



Intermediate: Digital Photography: Hardware

Introduction to Digital Photography

The interest in digital photography has exploded in recent years as both the hardware and software have become cheaper to purchase and easier to access - there are now digital cameras, digital imaging software, printers, scanners, memory cards and many other accessories.

Before you purchase any photographic or computer equipment, you should do some research. If you are fairly experienced this might just be making sure you get the best deal for your money. If you are less experienced you may find the information here of use. We are unable to recommend specific brands or products but can point you to websites that provide overviews.

Once you have your photographs in a digital format you can create a wide variety of print or web projects such as:

- Borders and backgrounds
- Greeting cards, invitations or place cards
- Holiday albums or scrapbooks
- Family portraits, family trees, photo stories
- Calendars, personal stationery

Digital Cameras

How many megapixels (MP)?

All digital images are made up of individual picture elements called pixels. The higher the number of pixels, the better the image quality. Currently, megapixel values range from 1MP to 8 MP. Generally 1MP is adequate if your images will only be viewed on a computer and not printed. If you want to make photo-quality prints then you need to look for a camera with at least 3MP. Remember the larger the prints you want the higher the number of pixels needed for good image quality.

Lens quality

Check the lens accuracy of most camera models on the website:
www.dpreview.com

How powerful is the optical zoom?

Most compact cameras have a 3X or 4X zoom, which is adequate for most situations. Ignore the digital zoom figure as photos taken using the digital zoom will be of poor quality.

Memory Cards

Normally a memory card will be supplied with your camera but this will have a small capacity (8 or 16MB) and you won't be able to store many images on it. Ideally you need to purchase a second card with a much larger capacity - we would suggest 256MB or 512MB.

NB: photos taken with a 6MP image quality equate to roughly 1600KB in their jpeg format. So on a 256MB memory card you would be able to store approx 160 photos of this size.

Images are usually transferred from the camera to the computer via a USB cable. A popular alternative method is to connect a card reader to the PC via USB, removing your memory card from the camera and feeding it into the card reader slot. Either method will allow you to then copy the images from the card / camera across to your computer.

Scanners

If you intend to scan photographs, you will need a flatbed scanner that has a minimum resolution of 1200dpi (dots per inch). Ignore any figures quoting interpolated resolution which is what the scanner will guess at rather than actually scan.

If you want to scan transparencies or colour negatives there are two options:

- A slide converter that fits over the lid of a flatbed scanner
- A dedicated film scanner

NB: ensure the resolution is at least 1200dpi for a film scanner.

The amount of colour a scanner can interpret is known as the 'bit depth'. For flatbed scanners, 24-bits is sufficient, but if you are scanning film, 36-bit is preferable.