

Buying advice: scanners

Whether you're after a value-for-money device that won't burn a hole in your pocket or an expensive professional model for the office, our comprehensive scanners buying advice will ensure that you get the right features at the right price

As scanners have become more affordable, the latest models are almost as commonplace as printers or modems. Due to their growing popularity, there is a wide range of scanners available, meaning it's harder to pick the right model for your needs. While you can spend thousands of pounds on a professional scanner, home and small business users need not shell out more than £200 – and you can even pick up a bargain unit for around £50.

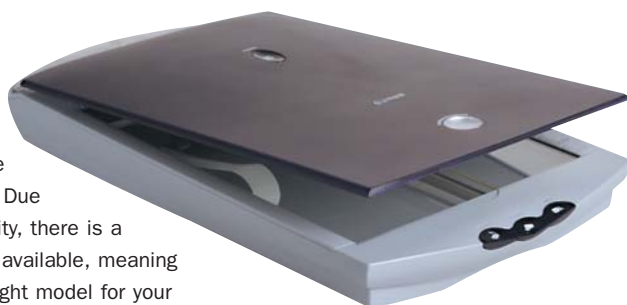
Scanner type

The scanner market is much simpler now than it has been in previous years, as virtually all models are flatbed. Flatbeds gobble desk space but boast a large scanning area (usually A4 size). On some models you can also unclip the lid to scan 3D objects, such as books.

Interface

USB (universal serial bus) has pretty much become the de facto standard for connecting scanners. If you have a modern PC it will undoubtedly have USB ports but, if you are in doubt, consult your manual or check with your PC's manufacturer. You also need to check what operating system you have, as you have to be running Windows 98, Me, 2000 or XP to use USB out of the box.

USB may be convenient and capable of a reasonable turn of speed



← Our Best Buy scanner, the Canon D1250U2, offers a generous software package and also uses the faster interface technology, USB 2.0

graphics work. Indeed, most users will find 300 or 600dpi more than ample. The higher the resolution, the more disk space will be taken up by the final image – images scanned at 1,200x2,400dpi will take longer to manipulate than ones scanned at just 300dpi.

Colour depth

Another feature to look at is colour depth. This indicates the number of distinct colours that can be displayed: the higher the number of bits, the more colours your scanner will be able to represent. A 24bit colour depth will result in 16.7 million colours and 42bit a massive three trillion colours.

Once we get into billions of colours, it's virtually impossible for the human eye to distinguish between shades, but to be on the safe side you shouldn't settle for less than 42bit colour.

Software

A generous software bundle should be included. The very best you can expect to get for image manipulation is Adobe Photoshop Elements, a cut-down version of the full package aimed at the novice user. OCR (optical character recognition) applications 'read' printed text into the PC. Good options to look for are TextBridge or OmniPage. ■

↓ If you're short on desk space then the Umax Astra's stand will prove invaluable as it lets you store the scanner vertically

but its bigger sibling, USB 2.0, offers a healthy 480Mbps (megabits per second) bandwidth – 40 times greater than USB 1.1. You'll probably need an additional card to take advantage, as only the newest PCs come with it as standard. However, you might find one bundled with a USB 2.0 scanner.

FireWire (or IEEE 1394) is another fast alternative, offering 400Mbps, but again you'll probably need an extra card to use the interface.

Resolution

It's important to check what's inside the scanner as well as what's outside. In theory, strong resolution support is vital, as higher resolutions use more pixels to produce a greater level of detail. Take interpolated resolutions with a pinch of salt, though, and concentrate on the optical resolution instead.

Optical resolution is a measure of what a scanner's hardware can achieve; 600x1,200dpi (dots per inch) is widely available, although some high-performance scanners boast resolutions in excess of 1,200x2,400dpi. The interpolated resolution will be much higher – typically 9,600dpi – but such scans are produced by using software which adds more dots by predicting colours in the image, and the results can range dramatically in quality.

In truth, there's no point in using a resolution like 9,600dpi – 600 and 1,200dpi optical resolutions will be more than enough for demanding



↑ The Trust Direct Webscan uses the USB 1.1 interface, although faster USB 2.0 is available on some models

