

Debugging. Correcting the errors (bugs) in a program or in the computer itself.

Decimal notation. The familiar number system with base 10, using the digits 0 to 9, representing numbers of units, tens, hundreds, thousands and so on.

Diagnostic. A message automatically produced by a computer to indicate and identify an error in a program.

Digital. Describes the expression of a changing quantity in terms of discrete steps rather than by a continuous process (contrast with *Analogue*).

Digitiser. See *Graphics tablet*.

Disk. A flat, circular piece of plastic coated on one or both sides with a magnetisable surface and used as a medium for storing data. The disk is housed at all times in a square protective envelope or plastic box. See *Floppy disk* and *Winchester*.

Disk drive. The unit that records information on the magnetisable surface of a spinning disk and 'reads' (recovers) information recorded on it.

Documentation. The manuals that are supplied with computers or software to explain how they are operated.

Download. The transfer of information from one computer to another.

DOS. Disk Operating System. The software that controls all the operations of a disk drive.

Dot matrix. A rectangular array of dots, commonly eight rows of eight dots, on which a character can be displayed by the selection of certain of the dots.

E

Editing. Correcting or making changes to data, a program or text.

EPROM. Erasable Programmable Read-Only Memory. Similar to the PROM, except that the memory contained in the chip can be erased using ultra-violet light and new programming recorded.

Expert system. A system that stores facts about a particular subject according to the rules laid down by human experts. The system is capable of answering

questions on its subject to the level of human expertise.

Expression. A simple or complex formula used within a program to perform a calculation on some data.

F

Fifth generation computers. The next *Computer generation*. These machines will use Very Large Scale Integration (VLSI) circuits and will be much easier to operate than present day computers. They will provide input devices less cumbersome and more direct than the keyboard (for example some will be able to recognise speech), and run software that incorporates developments from artificial intelligence. See *LSI*.

File. A collection of information stored outside the computer on cassette or disk.

Firmware. Software stored on a chip; for example, a program stored in ROM.

Fixed-point number. A number represented, manipulated and stored with the radix point in a specified, consistent position. (The radix point or 'decimal point', separates the digits that represent a whole number (integer) from those representing a fraction.)

Floating-point number. A number represented, manipulated and stored with a movable radix point (see *Fixed-point number*). The method is particularly useful when dealing with large numbers.

Floppy disk. A flexible *Disk*, usually 5¼ inches in diameter, that is used to store computer data in recorded magnetic form. Housed inside a protective square envelope, it offers less storage and is less reliable than the more expensive *Winchester* (hard) disk.

Flowchart. A diagram representing the steps of a computer program and thus the progress of a sequence of events.

Forth. A programming language intermediate between a *High-level language* and *Machine code*. By comparison with BASIC it is difficult to learn, but programs run much faster.

G

Gate. One of the most elementary building blocks from which computers are constructed. The gate performs a single logical operation on several inputs to produce one output. For example, it may give an output when, and only when, all the inputs are activated; or it may do so when,

and only when, none of them is activated.

Graphics. The generation and display of pictures and images by a computer. The images are usually displayed on the computer's screen, although a permanent 'hard' copy can be obtained by using a special graphic printer attached to the computer.

Graphics character. A shape or pattern specially designed to be useful in creating images. Some computers provide them, and on others they can be created.

Graphics mode. The mode to which some computers must be set to display graphics (rather than text). When there is more than one graphics mode available, they will offer varying degrees of picture clarity.

Graphics tablet. Also known as a Digitiser. A device with which pictures can be turned into a sequence of digits and put into a computer.

H

Handshaking. A sequence of electronic signals which allows and synchronises the exchange of data between a computer and a peripheral, or between two computers.



Floppy disks are flexible, and for protection are housed in a square-shaped envelope.