






Top 10 Multifunction devices & Flatbed scanners

		Multifunction devices	Max optical printer resolution	Quoted print speed (pages per minute) Actual print speed	Actual A4 scan speed (seconds)	Scan colour depth	Supported interface types	Dimensions (wxdxh) Weight		Memory card slot	Sheet input capacity (sheets)	Ink costs	Print life pages Costs per page (pence)	Software includes
1		Epson Stylus CX6400 0800 220 546 www.epson.co.uk New	• £179 inc VAT • 1-year repair or replace warranty • First review Mar 04	2,880x720dpi 1,200x2,400dpi	B=22 C=11 B=10.5 C=2.1	100dpi=16.4 300dpi=37.3	48bit	USB 2.0	450x429x218mm 8.7kg	CompactFlash I & II, SmartMedia, Secure Digital, Multimedia Card Memory Stick, xD-Picture	150	B=£16.89 C=£6.75 x 3	B=380 C=250 B=4.4 C= 8.1	ArcSoft Photolmpression, Abbyy FineReader 5.0 Sprint Plus
2		Canon SmartBase MP370 0870 514 3723 www.canon.co.uk New	• £149 inc VAT • 1-year onsite warranty • First review Mar 04	4,800x1,200dpi 1,200x2,400dpi	B=18 C=12 B=9.1 C=2.6	100dpi=19.2 300dpi=33.9	48bit	USB 2.0	454x547x286mm 8.4kg	CompactFlash I & II, SmartMedia, Secure Digital, Multimedia Card Memory Stick, xD-Picture	100	B=£5.70 C=£12.50	B=130 C=160 B=4.4 C=7.8	ArcSoft PhotoStudio, ScanSoft OmniPage
3		Dell All-In-One A940 0870 907 5818 www.dell.co.uk New	• £105 inc VAT • 1-year repair or replace warranty • First review Feb 04	4,800x1,200dpi 600x2,400dpi	B=17 C=12 B=8.5 C=2.5	100dpi=16.2 300dpi=31.2	48bit	USB 1.1	270x546x335mm 6.6kg	none	100	B=£25.52 C=£29.99	not specified not specified	Dell All-in-One software package
4		Lexmark X6170 0870 444 0044 www.lexmark.co.uk New	• £280 inc VAT • 1-year onsite exchange warranty • First review Mar 04	2,400x1,200dpi 1,200x4,800dpi	B=19 C=15 B=9.2 C=3	100dpi=8.8 300dpi=24.4	48bit	USB 1.1	500x439x296mm 9.4kg	none	100	B=£24.53 C=£28.61	B=600 C=450 B=4.1 C=6.4	Lexmark Photo Editor, Abbyy FineReader 5.0 Sprint Plus
5		HP PSC 2510 Photosmart 0845 270 4222 www.hp.com/uk New	• £349 inc VAT • 1-year limited warranty • First review Mar 04	1,200x1,200dpi 1,200x2,400dpi	B=21 C=15 B=8.8 C=3.8	100dpi=17.5 300dpi=21.7	48bit	USB 1.1, ethernet, Wi-Fi	483x390x237mm 8.7kg	CompactFlash I & II, SmartMedia, Secure Digital, Multimedia Card Memory Stick, xD-Picture	150	B=£18.99 C=£29.99	B=450 C=400 B=4.2 C=7.5	HP Utilities (including Director and Photo Gallery), Iris OCR



around £10. We may have awarded the top position to the Epson, but it's only a whisker ahead of the eye-catching Canon. And if strong text is your priority then the MP370 ought to be your first choice.

3 NEW Dell All-In-One A940




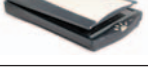
The cheapest MFD in the chart, the A940 offers arguably the best value for money of any of this month's entries. None of the other sub-£250 devices offers fax facilities, for instance, although to use this the A940 must be permanently connected to a PC with a fax modem.

The Dell works best at low resolution printing, where it's competitive on speed and quality. But no matter how far you push the detail settings, don't expect sparkling results. Text output is solid, especially at lower resolutions, but it's the graphics that really show up this model's shortcomings. The dark colour palette leaves it struggling to generate the requisite detail.

Although the A940 is a fast performer, scan results are far from realistic with the lighter and brighter colours particularly glaring. Dell also won't specify how many pages its replacement ink cartridges can print out, so running the A940 could prove expensive.

As a cheap introduction to MFDs, the Dell is a good purchase and at low resolutions performance is more than satisfactory. If you're after rich high-quality results, however, look elsewhere.



		Flatbed scanners	Maximum optical resolution Software interpolated resolution	Max scanning area	Supported interface types	Dimensions (wxdxh) Weight	Colour depth	Transparency adapter		Extras	Supported operating systems	Scanning times (seconds)	Software includes
1		Visioneer OneTouch 9220 USB 01483 445 480 www.visioneer-europe.com New	• £129 inc VAT • 1-year return-to-base warranty • First review Mar 04	2,400x4,800dpi 4,800dpi	A4	USB 2.0	430x300x66mm 2.64kg	48bit	yes	none	98/Me/2000/XP	Colour photo scan 300dpi 9 Colour photo scan 600dpi 12 A4 colour scan 300dpi 15 A4 colour scan 600dpi 25	ArcSoft Photolmpression, ScanSoft PaperPort
2		Epson Perfection 3170 Photo 0800 220 546 www.epson.co.uk New	• £199 inc VAT • 1-year repair or replace warranty • First review Mar 04	3,200x6,400dpi 12,800dpi	A4	USB 2.0	304x476x134mm 3.7kg	48bit	yes	medium film format/ optional ADF	98/Me/2000/XP	Colour photo scan 300dpi 12 Colour photo scan 600dpi 17 A4 colour scan 300dpi 15 A4 colour scan 600dpi 51	Adobe Photoshop Elements, Abbyy FineReader 5.0, Sprint Plus
3		HP Scanjet 4600 0870 547 4747 www.scanjet.hp.com New	• £149 inc VAT • 1-year limited warranty • First review Mar 04	2,400x2,400dpi n/a	A4	USB 1.1	316x423x31mm 1.4kg	48bit	no	none	98/Me/2000/XP	Colour photo scan 300dpi 16 Colour photo scan 600dpi 42 A4 colour scan 300dpi 34 A4 colour scan 600dpi 71	HP Suite, Iris ReadIris Pro
4		Microtek ScanMaker 4900 01327 844 880 www.microtekeurope.com New	• £100 inc VAT • 2-year return-to-base warranty • First review Mar 04	2,400x4,800dpi 65,535dpi	A4	USB 1.1	300x490x61mm 2.6kg	48bit	no	optional transparency adapter	98/Me/2000/XP	Colour photo scan 300dpi 26 Colour photo scan 600dpi 111 A4 colour scan 300dpi 106 A4 colour scan 600dpi 220	Adobe PhotoDeluxe, Abbyy FineReader 5.0, Sprint Plus
5		Mustek Bearpaw 4800TA Pro II 0870 872 7107 www.mustek.com New	• £87 inc VAT • 1-year return-to-base warranty • First review Mar 04	2,400x4,800dpi 19,200dpi	A4	USB 2.0	261x436x74mm 2.4kg	48bit	yes	none	98/Me/2000/XP	Colour photo scan 300dpi 28 Colour photo scan 600dpi 43 A4 colour scan 300dpi 42 A4 colour scan 600dpi 82	Ulead PhotoExpress, Abbyy FineReader 5.0 Sprint Plus

Top 5 Multifunction devices

1 NEW Epson Stylus CX6400

PCADVISOR BEST BUY Essentially an inkjet printer, scanner and copier in one compact unit, the MFD is a surefire winner. And with its fair price tag and enchanting output, the Epson Stylus CX6400 is a fine example of the genre.

It works beautifully even when no PC is connected to it and most functions are easily accessed. The built-in memory card reader allows you to save scanned images or read files from most major formats.

With software optimisation, the Epson supports a print resolution of

5,760dpi (dots per inch). Although it can theoretically produce up to 10.5ppm (pages per minute) of text, for crisp character definition you'll have to drop to just 2.2ppm. This makes the second-placed Canon a better bet for sharp text, but the Epson reigns supreme on graphics, generating ravishing images flush with colour.

The software bundle is good and the Epson's use of separate ink tanks ensures economical running costs. The CX6400 lacks fax facilities but it offers great print quality, and the scanner produces some brilliant results.

2 NEW Canon SmartBase MP370

PCADVISOR RECOMMENDED The Canon SmartBase MP370's black polished exterior makes it stand out from its peers - even if it won't necessarily blend perfectly with the rest of your PC peripherals. And if you want an MFD that works well without needing to switch on the PC, the MP370's uncluttered control panel offers easy access.

Support for the new PictBridge interface means you can directly connect compatible digital cameras and camcorders. And another asset is the built-in memory card reader.

Where the Canon excels, though, is not text definition. It produces dark but beautifully crafted lettering at some fast print speeds. Even at the second highest quality mode it achieves 5.9ppm (pages per minute).

The SmartBase MP370 can't match the Epson's excellent colour palette on graphics, but the results are still pleasing to the eye. Scan facilities are good, beating the Epson for accuracy at 150dpi (dots per inch) and below but falling marginally behind at higher resolutions.

The running costs are slightly lower than on the Epson and even at street prices the MP370 will save you



4 NEW Lexmark X6170

When an MFD has a high price tag, such as the £280 Lexmark X6170, customers have a right to know what they're getting for the extra cash. In the Lexmark's case, standalone fax facilities are one bonus - the machine can distinguish between fax and phone calls, while advanced features include group- and 80 speed-dialling settings. There's also a 50-sheet automatic document feeder for convenient faxing and copying although, with this being

aimed at businesses, no memory card facilities are included.

As a scanner the X6170 works well, producing realistic results in double-quick time. But as a printer the Lexmark is something of an anticlimax. Once you move beyond the most basic detail settings, this MFD fares no better on speed than the Canon or Epson models. The quality of the output is very disappointing and both the Canon and Epson are superior - particularly at graphics.

If good image reproduction isn't important then the fax option might convince businesses to give the X6170 a try. Otherwise, though, we fail to see what makes this worth almost twice the price of the Canon SmartBase MP370.

5 NEW HP PSC 2510 Photosmart

The HP PSC 2510 Photosmart is the MFD for those who need a little of everything. Be prepared to pay for such convenience, however - the £349 price tag could deter many of the home users HP wants to attract. Both memory card features and standalone fax facilities



are built in and the ability to hold 150 sheets of paper, as well as support for ethernet and Wi-Fi networks, give this MFD plenty of clout.

Unfortunately, we were never totally convinced by the HP's performance. Text speeds are average and even at the higher detail levels characters lacked strong definition. While it was the fastest graphics printer, the colour palette is too light to be truly effective. At least the scanning facilities are extremely fast, with the HP generating solid results.

The fax and network connections are good for those who need them but, like the Lexmark X6170, most users will find far more value for money by looking elsewhere.

**Buying advice: multifunction devices**

• **Benefits** An MFD combines the functions of a printer and scanner within one product. It also offers copying, letting you run off multiple copies of an image quickly and easily. You might also get fax facilities, although it's important that you find out exactly what these consist of. Some MFDs need to be connected to a computer with a fax modem when what you really want are fax options that can work without the PC being switched on.

With all of these facilities built in to one machine, MFDs aren't just a great way of cutting down on desk space. The fact that you only need to grasp a single user interface - rather than loading up several programs at once - will increase efficiency. A good MFD should make at least a reasonable job of all of its functions. However, almost all

models will be stronger at some activities than others. If high-quality text is important to you, for instance, then look for an MFD that fares well on text output.

• **Standalone facilities** The best MFDs are designed to work as standalone machines, so you won't necessarily have to switch on your PC to use the MFD. Instead, these models will have an external control panel. You can then use this to change the detail and paper settings, move from scan to print to copy mode and so on. But don't ignore the PC software interface - there's a good chance you'll still want to use this on a regular basis.

• **Memory card slots** You might find it convenient to find a model with a memory card reader. This should be capable of reading all major formats (CompactFlash

I and II, SmartMedia, Multimedia Card, Secure Digital, Memory Stick, xD-Picture), and will allow you to transfer pictures directly to your MFD without having to use the PC.

You may be able to save scanned images directly to the card. Digital camera enthusiasts have the most to gain from a memory card reader, although also look out for standards like PictBridge. These let you connect your digital camera direct to the MFD through a USB cable.

• **Interface** USB 1.1 and 2.0 are the most common interfaces. If you want to use a MFD on a network then it's worth opting for a model with network support - but be prepared to pay for the privilege.

• **Hidden extras** Don't discount running costs. You could find yourself paying dearly in the long run.

Top 5 Flatbed scanners**1 NEW Visioneer OneTouch 9220 USB**

PCADVISOR BEST BUY The OneTouch 9220 has a great range of specifications, super looks, a good software bundle and it also happens to be the fastest scanner we've tested yet.

An optical resolution of 2,400x4,800dpi (dots per inch) with 48bit colour depth offers all you'll need for impressive photo scanning. However, it also comes with a built-in transparency adapter and ScanSoft



PaperPort - the best OCR (optical character recognition) application on the market.

We've previously given negative comments to scanners that were high on quality but low on speed, but we simply can't do that here. Armed with a USB 2.0 interface, the 9220 achieves the fastest results in every test. We scanned a 6.5GB 4,800dpi A4 colour image in under 10 minutes and the results are packed with detail. The OneTouch is also extremely quiet in operation.

Our only minus point concerned the light colouring on photo scanning, although this was nothing that couldn't be rectified with ArcSoft PhotoImpression. There are cheaper scanners available, but the 9220 offers better value for money. An outstanding buy.

2 NEW Epson Perfection 3170 Photo

PCADVISOR RECOMMENDED Our Recommended choice is all about scan versatility and in this respect nothing can beat the Epson Perfection 3170 Photo. It may be the most expensive scanner in our chart but it has the best features and specification bar none.

You'll need plenty of desk space to squeeze the Perfection on to but it's worth it because you'll be rewarded with a scanner that can handle almost every type of media. The built-in adapter even supports medium-film format - a first in our charts. Photo enthusiasts will appreciate the 3170's flexibility and be impressed that it can scan photo images with extremely high detail.

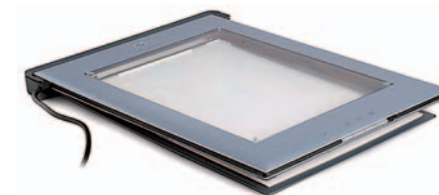


The USB 2.0 interface powers the 3170 to the second fastest times overall. But although the 48bit colour depth and 3,200x6,400dpi (dots per inch) optical resolution produce the sharpest scans, the colours are dull and lack the vivacity of other models. For such a fully functional scanner, Epson's home-grown Scan Manager front-end is also a letdown. Fortunately, Twain compliance with Adobe Photoshop Elements offers a wider range of manual scanning configurations, so you should be able to tweak the images to your satisfaction. Overall this is an extremely versatile and powerful scanner.

3 NEW HP Scanjet 4600

On raw specs and price alone, the Scanjet 4600 isn't a top three scanner. But look past the figures and concentrate on its exceptional performance and innovative design and you'll see why the 4600 punches well above its weight.

The 1.4kg see through Scanjet is designed to be picked up and placed on top of whatever it is that you wish to scan. Obviously it has to remain tethered to the PC, but you can lift it to scan vertical surfaces. And because images are scanned face-up, it's much easier to correctly align documents, photos, magazines or pictures.



While the 2,400x2,400dpi (dots per inch) optical resolution is lower than that of most of the chart entries, we have nothing but praise for the colour accuracy on the 4600.

The only letdown is HP's software bundle. Designed with the novice in mind, it's very limited compared with the competition.

4 NEW Microtek ScanMaker 4900

The ScanMaker 4900 is quite a mixed bag. On the one hand, it is reasonably priced, comes with decent specs and is the only entry to be backed by a two-year warranty. On the other, in most of our scan tests it

proved to be the slowest model and, while scanning colour images, it took nearly all the life out of the source material. The image detail is fine, it's just the pictures look as though they've been scanned on a dull rainy day.

Fortunately the 4900 is bundled with good software and Microtek's own Scan Wizard is a comprehensive utility, offering a range of tweaks.

To be fair, the 4900 excels at scanning A4 magazines and even the Visioneer couldn't capture the images as well. If you're only scanning mags and want a well-insured model, the 4900 is still a viable option.

**5 NEW Mustek Bearpaw 4800TA Pro II**

On paper the Bearpaw's impressive list of specs make it appear to offer the best value for money. You don't expect to see 48bit colour depth, USB 2.0 support or a 2,400x4,800dpi (dots per inch) optical resolution on a sub-£100 model - let alone a built-in transparency adapter.

We were equally impressed with the extensive but user-friendly Bearpaw front-end and there's also Twain support for scanning directly into Ulead PhotoExpress.

So why didn't the Bearpaw get a better placing? Competition was particularly strong this month and whatever we did to the scanned jobs we couldn't get rid of the unnatural colour scheme.

Colour photos are oversaturated with false hues and this deprives the scans of detail. As a first-time buyer you could do much worse than opt for the Bearpaw, but there are higher quality scanners available.

