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## Photo-editing, part I

The average digital camera comes with a range of knobs and dials to help you capture great shots. These can't guarantee fault-free photos, but you can ensure the pictures you take end up looking their very best by administering a few tweaks with an image editor.

Tom Gorham shows you how

The flirtation was drawn out and the romance only rumoured for years, but at last it can be openly revealed: Britain is in love with the digital camera. Only two years ago, less than 10 percent of photographers were using digital cameras. But in May 2001, at least one major high street retailer was reporting that more than half the customers buying new cameras at its stores were choosing the digital variety over film.

The popularity of digital isn't surprising, considering its clear advantages. There's no need to worry about whether the film has loaded properly – because there is none – and with most digital cameras

boasting LCD displays, you don't have to wait a week to see what the picture you've just taken looks like.

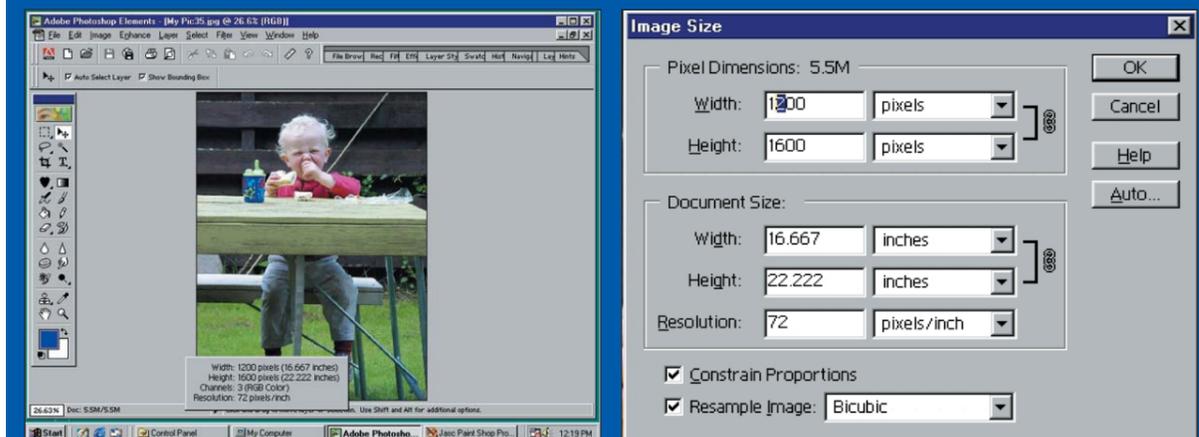
This instant access helps cut down on processing costs as well. You need only print out the pictures you choose, with processing as instant as you want it to be.

The best feature of all is that digital cameras fit in with today's digital lifestyle. If your great aunt in Australia can't make it over for a family gathering, you can plug your camera in to your PC, download and email the pictures of the event to her in a matter of minutes.

Using a digital camera is no guarantee of a great picture but, armed with the right

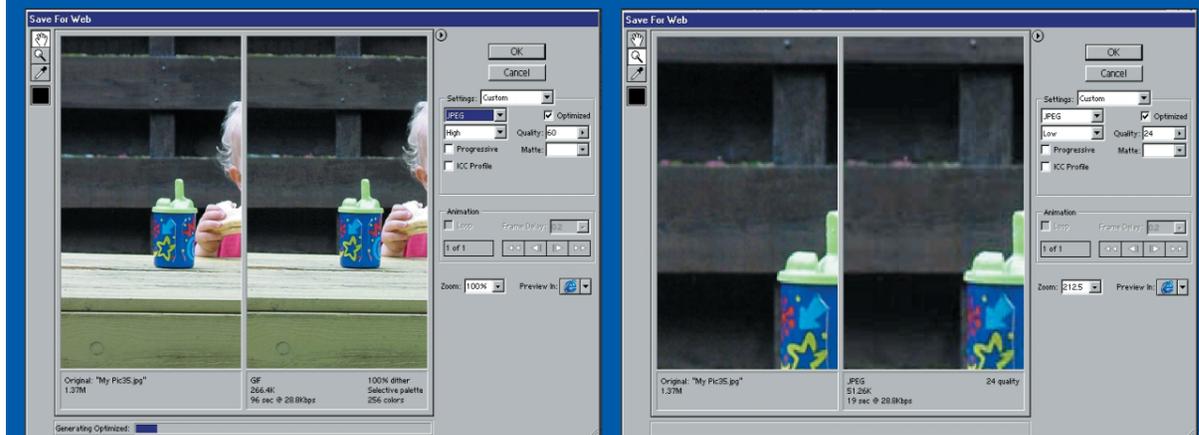
## Selecting the right resolution

If you've ever clogged up your friends' and relatives' PCs with a 20MB picture of your baby, you'll appreciate how vital it is that you shave every spare byte off your pictures. But file size reduction is a good habit to get into even if you're going to print the image to an inkjet. Image resolutions of 120-150 pixels per inch are usually perfectly adequate for most inkjets, although it's worth experimenting for best results. Elements makes a great job of shrinking your files, whatever their final destination.



1 Find out the current resolution and dimension of your image by clicking and holding down the mouse button on the Information box at the bottom of the application window

2 To adjust the properties of your image, open Image, Resize, Image Size and enter the desired pixel dimensions, print size or resolution. Make sure the Constrain Proportions box is checked so the image's dimensions change proportionately. Generally speaking, images need to be no larger than 640x480 pixels



3 For rigorous compression use Elements' Save For Web (File, Save for Web) feature. The Save For Web dialog box shows a preview of the original image on the left and a preview of the optimised image on the right. The file size and expected download time is shown in the box just underneath the image

4 Select an optimisation format from the Settings menu on the right. For photographs, Jpeg compression is invariably a better option than GIF. Adjust the image compression by clicking the arrow next to the Quality dialog box and using the sliding scale on the right – the preview automatically adjusts

software, you can at least tweak and adjust your images to bring out their best features and remove their worst.

Here we're using Adobe Photoshop Elements, a powerful but budget-priced version of the high-end professional Photoshop application, to adjust some

common errors in digital images. You'll find a 30-day demo version of Photoshop Elements on this month's cover disc, together with a copy of MGI PhotoSuite, which is used as the basis of a more advanced photo-editing tutorial on the cover CD and DVD.

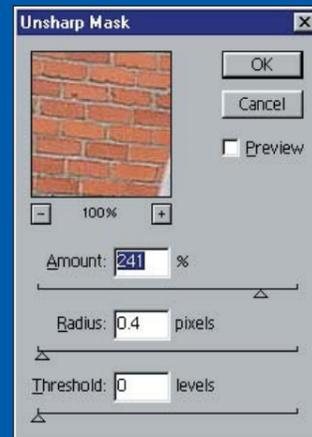
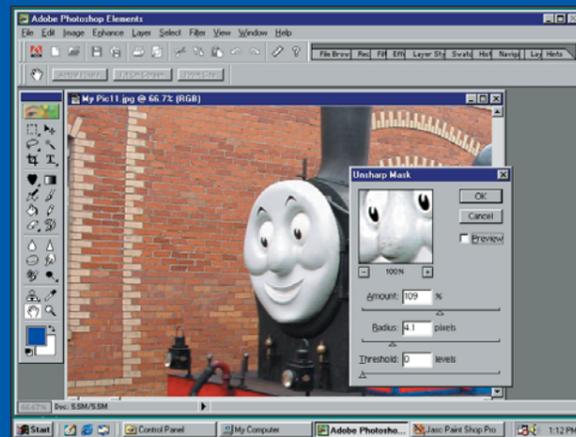
### Setting up your camera

With a little effort, image-editing programs can repair many flaws, but it saves time and heartache if you can avoid many of the common pitfalls when you take a photograph. Some flaws, such as red-eye, can be fixed easily, but an out-of-focus

## Restoring sharpness

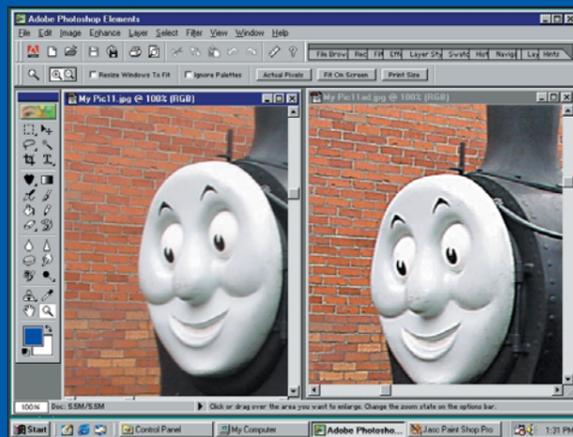
A side effect of digitising any image is a slight softening of the image. Unsharp masking is the rather convoluted name given to the process of sharpening a softened image by accentuating the differences of colour or hue between pixels.

Sharpening is the most difficult image correction process, as there is no set way to improve your image. Err on the side of caution as over-sharpening an image will leave tell-tale halo effects around all the sharpened elements in your picture.



2 The Amount control sets the strength of the sharpening effect. The ideal amount varies depending on the type of image to be sharpened and the level of blurring present. It's a good idea to start out at a high Amount setting and lower it as you adjust the other two settings

1 To sharpen images, open the Unsharp Mask dialog box (Filters, Sharpen, Unsharp Mask). The box contains three sharpening elements, with a small window showing a preview of the effect in action. This should always be kept at 100 percent, so you can accurately gauge the effect of the sharpening



3 The Radius control refers to the number of pixels around an edge to be sharpened. The higher the Radius value, the more pixels will be affected. The ideal Radius setting depends on the final output of the image, but in general it should be set between one and three pixels

4 Now adjust the Threshold value, which determines how different a pixel must be from its neighbour to be considered. A value of 0 sharpens every pixel; it's better to use a more conservative amount – above two or three

original stays that way no matter how much you try to repair it.

- Boost your assets It's easy to rely on your camera's automatic lighting and focus settings, but minimise the chance of error by ensuring there is plenty of ambient light and by getting in as close as possible to your subject.
- Steady, Marlene If you're taking still photographs, use a tripod. This allows you to frame your subject more carefully and

avoids that common problem with digital cameras: blurring caused by the delay between pressing the shutter button and the camera taking the picture.

- It's behind you Focus on the subject, but be aware of the background. Common background objects, such as telegraph poles or washing lines, are easy to miss when taking a photo, but they can draw attention away from the subject in the final image. It takes a lot of time and expertise to edit them out later.

- Give it some welly Many amateur photographers add life to their pictures by fiddling with filters, but you should aim to enliven your photos beforehand. Take pictures of your subjects doing everyday tasks rather than asking them to pose. You can be sneaky too: even if your subject knows a photograph is about to be taken, take a few snaps in quick succession. You may get a great and unexpected reaction shot – and it costs nothing to experiment.

## Controlling colour casts

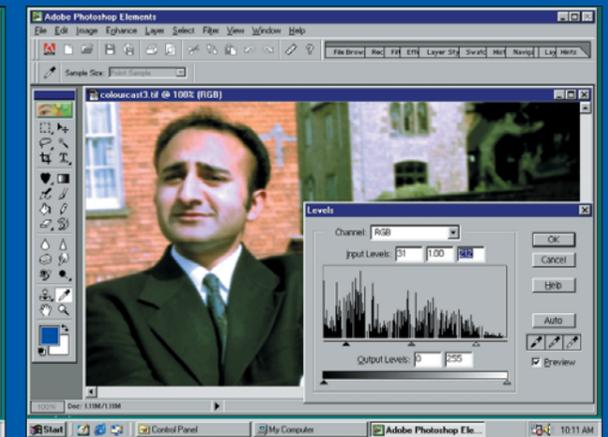
Digital photos can often be oversaturated in one colour, perhaps due to ambient lighting when shooting indoors. Pictures from older cameras also often suffer from a washed-out appearance, with poor contrast and shadow detail. Either way,

it's possible to regain some of that lost vibrancy by adjusting the colour cast and level of the original picture. Most of Photoshop Elements' colour adjustment features are found in the Enhance menu, and there are some helpful automatic 'recipes'.



1 The first stage in correcting an odd colour cast is to select Enhance, Color, Color Cast. The cursor automatically changes to an eyedropper tool. Click on an area of the picture that would normally be either white, black, or grey with the eyedropper and the image should automatically compensate for the colour cast

2 For further fine colour adjustment select Enhance, Variations. The Variations palette displays a range of perceptual colour choices which can be used to adjust your image. Select Shadows, midtones and highlights to adjust the image's dark, medium and light areas. Select saturation to make the colours richer



3 Adjusting an image's hue or saturation can be a fiddly process, so you should use your software's automatic settings as a starting point. Elements' Auto Levels function (Enhance, Auto Levels) gives surprisingly good results and will suffice in many circumstances

4 Finally use the Levels function (Enhance, Brightness/Contrast, Levels) to add vibrancy. The histogram shows the distribution of light values throughout your image, from the darkest on the left to the lightest on the right. Move both the left and right sliders below the histogram to the middle to increase the image contrast

- Don't settle for second best Digital cameras come with a selection of resolution choices, which often proves a dilemma for users. Setting a high resolution, often called Fine mode, results in better quality pictures, but inevitably uses up more of your camera's precious memory.

In general, it's a good idea to stick to the camera's top setting for your pictures. You can't put detail back into low resolution snapshots later; conversely, it's a simple process to sample down an image in your image-editing application in order to shrink file sizes when it comes to

printing, emailing or uploading your favourite pictures to your website. ■



See this month's cover disc for our second tutorial showing more advanced photo-editing tips