

## Peripherals

### ***What they are and what they can do***

Devices that are connected to a PC for putting information in, or extracting information, are generally referred to as “peripherals”. The main ones to be considered are printers, scanners and cameras.

### **Printers**

A good printer attached to a PC can considerably increase the flexibility in the way that SMEs work. Since it is possible to print high-quality material direct from a PC, you can customise what is being produced for each situation or customer, rather than having to have material pre-printed in large quantities.

Examples of the material that can be produced are business cards, headed paper, brochures, price lists etc. It is still generally more cost effective to pre-print material that does not change often but this can then be updated with inserts printed in your office to give, for example, special offers.

There are two main types of printer – laser printers and inkjet printers.

Laser printers are generally used for producing black-and-white text documents, or documents with simple black-and-white illustrations. They can produce large numbers of copies quickly, at about the same speed as a photocopier and relatively cheaply. You can buy a basic laser printer for around €200 but expect to pay closer to €1,000 for one that prints at a fast speed such as 24 pages per minute. Colour laser printers are available but

are more expensive from about €800) and do not generally produce such high quality as ink-jet printers. However, if you need to produce a lot of colour documents, the lower running cost and higher speed of a colour laser printer may compensate for these disadvantages.

Ink-jet printers are best suited to producing high-quality colour documents or short text documents (e.g. up to 30 pages). They are generally slower than laser printers but can produce photographic quality colour printing. They are also inexpensive, e.g. from about €90 up, although replacement ink cartridges can be remarkably expensive – up to €50 for a cartridge that will print between 500 and 1000 pages.



*Ink-jet printer*



*Laser printer*

### **Key messages for SMEs**

- A wise choice of peripherals can make it easy for you to keep text and images from many sources on your PC.
- A good printer can give you the means to produce customised, high quality printed material at very short notice.

### **Scanners**

Scanners are much less common than printers, but can be a useful tool in improving flexibility. As the name suggests, a scanner will scan a page into a PC as either a graphic file (i.e. a picture of the page) or as a text file (by using software that can recognise the words in the document). Using a scanner to create a graphic file makes it much easier to add illustrations that are based on printed material into a document that is being produced on the PC. Since scanners can also scan small objects, it is also possible to use one as a simple camera for illustrating documents. Using a scanner with word recognition software makes it easy to add text from already printed material (e.g. from archives) into a document. The software is normally called OCR or “optical character recognition” software.

Scanners suitable for normal office use cost from about €100 up and will usually be supplied with basic image editing and OCR software.

The scanner described above is known as a flatbed scanner. For inputting images from photographic film a specialised film scanner is better suited to the task. This can be useful for companies that need to illustrate a lot of material with photographic images, such as estate agents selling houses, but they are more expensive (upwards of €200) than flat bed scanners.



*Flatbed scanner*

## Cameras

Cameras have, until the last few years, always recorded the pictures on film. These could then be scanned into a PC via a film scanner if that was needed. However, cameras that record the images directly onto a digital medium (generally a memory card such as a Compact Flash card) are now becoming affordable and offer picture quality close to that of 35mm film. The images can be downloaded directly from the memory card into a PC and then used in whatever applications you want. It is impossible to suggest typical prices for digital cameras because the technology is evolving very rapidly. You could expect to pay half as much today as you would have done two years ago for a particular camera. Alternatively you could pay the same price and buy a camera with twice the resolution and storage capacity.

It is also possible to connect a cheap and simple TV camera (less than €100) to a PC and turn it into a video conferencing terminal. However you also need a good high-speed connection for effective video conferencing. You could also use the camera to record and edit short video clips on the PC, which could be used on your website<sup>1</sup> or included on a promotional CD-ROM. You can also now buy a digital camcorder for as little as €1,000 that will record near broadcast quality images.

## Multi-function devices

A number of manufacturers produce devices that combine printer, copier, scanner and fax machine all in one. Where space is limited, these can be useful but the major disadvantage is that, if they go wrong, then you lose the printer, copier scanner and fax rather than just one of them.



*Multi-function device*

### **Advantages and Disadvantages**

Laser printers are good for rapidly producing text-based material and simple graphics. Inkjet printers are good for small offices (especially home offices) and for producing high quality colour material.

Scanners are a good way to introduce illustrations or text from printed sources into documents or databases on a PC.

Digital cameras are useful for taking pictures and putting them straight on to a PC. The current cost of the memory cards compared to film does not make them viable for taking a lot of pictures at one time when away from base unless you have a laptop PC with you that they can be transferred to.

Multifunction devices save space but can also cause everything to fail at once.

### **What to buy**

Before buying a peripheral, read the PC magazines that are available in your country for reviews of what is available. Many of these also have websites that contain archives of earlier reviews. Two useful English language sites are <http://www.pcpro.co.uk> and <http://www.zdnet.com>. You could also look at the FlexWork briefing on 'Equipment reviews'.

Prices for peripherals vary considerably, depending on what features they offer and the quality of the build. Typical prices, before tax, are:

Laser printers – from €200 to €10000 (the higher price printer is a high-speed, colour printer)

Ink-jet printers – from €90 to €6000 (the higher price printer is a high-speed, networked printer)

Flatbed scanners – from €80 to €4000

Film scanners – from €200 to €2500

Digital cameras – from €120 to €8000

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<sup>1</sup> Bear in mind that video clips with images of acceptable quality are very large files. If you offer visitors to your website the opportunity to download such clips you should tell them the size of the files.

Multifunction devices – from €200 to €1000

### **Questions to ask suppliers**

As you will have seen, the prices for peripherals vary considerably – by a factor of more than 50 in some cases. In general, the more you pay the more features you get, and you need to decide whether you need these features for the day to day running of your business. Important questions to ask for all products include:

- Do you offer an installation and maintenance service?
- What instruction manuals and training materials are provided?
- Is there a helpline for answering technical problems?

For printers:

- How many pages a minute can it print in colour and in black and white?
- What is the resolution?
- What size(s) of paper can it handle and can it handle several sizes of paper (e.g. A4 and envelopes) simultaneously?
- Can it print double-sided?
- What are the running costs per page (ink, toner, special paper etc)?

For scanners:

- How many pages a minute can it scan?
- What is the maximum resolution?
- What is the maximum size of page that it can scan?
- What image editing or OCR software is included in the price?

For still digital cameras:

- What is the maximum resolution?
- How many pictures can it store at this resolution?
- How much is a spare memory card?
- What image transfer and photo editing software is included in the price?