Power PC
Evesham Evolution 2.53

This month sees another incremental increase in the speed of Intel's Pentium 4 processor – it now reaches 2.53GHz, streets ahead of the competition in terms of clock speed. However, as is usually the case with the P4, this doesn't translate into top speed for everyday tasks. While its WorldBench score of 121 beats the 2.4GHz Hi-Grade, it's still behind the top-scoring AMD Athlon XP 2100+.

On the up side, the 2.53GHz is the best choice for video encoding, finishing our tests more than half a minute ahead of the rest of the competition. Games performance is good as well, and this chip manages to squeeze the last few frames out of its graphics card.

For general performance, though, the Athlon processors still have the drop. This is despite Evesham doing its best to extract maximum mileage from the CPU. The 512MB of DDR (double data rate) RAM, for instance, is of the highest quality, and the 100GB hard drive matches its high capacity with impressive read times.

It's hard to fault the graphics subsystem. The LG 915FT+'s clear picture and strong dot pitch are among the best, while the 128MB Leadtek graphics card and GeForce4 Ti 4600 chip are the fastest on the market. The Creative Audigy and Inspire 5300 speakers are of the highest order.

If we were going to pick faults, we could highlight the slightly inconsistent performance of the Samsung and Mirai DVD and CD-RW drives, although the latter's 40-speed CD-RW speed is good. The PC is well arranged inside, although the only software is the freely available StarOffice 5.2 office suite.

Verdict
The Evolution is another well-implemented PC from Evesham. However, even with 2.53GHz on board, the Intel Pentium 4 isn't the best choice for everyday performance. With a sizeable £1,699 price tag hanging over the Evolution's head, that's hard to forgive. ■
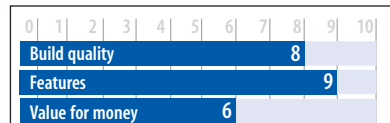
Robin Morris

Evesham Evolution 2.53

Specifications: 2.53GHz Intel Pentium 4; 512MB DDR RAM; 100GB hard disk; 48x/40x/12x CD-RW; 16x DVD-ROM; 19in monitor; Windows XP Home.

Evesham.com: 0870 160 9500
Website: www.evesham.com
Price: £1,699 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality									8		
Features										9	
Value for money							6				

Widescreen notebook
Packard Bell Chroma LS

With more people opting for a notebook as their home PC, the need for high-quality multimedia on a laptop is becoming all-important. If you want to use your system to watch DVDs and play games, then you can't compromise when it comes to screen or graphics quality.

Packard Bell plans to tap into this expanding market with the Chroma LS, which features plenty of innovative features designed to tempt the demanding consumer. The first thing you will notice about the LS is its size; it weighs in at 4kg, so it's hardly portable, and it measures 365x250x50mm.

The Chroma LS owes its oblong chassis to the inclusion of a widescreen display. The screen measures 15.3in and is a TFT (thin-film transistor) model capable of displaying 16:9 aspect ratio. Image quality is high, so watching a movie on this screen would be fine. There are hotkeys to make playing DVDs simple – a button launches the preinstalled PowerDVD software, while you use the multimedia controller to scroll through chapters.

Packard Bell didn't only have movie viewers in mind when it built the LS, it's also aimed at those who want to make their own films, with no fewer than two FireWire ports on the back and a video button that launches MGI's VideoWave video-editing package. A final addition for image enthusiasts is the ability to add a Memory Stick or SD (Secure Digital) card reader into the slot provided on the side of the notebook.

Verdict
Innovation doesn't come cheap, but the Chroma LS is a unique portable PC that's ideal if you're looking for a fully featured multimedia notebook. Choosing the LS means you don't compromise on features, although its WorldBench 4 score of 73 means the same can't be said for performance. ■
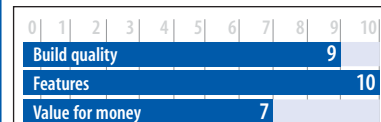
Ursula Seymour

Packard Bell Chroma LS

Specifications: 1GHz Mobile Pentium III; 256MB RAM; 30GB hard drive; 15.3in TFT; max res 1,280x768; lithium-ion; 16MB ATI Radeon M6; SD/Memory Stick; 6x/24x/4x/4x DVD/CD-RW drive; 4kg; 365x250x50mm.

Packard Bell: 01628 512 400
Website: www.packardbell.co.uk
Price: £2,127 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality										9	
Features											10
Value for money								7			

Intermediate digital camera
EXCLUSIVE Canon Digital Ixus V2

Canon was the first manufacturer to combine designer chic and photographic versatility for compact digital cameras with its the Ixus range. Many have followed suit, but Canon continues to develop the series to keep the Ixus name at the forefront of compact digital photography. We've had a look at the brand-new Digital Ixus V2 – the latest model to join the line-up.

Canon has stuck with the compact chassis and stylish brushed steel finish on the V2, though weight has been kept down to 180g. The metal casing gives the Ixus a sturdy feel, so it shouldn't get bashed up too easily. However, in a world where the megapixel-per-pound ratio is ever on the increase, we were surprised to see the basic specifications remain the same.

The Canon only has a 2Mp (megapixel) CCD (charge-coupled device), 2x optical zoom and an 8MB Type I CompactFlash card, so you can't upgrade to a more capacious Microdrive. Maximum resolution is 1,600x1,200 but the images look better than those taken by the previous Ixus, thanks to some upgrades to cope with different photographic conditions.

Canon has added a wider range of ISO-equivalent speed settings, so the Ixus V2 performs better in low light. It also features improved image capturing optics and spot metering to fine-tune the exposure settings. It even has AiAF (artificial intelligence auto focus) so that the subject is always in focus wherever it is in the frame. These additions don't add to the overall picture quality, but they do help set up shots more accurately. There's also fully automated shooting for novice users.

We liked the quick operation provided by the Ixus V2. Being small and powered by a lithium-ion battery means it heats up quickly, but we didn't have any problems with this while we were testing.

Verdict
Unfortunately there is a premium on style, so in terms of specifications and features the Canon Digital Ixus V2 is not the best value for money. ■

Spencer Dalziel

Canon Digital Ixus V2

Specifications: 2Mp; max res 1,600x1,200; 8MB CompactFlash Type 1; lithium-ion; move mode; 87x27x57mm; 180g; max of 87 photos on 8MB; min of 7 photos on 8MB.

Canon: 0800 616 417
Website: www.canon.co.uk
Price: £329 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality									8		
Features							6				
Value for money				4							

Multifunction digital camera
Panasonic SV-AV10

Panasonic's SV-AV10 squeezes masses of functionality into its tiny shell. This digital camera measures 27x88x50mm and weighs 98g, but it can capture still and moving images and voice recordings, as well as acting as an MP3 player.

With its flip-out 2in LCD (liquid crystal display) screen, the SV-AV10 resembles a miniature camcorder. This is at the expense of a viewfinder, though, which could tax battery life. It can capture Mpeg-4 movies with audio at a resolution of 320x240, which is good enough for use on the web, although on the 8MB SD (secure digital) card you can only store two minutes of footage at top quality. Still images have a maximum resolution of 640x480, but you can store up to 190 images in the low-resolution Economy mode.

A USB SD card reader is supplied, plus Movie Stage software to view video and still images and Media Manager to capture and transfer music files. It's all easy to use and it worked seamlessly to download our MP3 files. The player also supports Mpeg-2 AAC files, and comes bundled with a set of headphones.

Using the SV-AV10 is easy, as its small size means there are few buttons to get the hang of. However, everything is handled via the onscreen menu, including flash or flipping the picture when you rotate the LCD which is a bit of a nuisance. Another drawback is the inability to output images to a TV: they have to be viewed on the LCD or a PC.

Verdict
If you want top-quality images look elsewhere – and you will need to buy a bigger storage card, which pushes up the cost. However, for fit-in-your-pocket functionality, the Panasonic SV-AV10 is a real winner. ■

Ursula Seymour

Panasonic SV-AV10

Specifications: 2in LCD; 1/4in Cmos image sensor; built-in flash; Jpeg image compression; Mpeg-4 video compression; 8MB SD memory card; supports Mpeg-2-AAC and MP3 audio formats; 27x88x50mm; 98g.

Panasonic: 08700 100 464
Website: www.panasonic.co.uk
Price: £255 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality										9	
Features								7			
Value for money								7			

Graphics card
Chaintech GeForce4 MX A-G441

It's a good thing nVidia produces top-quality technology, since its arcane naming system is calculated to drive the video industry crazy. Not only is its GeForce4 family split into two differing branches – the MX and Ti – nVidia also insists on distinguishing the cards with different code numbers. Having had the Ti 4600, 4400 and 4200, we now meet the MX 460, 440 and 420.

While the Ti cards are the no-holds-barred performers, the MX cards offer value for money. Equipped with essentially the same hardware, the MX is a GeForce4 Ti running at half throttle. That's not to say that the MX trio can't set some impressive speeds, however, and the MX 440 used in this card from Chaintech may be low cost, but it's definitely not low powered.

The popularity of the nVidia chips is such that card manufacturers are falling over themselves to unleash their versions of the GeForce4 phenomenon. Chaintech is the latest name, and its strong links with the motherboard industry puts it in an ideal position to take on the competition.

The card has 64MB of DDR (double data rate) RAM, which few GeForce4 MX cards will top. Otherwise it has standard features, with a TV-out S-Video port. The software bundle is impressive, though.

Compared to the GeForce4 Ti cards, the MX 440 actually comes up a little short. This may be predictable, but what is surprising is how closely the MX compares with the top-range GeForce3 cards. In fact, the 440 produces almost identical performance to a GeForce3 Ti 200, despite the vast difference in their price tags. The Quake III demo test turns up 159fps (frames per second) at 1,024x768. Even in top resolutions, it stays close to the 50fps mark, making it a good card for gamers.

Verdict
The GeForce4 Ti cards are still the top picks for the ardent gamer with deep pockets, but for those who couldn't afford the GeForce3 Ti and still can't afford the GeForce4 Ti, the GeForce4 MX 440's price tag should be appealing. ■

Robin Morris

Chaintech GeForce4 MX A-G441	NO 1	TOP 10

Specifications: nVidia GeForce4 MX 440; 64MB DDR RAM; 350MHz Ramdac; 4x AGP; 2,048x 1,536@75Hz; 16.7m colours@800x600; 1xRGB; TV-out/S-Video; 3-year warranty.

Ideal Computing: 0870 745 5061
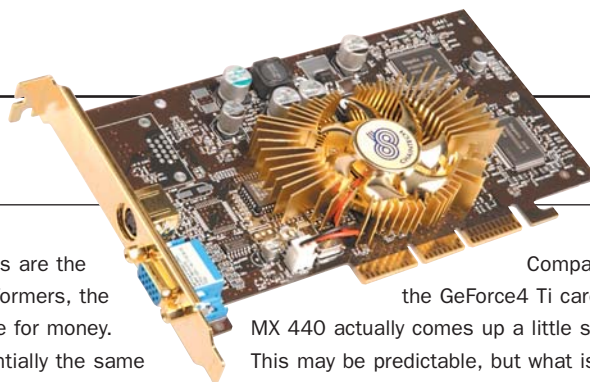**Website:** www.chaintech.com.tw
Price: £110 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality									8		
Features								7			
Value for money										9	

Personal inkjet printer
Epson Stylus Photo 950

Aimed at the professional market, the Photo 950 is the perfect choice for those after top print quality above all else. The 950 includes hardware for automatically trimming paper, paper rolls, catching photos and versatile sheetfeeding options that cover almost every conceivable type of media. Banner and multiple shot facilities are included, and you can even remove borders or print labels directly on to a CD rather than having to print a separate sticker.

Considering this depth, it's not surprising that getting the printer up and running is a lengthy process. We weren't impressed with the drivers' installation routine, although the lack of dedicated XP files could have been because the Epson is a prerelease unit. Even installing the cartridges is time-consuming, and the 950's special printing technology numbers six different colours and one black among its seven-cartridge system.

The 950's high-end features aren't going to please everybody – if you're looking for an everyday page churner, this is not for you. Performance figures are lacklustre, and the 6.4ppm (pages per minute) of text are hardly impressive though this is a photo, not text, printer. Therefore it's in graphics mode where the 950 shines – it can churn out 5.4ppm. Image quality is fantastic at the top-quality modes, and the high-resolution support of 2,880dpi (dots per inch) and glossy paper are impressive. Times aren't too poor either – even at the highest quality settings, it takes around five minutes for a full print.

Verdict
We can't really recommend the Stylus Photo 950 to the everyday user, but its wealth of printing and media options combined with fantastic graphics reproduction will endear it to photographic and graphics professionals. ■

Robin Morris

Epson Stylus Photo 950	NO 5	TOP 10

Specifications: 6.4ppm mono (8.8 quoted); 5.4ppm colour (8.5 quoted); max res 2,880x1,440dpi; USB; parallel; black cartridge £8.55 (x 2) for 370 pages; colour cartridge £8.35 each (x 5) for 440 pages; 515x333x209mm; 7.6kg.

Epson: 0800 220 546
Website: www.epson.co.uk
Price: £323 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality										9	
Features										9	
Value for money								7			

Personal inkjet printer
Lexmark Z35 Color Jetprinter

There's a model to suit all budgets in Lexmark's extensive new range of inkjet printers. This month we're looking at the Z35. At £50, it's the second cheapest in the range, a fact that becomes painfully obvious the second you take the printer out of the box. One of the smaller inkjets we've seen in the Test Centre, it also felt like one of the flimsiest.

The printer proved itself the perfect plug-and-play machine. The only interface is a USB port but, unfortunately, it doesn't come with the necessary cable. This will seem a minor quibble to anyone already in possession of a cable, but since buying one could set you back £10, this omission lessens the effect of the low price tag.

In terms of specifications, the Z35 is competent, and its resolution support of 2,400x1,200dpi (dots per inch) is more than adequate. It also displays a number of useful touches that belie the cheap price tag. The Accu-feed facility cuts down paper jamming, while the paper tray is versatile.

The Z35 offers four different quality modes, although the lowest mode is below par. The print speeds of 5.4 and 2.6ppm (pages per minute) mono and colour respectively are solid, although the significant figures are the ones produced on the second-fastest quality setting. Here the colourful palette and adequate text quality are good results for the figures of 3.9 and 0.5ppm. At the highest settings, the Z35 produces strong results, but the time it takes to output them is interminable.

Verdict
We were in two minds about the Z35's true worth. Undeniably cheap, it's only in build quality that the Z35 exposes its low price tag. But regardless of this, we found the Z35's value for money wasn't enough to offset the feeling that there were far superior printers to be discovered if only you were prepared to pay a little extra. ∎

Robin Morris

Lexmark Z35 Color Jetprinter	NO 4	TOP 10

Specifications: 5.4ppm mono (11 quoted); 2.6ppm colour (6 quoted); max resolution 2,400x1,200dpi; USB; black cartridge £22 for 410 pages; colour cartridge £19 for 275 pages; 445x206x130mm; 2.2kg.

Lexmark: 0870 444 0044
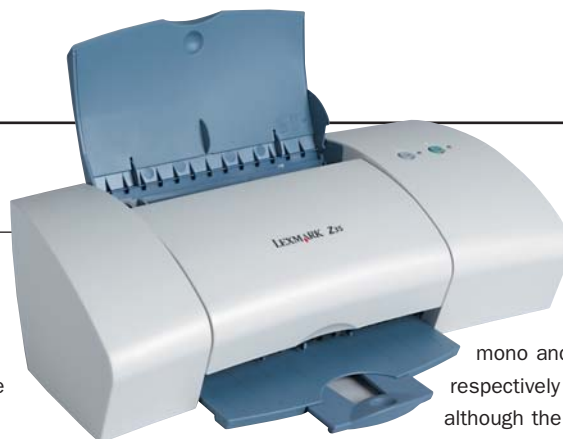**Website:** www.lexmark.co.uk
Price: £50 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality						5					
Features								7			
Value for money									8		

Beginner digital camera
Ricoh Caplio RR120

The Caplio RR120 is an entry-level model from Ricoh that combines value for money and ease of use. Photographically it's limited and it doesn't have many extras, but it's a good introduction to digital photography.

With dimensions slightly too big to be called compact, the Caplio is a sturdy and robust device. It has the look and feel of a more expensive camera despite its pleasantly low price tag, along with an attractive sleek sliver finish.

The 2.2Mp (megapixel) CCD (charge-coupled device) offers a maximum resolution of 1,792x1,200 and the 8MB SmartMedia card can hold up to seven high-resolution Jpeg images. As you'd expect at this price point, the camera offers fairly basic automatic photography, but there is some scope for a few user-defined settings. By flipping the jogdial to manual shooting, you can choose a white balance preset or an exposure compensation, and switch to an exposure speed equivalent of ISO 400, but that's about it.

Ricoh has sensibly put the most important buttons – quality setting, flash configuration and macro shooting – on the top of the Caplio so you don't have to navigate hidden menus. Quality is reliable at the maximum resolution and the colours look good, but there's no point in bumping to a lower resolution unless you only intend to use the images on a website.

It comes with four AA alkaline batteries but, as ever, we'd suggest you swap these for some rechargeable NiMH (nickel metal hydride) ones.

Verdict
The RR120 is a well made entry-level model from Ricoh that packs quite a lot of features into a small and relatively cheap package, including a 3x optical zoom and a comprehensive menu system. We liked the Caplio but, as you would expect, pay a bit more cash and you'll get a better model. ∎

Spencer Dalziel

Ricoh Caplio RR120	NO 5	TOP 10

Specifications: 2.2Mp; max res 1,792x1,200; 8MB SmartMedia card; 4xAA battery; 3x optical zoom; 268x55x217mm; 230g; max of 112 photos on 8MB; min of 7 photos on 8MB; 1-year return-to-base warranty.

Ricoh: 01782 753 300
Website: www.ricoh-cameras.co.uk
Price: £206 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality								7			
Features								7			
Value for money									8		

Multipurpose digital camera
Jessops Fashion Cam

There's a fine line between versatile webcams and cheap, jack-of-all-trade multipurpose digital cameras, but Jessops has struck a skillful balance with the Fashion Cam. At under £50 it's astonishingly good value for money and an ideal choice for anyone looking to buy their first digital camera.

The Fashion Cam doesn't offer high-quality photography, but it's perfect for images to post online or email. It only sports a 0.3Mp (megapixel) CCD (charge-coupled device), which translates into a maximum resolution of 640x480. There's a generous 8MB of built-in memory, rather than a storage card, and this can hold 50 bitmap images. You also have the option to drop the resolution to 320x240 and this can be lowered even further when the camera is tethered to a PC. It's powered by two AA alkaline batteries, but these won't last long, so we'd recommend swapping them for rechargeable NiMH (nickel metal hydride) units instead.

At only 200g the Fashion Cam is easy to carry around and it's even simpler to use. There are four modes to cover basic photographic conditions, a macro button for close-ups and even continuous shooting – not a bad selection for your money. You can delete the last picture, but the LCD (liquid crystal display) screen only offers a menu so you can't review shots.

Getting a good software bundle is important and the Fashion Cam doesn't disappoint in this department, either. It covers the whole range of ArcSoft utilities from Video Impression (to capture video clips when connected to a PC via the USB port) to Photo Fantasy for fun image editing.

Verdict
With the Fashion Cam you get what you pay for and more besides. Other manufacturers are charging almost double the price for a similar bundle, so there's little around in this price range to beat this Jessops deal. A great introduction to digital photography. ■

Spencer Dalziel

Jessops Fashion Cam
Specifications: 0.3Mp; max res 640x480; 8MB RAM; 2xAA batteries; 100x30x60mm; 200g; max of 200 photos on 8MB; min of 50 photos on 8MB; 2-year return-to-base warranty.

Jessops: 0800 652 6400
Website: www.jessops.com
Price: £50 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality									8		
Features							6				
Value for money										9	

Portable hard drive
Iomega HDD 20GB

Iomega's portable hard disk may look like part of its Peerless system, but it's significantly different – primarily in terms of price and application. Peerless was designed to provide large amounts of storage on removable, interchangeable disks. The Iomega HDD is more of a standalone, all-in-one system. Where Iomega expects Peerless users to buy more than one disk, HDD users are only anticipated to buy a single device.

The HDD is also significantly cheaper. A 20GB Peerless disk will set you back £152, with the base station coming in at £197. With the HDD, you get everything you need in the box, all for £161. Peerless may make sense for the corporate environment, but for the home user who wants an easy and convenient way to increase their storage, HDD makes more financial sense.

Available in both FireWire and USB 2.0 flavours, we put the USB 2.0 version through its paces. Installation was simple – plug it in and Windows XP will recognise it without the need for additional drivers. On the bundled CD you'll find a copy of Iomega QuikSync 3.0, to save a copy of your files as you work, and 1-Step Backup, a more traditional backup tool.

The USB 2.0 interface certainly proved speedy: copying 133 files (1GB in total) to the drive took just three minutes 50 seconds. Copying a single 1GB file raced in at three minutes 29 seconds.

If 20GB seems too small, there's a 40GB version available for around another £100. If you're prepared to forgo the portability, then there's also a larger unit offering up to 120GB available.

Verdict
HDD wins where Peerless failed – on price, providing everything you need for £161. The unit is small, fast and with up to 40GB on offer should satisfy most users looking to expand their storage without going inside the case. ■

Will Head

Iomega HDD 20GB
Specifications: 20GB portable hard drive (40GB also available); USB 2.0 (FireWire also available, QuikSync and 1-Step Backup); 90x185x18mm.

Iomega: 020 7365 9527
Website: www.iomega.com
Price: £161 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality										9	
Features									8		
Value for money										9	

Compact PC
AJP NeoPC 4

The NeoPC 4 is the latest in AJP's series of compact PCs, and this one uses a 2.2GHz Pentium 4 processor. The Neo is designed to appeal to customers who want to save on space, as all the workings of the PC are fitted into the back of the 15.1in TFT (thin-film transistor) screen. This means that it is up against notebooks as much as desktop PCs, as many customers are opting for portable computers in order to save space.

The comparison with a notebook is perhaps fairer, as in terms of performance and specification the Neo has far more in common with a laptop than a desktop. Its WorldBench 4 score of 106 wouldn't be out of place in the Power notebook chart, while the line-up of 256MB of DDR (double data rate) RAM, 40GB hard drive and 64MB ATI M7-P Radeon graphics card would be equally at home there.

If you want pure performance and the latest hardware for the lowest price then your choice is restricted to a bulky beige box. However, if you are more style- and space-conscious then the Neo is well worth a look. It is cheaper than most Power notebooks, but offers the same large screen area. Even better, it has a full-size cordless keyboard and mouse.

The NeoPC 4 has the full range of ports and connectors, including FireWire, four USB ports and parallel and serial connectors – the latter two are already being phased out on some notebooks, so if you have older devices you'll be fine with the Neo. One thing that is missing is any form of backup: there's just a measly floppy drive. The drive line-up is completed by an eight-speed DVD-ROM, though.

Verdict
If you can't accommodate a desktop PC for reasons of space or taste, then the Neo might be for you. However, its performance trails behind cheaper computers and the lack of a backup drive means you should invest in an external drive, which will push up the price. ■

Ursula Seymour

AJP NeoPC 4
Specifications: 2.2GHz Intel Pentium 4; 256MB DDR RAM; 40GB hard drive; 64MB ATI M7-P Radeon; 15.1in TFT; 8x DVD-ROM.
AJP: 020 8208 9700
Website: www.ajp.co.uk
Price: £1,199 ex VAT

	0	1	2	3	4	5	6	7	8	9	10
Build quality									8		
Features								7			
Value for money								7			

Mobile phone
Motorola V70

We've seen phones that flip, that slide and even ones that spring open at the click of a button, but Motorola has a new twist – literally. The V70 takes a new approach to split-shell phone design by introducing a rotating top that slides open to reveal the keypad. The ear piece is situated in the rotating top half, so when it's extended 180 degrees it provides a comfortable position for listening. The slide is also active, so you can answer calls just by opening it. Although it takes some getting used to, it is possible to comfortably open and close it with one hand.

The phone's small at 45x93x19mm and weighs just 83g including battery. It features a stylish white-on-black display, which adds to its desirability. It also has the advantage of being situated in the middle when open to avoid the greasy ear marks that you often get on the screens of flip models.

On the software side of things, there isn't much to write home about. It sports the same interface as the V60 (reviewed in May 02) and the V66 (reviewed in Dec 01). While it's better than previous Motorola offerings, it's still far from perfect. Features pretty much run to GPRS (general packet radio service) and a WAP browser. It's only dualband, so you can't use it in the USA, there's no Bluetooth or infrared and it sports an external aerial which spoils the lines a little. The V70 is great for making calls (which is fairly fundamental to a mobile), but if you want more advanced features you may have look elsewhere.

Verdict
If you place more importance on looks than personality, then the V70 is the phone for you. It may not be the most feature-packed, but it has style to die for. An instant design classic, the V70 is set to become the must-have mobile of the moment. ■

Will Head

Motorola V70
Specifications: dual-band 900/1,800MHz GSM; GPRS; WAP; 500-name phonebook; standby max 145 hours; maximum 215 minutes talktime; 83g; 45x93x19mm.
Motorola: 08000 151 151
Website: www.motorola.co.uk
Price: £100 with contract

	0	1	2	3	4	5	6	7	8	9	10
Build quality											10
Features							6				
Value for money									8		

Multifunction device
Canon SmartBase PC1230D

Canon's latest SmartBase range of digital personal copiers includes the PC1230D, a monochrome laser that combines a digital copier, laser printer and ADF (automatic document feeder) into one multifunction machine. It uses Canon's latest digital copier technology to produce an impressive 600dpi (dots per inch) output, while interpolation produces an effective 1,200dpi output at up to 12cpm (copies per minute) on most media, including OHP (overhead projector) slides.

Documents can be scanned manually using the 30-sheet automatic document feeder. Once an image is scanned into the printer's memory up to 99 copies can be produced and, if you want to save paper, two original scans can be output on one A4 page. Electronic collating is a new feature that enables you to organise and produce multiple copies of a multipage document.

Canon's all-in-one cartridge system combines toner, drum and cleaner in one replaceable unit. This removes most of the maintenance costs and produces an all-in running cost of around 2.5p plus paper per copy

PC connection is via both parallel and USB ports and installation involves loading a simple driver from the CD; most versions of Windows will recognise it as a new device and ask you for the software disc. If you're planning to use the PC1230D in a networked office, then a separate networking module is available for standard TCP/IP connection to a hub.

Verdict

A useful range of copying options coupled with high-quality mono printing makes the Canon SmartBase a useful office workhorse at a realistic price. The all-in-one replacement cartridge ensures sustained output quality and will keep down long-term running costs. ■

Paul Warner

Canon SmartBase PC1230D

Specifications: mono laser printer/copier; 12ppm mono; 600x600dpi; 2,400x600dpi interpolated; 475x442x352mm; 22.6kg; replacement cartridge £125; cost per page 2.5p; 250-sheet A4 paper tray; 30-sheet automatic document feeder; parallel; USB.

Canon: 0800 616 417
Website: www.canon.co.uk/multifunctional
Price: £577 ex VAT

0	1	2	3	4	5	6	7	8	9	10
Build quality									9	
Features								8		
Value for money									9	

Networkable colour laser printer
Brother HL-4000CN

Brother's HL-4000CN aims to fulfil all of your printing desires. The heavyweight machine can print monochrome pages on one or both sides of the paper and can be hooked up via parallel, USB or network connections. The control panel is well organised and the menu system displayed on the LCD (liquid crystal display) is easy to navigate. You can use it to set up networking as well as printer parameters, which eases network installation.

The HL-4000CN is not quiet in use – though you probably wouldn't notice it in an open-plan office – but it's quick. Although we saw less than the stated speeds – about 10ppm single-sided and 7.5 surfaces per minute duplex, these results hold for colour as well as monochrome prints.

The default resolution is 600dpi (dots per inch), but there's a fine mode at 1,200dpi for detailed line-prints or photographs. Print quality is good. Dense crisp blacks in text and line drawings are complemented by vivid colour, which receives a slight gloss finish without looking like a thermal wax print.

Maintenance of the printer is straightforward, with the integrated printhead cartridge lifting out of the top and the four separate toner cartridges hidden under a removable cover further back. The print cartridge should last for 30,000 pages at five percent cover, while each of the toner cartridges can manage 6,000 (the black one goes on to 8,500). This results in running costs of around 1.3p per black page and 5.8p per colour.

Verdict

The HL-4000CN has a lot going for it, being just as capable as a general-purpose, colour office printer as it is for low-level page- and photo-proofing. While some environments will still demand photo-quality proofs, there are others where the colour prints from this laser will be more than adequate. ■

Simon Williams

Brother HL-4000CN

Specifications: normal print res 600dpi; PCL6 and PostScript 3; at 600dpi: up to 16ppm simplex, 10ppm duplex; 192MB RAM; 24bit colour-depth; A4 max paper size; 500-sheet capacity; parallel; USB & network interfaces; TCP/IP; NetBios.

Brother: 0845 606 0626
Website: www.brother.co.uk
Price: £2,042 ex VAT

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Build quality									9	
Features									9	
Value for money								8		