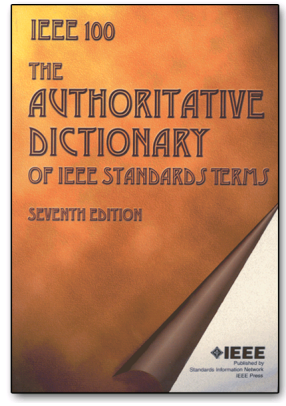
IEEE 100
The Authoritative Dictionary of IEEE Standards Terms

Seventh Edition



IEEE
Published by
Standards Information Network
IEEE Press

Trademarks and disclaimers

IEEE believes the information in this publication is accurate as of its publication date; such information is subject to change without notice. IEEE is not responsible for any inadvertent errors.

Other tradenames and trademarks in this document are those of their respective owners.

The Institute of Electrical and Electronics Engineering, Inc.
3 Park Avenue, New York, NY, 10016-5997, USA

To order IEEE Press publications, call 1-800-678-IEEE.

Print: ISBN 0-7381-2601-2 *SP1122*

PDF ON CD-ROM
ISBN: 0-7381-3926-2 *SE127*

See other standards and standards-related product listings at: http://standards.ieee.org/

Contents

Introduction

IEEE standards establish an authoritative common language that defines quality and sets technical criteria. By guaranteeing consistency and conformity through open consensus, IEEE standards add value to products, facilitate trade, drive markets, and ensure safety. That's why leading companies, organizations, and industries around the globe rely on them.

Critical components of this common language are the terms and definitions that are at the foundation of the vast body of IEEE standards. In the past decade alone, hundreds of terms—describing the latest tools, techniques, and best practices—have been added to the lexicon of IEEE standards.

In this newly updated *Authoritative Dictionary of IEEE Standards Terms,* professional experts and students alike will gain an in-depth understanding and appreciation for the breadth of coverage of IEEE standards terms and definitions not found in any other single source.

The seventh edition of IEEE 100 has been revised to include nearly 35 000 technical terms and definitions from over 800 standards—covering areas such as power and energy, communications, information technology, and transportation systems. In addition to an extensive list of widely used acronyms and abbreviations, this new edition also contains detailed abstracts of each term's associated standard(s). What's more, all definitions are augmented by a combination of indispensable information, including:

- Preferred and popular usage of each term
- Variations in meanings among different technical specialties
- Cross-indexing to related works
- Key explanatory notes for further term clarification

In preparing this latest edition of the Dictionary, we realized that the standards community desired more than just a compilation of IEEE standardized terms and definitions. They needed an authoritative resource created by the organization that develops and produces the standards from which the terms and definitions are derived—the IEEE. In addition, we determined the Dictionary needed to be not only user friendly, but also rich in information. In other words, it needed to be the *Authoritative Dictionary of IEEE Standards Terms*.

Susan K. Tatiner
Director, IEEE Standards Publishing Programs

IEEE Standards Project Editors for the seventh edition:
Kim Breitfelder
Don Messina

Additional assistance was provided by the IEEE Standards editorial staff.

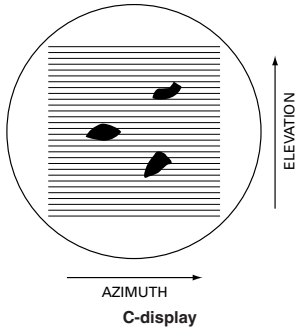
C conditioning A North American term for a type of conditioning that controls attenuation, distortion, and delay distortion, thus making transmission impairments of a circuit lie within specified limits. *See also:* D conditioning. (C) 610.7-1995

CCR *See:* condition code register.

CCS Hundreds of call seconds per hour. A measure of traffic intensity or event data. *Synonym:* call attempts per hour. *See also:* time-consistent traffic measures. (COM/TA) 973-1990w

CD *See:* compact disc; collision detection.

C-display A rectangular display in which each target appears as an intensity-modulated blip with azimuth indicated by the horizontal coordinate and angle of elevation by the vertical coordinate.



C-display

(AES) 686-1997

CDL *See:* Computer Design Language.

CDO *See:* unattended automatic exchange.

CD1 *See:* clocked data one.

CDP *See:* commercial data processing.

CDR *See:* critical design review.

CD-ROM *See:* compact disc read-only memory.

CD-ROM storage A read-only form of optical storage employing compact discs to store information. (C) 610.10-1994w

CD state The state of an analog pin when it is isolated from the core circuit and all test circuits. *Note:* When a pin is in the CD state, there may be residual elements to which it remains connected. *See also:* core disconnect; residual element. (C/TT) 1149.4-1999

CD0 *See:* clocked data zero.

C-effective A capacitance value, often computed as an approximation to a resistor/inductor/capacitor (RLC) network or a π-model, that characterizes the admittance of an interconnect structure at a particular driver. The reduction of real parasitics and pin capacitances to a C-effective allows the calculation of delay and slew values from cell characterization data which assumes a pure capacitive output load. *Synonym:* effective capacitance. (C/DA) 1481-1999

CEI (television) The initials of the official French name, Commission Éléctrotechnique Internationale, of the International Electrotechnical Commission (IEC). (BT/AV) 201-1979w

ceiling The result obtained by rounding a number up to the nearest integer. For example, the ceiling of 5.3 is 6. *Contrast:* floor. (C) 1084-1986w

ceiling area lighting (illuminating engineering) A general lighting system in which the entire ceiling is, in effect, one large luminaire. *Note:* Ceiling area lighting includes luminous ceilings and louvered ceilings. *See also:* luminous ceiling; louvered ceiling. (EEC/IE) [126]

ceiling cavity ratio (illuminating engineering) For a cavity formed by the ceiling, the plane of the luminaire, and the wall surfaces between these two planes, the CCR is computed by using the distance from the plane of the luminaire to the ceiling (h_c as the cavity height in the equations given in the definition of "cavity ratio." (EEC/IE) [126]

ceiling current (excitation systems for synchronous machines) The maximum direct current that the excitation system is able to supply from its terminals for a specified time. (PE/EDPG) 421.2-1990, 421.1-1986r

ceiling direct voltage (direct potential rectifier unit) The average direct voltage at rated direct current with rated sinusoidal voltage applied to the alternating-current line terminals, with the rectifier transformer set on rated voltage tap and with voltage regulating means set for maximum output. *See also:* rectification; power rectifier. (IA/EEC/PCON) [62], [110]

ceiling projector (illuminating engineering) A device designed to produce a well-defined illuminated spot on the lower portion of a cloud for the purpose of providing a reference mark for the determination of the height of that part of the cloud. (EEC/IE) [126]

ceiling ratio (illuminating engineering) The ratio of the luminous flux which reaches the ceiling directly to the upward component of the luminaire. (EEC/IE) [126]

ceiling voltage (1) (excitation systems for synchronous machines) The maximum direct voltage that the excitation system is able to supply from its terminals under defining conditions. *Notes:* 1. The no-load ceiling voltage is determined with the excitation system supplying no current. 2. The ceiling voltage under load is determined with the excitation system supplying ceiling current. 3. For excitation systems whose supply depends on the synchronous machine voltage and (if applicable) current, the nature of power system disturbance and specific design parameters of the excitation system and the synchronous machine influence the excitation system output. For such systems, the ceiling voltage is determined considering an appropriate voltage drop and (if applicable) current increase. 4. For excitation systems employing a rotating exciter, the ceiling voltage is determined at rated speed. (PE/EDPG) 421.1-1986r

(2) (excitation systems) The maximum direct voltage that the excitation system is able to supply from its terminals under defined conditions. (PE/EDPG) 421.2-1990

ceiling voltage, exciter nominal The ceiling voltage of an exciter loaded with a resistor having an ohmic value equal to the resistance of the field winding to be excited and with this field winding at a temperature of (A) 75°C for field windings designed to operate at rating with a temperature rise of 60°C or less; or (B) 100°C for field windings designed to operate at rating with a temperature rise greater than 60°C. (PE/EDPG) 421-1972s

ceilometer (navigation aid terms) An instrument for measuring the height of clouds. (AES/GCS) 172-1983w

celestial fix (navigation aid terms) A position fix established by observation of celestial bodies. (AES/GCS) 172-1983w

celestial-inertial navigation equipment (navigation aid terms) An equipment employing both celestial and inertial sensors. *Synonyms:* astro-inertial navigation equipment; stellar-inertial navigation equipment. (AES/GCS) 172-1983w

celestial mechanics (communication satellite) The mechanics of motion of celestial bodies, including satellites. (COM) [19]

celestial navigation (navigation aid terms) Navigation with the aid of celestial bodies. Applied principally to the measurement of the altitudes of a celestial body. (AES/GCS) 172-1983w

cell (1) (lead-acid batteries for photovoltaic systems) The basic electrochemical unit, characterized by an anode and a cathode used to receive, store, and deliver electrical energy. For a lead-acid system, the cell is characterized by a nominal two-volt potential. (PV) 937-1987s

(2) (batteries for photovoltaic systems) The basic electrochemical unit, characterized by an anode, a cathode, and electrolyte, used to receive, store, and deliver electrical energy. *Notes:* 1. For a nickel-cadmium cell, the nominal voltage is 1.2 V. 2. For a lead-acid cell, the nominal voltage is 2.0 V. (PV) 1013-1990, 1144-1996, 1145-1990s

live-metal part (power and distribution transformers) A part consisting of electrically conductive material which can be energized under conditions of normal use of the equipment. (PE/TR) C57.12.80-1978r

live parts Those parts that are designed to operate at voltage different from that of the earth. (SWG/PE/SUB/PSIM) C37.40-1993, C37.100-1992, 119-1974w, 1268-1997

live removal The process of removing boards from a backplane when power is on. (C/BA) 896.2-1991w

live room (audio and electroacoustics) A room that has an unusually small amount of sound absorption. (SP) [32]

live tank switching device A switching device in which the vessel(s) housing the interrupter(s) is at a potential above ground. (SWG/PE) C37.100-1992

live time (1) The time interval of a count during which a counting system is capable of processing input pulses. Elapsed (or real) time equals live time plus dead time. (NI) N42.14-1991

(2) The live time, in seconds and fraction thereof, of acquisition of the spectrum. It is expressed as 14 characters including decimal point with leading zeros interpreted as zeros. (NPS/NID) 1214-1992r

(3) The total time of the measurement minus the total dead time. (NI) N42.12-1994

live work Work on or near (e.g., part of tools being used or worker's body less than minimum approach distance) energized or potentially energized lines (i.e., grounding, live tool work, hot stick work, gloving and barehand work). (T&D/PE) 516-1995

live zone The period(s) in the operating cycle of a machine during which corrective functions can be initiated. (IA/ICTL/IAC) [60]

LLC *See:* logical link control.

LLC encoding *See:* logical link control encoding.

LLC frame *See:* logical link control frame.

LLC procedure *See:* logical link control procedure.

LLC sublayer *See:* logical link control sublayer.

LME *See:* layer management entity.

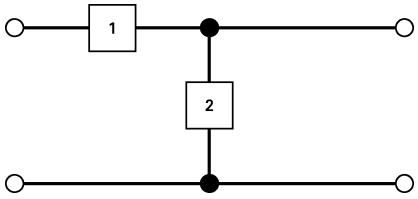
LMI *See:* layer management interface.

LMSC *See:* LAN/MAN Standards Committee.

LNA *See:* launch numerical aperture.

L network (1) (general) A network composed of two branches in series, the free ends being connected to one pair of terminals and the junction point and one free end being connected to another pair of terminals. *See also:* network analysis. (Std100) 270-1966w

(2) An unbalanced ladder network composed of a series arm and a shunt arm.



The free ends are left-hand terminal pair; the junction point and one free end are the right-hand terminal pair.

L network

(CAS) [13]

load (1) (charge) (induction and dielectric heating usage) The material to be heated. *See also:* induction heating. (IA) 54-1955w

(2) (power and distribution transformers) (output) The apparent power in megavolt-amperes, kilovolt-amperes, or volt-amperes that may be transferred by the transformer. (PE/TR) C57.12.80-1978r

(3) (rotating machinery) All the numerical values of the electrical and mechanical quantities that signify the demand to be made on a rotating machine by an electric circuit or a mechanism at a given instant. *See also:* direct-current commutating machine. (PE) [9]

(4) (programming) To place data into internal storage. (C) [20], [85]

(5) (electric) (electric utilization) The electric power used by devices connected to an electrical generating system. *See also:* generating station. (PE/PSE) [54]

(6) (A) (automatic control) An energy-absorbing device. **(B) (automatic control)** The material, force, torque, energy, or power applied to or removed from a system or element. (PE/EDPG) [3]

(7) (data transmission) A power-consuming device connected to a circuit. One use of the word "load" is to denote a resistor or impedance which replaces some circuit element temporarily or permanently removed. For example, if a filter is disconnected from a line, the line may be artificially terminated in an impedance which simulates the filter that was removed. The artificial termination is then called a load or a dummy load. (PE) 599-1985w

(8) (A) (test, measurement, and diagnostic equipment) To read information from cards or tape into memory. **(B) (test, measurement, and diagnostic equipment)** Building block or adapter providing a simulation of the normal termination characteristics of a unit under test. **(C) (test, measurement, and diagnostic equipment)** The effect that the test equipment has on the unit under test or vice versa. (MIL) [2]

(9) (A) (software) To read machine code into main memory in preparation for execution and, in some cases, to perform address adjustment and linking of modules. *See also:* loader. **(B) (software)** To copy computer instructions or data from external storage to internal storage or from internal storage to registers. *Contrast:* store. *See also:* fetch; move. (C) 610.12-1990

(10) (data management) To insert data values into a database that previously contained no data. *Synonym:* populate. *See also:* download; upload. (C) 610.5-1990w

(11) To move the image of a client program from a long-term storage medium (such as a disk) into memory where it may be executed. (C/BA) 1275-1994

(12) (A) In computer operations, the amount of scheduled work to be performed on a computer system. *See also:* line load. **(B)** In electronics, the amount of current drawn by a device. *Note:* This determines the "drive strength" of the circuit. *See also:* loading. (C) 610.7-1995, 610.10-1994

(13) To enter data or programs into storage or working registers. *See also:* mount. (C) 610.10-1994w

(14) Demand or energy. (PE/PSE) 858-1993w

(15) The true or apparent power consumed by power utilization equipment performing its normal function. (SWG/PE) C37.100-1992

loadability (of an air switch) The ratio of allowable continuous current at 25°C ambient temperature to rated current. *Note:* Loadability is a measure of the average allowable continuous current over a range of ambient temperatures from 10°C to 40°C for the air surrounding air switches. (SWG/PE) C37.30-1992s, C37.34-1994, C37.37-1996

loadability factor (of an air switch) The ratio of allowable continuous current at a given ambient temperature to rated current. (SWG/PE) C37.37-1996

Loadable Device (LD) A station on the network that is capable of accepting a load from a Load Service. (LM/C) 15802-4-1994

load&add A data-access operation that adds a *next* value to a specified data type and returns the previous data value. (C/MM) 1596.5-1993

load-and-go (1) An operating technique in which there are no stops between the loading and execution phases of a program, and which may include assembling or compiling. (C) [20], [85]

microcode assembler A computer program that translates microprograms from symbolic form to binary form. (C) 610.12-1990

microcomputer (micro) A computer that contains at least one microprocessor as its main computing element. *Note:* The distinction between a microcomputer, minicomputer, and mainframe is not yet standardized, however, in 1991 a typical mainframe is IBM's 3090, a typical minicomputer is Digital's VAX, and a typical microcomputer is IBM's PS/2. (C) 610.10-1994w

microcopy A copy of an image or document so reduced in size from its original that it cannot be read by the unaided human eye. For example, microform, microfiche, microfilm, microimage. (C) 610.2-1987

microcycle *See:* machine cycle.

microelectronic device (electric and electronics parts and equipment) An item of inseparable parts and hybrid circuits, usually produced by integrated circuit techniques. Typical examples are microcircuit, integrated circuit package, micromodule. (GSD) 200-1975w

microfacsimile Transmission and reception of microimages via facsimile communication. (C) 610.2-1987

microfiche A sheet of microfilm capable of containing microimages in a grid pattern. The sheet usually contains a title that can be read without magnification. *Synonym:* fiche. (C) 610.2-1987

microfilm (A) A high resolution film for recording microimages. **(B)** To record microimages on film. *See also:* computer output microfilm. (C) 610.2-1987, 610.10-1994

microfilmer *See:* computer output microfilmer.

microfloppy disk A floppy disk that is 3.5 inches wide. *Contrast:* minifloppy disk. (C) 610.10-1994w

microfont* *See:* optical character recognition-B.

* Deprecated.

microform A medium that contains micro-images. For example, microfiche, microfilm. (C) 610.2-1987

micrographics That branch of science and technology concerned with methods and techniques for converting information to or from microform. *Synonym:* microphotographics. *See also:* office automation. (C) 610.2-1987

microimage An image that is too small to be read by the human eye without magnification. (C/C) 610.2-1987, 610.10-1994w

microinstruction In microprogramming, an instruction that specifies one or more of the basic operations needed to carry out a machine language instruction. Types include diagonal microinstruction, horizontal microinstruction, and vertical microinstruction. *See also:* nanoinstruction; microcode; microprogram. (C) 610.10-1994w, 610.12-1990

micrometer (laser maser) A unit of length equal to 10^{-6} m. In common practice a micrometer is a micron. (LEO) 586-1980w

micron (metric system) The millionth part of a meter. *Note:* According to the set of submultiple prefixes now established in the International System of Units, the preferred term would be micrometer. However, use of the same word to denote a small length, and also to denote an instrument for measuring a small length, could occasionally invite confusion. Therefore it seems unwise to deprecate, at this time, the continued use of the word micron. (Std100) [123]

microoperation In microprogramming, one of the basic operations needed to carry out a machine language instruction. *See also:* microinstruction. (C) 610.12-1990

microphone An electroacoustic transducer that responds to sound waves and delivers essentially equivalent electric waves. (T&D/PE/SP) 539-1990, [32]

microphonics (1) (general) The noise caused by mechanical shock or vibration of elements in a system. (SP) 151-1965w

(2) (interference terminology) Electrical interference caused by mechanical vibration of elements in a signal transmission system. *See also:* signal. (IE) [43]

(3) (electron tube) (microphonic effect) (microphonism) The undesired modulation of one or more of the electrode currents resulting from the mechanical vibration of one or more of the valve or tube elements. *See also:* electron tube. (ED) 161-1971w

microphonics, microphonic noise Electrical noise caused by mechanical or audio induced vibration of the detector assembly. (NPS) 325-1996

microphonism *See:* microphonics.

microphotographics *See:* micrographics.

microprint A positive microcopy photographically printed onto paper. (C) 610.2-1987

microprocessor An integrated circuit that contains the logic elements for manipulating data and for making decisions. *See also:* microcomputer; processor. (C) 610.10-1994w

microprogram (software) A sequence of instructions, called microinstructions, specifying the basic operations needed to carry out a machine language instruction. *See also:* control store; microcode. (C) 610.12-1990, 610.10-1994w

microprogrammable computer A microprogrammed computer in which microprograms can be created or altered by the user. *Contrast:* fixed-instruction computer. (C) 610.12-1990, 610.10-1994w

microprogrammed computer A computer in which machine language instructions are implemented by microprograms rather than by hard-wired logic. *Note:* A microprogrammed computer may or may not be a microcomputer; the concepts are not related despite the similarity of the terms. *See also:* microarchitecture; microprogrammable computer. (C) 610.12-1990, 610.10-1994w

microprogramming (1) The process of designing and implementing the control logic of a computer by identifying the basic operations needed to carry out each machine language instruction and representing these operations as sequences of instructions in a special memory called control store. This method is an alternative to hard wiring the control signals necessary to carry out each machine language instruction. Techniques include bit steering, compaction, residual control, single-level encoding, two-level encoding. *See also:* microinstruction; microcode; microprogram. (C) 610.12-1990

(2) The process of designing and implementing the control logic of a computer by identifying the basic operations needed to carry out each machine language instruction and then representing these operations in appropriate sequence in a special memory, called a control store. (C) 610.10-1994w

micropublishing The production and distribution of information via microform. The information may be original or may have been previously published in another form. (C) 610.2-1987

micropulsation Small magnitude fluctuations (usually much less than 10^{-6} of the Earth's magnetic field) with periods on the order of seconds or minutes ($f<1$ Hz). *Note:* Micropulsations usually result from current fluctuations in the E region. (AP/PROP) 211-1997

microradiometer (radio-micrometer) A thermosensitive detector of radiant power in which a thermopile is supported on and connected directly to the moving coil of a galvanometer. *Note:* This construction minimizes lead losses and stray electric pickup. *See also:* electric thermometer. (EEC/PE) [119]

micrositing Of, or related to, the characteristics of a particular wind-turbine site, as contrasted to those characteristics that prevail over the entire windfarm. (DESG) 1094-1991w

microspark (overhead-power-line corona and radio noise) A spark breakdown occurring in the miniature air gap formed by two conducting or insulating surfaces. (This is sometimes called a "gap discharge.") (T&D/PE) 539-1990

microstrip (1) A class of planar transmission lines consisting of one or more thin conducting strips of finite width parallel to a single extended conducting ground plane. In its common form, the strips are affixed to an insulating substrate attached

terms of this guide, the hose is used to carry water.) (T&D/PE) 957-1995

polyplexer Equipment combining the functions of duplexing and lobe switching. (AES/RS) 686-1990

poly-sol Plastic additive used in some washing applications to break down surface adhesion. (T&D/PE) 957-1987s

polyvinyl chloride An insulator in cable coatings and coaxial cable foam compositions. (C) 610.7-1995

pondage (power operations) Hydroreserve and limited storage capacity that provides only daily or weekly regulation of streamflow. (PE/PSE) 858-1987s

pondage station A hydroelectric generating station with storage sufficient only for daily or weekend regulation of flow. *See also:* generating station. (T&D/PE) [10]

p-on-n solar cells (photovoltaic power system) Photovoltaic energy-conversion cells in which a base of n-type silicon (having fixed positive holes in a silicon lattice and electrons that are free to move) is overlaid with a surface layer of p-type silicon (having fixed electrons in a silicon lattice and positive holes that are free to move). (AES) [41]

pool cathode A cathode at which the principal source of electron emission is a cathode spot on a metallic pool electrode. (ED) [45]

pool-cathode mercury-arc converter A frequency converter using a mercury-arc pool-type discharge device. (IA) 54-1955w, 169-1955w

pool rectifier A gas-filled rectifier with a pool cathode, usually mercury. (ED) [45], [84]

pool tube A gas tube with a pool cathode. *See also:* electronic controller. (ED) [45]

POP *See:* point of presence.

pop *See:* pull.

populate *See:* load.

population (1) (data management) The number of records in a file or database. (C) 610.5-1990w
(2) (utility power systems) Transformers that have given common specific characteristics. (PE/TR) C57.117-1986r

population, conceptual *See:* conceptual population.

population inversion (laser maser) A nonequilibrium condition of a system of weakly interacting particles (electronics, atoms, molecules, or ions) which exists when more than one-half of the particles occupy the higher of two energy states. (LEO) 586-1980w

pop-up menu (1) A menu that is brought into view as a result of a selection action other than choosing a menu-bar label. *Contrast:* pull-down menu. (PE/NP) 1289-1998
(2) A menu that appears outside of menu bar when requested, usually as the result of pressing BMenu or KMenu. (C) 1295-1993w

pores (electroplating) Micro discontinuities in a metal coating that extend through to the base metal or underlying coating. *See also:* electroplating. (LEO) 586-1980w

Port A Port Object. Context may indicate that the Port Object is of a specific class. (IM/ST) 1451.1-1999

port (1) (electronic devices or networks) A place of access to a device or network where energy may be supplied or withdrawn or where the device or network variables may be observed or measured. *Notes:* 1. In any particular case, the ports are determined by the way the device is used and not by its structure alone. 2. The terminal pair is a special case of a port. 3. In the case of a waveguide or transmission line, a port is characterized by a specified mode of propagation and a specified reference plane. 4. At each place of access, a separate port is assigned to each significant independent mode of propagation. 5. In frequency changing systems, a separate port is also assigned to each significant independent frequency response. *See also:* network analysis; optoelectronic device; waveguide. (ED/IM/HFIM) [46], [45], [40]
(2) (rotating machinery) An opening for the intake or discharge of ventilating air. (PE) [9]
(3) (rotating machinery) (for a waveguide component) A means of access characterized by a specified reference plane and a specified propagating mode in a waveguide which permits power to be coupled into or out of a waveguide component. *Note:* At low frequencies the port is synonymous with a terminal pair. 2. To each propagating mode at a specified reference plane there corresponds a distinct port. (MTT) 146-1980w
(4) (broadband local area networks) An electrical interface that has defined operating boundaries. The specific references within IEEE Std 802.7-1989 assume ports to be 75 Ω transmission line interfaces that have an associated connector to which the signals pass. (LM/C) 802.7-1989r
(5) A source or destination of data transferred by a Data Transfer class command into and/or out of an S-module. A port may be an on-module memory, on-module interface, a peripheral attached to a module, or some other mechanism to/from which data is passed.Within IEEE Std 1149.5-1995, a port is defined by a module address, a port ID meaningful to the MTM-Bus interface logic of that module, and the semantics and structure of packets by which data can be conveyed to and/or from that port. This latter often entails some description of the application to/from which data are passed. A port is selected/accessed/addressed via a Data Transfer class command. (TT/C) 1149.5-1995
(6) The physical interconnection point or an access point for a communication link. (C) 610.7-1995
(7) An input or output connection between a peripheral device and a computer. *See also:* parallel port; serial port; mouse port; input-output port. (C) 610.10-1994w
(8) A physical layer entity in a node that connects to either a cable or backplane and provides one end of a physical connection with another node. (C/MM) 1394-1995
(9) A signal interface provided by token ring stations, passive concentrator lobes, active concentrator lobes, or concentrator trunks that is generally terminated at a media interface connector (MIC). Ports may or may not provide physical containment of channels. *See also:* Bridge Port. (C/LM/C/LM) 802.1G-1996, 8802-5-1998
(10) An interface point connecting a communications channel and a device. (PE/SUB) 1379-1997
(11) A segment or Inter-Repeater Link (IRL) interface of a repeater unit. (C/LM) 802.3-1998
(12) A conceptual point at which a cell or a hierarchical design unit makes its interface available to higher levels in the design hierarchy. (C/DA) 1481-1999
(13) An abstraction of an access point to network communications. (IM/ST) 1451.1-1999
(14) The part of the physical layer (PHY) that allows connection to one other node. (C/MM) 1394a-2000
(15) A physical entity that allows import or export of one or more cartridges from a library. (C/SS) 1244.1-2000
(16) *See also:* link interface. (C/BA) 1355-1995
(17) *See also:* Bridge Port. (C/LM) 802.1G-1996

portability (1) (software) The ease with which a system or component can be transferred from one hardware or software environment to another. *Synonym:* transportability. *See also:* machine independent. (C) 610.12-1990
(2) (application software) The ease with which application software and data can be transferred from one application platform to another. (C/PA) 14252-1996
(3) The capability of being moved between differing environments without losing the ability to be applied or processed. (ATLAS) 1232-1995
(4) The capability of being read and/or interpreted by multiple systems. (SCC20) 1232.1-1997
(5) The ease with which software can be transferred from one system or environment to another. A relative measure of effort, inversely proportional to the level of modification required for software to be transferred from one system or environment to another. (SCC20) 1226-1998

portable (x-ray) X-ray equipment designed to be hand-carried. (NEC/NESC) [86]

Wait_For_Child_Process procedure for an inactive process, the remaining resources are returned to the system. The last resource to be returned to the system is the process ID. At this time, the lifetime of the process ends. (C) 1003.5-1999

process list An ordered set of runnable processes that all have the same ordinal value for their priority. The ordering of processes on the list is determined by a scheduling policy or policies. The set of process lists includes all runnable processes in the system. (C/PA) 1003.1b-1993s

process management The direction, control, and coordination or work performed to develop a product or perform a service. Example is quality assurance. (C) 610.12-1990

process metric A metric used to measure characteristics of the methods, techniques, and tools employed in developing, implementing, and maintaining the software system. (C/SE) 1061-1998

process model A model of the processes performed by a system; for example, a model that represents the software development process as a sequence of phases. *Contrast:* structural model. (C) 610.3-1989w

processor (1) (A) (computers) (hardware). A data processor. **(B) (computers)** (pascal computer programming language). A system or mechanism that accepts a program as input, prepares it for execution, and executes the process so defined with data to produce results. *Note:* A processor may consist of an interpreter, a compiler and run-time system, or other mechanism, together with an associated host computing machine and operating system, or other mechanism for achieving the same effect. A compiler in itself, for example, does not constitute a processor. (Std100/SUB/PE) 812-1984, C37.1-1994

(2) (software) A computer program that includes the compiling, assembling, translating, and related functions for a specific programming language, for example, Cobol processor, Fortran processor. *See also:* multiprocessor. (C) [20], [85]

(3) The combination of the IU, FPU, and CP (if present). (C/MM) 1754-1994

(4) (A) A device that interprets and executes instructions, consisting of at least an instruction control unit and an arithmetic unit. *See also:* coprocessor; preprocessor. **(B)** A device that contains a central processing unit. (C) 610.10-1994

Processor A main system processor unit that executes operating system code and manages system resources. It is usually constrained on the number of CSRs it can devote to the functions of a given I/O Unit. (C/MM) 1212.1-1993

processor architecture The system-visible interfaces to a central processor, including its instruction set, stack and register structures, and trap and interrupt-handling methods. (C) 610.10-1994w

process-oriented simulation A simulation in which the process is considered more important than the outcome; for example, a model of a radar system in which the objective is to replicate exactly the radar's operation, and duplication of its results is a lesser concern. *Contrast:* outcome-oriented simulation. (C) 610.3-1989w

processor interface (PI) (FASTBUS acquisition and control) The interface device between a processor and a FASTBUS segment. (NID) 960-1993

processor storage *See:* internal storage.

process standard A standard that deals with the series of actions or operations used in making or achieving a product. (C) 610.12-1990

process step Any task performed in the development, implementation, or maintenance of software (for example, identifying the software components of a system as part of the design). (C/SE) 1061-1992s

processtag (microprocessor operating systems parameter types) A "tag" returned by one function for use by another. Its contents may not be examined or changed. Its form is system dependent. A processtag is only valid within a given process and should not be passed between processes. (C/MM) 855-1985s

process-to-process communication The transfer of data between processes. (C) 1003.5-1999

procurement document (nuclear power quality assurance) Purchase requisitions, purchase orders, drawings, contracts, specifications, or instructions used to define requirements for purchase. (PE/NP) [124]

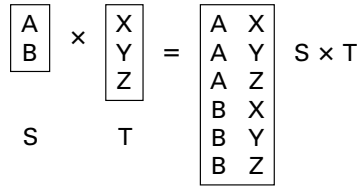
procurement documents (nuclear power generating station) Those documents such as specifications, contracts, letters of intent, work orders, purchase orders or proposals and their acceptance which authorize the seller to perform services or supply equipment, material or facilities to the purchaser. *Note:* This term applies specifically to the subject matter of IEEE Std 467-1980. (PE/NP) 467-1980w

producer (1) The node on a ringlet that transmits a send packet to the consumer and deletes the echo packet that is returned. (C/MM) 1596-1992

(2) A unit that adds a message to a DMA queue. (C/MM) 1212.1-1993

product (1) (mathematics of computing) The result of a multiplication operation. (C) 1084-1986w

(2) (data management) A relational operator that builds a relation from two specified relations consisting of all possible concatenated pairs of tuples, one from each of the two original relations. (See the corresponding figure.)



product

(C) 610.5-1990w

(3) An element of the physical or system architecture, specification tree, or system breakdown structure that is a subordinate element to the system and is comprised of two or more subsystems. It represents a major consumer product (e.g., automobile, airplane) of a system or a major life-cycle process product (e.g., simulator, building, robot) related to a life-cycle process that supports a product or group of products. (C/SE) 1220-1994s

(4) A software object used to define a set of related software. Filesets are contained within products. (C/PA) 1387.2-1995

(5) Any output of the software development Activities (e.g., document, code, or model). *See also:* Activity. (C/SE) 1074-1997

product analysis The process of evaluating a product by manual or automated means to determine if the product has certain characteristics. (C) 610.12-1990

product and process data package The evolving output of the systems engineering process that documents hardware designs, software designs with their associated documentation, and life-cycle processes. (C/SE) 1220-1994s

product baseline In configuration management, the initial approved technical documentation (including, for software, the source code listing) defining a configuration item during the production, operation, maintenance, and logistic support of its life cycle. *Contrast:* developmental configuration; functional baseline; allocated baseline. *See also:* product configuration identification. (C) 610.12-1990

product certification *See:* certification.

product characteristic An observable attribute of a product. This includes functional, physical, and performance characteristics (e.g., gain and bandwidth of an amplifier). (SCC20) 1226-1998

product code *See:* bar code; universal product code.

Consensus

WE BUILD IT.

Connect with us on:

Facebook: https://www.facebook.com/ieeesa

Twitter: @ieeesa

LinkedIn: http://www.linkedin.com/groups/IEEESA-Official-IEEE-Standards-Association-1791118

IEEE-SA Standards Insight blog: http://standardsinsight.com

YouTube: IEEE-SA Channel

IEEE
standards.ieee.org
Phone: +1 732 981 0060 Fax: +1 732 562 1571