

TERMINOLOGY

Computer – may refer to the machine itself without the other bits and pieces like the monitor, mouse and keyboard, or it may mean the complete system.

Case type – refers to a case form. A desktop case is usually a full tower or a mid tower (about 2/3rds the height of a full tower) that may be on the floor or the desktop.

Motherboard or Mainboard – a circuit board containing provision to plug in a Central Processing Unit (CPU), Random Access Memory (RAM) and expansion cards like a sound or video card. Motherboards vary in technology and price depending on the class of machine they are intended for. The name originates from the feature of being able to plug expansion cards into the mainboard.

Hard Disk Drive (HDD) – has a number of spinning platters coated in iron oxide into which tracks are formed electronically. Data is written to the disk by means of electronically controlled read/write heads. This is a storage device, connected to the mainboard, and holds typically 120 Gigabytes (Gb) and upwards of data. This is storage - not memory.

Solid State Drives (SSD) – consisting of a control circuit board and memory it has no moving parts. Too expensive yet for the consumer market and the capacity doesn't match that of HDD's.

External Hard Drive – these drive types provide the means of additional storage space for data (see Data on page 7). They are a standard internal hard drive housed in a case and come in two sizes – 2 ½ inch and 3 ½ inch in varying capacities.

USB Flash Drive – referred to also as a thumb drive or memory stick these solid state drives provide the means of easy transfer of data from one computer to another. They don't have the capacity advantage of an external hard drive.

Boot Order – PC's previously came with a floppy disc drive and was usually set in the BIOS to first look for a boot record there, then looks at the first hard drive. Current machines on boot up and also in a recovery situation can be set to boot from the optical drive, be it a CD or DVD drive. This setting can be altered in the basic input output system (BIOS) reached by pressing the F2 or Delete key on boot up.

CD – DVD Discs - CD means compact disc and DVD means digital versatile disc. Both come in two types – R for read only meaning it can only be written to once, and RW meaning it can be erased or written to at will.

The media capacity for a CD is 800Mb for a blank disc, but the usable capacity is less than that depending on what it is being used for - read only, write once or rewrite.

The DVD-R media has a blank disc capacity of 4.7Gb, while the blank disc dual layer type capacity is 8.5Gb. The RW type is 4.7Gb.

Blu-ray Disc - (official abbreviation BD) is an optical disc storage medium designed to supersede the DVD format. The standard physical medium is a 12 cm plastic optical disc, the same size as DVDs and CDs. Blu-ray Discs contain 25 GB per layer, with dual layer discs (50 GB) the norm for feature-length video discs and additional layers possible in the future. A Blu-ray drive is required to play these.

The formats are similar to CD/DVD in that discs are available as BD-R meaning write to once only, and BD-RE meaning re-writable.

Compact Disk Drive (CD) Drive – these are optical drives and come in various types. A CD ROM (read only memory) drive or CD Reader is the same thing and will only read a CD. A CD-RW will read a CD and can rewrite a CD if that particular media is being used. These are only seen on older computers.

Digital Versatile Disc (DVD) Drive – similar to the CD drive in capabilities these can read or write to a CD as well as a DVD. The optical drive type fitted to new computers.

Central Processing Unit (CPU) – a silicon chip that processes data from input devices like a keyboard or mouse, via a modem or data already contained on the hard drive. The speed of a CPU is measured in megahertz (MHz) and is expressed by a number – the higher the number the faster the CPU. The CPU is also referred to by a type e.g. Intel produce the Pentium range and AMD produce the Athlon equivalent. A CPU may be referred to as a P IV 3.2 Ghz, which means a Pentium, 4th generation running at 3.2 Gigahertz.

Video Card or Adaptor – a circuit card that processes the data required to be displayed on the monitor and generally contains its own Central Processing Unit (CPU) and memory. Popular games require powerful video cards.

Modem – a device that enables data or voice transmissions to an ISP's server via the phone or wireless network. May be an internal type (dial up connection) that plugs into the mainboard or an external ADSL type plugging into a USB or Ethernet port. An ADSL type may also be integral with a router.

Router – as for a modem. Provides a central link for a number of cable or wireless networked computers.

Boot Up – when a computer is switched on a built in programme called the BIOS (Basic Input/Output System) performs a number of system checks then loads the operating system.

Random access memory (RAM) - A plug in hardware module containing memory chips. Available in blocks of 256 and 512 Mb, and larger capacities of 1 and 2Gb. Generally home PC's are generally supplied with 4Gb if running Windows 7, though it will run happily on 2 Gb. Graphics intensive work or video editing may require more, in which case a 64 bit version of the operating system that can address much larger amounts of RAM may be chosen.

Peripherals – means all other devices including printers, monitors, mice, modems, scanner or external drives that plug into the computer.

Monitor – the screen that displays your work. The standard screen size now is 17in, which is

measured diagonally.

Printer – the ribbon types are extinct now except in point of sale type printers. The common types are inkjet or laser types varying in price to suit home or office use.

Mouse – a hand held pointing device that enables screen objects to be activated. This, along with the keyboard, is an input device. Some mice use radio technology and do not have a cord.

Mouse Clicking – because Windows has a graphical interface the easiest way to get around is to place the mouse pointer over something and click with the left or right key.

Mouse Left Key or Right Key Press & Hold – the mouse key is pressed and held down, usually for dragging and dropping and also a way of highlighting a sentence

Keyboard – a development of the typewriter keys this typically contains 104 keys including numerical and alphabetical, function keys identified as F1 through F12 and various other function keys. Some keyboards use radio technology and do not have a cord.

Scanner – a device for taking an image of text or a graphic. Software can then be used to edit the image.

Operating System – a programme that provides functionality for the computer without which you would not be able to run other programmes, print work or do any sort of task.

While Windows is the most often used operating system for home computers there are many others designed for home and business situations, and more specialized requirement.

Desktop - the area of the screen, and its content, when Windows loads and is running.

Desktop Icons – shortcuts to open programmes. Some are system like the Recycle Bin and others are either created by a programme's install routine or copied from the Start menu by a user.

Universal Serial Bus (USB) – a high-speed port for plugging in compatible (USB) devices. Current computers usually come with six to eight ports conforming to the USB 2.0 standard that is generally backwards compatible with USB 1.0 devices.

Data – when referred to in the context of measurement, the smallest measure is a bit. One character, numerical or alphabetical, is 8 bits and is called a byte. A byte can be expanded to a kilobyte (Kb) and there are 1024 bytes in a kilobyte, not 1000. A megabyte (Mb) is a kilobyte times 1024 and a Gigabyte (Gb) is a megabyte times 1024. This is relevant when comparing storage device capacities however hard drive manufactures use “weasel” capacities based on 1000 and not 1024.

Boot Disc (CD) – A boot disc allows the computer to be started when the operating system has suffered an unrecoverable crash and cannot be accessed. Specialized boot CD's are available or can be made from downloaded files. A limited capability boot CD can be made for a given computer by the operating system. Some computer assemblers provide the information need to make a “recovery set” of CD's.

Application – programmes are often called that, except the operating systems.

Icons - a small image representing a programme, programme group or a file.

File - system files are functional data segments belonging to a programme. A data file may be one created by the user e.g. a letter. A graphic or a sound may be created and saved, in which case it is a file.

File Names – All files have a name followed by a full stop, then a 3-character extension. Windows can assign file names up to 255 characters including the file extension of 3 characters. A Word document may be <filename>.doc (Word versions up to and including Word 2003) or docx in Word 2007/2010, where filename is the name of the file assigned by the user. The 3-character extension follows a full stop and denotes what type of file it is e.g. txt is a plain text document that can be read in any text editor while .xls or .xlsx in Excel 2007, is an Excel document and can only be read in Excel or Open Office Calc. Keep file names as short as possible while still making sense. Two and more words with breaks between are accepted in file names but not in extensions. The application that produces the document assigns the extension.

Pop Up Menu – a small window containing a number of options relative to something you are doing.

Scroll – may refer to the vertical or horizontal bar use to move a page up, down or across the screen or to the action of using the bars

Virtual Memory – dedicated hard drive space that Windows uses when short of RAM to swap data in and out as needed. This is not RAM.

Asymmetrical Digital Subscriber Line (ADSL) – a mainstream Internet connection type used by most used by consumers. Theoretical download speeds of up to 24 Mbps (megabits) on ADSL2+ are possible but Net congestion and line factors place downgrading limits on that. The average connection speed is 1500Kb per sec (kilobits).

BIOS – a chip on the mainboard containing the computer's hardware information and basic settings for boot up.

Malicious Software – the industry term for computer virus' and spyware.