

EDUCATION SUPPORT

ESP

PROFESSIONALS

One Education Workforce
Serving the Whole Student

POCKET GLOSSARY OF COMPUTER TERMS FROM A TO Z

Anti-spyware Antivirus Program Bandwidth Bitmap Browser
Computing Compression CPU Debug Driver DSL
Fiber-Optic Cable File format Firewall Firmware Friendly URL FTP GB GHz
GUI HTML HTTP HTTPS Hyperlink Hz Icons Improvements
Jump drive KB Kilobyte L2

www.nea.org/esp


nea

NATIONAL
EDUCATION
ASSOCIATION

Great Public Schools for Every Student

In 1953, when IBM publicly introduced the first mass produced, electric computer, they never would have imagined that computers would advance to what they are today. Computers have morphed from solely data processing machines to high-speed, social-media, desktop publishing, word-processing machines made up of RAM, MHz, GB, MB, microprocessors, output and input devices.

Justifiably, understanding computer terminology can be daunting, but it needn't be impossible. This manual is designed to help you successfully sift through the alphabet soup of computer terminology.



**What are you
waiting for?
Let's get started!**

National Education Association

The National Education Association is the nation's largest professional employee organization, representing 3 million elementary and secondary school teachers, higher education faculty, education support professionals, school administrators, retired educators, and students preparing to be teachers.

NEA Officers

Dennis Van Roekel, President
Lily Eskelsen García, Vice President
Rebecca Pringle, Secretary-Treasurer
John C. Stocks, NEA Executive Director

NEA ESP Quality
1201 16th Street, NW
Washington, DC 20036-3290
202-822-7131
www.nea.org/esp

**For additional copies, send your request
to esp.program@nea.org.**

No part of this book may be reproduced in any form without permission from NEA Education Support Professionals Quality Department, except by NEA affiliates or members. Any reproduction of this material must include the usual credit line and the copyright notice. Address communications to NEA ESP Quality, 1201 16th Street, N.W., Washington DC, 20036-3290. 202-822-7131. Email directly to esp.program@nea.org.

Printed September 2013
Copyright 2013 by the National Education Association

A

Anti-spyware

1. program that helps to block and prevent *spyware* and other *malware* infections on a computer
2. monitor incoming data from email, websites, and downloads of files and stop spyware programs from getting a foothold in the computer operating system (*SEE malware, spyware*)

Antivirus Program

1. also known as antivirus software
2. software program designed to protect your computer or network against computer viruses. If a virus is detected, the computer will display a warning asking what action should be taken, often giving the options to remove, ignore, or move the file

B

Bandwidth

1. describes network speed. The maximum data transfer rate of a network or Internet connection
2. measures how much data can be sent over a specific connection in a given amount of time
EXAMPLES: A gigabyte Ethernet (SEE Ethernet, gigabyte) connection has a bandwidth of 1,000 Mbps (megabits per second). An Internet connection via cable modem may provide 25 Mbps of bandwidth (SEE modem)

BIOS

1. basic input output system

Bitmap

1. map of dots, or bits, that look like a picture as long as you are sitting a reasonable distance from the screen
2. a graphic file format with the file extensions of *.bmp or *.dib (*SEE File format*)

Browser

1. software program that allows a person to explore the Internet in an easy-to-use way
EXAMPLES: FireFox, Safari, Internet Explorer, Chrome, Opera

Bugs

1. errors made by computer programmers when developing a program

Byte

1. data measurement

Cloaking

1. the technique of hiding something or giving a false appearance
2. method by which most malware infects a computer (*SEE malware*)
EXAMPLE: malware disguises itself as an antivirus program when in reality it is a virus

**Cloud Computing**

1. services over a network by a collection of servers (*SEE server*)
2. service that allows visiting users to access programs and services anywhere with Internet access without having to install other software
EXAMPLES: Amazon Web Services, Google Docs, Google Calendar, online backup services (cloud storage), Dropbox, Mozy

Compression

1. the process of taking one or more files and shrinking the overall size, making them into smaller files, to enable easier downloading and sharing
EXAMPLE: Zip file

CPU

1. central processing unit; also known as processor or microprocessor
2. computer “brain” that processes data

**Debug**

1. process of taking a deep look into an issue with a program and removing errors that are found

Driver

1. group of files that enable one or more hardware devices to communicate with the computer's operating system
2. software that allows computer hardware, such as printers, to work with the operating system

DSL

1. Digital Subscriber Line
2. means of transferring data over regular phone lines and can be used to connect to the Internet

**Emoticon**

1. text-based faces and objects that are often seen in emails and online chat that help give the reader a sense of the writer's feelings behind the text

EXAMPLES:

:) Happy,
 : p Sticking Tongue Out,
 @--->--->--- Long Stem Rose,
 -_- Annoyed

E-reader

1. also known as an E-book
2. portable hardware device designed for reading digital publications

EXAMPLE: Amazon Kindle

Ethernet

1. most common type of connection computers use in a local area network ([SEE LAN](#))

Ethernet Port

1. a computer port resembling a regular telephone jack, but slightly wider, used to connect a computer to another computer, a local network, or an external DSL or cable modem ([SEE modem](#))

Export

1. process of taking data from one program or computer to another

External Hard Drive

1. hard drives that come as large in size as a book or as small as a cell phone, used to back up data from a user's computer and taking it on the road
2. expands the total amount of space available to a user

Fiber-Optic Cable

1. fragile cables, usually placed underground, made up of super-thin filaments of glass or other transparent materials that can carry beams of light
2. enables data to be sent at the speed of light

**File format**

1. A standard way that information is encoded for storage in a computer file. Each file type has a different file format

EXAMPLES: common file formats include BMP, JPEG, GIF, PICT, PCX, TIFF

Firewall

1. software utility or hardware device that limits outside network access to a computer or local network by blocking or restricting ports
2. helps prevent unauthorized access to a company or home network

Firmware

1. software program or set of instructions programmed on a hardware device that provides necessary instructions for how the device communicates with other computer hardware

Friendly URL

1. webpage address that is easy to read and remember and includes words that describe the content of the webpage for search engines
(*SEE search engines*)

FTP

1. File Transfer Protocol
2. common method used to transfer files via the Internet from one computer to another

EXAMPLE: FileZilla, Fetch

**GB**

1. Gigabyte
2. 1,000,000,000 bytes (*SEE byte*)

GHz

1. Gigahertz
2. unit of measurement equal to 1,000,000,000 Hz
(*SEE hertz*)
3. clock speed representing a cycle of time that determines the speed of a computer processor

GIF

1. Graphic Interchange Format
2. a graphics file extension
3. a bitmapped graphics file

GUI

1. Graphical User Interface
2. an interface that uses windows, icons and menus to carry out commands such as opening, deleting, or

moving files. It can be controlled by using a mouse, arrow keys on a keyboard or keyboard shortcuts

EXAMPLES: GNOME, KDE

GUI Operating System

1. Graphical User Interface Operating System
2. the dominant operating system used today, designed for easy end-user use
3. allows users to learn and use the system without prior knowledge or memorization of commands

EXAMPLES: Microsoft Windows, Apple System 7, Mac OS X

Hard Drive

1. Internal permanent information storage

**Hardware**

1. any physical device
2. something you are able to touch
EXAMPLES: monitor, mouse, keyboard

Hashtag

1. function used with Twitter or other services that assigns a post or a tweet a keyword by using a number symbol (#)
2. number symbols used to categorize tweets or posts of related topics

EXAMPLES: #ESPCConference, #Education, #Health

HTML

1. Hyper-Text Markup Language
2. computer language that Web pages are written in

HTTP

1. HyperText Transfer Protocol
2. set of standards that allows users of the World Wide Web to exchange information found on web pages

HTTPS

1. HyperText Transfer Protocol over Secure Socket
2. secure method of transferring or accessing information on a web page
3. secure, encrypted sites that require login information on web pages or on web pages that contain sensitive information

EXAMPLE: online bank web page

Hyperlink

1. often referred to as just “links”
2. a word, phrase, or image that you can click on to jump to a new document or section of a document. They can be found on nearly all web pages

Hz

1. Heinrich Hertz
2. equals one cycle per second, measuring waves or frequencies of electric charges each second
3. commonly used to measure a computer monitor’s refresh rate or speed of a computer processor



Icons

1. in a graphical user interface (SEE GUI), a small, pictorial, on-screen representation of an object such as a document, program, folder or disk drive

Import

1. command located in a program’s File menu that allows the user to move data from one program or earlier software versions into another program or later version

EXAMPLE: A user can import an email address book into a recent version of Microsoft Outlook.

Input Device

1. any hardware device that sends data to the computer

2. hardware device that allows interaction with a computer

EXAMPLES: mouse, scanner, keyboard

IP Address

1. Internet Protocol Address. (Also known as an IP number or IP.)
2. address of a computer or other network device assigned to your computer by a router (SEE router) and later updated by an Internet Service Provider once the user has connected to the Internet
3. code that is made up of numbers separated by three dots that identifies a particular computer on the Internet. Every computer requires an IP address to connect to the Internet

EXAMPLE: “123.45.67.89”

JPEG

1. Joint Photographic Experts Group
2. color image graphics compression file format



Jump drive

1. referred to as a USB flash drive, data stick, pen drive, keychain drive or thumb drive
2. a portable drive, often the size of your thumb, that connects to the USB port of a computer to allow an easy way to transfer and store information
3. external drives that hold 256MB, 512MB, 1GB, 5GB, and 16GB of information

KB

1. Kilobyte
2. 1000 bytes (SEE byte)



LAN

1. Local Area Network
2. computer network limited to a small area



Lossless Compression

1. compression that loses no data during the compression or decompression process

Lossy Compression

1. data compression method that sacrifices some information to achieve greater compression

EXAMPLE: MP3 file, JPEG



Malware

1. also known as scumware.
2. software program that has been intentionally designed to change a user's settings without his or her permission, delete a competing software program, cause a competing software program to stop working, or leave a computer open to attacks

MBAM

1. also known as Malwarebytes Anti-Malware
2. software utility program designed to scan, locate and remove malware from your computer
3. a program that can be used in conjunction with your antivirus program to help detect threats to your computer that antivirus programs may miss

MB

1. Megabyte
2. 1,000,000 bytes (SEE byte)

Memory

1. location where information is stored that is currently being utilized by the operating system, software program, hardware device or the user (SEE RAM)

MHz

1. megahertz
2. speed of the processor

Modem

1. short for MODulator/DEModulator
2. hardware device that enables a computer to send and receive information over telephone lines

Mouse

1. hardware input device that allows an individual to control a pointer in a graphical user interface (SEE GUI)
2. allows a user to perform various tasks such as opening a program or file
EXAMPLES: cordless mouse, joystick, touchpad, wheel mouse, trackball, optical

Netiquette

1. also known as cyberethics
2. term used to describe the unwritten rules of Internet courtesy



Network

1. A group of two or more computer systems linked together
2. A group of computer systems and other computing hardware devices that are linked together through communication channels to facilitate communication and resource-sharing among a wide range of users

OS

1. operating system
EXAMPLES: Android, Linux, Microsoft Windows, Mac OS X



Output Device

1. any external device that receives data from the computer
EXAMPLE: monitor, printer, speakers, video cards



Phishing

1. term used to describe when a malicious individual or group of individuals scams users through email or web pages designed to look legitimate to encourage users to enter personal information
2. usually an email message designed to steal your personal data, such as credit card numbers, passwords, account data, or other information

Plug-in

1. software add-on that allows an installed program to perform additional features

EXAMPLES: [Macromedia Flash](#), [Sun Java](#), [ActiveX](#)

PNG

1. Portable Network Graphic
2. bitmapped image format that is lossless compressed ([SEE lossless compression](#))

Port

1. hardware port resembles a plug-in or connection commonly found on the back of a computer
2. allows computers to have access to external devices such as computer printers

EXAMPLES: [USB port](#), [serial port](#), [keyboard and mouse port](#)

Program

1. A computer program is a sequence of instructions written to perform specific tasks with a computer
2. A computer requires programs to function and is always running unless the computer is turned off or halted

EXAMPLES: [Adobe Reader](#), [WinZip](#)

QWERTY

1. keyboard named after the first six keys in the upper left part of the keyboard
2. a standard keyboard

RAM

1. random access memory
2. memory chips for temporary information storage

ROM

1. Read-Only Memory
2. memory containing hardwired instructions that the computer uses when it boots up before the system software loads. (In PC's the instructions are read from the BIOS.)

Router

1. hardware device designed to take incoming segments of data, analyze them and direct them to the appropriate locations on a network

Scareware

1. program claiming it's an antivirus or other security program and has found dozens of potential threats on a computer, which in reality are either nonexistent or not really a threat to the user or the user's computer
2. programs typically installed onto a computer through false Internet advertisements, free programs and other malware ([SEE malware](#))

Search Engine

1. software program or script available through the Internet that searches documents and files for keywords and returns the results of any files containing those keywords

EXAMPLES: [Google](#), [Excite](#), [Lycos](#), [AltaVista](#), [Infoseek](#), [Yahoo](#)



Server

1. A computer or computer program that manages access to a centralized resource or service in a network
2. Software program, or the computer on which that program runs, that provides specific kind of services to the client software running on the same computer or other computers on a network
([SEE Network](#))

Software

1. A collection of computer programs and related data that provides the instructions that enable the user to interact with the computer or have the computer perform specific tasks
2. any set of machine-readable instructions (most often in the form of a computer program) that directs a computer's processor to perform specific operations ([SEE program](#))
[EXAMPLES: Microsoft Office Suite, Quicken, QuickBooks, Video Games](#)

Spam

1. unsolicited junk email sent to large numbers of email addresses. Usually promotes some product or service and may be pornographic

Spyware

1. software program that is intentionally installed on the computer by a user to monitor or spy on what other users of the same computer are doing
2. malicious or unwanted software that can track your activities or simply slow your computer

Storage Device

1. any hardware device capable of holding information

2. enables the computer to save settings and other information

[EXAMPLES: CD-ROM, Cloud storage, hard drive, USB flash drive](#)

Trojan Horse

1. program or utility that appears to be something useful or safe, but in reality is performing background tasks such as giving access to your computer or sending personal information to other computers
2. one of the most common methods a criminal uses to infect your computer and collect personal information from your computer
[EXAMPLE: Popular screen saver site becomes infected with a Trojan horse. Downloading the screen saver to your computer also installs the Trojan horse onto the computer](#)

Virus

1. a program that runs on a system against the user's wishes and knowledge
2. programs that can send your data to a third party, delete your data, or ruin your computer and render it unusable without a reinstallation of the operating system

WAN

1. Wide Area Network
2. network not limited to a single location
3. networks that span long distances using telephone lines, fiber-optic cables or satellite links

Wi-Fi

1. Wireless Local Area Network
2. the name of a popular wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections



NOTES

WinZip

1. software program commonly used to compress larger files into smaller ones for easy sharing and downloading

Worm

1. destructive software program containing code capable of gaining access to computers or networks
2. a program similar to a virus that will exploit vulnerability in an operating system or application that a computer user is running
3. software that causes harm by deleting, modifying, distributing, or otherwise manipulating data
4. also known as Write Once Read Many (W.O.R.M.)
 - a CD that can be written to and then read from thereafter

WYSIWYG

1. an acronym for “What You See Is What You Get”

**Zip**

1. file extension associated with WinZip file compression programs ([SEE WinZip](#))
2. hardware drive, diskette, or backup device for file compression



NOTES

NOTES

NOTES



National Education Association
Education Support Professional Quality
1201 16th Street, NW
Washington, DC 20036
www.nea.org/esp