

Common Computer Acronyms

A - Z



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A List of Common Computer Acronyms

Learning about computers requires you to become familiar with a series of acronyms that refer to various aspects of computer technology.

The list of computer acronyms used to describe various components can be overwhelming if you are just beginning to understand the world of computer science. To help you focus on the most significant terms, we have organised a list of computer acronyms to help you get started.

A

AD – Active Directory: AD is a Microsoft directory service with a domain controller. The controller authenticates and authorises a set of processes and services accessed by users and computers running on a Windows Server operating system and domain network.

AI – Artificial Intelligence: AI refers to the intelligence displayed by any computing devices or software that is capable of exhibiting intelligent behaviour.

AIFF - Audio Interchange File Format: AIFF is a common audio format developed by Apple Corporation and is used as a standard format for storing and transmitting audio samples.

AMOLED - Active-Matrix Organic Light-Emitting Diode: AMOLED is a type of power saving display technology commonly used in mobile devices. The technology is comprised of an active matrix of organic light-emitting diode (OLED) pixels integrated with a TFT (Thin-Film Transistor) array which controls electrical currents being transmitted to each individual pixel within the device display.

API - Application Program Interface: API is a technology used to create software applications using a group of set protocols and routines that define the functionality of the software.

ASCII - American Standard Code for Information Interchange: ASCII is a format used for text files in both UNIX and DOS operating systems. The files consist of 7-bit binary numbers that represent a numeric, alphabetic, or special character within the code. The purpose of the files are to support specific functions within an operating system.

AVI - Audio Visual Interleave: AVI is a Microsoft container format which stores both audio and video files to allow the playback of audio with video.

B

BIOS - Basic Input/Output System: BIOS refers to the firmware installed in all personal computers and is an important part of the boot up process. The BIOS is the first component that runs when you start up a computer and also allows the user to control the manner in which the computer boots up.

BMP – Bitmap: BMP is a simple graphics file format used on computers running the Windows operating system. The BMP file format is not compressed and typically large in size. This means the format cannot be used for transmitting images over the Internet.

BPS – Bits per Second: BPS is a computing bit rate which defines the number of bits that are transmitted over a specified unit of time. Bits per second determines the connection speed of computers and communications technology.

BYOD – Bring Your Own Device: BYOD is a policy used in business environments that permits employees to use their own computers and mobile devices in the workplace. BYOD policies are put in place to keep sensitive information safe while improving employee productivity.

C

CD-R - Compact Disc Recordable: A CD-R is a compact disc that can be written to in a single instance and then read at random multiple times.

CD-ROM - Compact Disc Read-Only Memory: A CD-ROM is a compact disc that digitally stores data that can be accessed using your computer. CD-ROMS are not writable and you cannot erase the data, hence the Read-Only Memory described in the term CD-ROM.

CD-RW - Compact Disc Re-Writable: CD-RW is a compact disc that can be written to, erased, and then written to again multiple times. It is commonly used as a means for backing up and storing files and data.

CPU - Central Processing Unit: A CPU is the electronic circuit board inside a computer and is responsible for carrying out instructions delivered by a computer application. The instructions involve performing the logic, arithmetic equations and I/O (input/output) as specified by the program.

D

DDR - Double Data Rate: DDR refers to a category of memory integrated circuits built into a computer system. The DDR technology facilitates higher data transfer rates when compared to SDR (Single Data Rate) and by using stringent control of electrical data and clock signal timing. The different classes of DDR include DDR1, DDR2, DDR3, and most recently, DDR4. DDR is commonly referred to as synchronous dynamic random-access memory or DDR SDRAM.

DLL - Dynamic Link Library: DLL is a shared library system of files used with the Windows operating system. The code contained in a DLL file is shared among all processes which rely on a specific DLL file to operate. This means they inhabit a single location in the physical memory which in turn, saves on space while improving functionality and efficiency.

DMA - Direct Memory Access: DMA is a program included in computer operating systems which assists the Central Processing Unit (CPU) when the CPU is unable to keep up with data transfer rates or is challenged with slow data transfer for Input/Output (I/O). Direct Memory Access sanctions a specific hardware subsystem to independently access the primary Random Access Memory (RAM) separately from the CPU. This allows the CPU to perform other tasks while the data transfer is taking place.

DNS - Domain Name System: A DNS is used to identify devices connected to the Internet by using a unique IP (Internet Protocol) address. The IP address for each device or website location is translated into a domain such as anyname.com which is easier for users to remember instead of entering the numeric IP address version to access a website. The DNS also acts as a directory service or type of phone book for all devices connected to the Internet to facilitate ease of communications.

DOS - Disk Operating System: The term DOS refers an early IBM operating system prior to the inception of Windows. The DOS operating system utilises a command line to perform tasks and access applications and was partially present in the early Windows operating systems (95 and 98). Currently, PC technicians use DOS commands to perform computer repairs and to work with settings within the operating system.

DRAM - Dynamic Random Access Memory: DRAM is the main memory in laptops, tablets, desktops, and workstation devices. It is responsible for storing frequently accessed data and applications to provide the user with faster access while performing computing tasks. DRAM offers a simple design with only one capacitor and transistor used for each bit of data. It also provides enhanced performance by using separate capacitors to store one bit of data in an integrated circuit.

DVD-R Digital Versatile Disc Recordable: DVD-R is a storage format for digital optical discs. The letter “R” means that the DVD disc can be recorded to in one instance and then read at random multiple times.

DVD-RW - Digital Versatile Disk Rewritable: DVD-RW is an optical disc storage format which allows you to record information to a disc and rewrite it multiple times. The advantage over the DVD-R format is you can erase the data as many times as you want and then rewrite, as opposed to only being able to record once as in a DVD-R format.

DVI - Digital Visual Interface: DVI is a technology which offers a digital interface used to connect a computer monitor or other display device. The technology facilitates the transfer of digital video to the display device and is connected to and operates on a unified video standard to ensure device compatibility.

E

EDI - Electronic Data Interchange: EDI is a standard used for electronic communications to transfer structured data between two devices, companies, or users in different areas of the world. The standard ensures documents can be opened and read when exchanged with devices of different operating systems and applications.

EGA – Enhanced Graphics Adapter: EGA is a standard established by IBM (International Business Machines) which specifies the type of computer display. EGA defines the display colour and the type of resolution and supports an array of bit colour specifications and pixel aspect ratios.

EULA – End User License Agreement: A EULA is a contract used by software licensors that defines to the end user how the software can be used. It is used to protect the copyrights of the software vendor and to establish parameters for the licensed copy of the software.

F

FAT – File Allocation Table: FAT refers to a specific architecture for a computer file system. The files are commonly found on external storage devices and provide enhanced performance for all types of operating systems. FAT files were originally found on hard disks when DOS was an operating system but, is no longer used as a main file system in Windows operating systems. Instead, FAT files act as the default file system for external storage devices.

FTP - File Transfer Protocol: FTP is a protocol which is used to transfer files over the Internet. The files are transferred from one host to another using a network or Internet connection. Website managers frequently use FTP to upload files from a computer to a server where the website is stored.

FXP - File Exchange Protocol: FXP is the process of transferring data from one server to the other while bypassing a device connection. The method is used by network administrators to provide access to data and resources stored on each server when working in different locations.

G

GIF - Graphics Interchange Format: GIF is a graphics image format widely used on the Internet. It is a convenient format due to its versatility and support for different browsers and operating systems. The images are in bitmap image format and are compressed for easy downloading when accessing web pages.

GPS - Global Positioning System: GPS is a navigation system used to determine a current location. A GPS system is satellite-based and comprised of a satellite network located in orbit powered by a radio signals. GPS systems can be used as a standalone device for guidance when travelling or they can be located in mobile phones and other portable devices.

GPU - Graphics Processing Unit: A GPU is an electronic circuit located inside your computer that helps to speed up the production of images to enable them to be viewed on a display screen. GPUs are built into a large variety of devices including laptops, mobile devices, gaming consoles, and more, to facilitate the processing of graphics and images.

GUI - Graphical User Interface: A GUI is a technology that facilitates interaction between electronic devices using image icons as opposed to text commands. A GUI is typically present in portable devices, gaming devices, and media players and works through the modification of visual indicators.

H

HTML - Hypertext Markup Language: HTML is a markup language which is designed to be read by web browsers such as Internet Explorer, Mozilla, Google Chrome, and others. The language is used to design web pages and describes how objects and text should appear when the page is viewed in a web browser.

HTTP - Hypertext Transfer Protocol: HTTP is a standard protocol used for data communications on the Internet. The standard is used for request and response such as when you type in a website domain address to access a specific website. Your browser is requesting access to the website and the server responds by displaying the web page.

HTTPS - Hypertext Transport Protocol Secure: Similar to HTTP, HTTPS is a standard protocol used for data communication in the form of request and response. The difference is HTTPS provides a secure connection, often symbolised by a padlock, from your browser to a server to protect sensitive information such as the transfer of credit card data when you make an online purchase.

I

IEEE - Institute Of Electrical And Electronics Engineers: The IEEE is an organisation that consists of members of the Institute of Radio Engineers and the American Institute of Electrical Engineers. The primary purpose of IEEE is to define standards for electronic and wireless communications to create a global uniform standard that allows devices of all types to connect to electronics and wireless technologies.

IGP – Interior Gateway Protocol: IGP is a standard protocol which is used for routing data between multiple Local Area Networks (LAN). The data is then used by an IP network protocol to determine how data transmissions should be routed within the network.

IM - Instant Message: IM is the process of sending text messages in real-time using an Internet connection. The messages can also be transmitted within an organisation over a Local Area Network (LAN). IM is also known as online chat and involves sending short messages over a network connection.

ISP - Internet Service Provider: An ISP is a provider of Internet connection services to provide businesses and individual households with access to the Internet. ISPs typically use an array of technologies such as satellite or cable to offer Internet access to their customers.

J

JPEG - Joint Photographic Experts Group: JPEG is a digital image format commonly used in digital photography. The JPEG format is a lossy compression format and is the most commonly used format for transmitting images over the Internet.

JRE - Java Runtime Environment: A JRE works with the Java Virtual Machine which hosts valid class files created in the Java Virtual Machine language. Java is a programming language that supports many objects embedded in websites. Without JRE, some of the website components may not work unless Java is installed on your computer from the Sun Microsystems Java website.

K

KB – Kilobyte: KB refers to a unit of digital information. One KB is the equivalent of 1000 bytes and refers to a specific file size of information.

KBPS - Kilobits Per Second: KBPS refers to a specific rate of data transfer over a network connection. One kilobit is the equivalent to 1000 bits per second which is a slower connection than Mbps (megabits per second) and GBps (gigabytes per second).

L

LAN - Local Area Network: A LAN is a network that connects a series of computers together to enable the devices to communicate with one another. Local Area Networks are limited to a specific area such as a business, corporation, school, or other. Devices outside of the LAN are unable to use the LAN to connect with devices on the LAN.

LCD - Liquid Crystal Display: LCD refers to a display that contains liquid crystal properties. LCD displays can include televisions, digital signage, computer monitors, and more. The liquid crystals do not directly give off light and instead, use light modulation properties for energy efficiency.

M

MAC - Media Access Control Address: MAC is a type of communication protocol which provides channel access and addressing to control devices. The technology enables multiple terminals to communicate with a shared medium network that provides multiple access. The hardware which is used for MAC is known as a Media Access Controller.

MBPS - Megabits per Second: MBPS refers to the speed of data being transferred over a network and is measured in megabits. One megabit represents over one million bits which means the data transfer rate is one million bits per second. This is right in between Kbps (kilobits per second) and GBps (gigabits per second).

MIDI - Musical Instrument Digital Interface: MIDI is a standard protocol used to connect computers with musical instruments. The protocol allows you to connect a music instrument to a computer to work with pitch, sequence recording, volume, tempos, musical notation, and other musical techniques.

N

NFS – Network File System: NFS is a file system protocol that allows an end user to access network files from a client computer. When the protocol is implemented on a network, any device connected to the network can access and share files.

NIC - Network Interface Card: A NIC is a hardware component which is embedded into a computer to provide the device with access to a network. NICs operate on multiple queues for transmission and reception. When data packets are received by the NIC, each packet is assigned to a specific queue to improve performance during data transmission.

O

OEM - Original Equipment Manufacturer: AN OEM is a company that manufactures a specific part for computers. For example, if your computer is equipped with an Intel processor but the computer make is Acer, Intel is the OEM for the Central Processing Unit (CPU).

OLE - Object Linking and Embedding: OLE is a technology that allows the user to embed documents within an application for the purpose of editing. OLE was created by Microsoft and is used to import different types of data and information from different applications.

OLED – Organic Light-Emitting Diode: OLED is a technology that contains light emitting diodes that give off light via a current of electricity. OLED technology is used in a variety of displays and does not require any backlighting. The technology increases black levels and provides for a display construction that is much thinner than an LCD display.

P

P2P – Peer-To-Peer: P2P is a specific type of architecture which consists of applications designed to distribute workloads among peers. Each peer is considered an equal contributor to the application on a peer-to-peer network. An example of a P2P architecture was the file sharing system known as Napster, which allows members of the P2P to freely share files without the need for server coordination.

PC - Personal Computer: PC is a term used to describe a computer designed to accommodate individual users. A PC is operated directly and personally owned by the end user without any third party intervention.

PDF - Portable Document Format: PDF is a universal document format used to transmit documents to any device with any type of operating system. The primary purpose of PDF is to ensure documents can be read by the recipient in a fixed layout that ensures the document displays properly.

PNG - Portable Network Graphic: PNG is a graphic format which serves as an alternative to the GIF image format. The file contains raster graphics, is compatible with lossless data compression, and utilises 24-bit RGB colours and 32-bit RGBA colours in addition to grayscale images.

PPI - Pixels per Inch: PPI is a method used to measure the resolution or pixel density of a digital image component such as a television screen or computer monitor. PPI can also be used to measure the pixel density of a specific image file and uses vertical and horizontal density as part of the measurement.

R

RAID - Redundant Array of Independent Disks: RAID is a method of backup storage that is comprised of multiple hard drive devices combined into a single unit for the purpose of data protection. When data is backed up, it is distributed across multiple drives (also known as redundancy) so if one drive fails, the data can be accessed on an alternative disk drive.

RAM - Random Access Memory: RAM is a computer component that stores data and applications that are frequently accessed by the user. This allows data and applications to be accessed quickly and prevents the computer from having to go back to the hard drive to retrieve the requested information.

ROM - Read-Only Memory: ROM refers to a type of data storage which is used by a computer or other device. The term is commonly used as CD-ROM in which the data can be read on the disc but cannot be modified.

RTF - Rich Text Format: RTF is a Microsoft document file format that can be opened using a variety of different word processing applications. The format supports images and text style formatting which remains unchanged when viewed in an application other than Microsoft Word.

S

SAN - Storage Area Network: A SAN is used to access files and data via a dedicated network of multiple storage devices. The technology is used to manage optical storage, disk arrays and other storage resources connected to a server. When the SAN network becomes accessible on the server, the storage devices appear as though they are an included component in each individual computer connected to the network.

SATA - Serial Advanced Technology Attachment: SATA is a technology that establishes a connection to optical and hard drives using a computer bus interface. The interface is responsible for connecting host bus adapter to the optical or hard drive or other type of mass storage device. The advantage of this technology is to provide faster data transfer and smaller cable sizes at a reduced cost.

SDRAM - Synchronous Dynamic Random Access Memory: SDRAM is a widely used technology in computers and is considered to be DRAM. The only difference is the DRAM synchronises with the system bus which is responsible for connecting major computer system components. The end result is improved data access that is faster and more efficient than conventional Random Access Memory (RAM).

SMS - Short Message Service: SMS is a method used to transmit short messages over the Internet or via a mobile communication system. The technology is used on modern day smartphones, in addition to personal computers and tablets.

SQL - Structured Query Language: SQL is a programming language used by database developers to enable the management of data in a relational database management system. SQL is a standard programming language designed to be transferrable to different database configurations without requiring code modification.

SRAM - Static Random Access Memory: In contrast with DRAM which requires refreshment on a periodic basis, Static Random Access memory does not require this process. This is what makes the technology and data access much faster via a connection to the CPU (Central Processing Unit) cache as opposed to the main memory of the computer.

SSID - Service Set Identifier: An SSID is a service set that assists with the identification of a specific wireless network. The identifier locates the origin of a device connected to a wireless network, in addition to the wireless access point.

SSL - Secure Sockets Layer: SSL is used to ensure secure communications over a network such as the Internet. The protocol uses cryptography to encrypt data being transmitted between two parties. This includes personal information, credit card numbers, banking transactions, and other sensitive data. The technology is frequently used in conjunction with HTTPS.

T

TCP/IP - Transmission Control Protocol/Internet Protocol: TCP/IP is a protocol used to determine how data transmission should be addressed, packetized and routed to a specific point of destination. It is an important standard protocol used for successful communications over the Internet.

TIFF - Tagged Image File Format: TIFF is a common image file format designed for the exchange of raster graphics between different applications. The file format is frequently used in medical imaging, desktop publishing, and 3-D applications.

U

UPNP - Universal Plug And Play: UPNP is a technology that allows the devices connected to your home network to discover one another and access specific services. Typically, UPNP is used to stream media between two different devices and allows you to discontinue a program on one device and then pick it up on a second device in another room.

URL - Uniform Resource Locator: A URL is also known as a website address and is the domain address you type into your browser to access a specific website. URLs are also present on the Search Engine Results Page (SERP) and contain a link that leads you to the website.

USB - Universal Serial Bus: USB is a technology that defines various protocols included in a serial bus component. The protocols, in addition to the connectors and cables, are used to facilitate communications between computers and peripheral devices such as USB flash drives, headphones, external hard drives, portable media players, and more.

V

VGA - Video Graphics Array: VGA is an IBM graphics standard used to deliver high definition video. The technology exists within a television screen or computer monitor and is designed to handle 1080p resolutions or higher.

VoIP - Voice over Internet Protocol: VoIP refers to a method of communication using an IP (Internet Protocol) network. VoIP is commonly associated with IP telephony which offers telephone communication using an Internet connection. VoIP is available on many different types of devices and typically uses the Skype VoIP application to establish a telephone or video communication over the Internet.

VPN - Virtual Private Network: A VPN is a private network which is accessed using traffic encryption or virtual tunneling protocols. Although the network uses an Internet connection for remote access, the encryption technologies and security policies provide secure access. VPNs are frequently used by remote workers and other professionals that require a secure connection when performing computing tasks.

W

WAN - Wide Area Network: A WAN is a network that is spread over a large geographical area and is connected via telecommunications lines that are leased. A WAN commonly refers to the Internet but also can consist of a series of networks from different geographical locations, such as those for government entities, corporations, and others.

WEP - Wired Equivalent Privacy: WEP is a wireless protocol that is used to secure the transmission of data over a network. The technology uses encryption under the 802.11 wireless standard developed by the IEEE to establish a secure network connection from any device connected to a specific network.

WPA - Wi-Fi Protected Access: WPA is often identified as WPA and WPA2 which are security certifications developed to provide enhanced security to wireless networks. WPA was developed as an alternative to WEP which was found to have vulnerabilities in the technology, and uses an encryption mode certified by the Wi-Fi Alliance.

WWW - World Wide Web: The World Wide Web is commonly referred to as the Internet and is a large network where users access a wealth of documents and other information available via websites, hypertext links, videos, and more. It is also a place where users with an Internet connection can download software applications, make purchases, take online classes, and access a wealth of other helpful resources.

X

XHTML - Extensible Hypertext Markup Language: Similar to HTML, XHTML is a markup language used to create websites that can be viewed by a web browser. The difference is XHTML provides extended versions of HTML which increases the ability of HTML to integrate with other data formats. This allows for easier access to more advanced applications and website components.

XML - Extensible Markup Language: XML is a format which defines parameters for encoding documents. It is a type of markup language used to read documents on the Internet and makes the documents readable by a machine or human.

Z

ZIP: ZIP stands for speed and is a compressed archive file format used to transmit large files over a network connection. ZIP files use lossless data compression to save disk space using compression algorithms. The format is convenient when transmitting large files. When the compressed format is used, it is possible to transmit multiple large files within one ZIP file without experiencing lag time during transmission. When the recipient receives the file, the file is unzipped for viewing using a program such as WinZip or other.