Four by four

Ray Allen tests the performance of two of the latest 4 megapixel cameras.

The C-40 is easy to use, which is helped greatly by the neat layout of the key controls.

Olympus Camedia C-40 Zoom

■ **Type:** 4 megapixel ■ **Price:** £700 ■ **Features:** 35-98mm zoom

THIS OLYMPUS DIGITAL IS impressively small and looks great.

Looks is one thing but there's greater flexibility in creative situations too. As well as being able to use the camera in simple point-and-shoot program mode, it is possible to manually override for all sorts of photo situations.

This camera lets you personalise your shooting, such as using the shortcut memory to change which modes can be seen from the LCD panel. And in My Mode you can store all of your current settings and switch to them from the main mode dial.

To improve your picture quality, you can use the noise reduction system, especially when using long exposures. And the pixel mapping facility will find any faulty pixels.

The shutter speed range is from 16secs to 1/1000sec and there's the opportunity to capture a movie in QuickTime format for up to 130secs.

For still images, there are no less than ten different image recording resolutions. Images can be made 'larger' through software that interpolates from 2288x1712 pixels to 3200x2400 pixels. It does take time to write each image to the card though. Without interpolation the C-40 is very responsive, with images saved to the memory card in no time at all.

You can opt for the black & white or sepia modes if you want or, in normal colour mode, saturation and image sharpness can be tweaked.

Up front you'll find the 7.25-20.3mm 2.8x aspherical glass zoom lens (35-98mm equivalent on a 35mm camera). It's made up of seven elements in five groups and has a large sliding cover, which also doubles for the on/off switch.

Speaking of turning the camera on, you are welcomed with an animation on the LCD, plus some music. It's a personal thing if you like it or not. It can be switched off.

The LCD panel on the rear is very clear and the menu system is easy to read but using it constantly will mean that the batteries will only last about an hour.

Image quality is first rate with accurate colours and sharp detail. The C-40's lens is very good for its size. Barrel distortion is high at the wide end but towards the telephoto end things are much better.

The C40 is supplied with a 16Mb memory card which, given the range of image quality settings, is simply not big enough.
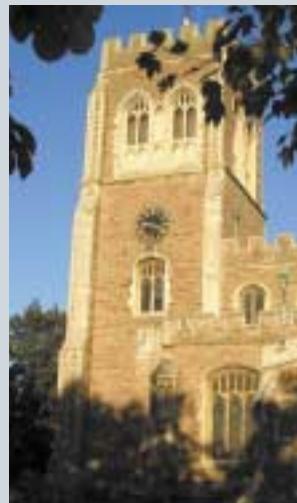
FACT FILE CAMEDIA C-40

Price:	£700
Contact:	Olympus, 0800 072 0070; website: www.olympus.co.uk
Lens:	7.25-20.3mm f/2.8-4.8
Focusing:	0.1m to infinity
Resolution:	4 megapixels
Monitor:	1.5in TFT LCD
Shooting modes:	Program, aperture and shutter-priority and manual
Metering:	Digital ESP, spot and multi-metering
Picture record modes:	TIFF and JPEG
White balance:	Auto, preset and one touch
Supplied card:	16Mb
Storage media:	SmartMedia
Shutter range:	16secs-1/1000sec
Sensitivity:	Auto, ISO 100, 200 and 400
Power:	2xAA batteries or CRV3 lithium pack
Dimensions:	87x69x44mm
Weight:	190g (without batteries)

RATINGS

PP marks products on five criteria, each out of 20 and making a possible maximum score of 100

■ **FEATURES** — 18
Simply packed, everything you could ever want.

■ **HANDLING** — 16
Easy to use, but people with large hands may not get on with it so well.

■ **METERING** — 17
Good array of options that can cope with most situations.

■ **LENS QUALITY** — 17
Up with the best in its class and has a good range too.

■ **VALUE FOR MONEY** — 18
The vast range of features and the fact that it's compact and easy to use make it very good value.

■ **TOTAL SCORE** — 86

PP VERDICT

A fine, compact digital camera. It's feature-packed, handles well and delivers high image quality.

The Optio 430 is a sexy looking beast and handles pretty well considering its smallness.

Pentax Optio 430

■ **Type:** 4 megapixel ■ **Price:** £700 ■ **Features:** 37-111mm zoom

WHEN YOU FIRST HOLD THIS petite digital camera you'll be impressed by its build quality. The square body makes it more difficult to hold but you soon get used to that and it does look great.

The main mode dial on the camera's top sets the basic functions of the camera, while smaller buttons can be found scattered around the shell. All are clearly labelled for ease of use.

From start-up to taking the first picture is around 4.5 seconds, which is good. The power zoom lens has a focal range of 7.6-22.8mm (37.5-112.5mm equivalent in 35mm terms) and offers 3x optical and 2x digital zoom capabilities.

Unusual for a camera of this price, Pentax has not included any small LCD panel to show you current settings or the number of remaining pictures. To see this information you need to use the LCD view screen on the camera's rear, which, inevitably, eats more battery power.

The on-screen menu system is basic but easy to use. While the optical viewfinder is good, with a dioptre adjuster if necessary, the quality of the LCD screen does not do justice to the final picture. It's got a very noticeable pixel effect.

Three levels of JPEG compression are on offer. The fine setting is the best and results are very good. Great detail is captured in each picture, with only a few images in our test being slightly overexposed. I found colour accuracy was generally good but some images did take on a slightly cool look.

Pictures are saved to the memory card in under three seconds, making it one of the faster cameras in its class. In low light, focusing is a bit hit and miss with the autofocus hunting then coming up with an error at times. In normal light, autofocus is fast and accurate and shutter lag is average for the camera's price.

Battery consumption is good – I managed around two hours' continual shooting before it ran out. The only downside is that Pentax has used a custom Lithium-ion battery pack, so if you plan on any long trips you have no choice but to get a spare just in case.

This camera is a great companion for any holiday – it's small and well-built to withstand most knocks and is easy to slip into your bag. You won't be disappointed with the image quality either or the accuracy of colours. □
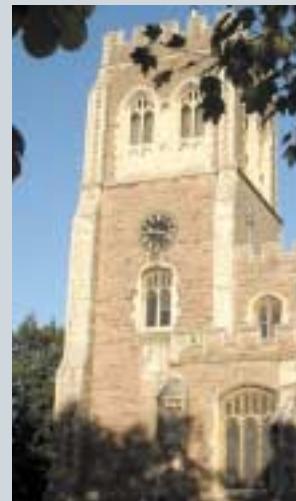
FACT FILE OPTIO 430

Price:	£700
Contact:	Pentax, 01753 792792; website: www.pentax.co.uk
Lens:	7.6-22.8mm f/2.6-4.8 (37-111mm in 35mm terms)
Focusing:	0.14m to infinity
Resolution:	4 megapixels
Monitor:	1.6in TFT LCD
Shooting modes:	Auto, Night scene and manual
Metering:	TTL, spot, multi segment and centre-weighted.
Picture record modes:	JPEG
White balance:	Auto and preset
Supplied card:	16Mb
Storage media:	CompactFlash
Shutter range:	2secs-1/2000sec
Sensitivity:	Auto, ISO 100, 200
Power:	Pentax's Lithium-ion battery pack
Dimensions:	92x59x35mm
Weight:	205g (without batteries)

RATINGS

PP marks products on five criteria, each out of 20 and making a possible maximum score of 100

■ **FEATURES** — 15
Not much more than the basics.

■ **HANDLING** — 16
Simple operation, but can be tricky for big fingers.

■ **METERING** — 16
Metering is fairly accurate but can sometimes be fooled into overexposure.

■ **LENS QUALITY** — 17
Lens quality is good and the range on offer impressive.

■ **VALUE FOR MONEY** — 17
Very easy to use but doesn't have a great deal of features. 4 million pixels ain't bad though.

■ **TOTAL SCORE** — 81

PP VERDICT

This camera has an excellent build quality and is nicely finished. It gives great image quality and the colours are generally accurate.

Minolta Dimâge Scan Elite II

■ **Type:** 35mm film and APS film scanner ■ **Price:** £550 ■ **Features:** Image Correction Enhancement (ICE[3])

The quality of dedicated film scanners keeps getting better and the manufacturers' ranges (and product names) bigger and bigger. **Ray Allen** checks out the latest from Minolta.

MANY PHOTOGRAPHERS start by trying to scan slides or negatives with a small, cheap flatbed scanner and quickly come to the conclusion that the end results are nothing to write home about. It's no wonder, then, that dedicated film scanners are becoming increasingly popular.

Minolta's latest model, the Dimâge Scan Elite II, can take 35mm negatives, slides and APS film (although you'll need to purchase an optional adapter if you want the latter). The supplied slide holder can hold up to four slides and the negative holder can hold up to six.

You can connect the scanner to your computer either via the now standard USB connection or via IEEE 1394 (FireWire).

Setting up is straightforward. For those of you who are relatively new to the scanning world, you'll be pleased to know that there are Easy Scan options, allowing you to scan at the touch of a button. Doing an index scan will show you what's in the film holder and a pre-scan will show whether you need to do any colour adjustment before making the final scan.

The scan speed is fast. Using USB, an index scan will take around 32secs and to scan a single slide at full resolution takes around 58 seconds. FireWire should be faster but, in practice, the index scan takes

around the same time as with USB. But when you scan a slide at full resolution the speed is doubled to around 33 seconds.

Supplied scanner software proved to be stable in use with a comprehensive range of features. Digital ICE (Image Correction Enhancement) removes dust and scratches from your slides. This works amazingly well, with only a slight trade off in sharpness that is not noticeable in most cases. Digital ROC (Reconstruction of Colour) is used to restore the colour in faded film and works well in some cases. Digital GEM (Grain Equalization and Management) helps reduce the grain effect in film, particularly useful with fast film but it does slightly soften the image.

You can scan and correct images without the need for additional imaging software but this scanner does come bundled with Adobe Photoshop Elements, which is good but takes some time to get your head round. If you have other imaging software, such as the full version of Adobe Photoshop, Minolta supplies the additional plug-in to drive the scanner direct from the application.

Colour correction is also extensive. The supplied manual is very good and can tell you everything you need to know. It is beyond this review to cover every aspect but it's not for the faint-hearted.

Storage of your scanned images may be an issue once you start scanning at full resolution – each slide scanned at 2820dpi will take up around 31Mb of space. If you use CDs for storage then you'll only fit around 20 images per CD.

As for image quality, however, it's superb. Admittedly it's a lot more expensive than a flatbed scanner but the price is very attractive for a dedicated 2820dpi film scanner. Minolta should have no problem in shifting shed loads. It's highly recommended. □

PC AND MAC SYSTEM REQUIREMENTS

Interface	FireWire (IEEE 1394) and USB	
Minimum processor	PC: Pentium 166NHz, Pentium III for using ROC & GEM	Mac: PowerPC, G3
Operating system	Windows 98, 98 second edition, 2000 Pro and ME	Mac OS 8.6-9.2
Minimum memory	64Mb RAM in addition to what is needed for imaging software. 256Mb for using ICE[3].	
Minimum hard drive space	500Mb. 1Gb when scanning 16-bit	

FACT FILE DIMAGE ELITE II

Price:	£550
Contact:	Minolta, 01908 200400; website: www.dimage.minolta.com
Type:	35mm film and APS film scanner
Resolution:	2820dpi
Focusing:	Auto, point AF and manual focus
Bit depth:	16-bit
Dynamic range:	4.8
Interface:	USB and FireWire
Dimensions:	145x100x325mm
Weight:	1.5kg

RATINGS

PP marks products on five criteria, each out of 20 and making a possible maximum score of 100

■ **SETTING UP** — 19
Extremely easy. Just install the software CD, plug in with your chosen connector and that's it.

■ **PERFORMANCE** — 19
Excellent scans every time; ICE[3] is simply amazing.

■ **FEATURES** — 19
The extensive software will give you the opportunity to make plenty of tweaks – every aspect of the image scanning process can be changed.

■ **SPEED** — 17
It's a very fast scanner without compromising the quality; USB was surprisingly fast.

■ **VALUE FOR MONEY** — 16
Great value for money, if you want to do a large number of scans.

■ **TOTAL SCORE** — 90

PP VERDICT

The Scan Elite II gives excellent scans and includes some clever software to take care of any bad images or to enhance good ones. Scanning via USB is fast; FireWire doubles the speed.

ICE – A DIGITAL CLEANER

What is ICE? Well put simply, ICE or Image Correction Enhancement is a kind of digital vacuum cleaner that works its magic on your slide or colour negatives, removing dust and scratches. Essentially it restores the image being scanned to a perfect condition. So, if you're likely to be scanning slides that will have collected a lot of grime ICE will sort it out for you.

   ICE or ICE³ (cubed) – so called as it also boasts ROC and GEM – as employed within the Elite II does increase the time it takes to scan a slide or negative. But that's a small price to pay for such a useful function. Also it should be noted for anyone intending to scan black & white negatives – ICE doesn't work on them.

no ICE at A4

with ICE at A4