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**switch, load matching** *See*: load-matching switch.

**switch, load transfer** *See*: load transfer switch.

**switch machine** A quick-acting mechanism, electrically controlled, for positioning track switch points, and so arranged that the accidental trailing of the switch points does not cause damage. A switch machine may be electrically or pneumatically operated. *See also*: car retarder. (EEC/PE) [119]

**switch machine lever lights** A group of lights indicating the position of the switch machine. (EEC/PE) [119]

**switch-machine point detector** *See*: point detector.

**switch mode (thyristor)** The starting instant of the controller ON-state interval is nonperiodic. This instant may be random (analogous to contactor operation), or it may be selected, for example, at voltage zero. (IA/IPC) 428-1981w

**switch onto fault protection** This provides tripping in the event that the breaker is closed into a zero voltage bolted fault, such as occurs if the grounding chains were left on the line following maintenance. (PE/PSR) C37.113-1999

**switch, optical** *See*: optical switch.

**switch or contactor, load** *See*: load switch or contactor.

**switch part class designation** A code which identifies the curve that relates the loadability factor (LF) of a switch part material and function to the ambient temperature  $\theta_A$ . (SWG/PE) C37.30-1992s, C37.37-1996

**switch point (watt-hour meters)** The transition from one time-of-use period to another. (ELM) C12.13-1985s

**switchpoint** *See*: switch.

**switch register** A register made up of a number of manual switches, typically equal to the number of bits in the computer, and generally located on the computer control panel. *Note*: Used to manually enter addresses and data into main storage and to manually intervene in program execution. (C) 610.10-1994w

**switchroom (telephone switching systems)** That part of a building that houses an assemblage of switching equipment. (COM) 312-1977w

**switch signal** A low two-indication horizontal color light signal with electric lamps for indicating position of switch or derail. (EEC/PE) [119]

**switch sleeve** A component of the linkage between the centrifugal mechanism and the starting-switch assembly. *See also*: starting-switch assembly. (EEC/PE) [119]

**switch starting** *See*: preheat-starting.

**switch stick** A device with an insulated handle and a hook or other means for performing stick operation of a switching device. *Synonym*: switch hook. (SWG/PE) C37.100-1992

**switch train** A series of switches in tandem. (EEC/PE) [119]

**switch-type function generator** A function generator using a multitap switch rotated in accordance with the input and having its taps connected to suitable voltage sources. *See also*: electronic analog computer. (C) 165-1977w

**swivel link (conductor stringing equipment)** A swivel device designed to connect pulling lines and conductors together in series or connect one pulling line to the drawbar of a pulling vehicle. The device will spin and help relieve the torsional forces which build up in the line or conductor under tension. (T&D/PE) 524-1992r

**SWR** *See*: residual standing-wave ratio; standing-wave-ratio indicator.

**syllabic companding (modulation systems)** Companding in which the gain variations occur at a rate comparable to the syllabic rate of speech; but do not respond to individual cycles of the audio-frequency signal wave. (IT) [7]

**syllable articulation** (percent syllable articulation) The percent articulation obtained when the speech units considered are syllables (usually meaningless and usually of the consonant-vowel-consonant type). *See also*: volume equivalent; articulation (percent articulation) and intelligibility (percent intelligibility). (EEC/PE) [119]

**syllable hyphen** *See*: discretionary hyphen.

**symbol (1)** A representation of something by reason of relationship, association, or convention. *See also*: logic symbol. (C) [20], [85]

(2) **(packaging machinery)** A sign, mark, or drawing agreed upon to represent an electrical device of component part thereof. (IA/PKG) 333-1980w

(3) **(computer graphics)** A conventional representation of an object, composed of one or more display elements that is expressed as a unit. (C) 610.6-1991w

(4) A 16 bit unit of data accompanied by flag information. The flag information may be explicitly present as a 17th bit, or implied by the context. Symbols are transmitted one after another to form SCI packets or idles. The particular physical layer used to transmit these symbols is not visible to the logical layer. (C/MM) 1596-1992

(5) Refers to data within an SCI packet. A 16-bit unit of data accompanied by flag information. The flag information may be explicitly present as a 17th bit, or implied by the context. Symbols are transmitted one after another to form SCI packets or idles. The particular physical layer used to transmit these symbols is not visible to the logical layer. (C/MM) 1596.3-1996

(6) A 10-bit, 8B/10B encoded byte. (C/BA) 1393-1999

(7) Two signal elements. Four symbols are defined: data-zero, data-one, non-data-L, and non-data-K. (C/LM) 8802-5-1998

(8) The smallest unit of data transmission on the medium. Symbols are unique to the coding system employed. 100BASE-T4 uses ternary symbols; 10BASE-T and 100BASE-X use binary symbols or code bits; 100BASE-T2 uses quinary symbols. (C/LM) 802.3-1998

(9) The radio-frequency (RF) energy and/or the RF current advisory symbols. (NIR/SCC28) C95.2-1999

(10) **(data management)** *See also*: code. (C) 610.5-1990w

**symbol for a quantity (abbreviation) (quantity symbol)** A letter (which may have letters or numbers, or both, as subscripts or superscripts, or both), used to represent a physical quantity or a relationship between quantities. *Compare with*: abbreviation; functional designation; mathematical symbol; reference designation; symbol for a unit. *See also*: abbreviation. (GSD) 267-1966

**symbol for a unit (unit symbol) (abbreviation)** A letter, a character, or combinations thereof, that may be used in place of the name of the unit. With few exceptions, the letter is taken from the name of the unit. *Compare with*: abbreviation; mathematical symbol; symbol for a quantity. *See also*: abbreviation. (GSD) 267-1966

**symbolic address (1) (computers)** An address expressed in symbols convenient to the programmer. (C) [20], [85]

(2) **(software)** An address expressed as a name or label that must be translated to the absolute address of the device or storage location to be accessed. *Contrast*: absolute address. (C) 610.12-1990

(3) An address, expressed in symbols convenient to the computer programmer, that will be translated to an absolute or virtual address before it can be interpreted by the computer. (C) 610.10-1994w

**symbolic addressing** An addressing mode in which the address field of an instruction contains a symbolic address. (C) 610.10-1994w

**symbolic coding (computers)** Coding that uses machine instructions with symbolic addresses. (C) [20], [85]

**symbolic execution (software)** A software analysis technique in which program execution is simulated using symbols, such as variable names, rather than actual values for input data, and program outputs are expressed as logical or mathematical expressions involving these symbols. (C) 610.12-1990

**symbolic image** A digital image in which the value associated with each pixel is a symbol, rather than a gray level. (C) 610.4-1990w