

A glossary of computer terminology

Application (sometimes shortened to 'app')

Computer software, also known as a 'program' or 'app' that performs a task or set of tasks, such as word processing or drawing. Applications, apps or programs can be thought of as electronic 'tools' for doing electronic jobs. For example, if you want to write a book, you will need a 'word-processing' program – a program that allows your computer to be used like a typewriter (and filing system).

Bandwidth

The capacity of a networked connection. Bandwidth determines how much data can be sent along the networked wires. Bandwidth is particularly important for an Internet connection, since greater bandwidth also means faster downloads. Think of bandwidth as being similar to measuring the capacity of a pipe to deliver water to a tap. A 'fat' pipe can carry more water to a tap than a 'thin' pipe. Similarly, a high-bandwidth connection can deliver more information at a faster rate to a computer. Bandwidth is measured in Megabits per second (Mbps). A slow connection might be around 2 or 3 Mbps whilst a fast connection will be more like 50 or 70 Mbps. Domestic broadband connections vary in speed depending upon a number of factors such as, in some circumstances, your geographical location (in relation to the telephone exchange) as well as what type of connection you have and what package you've signed up for with your ISP.

Binary code

The most basic language a computer understands, it is composed of a series of 0s and 1s. The computer interprets the code to form numbers, letters, punctuation marks, symbols, pictures, videos, sounds and computer programs themselves!

Bits, Bytes, Kilobytes (Kb), Megabytes (Mb), Gigabytes (Gb) and Terabytes (Tb)

All of these terms refer to the size of a file or the capacity of a storage device.

A bit is the 'atom' of computer information and is the smallest single piece of information, either the number 0 or 1. In short they are called binary digits, or bits for short.

A byte is a collection of 8 bits.

A Kilobyte is 1024 Bytes.

A Megabyte is 1024 Kilobytes.

A Gigabyte is 1024 Megabytes.

A Terabyte is 1024 Gigabytes.

Why 1024? It seems like a random number! But there is logic behind this. Computers work on the binary system – I.E. they count in 'base 2' unlike humans, who count in 'base 10'. 1024 is 2 raised to the power 10 – I.E $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 = 1024!$

When we see '10' we humans know it means 'Ten'! the '1' represents one bundle of ten and the '0' means 'none left over – no 'units'.

But in binary notation, '10' means one bundle of 2 and no units – or 'two' as we humans think of it.

There's a famous 'techy' joke about this: There are only 10 types of people in the world – those who understand binary and those who don't!

Do you get it?

Boot

To start up a computer. Cold boot means restarting computer after the power is turned off. Warm boot means restarting computer without turning off the power.

Browser

A software program used to navigate the World Wide Web. Google Chrome, Mozilla Firefox, and Microsoft Edge are today's most popular browsers for accessing the World Wide Web.

Bug

A malfunction due to an error in the program or a defect in the equipment.

Byte

See 'Bits'

Cache

A small data-memory storage area that a computer can use to instantly re-access data instead of re-reading the data from the original source, such as a hard drive or website. Browsers use a cache to store web pages so that the user may view them again without reconnecting to the Web.

CD-ROM

Compact Disc Read-Only Memory, an optically read disc designed to hold information such as music, reference materials, or computer software. A single CD-ROM can hold around 640 megabytes of data, enough for several encyclopaedias. Software programs are sometimes made available delivered on CD-ROMs though increasingly, programs can be downloaded from the Internet.

Chat

Typing text into a message box on a screen to engage in dialogue with one or more people via the Internet or other network.

Chip

A tiny wafer of silicon containing miniature electric circuits that can store millions of bits of information.

Click (see also right click and double click)

Pressing and releasing the left mouse button to initiate an action or computer command.

Cookie

A text file sent by a Web server that is stored on the hard drive of a computer and relays back to the Web server information about the user, his or her computer, and/or his or her computer activities and preferences. Cookies are a normal part of using the Internet and, generally, are not a cause for concern!

CPU

Central Processing Unit. The brain of the computer. Also called the 'processor'.

Cracker

A person who breaks in to a computer through a network, without authorization and with mischievous or destructive intent.

Crash

A hardware or software problem that causes information to be lost or the computer to malfunction. All computers crash occasionally but it is rare for a crash to cause serious problems.

Cursor

A moving position-indicator displayed on a computer monitor that shows a computer operator where the next action or operation will take place.

Cyberspace

Slang for internet i.e. An international conglomeration of interconnected computer networks. Begun in the late 1960s, it was developed in the 1970s to allow government and university researchers to share information. The Internet is not controlled by any single group or organization. Its original focus was research and communications, but it continues to expand, offering a wide array of resources for business and home users.

Database

A collection of similar information stored in a file, such as a database of addresses.

Debug

Slang. To find and correct equipment defects or program malfunctions.

Default

The pre-defined configuration of a system or application. In most programs, the defaults can be changed to reflect personal preferences. Essentially, default means how a program will work unless the user changes the settings.

Desktop

The first screen displayed on a computer once it has started up. It is where you begin and end your computing session

Desktop publishing (DTP)

The production of publication-quality documents using a personal computer in combination with text, graphics, and page layout programs.

Directory (also referred to as a 'folder')

A repository where all files are kept on a computer.

Disk (also referred to as a hard disk or hard drive)

A hard disc stores vast amounts of data. It is usually inside the computer but can be a separate peripheral on the outside. Hard disks are made up of several rigid coated metal discs. Hard disks in modern laptops vary in size from 80 Gigabytes (Gb) and upwards.

A new type of storage device, known as an SSD – Solid State Drive – is gradually replacing hard disks in computers. An SSD is better than a traditional hard drive because it has no moving parts and so is likely to be more durable. It's also faster than a standard hard disk.

'Floppy discs', popular to store information until a few years ago, are no longer used.

Flash Drives, more commonly known as 'memory sticks' are really portable SSDs!

Disk drive

The equipment that you load a CD or DVD into to play it.

Domain

Domains can be thought of as 'electronic places'. For example the BBC has a domain – it is called 'bbc.co.uk'

Download

When you copy information that is located on another computer to your own computer, you are 'downloading' it.

DOS

Disk Operating System. An older operating system designed for early computers. DOS was followed by other more easy to use operating systems such as Microsoft Windows.

Double click

Pressing the left mouse button twice, in quick succession. This is to initiate an action represented by an icon.

Drop-down menu

A menu window that opens vertically on-screen to display context-related options. Also called pop-up menu or pull-down menu.

DSL

Digital Subscriber Line and ADSL (a type of DSL) is more commonly referred to as 'broadband', a fast connection to the Internet, using your landline.

DVD

Digital Video Disc. Similar to a CD-ROM, it stores and plays both audio and video.

E-book reader (For example, a 'Kindle')

An electronic (usually hand-held) reading device that allows a person to view digitally stored reading materials.

Email

Electronic mail; messages, including memos or letters, sent electronically between networked computers that may be across the office or around the world.

Emoticon (sometimes called a 'smiley')

A text-based expression of emotion created that mimics a facial expression. Here are a couple of examples:

Smiling :)

Frowning :(

Emoji

A small digital image or icon used to express an idea or emotion in electronic communication. Similar to an emoticon but more detailed and often in colour.

Encryption

The process of transmitting scrambled data so that only authorized recipients can unscramble it. For instance, encryption is used to scramble credit card information when purchases are made over the Internet.

Ethernet

A type of network, using wires.

File

A set of data or information that is stored in the computer.

Firewall

A set of security programs that protect a computer from outside interference or access via the Internet.

Folder

An electronic 'container' for storing electronic files and other folders. In some operating systems, it is called a directory.

Fonts

Sets of typefaces (or characters) that come in different styles and sizes. Similar to a 'typeface'.

Freeware

Software programs created by people who are willing to give it away for the satisfaction of sharing or knowing they helped to simplify other people's lives. It may be free-standing software, or it may add functionality to existing software.

Full screen

See 'Maximise'

Gigabyte

See 'Bits'

GUI

Graphical User Interface. A system that simplifies selecting computer commands by enabling the user to point to symbols or illustrations (called icons) on the computer screen with a mouse. Windows is the best known GUI.

Hacker

A person with technical expertise who experiments with computer systems to determine how to develop additional features. Hackers are occasionally requested by system administrators to try and break into systems via a network to test security. The term hacker is sometimes incorrectly used interchangeably with cracker. A hacker is called a white hat and a cracker a black hat – essentially the good guys and the bad guys!

Hard copy

A paper printout of what you have prepared on the computer.

Hard drive

Another name for the hard disc that stores information in a computer.

Hardware

The physical and mechanical components of a computer system, such as the electronic circuitry, chips, monitor, disks, disk drives, keyboard, router and printer.

Home page

The main or 'front' page of a Web site used to greet visitors, provide information about the site, or to direct the viewer to other pages on the site.

HTML

Hypertext Markup Language. HTML is the computer coding that is used to create websites.

HTTP

Hypertext Transfer Protocol. The set of rules – also known as protocols - that allow the World Wide Web to operate as it does. Many website addresses begin with 'http'. For example, the address of the BBC website is generally thought to be 'www.bbc.co.uk'. However part of the address is hidden – the 'http' bit! The full address of the BBC website is <http://www.bbc.co.uk>. The web browser assumes the http part so that you don't have to type it in. Websites that don't begin with http begin instead with https – see below.

HTTPS

HTTPS is short for 'Hypertext Transfer Protocol Secure'. These websites are 'secure'. This means that any information you type in or information that the site sends to your computer is 'encrypted' (scrambled) so that it can't be read or intercepted by a third party.

Banking, shopping and email sites are generally encrypted. You should definitely NOT type any sensitive information (such as credit card details) into a webpage unless it's secure. There is normally a padlock symbol on the left of the address bar on secure websites.

Hyperlink (or 'link' for short)

A piece of text or an image that is connected by hypertext coding to a different location. By selecting the text or image with a mouse, the computer jumps to (or displays) the linked information.

Hypertext

Virtually all web pages include hypertext (text with special properties) that links the user to other pages at that site, or to other sites on the World Wide Web.

Icons

Symbols or illustrations appearing on the computer screen that indicate program files or other computer functions. To initiate them, they usually have to be double clicked.

Input

Data that goes into a computer device.

Input device

A device, such as a keyboard, stylus, mouse, trackpad, or microphone, that allows input of information (letters, numbers, sound, and video) to a computer.

Instant messaging (IM)

A chat application that allows two or more people to communicate over the Internet via real-time keyed-in messages.

Internet

An international conglomeration of interconnected computer networks. Begun in the late 1960s, it was developed in the 1970s to allow government and university researchers to share information. The Internet is not controlled by any single group or organization. Its original

focus was research and communications, but it continues to expand, offering a wide array of resources for business and home users.

IP (Internet Protocol) address

An Internet Protocol address is a unique set of numbers used to locate another computer on a network. This makes it possible to deliver the correct information to a particular computer. The IP address of a computer plays a similar role to the address of a house or business – it ensures the right information is delivered to the right person. Here's an example of an IP address: 87.81.166.88. This address uniquely identifies my computer on the Internet.

ISP (Internet Service Provider)

The company that provides you with a connection to the Internet either via your telephone line (broadband), a fibre optic cable (fibre broadband) or via a cable service (Sky or Virgin Media)

Kilobyte

See 'Bits'

Linux

A free operating system – similar to Windows, but free! Installing Linux on a laptop, replacing Windows, is possible but not a job for non-technicians!

Laptop (Sometimes called a notebook computer)

Small, lightweight, portable battery-powered computers that can fit onto your lap.

Mac OS

The operating system that runs on Apple computers.

Maximise, minimise, optimise, restore and full-screen

These are terms used in 'Windows' to denote how a window is displayed. Maximise means make the window occupy the whole screen apart from the taskbar. Minimise means reduce the window to a button on the taskbar. Optimise (also called restore) means make the window

occupy some but not the entire screen. Full screen means exactly that – the window occupies the whole of the screen.

Megabyte

See 'Bits'

Memory (RAM)

Memory, or more accurately, Random Access Memory, chips are the computers 'thinking space'. Computer memory can be thought of as similar to human short term memory. It is very much a temporary storage area – to store a file permanently, it needs to be 'saved' to a hard drive, memory stick or other storage device. A laptop or desktop computer will typically have between 2 and 8 Gigabytes (Gb) of memory.

Menu

A set of options, or choices, that appears on screen.

Menu bar

The horizontal strip across the top of an application's window. Each word on the strip has a context sensitive drop-down menu containing features and actions that are available for the application in use.

Merge

To combine two or more files into a single file.

Minimize

See 'Maximise'

Monitor

A video display terminal.

Mouse

A small hand-held device, used to control the position of the cursor on the video display; movements of the mouse on a desktop correspond to movements of the cursor on the screen. Laptops have a built in mouse-like device called a trackpad.

MP3

Compact audio and video file format. The small size of the files makes them easy to download and e-mail. F

It's a format used in portable playback devices. When people listen to music on an 'iPod', Smartphone or similar device, the music is usually in the form of an MP3 file.

Multimedia

Software programs that combine text and graphics with sound, video, and animation. A multimedia PC contains the hardware to support these capabilities.

MS-DOS

An early operating system developed by Microsoft Corporation (Microsoft Disc Operating System).

Network

A system of interconnected computers.

Operating system

All computers (desktop, laptop, tablet or Smartphone) need an operating system to function.

A computer's operating system can be thought of as the 'master' program on a computer. It keeps track of what the user is doing, where things are stored etc. It is the 'electronic housekeeper' keeping everything organised.

Well known operating systems include Windows and Mac OS on desktops and laptops and Android and iOS on tablets and smartphones.

Optimise

See 'Maximise'

Output

Data that come out of a computer device. For example, information displayed on the monitor, sound from the speakers, or videos displayed on the screen.

PC

A personal computer with Windows as its operating system.

PDF

An electronic version of a written document, in many ways similar to a document written in Microsoft Word.

Portable Document Format is a format that allows documents to be shared over a variety of operating systems. Documents can contain words and pictures and be formatted to have electronic links to other parts of the document or to places on the web.

Peripheral

Any external device attached to a computer to enhance operation. Examples include external hard drives, scanners, printers and speakers,

Platform

The operating system, such as UNIX, Macintosh or Windows, on which a computer is based.

Plug and play (sometimes sarcastically referred to as 'plug and pray' as it doesn't always work!)

Computer hardware or peripherals that come set up with necessary software so that when attached to a computer, they are recognized by the computer and are ready to use.

Pop-up menu

A menu window that opens vertically or horizontally on-screen to display options which the operator can choose from.

Printer

A mechanical device for printing a computer's output on paper. Inkjet printers are the most common type but in offices, where large volumes of printing are required, laser printers are often used.

Program

A precise series of instructions written in a computer language that tells the computer what to do and how to do it. Programs are also called software, applications or apps.

Programming language

A language that allows a computer programmer to tell the computer what to do in a variety of circumstances.

RAM

See 'Memory'

Restore

See 'Maximise'

Right-click

Using the right mouse button to open context-sensitive drop-down menus.

Scanner

An electronic device that uses light-sensing equipment to scan paper images such as text, photos, and illustrations and translate the images into signals that the computer can then store, modify, or distribute.

A scanner is like a printer in reverse! It turns a paper copy into an electronic copy of a document or photograph.

Search engine

A website that helps the user find the information they require. The best known is 'Google' but there are others such as 'Bing' or 'Yahoo'.

Server

A computer that shares its resources and information with other computers, called clients, on a network. Servers are large computers where all the websites in the world are stored.

Shareware

Software created by people who are willing to sell it at low cost or no cost for the gratification of sharing. It may be freestanding software, or it may add functionality to existing software.

Software

Computer programs; also called applications or apps.

Spider

A process search engines use to investigate new pages on a web site and collect the information that needs to be put in their indices.

Spreadsheet

Software that allows one to calculate numbers in a format that is similar to pages in a conventional ledger.

Storage

Devices used to store massive amounts of information so that it can be readily retrieved. Devices include hard disks, solid state drives (SSDs), memory sticks, CD-ROMs, DVDs as well as 'SD' or 'micro SD' cards, typically found in digital cameras, smart phones and tablets.

Streaming

Watching videos, films or listening to music that is stored on the World Wide Web. It is the modern day equivalent of listening to the radio or watching TV. You are not 'downloading' a file when you stream – You do not end up with a copy of the video or piece of music on your computer.

Popular streaming services include the BBC Iplayer (to catch up with BBC programs you may have missed and 'Spotify', a music streaming service which works like a massive jukebox!

Stylus

An input device that you can use on a tablet or Smartphone. It looks similar to a pen and can make it easier to use a touchscreen device like a smart phone or tablet.

Surfing

Exploring the Internet.

Taskbar

The taskbar is the strip at the bottom of a Windows computer screen that shows what programs are running on the PC. It also has the 'Start button and the 'notification area' in the bottom right hand corner of the screen.

Terabytes (TB)

See 'Bits'

Trojan horse

See 'virus'.

Upload

The opposite of 'download'!

The process of transferring information from a computer to a web site (or other remote location on a network).

URL

Uniform Resource Locator. Another way of saying 'website address'

USB

A way of connecting many types of peripheral devices (a mouse, printer etc) to a computer. A typical computer will have several 'USB' ports (connections).

User friendly

A program or device whose use is intuitive to people with a non-technical background. (Allegedly!)

Videoconferencing

A remote "face-to-face chat," when two or more people using a webcam and an Internet telephone connection chat online. The webcam enables both live voice and video. The best known example is 'Skype'.

Virtual reality (VR)

A technology that allows one to experience and interact with images in a simulated three-dimensional environment.

Virus

An unauthorized piece of computer code attached to a computer program or portions of a computer system that secretly copies itself from one computer to another by shared discs and over telephone and cable lines. It can destroy information stored on the computer, and in extreme cases, can destroy operability. It is wise to have an 'anti-virus' program installed on your computer. Such a program is built-in to Windows and is called 'Windows Defender'. Alternatively, you can buy a commercial program such as Norton or McAfee or download a free alternative such as Avira, Avast or AVG. There are many different types of computer viruses including Boot viruses, File viruses, Macro viruses, Trojan Horses and Worms.

Webcam

A video camera that takes live images and sends them to a Web browser.

Window

A portion of a computer display used in a graphical interface that enables users to select commands by pointing to illustrations or symbols with a mouse. "Windows" is also the name Microsoft adopted for its popular operating system.

World Wide Web ("WWW" or "the Web")

A network of servers on the Internet that use hypertext-linked databases and files. It was developed in 1989 by Tim Berners-Lee, a British computer scientist, and is now the primary platform of the Internet.

Word processor

A computer program that you can use that turns your computer into a sophisticated typewriter and filing system.

Worm

See virus.

WYSIWYG

'What You See Is What You Get'. When using most word processors, page layout programs (See desktop publishing), and web page design programs, words and images will be displayed on the monitor as they will look on the printed page or web page.