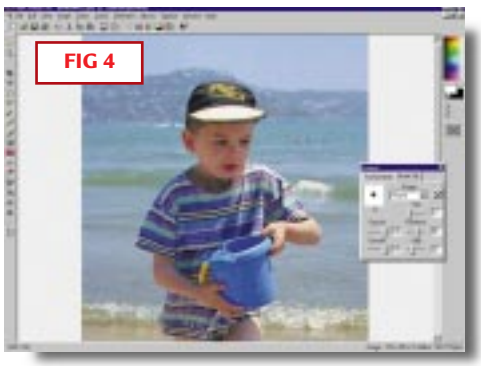
There can be few things as disappointing as getting sub-standard pictures back from the photo processors. Dull interior shots, demonic red-eye poses, fingers over the lens and lampposts sticking out of people's heads all combine to put a dampener on the excitement of seeing your photos for the first time. But now, thanks to digital image editing, such blemishes can be banished forever. Whether you use a digital camera or get your images digitised by a photoprocessor, or scan them in yourself, get into the habit of giving them a makeover in an editing application before filing them in an album or printing them out. In this workshop, we'll show you how to "clean up" your pictures by selective cropping and sharpening, improving the colour balance and making the colours more vivid. We'll also look at some retouching techniques and special effects.

Image enhancement

Here's a typical holiday snap which will benefit handsomely from a little digital manipulation [Figs 1-4].







The first thing to consider with almost any picture is whether it wouldn't look better if there were a little less of it. The answer is nearly always "yes", so get cracking with that cropping tool. It's always best to make cropping the first operation because it makes your image smaller, and with fewer pixels to process, everything will move along much more quickly.

Next, we need to pay some attention to the brightness and contrast while avoiding those particular controls if possible: they can be crude, and can sometimes introduce new problems while correcting existing ones. Most packages provide a means of adjusting the overall tonal curve of an image. Some, like PaintShop Pro, call it Gamma. Photoshop users make this adjustment using the Curves command.

The shadows are represented by the bottom-left portion of the curve, moving through the mid-tones in the middle, to the highlights at the top right. By adjusting the shape of the curve it's possible to make changes in, say, the shadows and mid-tones without affecting the highlights — which is exactly what we want to do here.

Make sure the link box is checked, so the gamma of all three channels — red, blue and green — is changed simultaneously by the same amount [Fig 2]. Moving the slider right, to 1.3, bends the curve upwards slightly. By checking the autoproof box, you can get a live preview of the result in the image window, or you can refer to the before-and-after thumbnails.

Notice how the sea looks an unpleasant shade of green and the sky looks washed out [Fig 1]? Well, I can assure you it wasn't like that on the day, so let's attempt to restore some of the colour.

1 **First, we need to** select the sea and sky [Fig 3]. It won't hurt to include those background hills because a blue tinge will look like the natural effect of haze. Use the magic wand tool and shift-click to select as much as you can. You can also use modify and grow (or similar) from the Selections menu, but this doesn't always work out as expected.

2 **Now pick up** any stray areas by using the marquee tool on the freehand setting.

3 **Select** Colors-Adjust-red/green/blue, or just press Shift-U. Once again, this is one of those visual "er... that looks about right" kind of adjustments. I've got the sea and sky looking the way I want them by subtracting red and adding blue.

The only steadfast rule about colour adjustments is that you generally need to make very small changes if you want to keep things looking natural.

Now, we're going to remove those distracting swimmers in the background by using the clone tool.

1 **Select** the clone tool, and in the control palette select Aligned mode and no paper.

2 **In the brush-tip tab,** select a suitably-sized brush with a slightly soft edge [Fig 4]. The other settings

(opacity, hardness, density and step) will depend on what you're cloning, but for this job, leave them all on the default settings.

3 **You need to select** a source area from which to clone by right-clicking on the image (I selected an area of sea, adjacent to the bathers). Zoom in close, and if you're retouching to a new layer remember to select the source from the original layer then switch to your retouching layer to clone. As the bathers are small, one dab of the brush is enough to obliterate them.

When cloning larger areas use small dabs to build up the cloned area and pick a source area that blends in with the new surroundings.

Removing red-eye

Can there be any photographer who hasn't suffered from the red-eye plague? Fig 5 shows what it looks like: it is caused by the flash reflecting from your subject's retina. There are two ways to eliminate it. One option is to buy a camera with a specially-adapted flash, which flashes rapidly a few times before the picture is taken. Apart from being hugely irritating and a little uncomfortable, the strobe effect causes the pupils to contract so the light can't pass through and bounce back so easily. But if you're reading this, the chances are it's too late for this remedy so you'll have to resort to a second option; editing out the red bits and replacing them with something more natural-looking.

As a precaution, before you start retouching it's a good idea to create a new layer. Then, if anything goes wrong it's often easier to put right. At worst, you can delete the entire layer and start again.

☛ **To do this,** press Ctrl-A to select all, copy. Then select paste as the new layer from the Edit menu.

1 **The first step** is to select the offending redness. In PaintShop Pro 5 this is most easily achieved using the magic wand tool.

2 **Zoom in** (by pressing + on the numeric keypad) as far as possible so you can see what you're doing. The pupil won't be that big so you will need to go in a long way.

3 **With the magic wand** tool selected, set the tolerance in the control palette to around 30. If you can't see the control palette, select Toolbars from the View menu and check the control palette box.

4 **Click on** the centre of the red pupil area and the magic wand will do the rest, selecting only the red pixels [Fig6]. If you didn't get them all, just continue to Shift-click with the magic wand, although you may need to reduce the tolerance to avoid picking up stray pixels at the edge. Do the same for the other eye, again holding down the Shift key to add to the selection.

5 **Select Colorize** from the Colours menu and drag the saturation slider to zero. This takes all the red colour out of the pupils, leaving grey pixels [Fig 7].

☛ **Should we be** putting colour into the pupils rather than taking it out? No, we shouldn't. Your pupils are not coloured, they're black — it's the iris *surrounding* the pupil that is the coloured part and we are

Ten tips for better pix

1 Do experiment — you can always Undo. If your application doesn't support multiple Undo, save first, then revert if it doesn't work out. Or, try again in a new layer.

2 Add plug-in filters to extend your application's range of effects.

3 Consider cropping before you do anything else. It will probably result in a better composition and it will speed-up editing.

4 If your application is responding too slowly, add more RAM or free-up space on your hard drive and run a disc optimisation program.

5 Install colour management software, so what you print more closely resembles what you see on-screen.

6 Make sure your monitor is properly adjusted before you start. Advice is available from www.csf.org.

7 Experiment with different papers and make sure your printer driver is correctly configured for them.

8 If you have to clean up a lot of images, consider automating the process using Extensis Intellihance (see *Hands On Graphics & DTP*, p288)

9 If your application supports layers, use them. They make undoing your mistakes a lot easier.

10 Save frequently, then if you really make a mess of things you won't have lost everything.

going to deal with that next. Unless your shot is a tight close-up it is unlikely that you will actually be able to see the iris, which is the part surrounding the pupil that has colour and texture (a bit like the inside of a glass marble). So, we are going to make a selection of a ring around the pupils where the iris would be.

1 **Use the magic wand** tool as before to select the entire central grey area of the eyes.

2 **Then select** the rectangle marquee tool and select Circle from the pull-down menu in the tool controls tab of the control palette.

3 **Holding down** the Ctrl key to subtract from the existing selection, draw a small circle in the centre of each eye. Once again select Colourize from the Colours menu and adjust the hue and saturation sliders [Fig 8] until the colour of the eyes looks about right. I've chosen a striking blue which matches our subject's dressing gown quite nicely.

Incidentally, if you do as I suggest and perform all your retouching on a new layer, you will be able to use Paint Shop Pro's Animation Shop to make a two-frame animated gif with flashing demonic eyes!

Special effects

Some of the better home darkroom packages (for instance, PhotoDeluxe 2, Livepix 2 and Professor Franklin's Instant Photo Effects) provide custom filters or walk-throughs for creating effects such as duotones, adding frames, or producing an antique photo effect. If your image editor does not provide such filters, you can easily create these effects yourself; and even if you do have a one-step filter, it is more fun this way and you have more control over the result.

☛ **We are going to produce** an antique effect by sepia-toning a colour picture, adding grain, producing a patchy, fading, effect and finally creating an oval vignette of the kind popular with Victorian portrait photographers.

First, we will add the grainy effect, because if we do not do this at the beginning it will produce some unwanted colour in the final image. Fig 9 shows our not-very-old-looking original with the grain already added.To do this, simply select image-noise-add and add around 20 percent with the uniform button checked.

Now we need to lose all the colour. Convert the image to a greyscale by selecting Greyscale from the Colour menu. Then convert it back to RGB by selecting — again from the Colour menu — Increase Colour Depth-24bit. This will not bring all your colours back, but it will make it possible to tint the picture any colour you like, which is what we are going to do next.

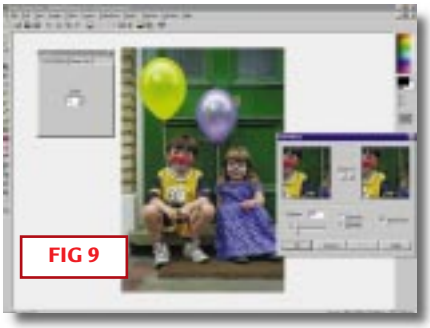


FIG 9


FIG 10

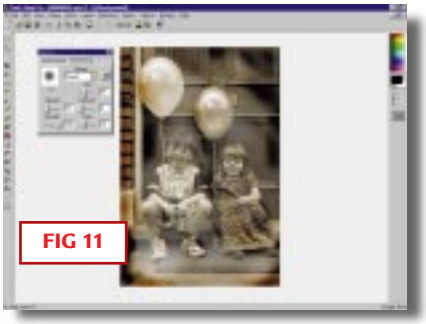


FIG 11


FIG 12

In the bad old days, to get an effect like this you had to put up with chemicals which stank of rotten eggs — but not now! Select the Colourize palette once again and adjust the hue and saturation sliders until you achieve a rich brown tint [Fig 10]. You may need to lighten things up a little at this stage using the gamma control — nearly there. Now, we're going to help give the illusion of age by simulating fading, so it's time to get acquainted with the retouch tool. This offers a whole box of retouching tricks including dodge, burn, darken, lighten, soften, sharpen and even the astoundingly-named "hue up". The most effective tools for ageing are Dodge and Burn which you can use to selectively lighten and darken parts of the image. The key to the retouch tool is to find the right combination of brush settings [Fig 11] so you should experiment with brush size, shape, hardness and opacity to achieve the best effect.

☛ **All that remains now** is to add the vignette [Fig 12].

1 **Select** the rectangle marquee and change the selection type to Ellipse in the controls palette.

2 **Enter** a feather value of around 20 (the higher the value, the softer the edge) and draw an oval around the central picture area, stopping just short of the edges.

3 **Press** Shift-Ctrl-I to invert the selection, then hit the delete key. I've used the Soften filter to take off the hard edges and re-applied Colourize to put back some of the sepia lost through over-zealous use of the retouch tool.

The antique picture show

All the examples here have been produced in Paint Shop Pro but you can reproduce them using virtually any package on the market. If you cannot find a particular tool or menu command, look for another way to achieve the same effect. For example, you may need to use an airbrush, or a smudge tool to produce antique fading effects. Some packages even have burnt-edge filters which you can use for this sort of thing. Have a good look through your toolbox and effects filters and experiment with different ways of achieving the same thing.

PCW CONTACTS

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