

The Computer Glossary

The Complete Illustrated Desk Reference

Fourth Edition

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amacom

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log-on/log-off

Log-on/log-off is making a connection and breaking a connection between a user and the computer. The log-on requires users to sign in and identify themselves. The log-off breaks the connection. Service bureaus charge their customers from the time they log-on until the time they log-off.

logic

Logic refers to a sequence of operations that is performed by the hardware or the software. Hardware logic is the circuits and chips that perform the computing and controlling operations of the computer. Software logic, or program logic, is the sequence of instructions in a program.

Note: Logic is not the same as logical. Logical refers to the design of a system, rather than its physical implementation. See *logical vs physical*.

logic analyzer

(1) A *logic analyzer* is a device that monitors the performance of a computer by timing various segments of the running programs. The total running time and the time spent in selected program modules is analyzed and displayed in order to isolate the code that is the least efficient.

(2) A *logic analyzer* is a device that is used to test and diagnose an electronic system, which includes an oscilloscope for displaying various digital states.

logic array

Same as *gate array* or *PLA*.

logic bomb

A *logic bomb* is a program that destroys data; for example, it may reformat the hard disk or randomly insert garbage into data files. A logic bomb may be brought into a personal computer by downloading a public-domain program that has been tampered with. Once executed, the logic bomb usually does its damage right away, whereas a software virus slowly invades a system and attaches itself to other programs.

logic chip

A *logic chip* is a chip that performs logic functions, such as processing and controlling. Contrast with *memory chip*, which functions as internal working storage.