IEEE 100

THE

AUTHORITATIVE

DICTIONARY

OF IEEE STANDARDS TERMS

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IEEE 100
The Authoritative Dictionary of IEEE Standards Terms

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Contents

The Authoritative Dict

Contents

luminous efficiency for photopic
(EEC/IE) [126]

lor produced by the combination
. *Notes:* 1. The combination may
ssive presentation of the compo-
alternation is sufficiently high; or
ccomplished by simultaneous pre-
ne area or on adjacent areas, pro-
gh and close enough together to
. A color mixture as here defined
n additive color mixture to distin-
s of dyes, pigments, and other ab-
mixtures of substances are some-
color mixtures, but might more
lorant mixtures.
(BT/AV) 201-1979w

stimulus values.

noncomposite color picture signal;
ignal.

tron tube used to provide an image
of a raster and by varying the inten-
phors to produce light of the chosen
(ED) 161-1971w

color-picture tubes) A surface ap-
taining the color centers.
(ED) 161-1971w

l A fixed signal in which the indica-
olor and the position of two or more
(EEC/PE) [119]

lluminating engineering) (of a light
sing a light source for enhancing the
or objects by making their colors tend
ences. Judd's flattery index is an ex-
(EEC/IE) [126]

at utilizes multi-colored ribbons, pens,
g it to print in more than one color.
(C) 610.10-1994w

magnet in the neck region of a color-
e electron beam path for the purpose
(ED) 161-1971w

illuminating engineering) (of a light
e degree of color shift objects undergo
he light source as compared with the
jects when illuminated by a reference
color temperature. (EEC/IE) [126]

e system A structure containing a plu-
unted in the vicinity of the screen of a
ectron tubes), the function of this struc-
ctron impingement on the proper screen
asking, focusing, deflection, reflection,
hese effects. *See also:* shadow mask.
(ED) 161-1971w

de system transmission (electron tube)
ent primary electron current that passes
ecting-electrode system.
(ED) 161-1971w

levision) Any signal at any point for
controlling the chromaticity values of a
ure. *Note:* This is a general term that en-
ecific connotations such as those con-
"color picture signal" (either composite
chrominance signal color carrier signal,"
(in color television).
(BT/AV) 201-1979w

or television) A signal used to establish
ne color relationships that are transmitted.
verning Radio Broadcast Services, Part 3,
mmunications Commission, the color sync
sequence of color bursts that recur every
pecified time interval during the vertical

---

interval, each burst occurring on the back porch.
(BT/AV) 201-1979w

color temperature (1) (television) The absolute temperature of the full (blackbody) radiator for which the ordinates of the spectral distribution curve of emission are proportional (or approximately so) in the visible regions, to those of the distribution curve of the radiation considered, so that both radiations have the same chromaticity. *Note:* In certain countries, by extension, the term "color temperature" is used in the case of a selective radiator when, for the colorimetric standard observer, this radiator has the same color (or at least approximately the same color) as a full radiator at a certain temperature; this temperature is then called the color temperature of the selective radiator. (BT/AV) 201-1979w
(2) (illuminating engineering) (of a light source) The absolute temperature of a blackbody radiator having a chromaticity equal to that of the light source. (EEC/IE) [126]

color tracking (television) (A) The degree to which color balance is maintained over the complete range of the achromatic (neutral gray) scale. **(B)** A qualitative term indicating the degree to which constant chromaticity within the achromatic region in the chromaticity diagram is achieved on a color-display device from the range of luminances produced from a monochrome signal. *See also:* television. (BT/AV) [34]

color transmission (color television) The transmission of a signal wave for controlling both the luminance values and the chromaticity values in a picture. (BT/AV) 201-1979w

color triad (phosphor-dot screen) A color cell of a three-color phosphor-dot screen. (ED) 161-1971w

color triangle (television) A triangle drawn on a chromaticity diagram, representing the entire range of chromaticities obtainable as additive mixtures of three prescribed primaries represented by the corners of the triangle.
(BT/AV) 201-1979w

Colpitts oscillator An electron tube or solid state circuit in which the parallel-tune tank circuit is connected between grid and plate, the capacitive portion of the tank circuit being comprised of two series elements, the connection between the two being at cathode potential with the feedback voltage obtained across the grid-cathode portion of the capacitor. *See also:* radio-frequency generator. (BT) 182A-1964w

column (1) (A) (positional notation) A vertical arrangement of characters or other expressions. **(B)** Loosely, a digital place. *See also:* place. **(C) (test pattern language)** A group of words or bits in a memory, identified by a common Y-address. **(D) (metal nitrite oxide semiconductor arrays)** A group of memory cells having a common sense amplifier that detects the state of the cell being addressed. **(E) (data management)** A vertically corresponding set of entries in a table. *Contrast:* row. *See also:* attribute.
(ED/C/TT) 641-1987, 610.5-1990, 660-1986, 162-1963
(2) In a Physical Design Exchange Format (PDEF) datapath cluster, a cluster of cell, spare_cell, and/or cluster instances placed or constrained to be placed in the vertical (Y-axis) direction. *See also:* datapath; row. (C/DA) 1481-1999

column binary (1) Pertaining to the binary representation of data on punched cards in which adjacent positions in a column correspond to adjacent bits of data, for example, each column in a 12-row card may be used to represent 12 consecutive bits of a 36-bit word. (C) [20], [85]
(2) (mathematics of computing) Pertaining to the binary representation of data in which adjacent positions in a column correspond to adjacent binary digits. For example, each column in a 12-row card may be used to represent 12 consecutive bits of a binary word. *Synonym:* Chinese binary. *Contrast:* row binary. (C) 1084-1986w
(3) Pertaining to the binary representation of data on punch cards in which the weights of punch positions are assigned along card columns, for example, each column in a 12-row card may be used to represent 12 consecutive bits. *Synonym:* Chinese binary. *Contrast:* row binary. *See also:* binary card. (C) 610.10-1994w

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column enable (semiconductor memory) The input used to strobe in the column address in multiplexed address random access memories (RAM). (TT/C) 662-1980s

column-major order A method for storing the elements of a matrix in computer memory, in which elements are ordered in a column-by-column manner; that is, all elements of column 1, followed by all elements of column 2, etc. *Contrast:* row-major order. (C) 610.5-1990w

column position A unit of horizontal measure related to characters in a line. It is assumed that each character in a character set has an intrinsic column width independent of any output device. Each printable character in the portable character set has a column width of one. The standard utilities, when used as described in this standard, assume that all characters have integral column widths. The column width of a character is not necessarily related to the internal representation of the character (numbers of bits or octets). The column position of a character in a line is defined as one plus the sum of the column widths of the preceding characters in the line. Column positions are numbered starting from 1.
(C/PA) 9945-2-1993

column, positive *See:* positive column.

column select line The line that is determined by the column addresses (output of the Y decoder) that are used to select the appropriate access transistors during a read or write.
(ED) 1005-1998

column select transistor The transistor, controlled by the column select line, that accesses the appropriate bit-line during a read or write cycle. (ED) 1005-1998

column sort *See:* distribution sort.

column split The capability of a punch card device to read or punch two parts of a card column independently.
(C) 1084-1986w

column vector A matrix with only one column. That is, a matrix of size m-by-1. *Contrast:* row vector. (C) 610.5-1990w

COM *See:* computer output microfilm.

comb filter A filter whose insertion loss forms a sequence of narrow pass bands or narrow stop bands centered at multiples of some specified frequency. (CAS) [13]

combination An unordered sequence of items chosen from a set. *Contrast:* permutation. *See also:* forbidden combination.
(C) 610.5-1990w

combinational Pertaining to a logic whose output values at any given instant depend only upon the input values at that time. *Contrast:* sequential. (C) 610.10-1994w

combinational circuit A logic circuit whose output values at any given instant depend only upon the input values at that time. *Synonym:* combinatorial circuit. *Contrast:* sequential circuit. *See also:* gate. (C) 610.10-1994w

combinational logic element (A) A device having zero or more input channels and one output channel, each of which is always in one of exactly two possible physical states, except during switching transients. *Note:* On each of the input channels and the output channel, a single state is designated arbitrarily as the "one" state, for that input channel or output channel, as the case may be. For each input channel and output channel, the other state may be referred to as the "zero" state. The device has the property that the output channel state is determined completely by the comtemporaneous input-channel-state combination, to within switching transients. **(B)** By extension, a device similar to that in definition (A), except that one or more of the input channels or the output channel, or both, have a finite number, but more than two, possible physical states each of which is designated as a distinct logic state. The output channel state is determined completely by the contemporaneous input-channel-state combination, to within switching transients. **(C)** A device similar to that of definition (A) or (B), except that it has more than one output channel. *See also:* OR gate; AND gate.
(C) 162-1963

combinational logic function A logic function in which there exists one and only one resulting combination of states of the

outputs for each possible combination of input states. *Note:* The terms "combinative" and "combinatorial" have also been used to mean "combinational." (GSD) 91-1984r

combination buoy (navigation aids) A buoy that has more than one means of conveying intelligence. *See also:* buoy. (AES/GCS) 172-1983w

combination controller A full magnetic or semimagnetic controller with additional externally operable disconnecting means contained in a common enclosure. The disconnecting means may be a circuit breaker or a disconnect switch. *See also:* electric controller. (IA/ICTL/IAC) [60]

combination current and voltage regulation That type of automatic regulation in which the generator regulator controls both the voltage and current output of the generator. *Note:* This type of control is designed primarily for the purpose of ensuring proper charging of storage batteries on cars or locomotives. *See also:* axle-generator system. (EEC/PE) [119]

combination detector (fire protection devices) A device that either responds to more than one of fire phenomena (heat, smoke, or flame) or employs more than one operating principle to sense one of these phenomena. (NFPA) [16]

combination effect An electric disturbance not caused by one of the following mechanisms, but to some extent by a combination of them: normal-mode noise (transverse or differential), common-mode noise (longitudinal), and common-mode to normal-mode conversions. *See also:* normal-mode. (PE/IC) 1143-1994r

combination electric locomotive An electric locomotive, the propulsion power for which may be drawn from two or more sources, either located on the locomotive of elsewhere. *Note:* The prefix "combination" may be applied to cars, buses, etc., of this type. *See also:* electric locomotive. (EEC/PE) [119]

combination lighting and appliance branch circuit A circuit supplying energy to one or more lighting outlets and to one or more appliance outlets. *See also:* branch circuit. (EEC/PE) [119]

combination microphone A microphone consisting of a combination of two or more similar or dissimilar microphones. Examples: Two oppositely phased pressure microphones acting as a gradient microphone; a pressure microphone and velocity microphone acting as a unidirectional microphone. *See also:* microphone. (EEC/PE) [119]

combination monopulse A form of monopulse employing amplitude comparison in one angular coordinate plane and phase comparison in the orthogonal coordinate plane. (AES) 686-1997

combination rubber tape The assembly of both rubber and friction tape into one tape that provides both insulation and mechanical protection for joints. (EEC/PE) [119]

combinations of pulses and waveforms *See:* bipolar pulse; double pulse; staircase.

combination starter (packaging machinery) A starter having manually operated disconnecting means built into the same enclosure with the magnetic contactor. (IA/PKG) 333-1980w

combination support (raceway systems for Class 1E circuits for nuclear power generating stations) A support that serves either raceways or different types of raceway(s) and other mechanical or electric systems such as heating, ventilating, and air-conditioning (HVAC) ducts, piping, and lighting fixtures. (PE/NP) 628-1987r

combination surge *See:* combination wave.

combination thermoplastic tape An adhesive tape composed of a thermoplastic compound that provides both insulation and mechanical protection for joints. (EEC/PE) [119]

combination-type surge protective device A surge protective device that incorporates both voltage-switching-type components and voltage-limiting-type components may exhibit voltage switching, voltage limiting, or both voltage-switching and voltage-limiting behavior, depending upon the characteristics of the applied voltage. (SPD/PE) C62.48-1995

combination watch-report and fire-alarm system A coded manual fire-alarm system, the stations of which are equipped to transmit a single watch-report signal or repeated fire-alarm signals. *See also:* protective signaling. (EEC/PE) [119]

combination wave (1) The combination wave is delivered by a generator that applies a 1.2/50 voltage impulse across an open circuit and an 8/20 impulse current into a short circuit. The voltage and current and wave forms that are delivered to the surge protective device (SPD) are determined by the generator and the impedance of the SPD to which the surge is applied. The ratio of open-circuit voltage to peak short-circuit current is 2 ω.
(PE) C62.34-1996
(2) A surge delivered by an instrument that has the inherent capability of applying a 1.2/50-voltage wave across an open-circuit, and delivering an 8/20-current wave into a short circuit. The instantaneous impedance to which the combination wave is applied determines the exact wave that is delivered. The peak magnitudes of the voltage or current wave shall be specified. *Synonym:* combination surge.
(SPD/PE) C62.62-2000

combinatorial circuit *See:* combinational circuit.

combined head *See:* read/write head.

combined-line-recording trunk (CLR) (telephone switching) A one-way trunk for operator recording and extending of toll calls. (COM) 312-1977w

combined mechanical and electrical strength (insulators) The loading in pounds at which the insulator fails to perform its function either electrically or mechanically, voltage and mechanical stress being applied simultaneously. *Note:* The value will depend upon the conditions under which the test is made. *See also:* insulator; tower. (T&D/PE) [10]

combined-stress aging A form of accelerated aging in which several stresses are applied simultaneously. Ideally, the relative levels of the stresses are adjusted to produce the anticipated effects of the operational and environmental stresses in service. (DEI/RE) 775-1993w

combined telephone set A telephone set including in a single housing all the components required for a complete telephone set except the handset which it is arranged to support. *Note:* Wall hand telephone sets are of this type, but the term is usually reserved for a self-contained desk telephone set to distinguish it from desk telephone sets requiring an associated bell box. A desk local-battery telephone set may be referred to as a combined set if it includes in its mounting all components except its associated local batteries. *See also:* telephone station. (EEC/PE) [119]

combined uncertainty The uncertainty resulting from combining category A and category B uncertainties, as defined by the Bureau International des Poids et Mésures (BIPM), using standard statistical methods. Category A uncertainties are evaluated by applying statistical methods to a series of repeated measurements and are characterized by the estimated standard deviation, s_A; category B uncertainties are assigned to quantities whose variation is not explicitly observed. Category B uncertainties are determined by estimating from other information an approximation to a corresponding "standard deviation," s_B, whose existence is assumed. They are combined as if they are all standard deviations.
(NI) N42.14-1991

combined voltage and current influence (wattmeter) The percentage change (of full-scale value) in the indication of an instrument that is caused solely by a voltage and current departure from specified references while constant power at the selected scale point is maintained. *See also:* accuracy rating. (EEC/AII) [102]

combustible Capable of undergoing combustion in air, at pressures and temperatures that might occur during a fire in a building, or in a more severe environment when specified. (DEI) 1221-1993w

combustible materials (power and c... ers) Materials which are external to... of or surfaced with wood, compress... other materials that will ignite and s... (P...

combustion A chemical process of o... rate fast enough to produce heat and... glow or flame.

combustion control The regulation o... of fuel with air in a furnace.

COM device *See:* computer output m...

come-along *See:* conductor grip.

comic-strip oriented image In micr... pearing on a roll of microfilm in su... edge of the image is parallel to th... *Synonym:* landscape image. *Contra...*

COMIT One of the first languages de... strings; provides pattern matching ... ties.

Comité Consultatif Internationale ... phone (CCITT) (1) (data transm... mittee established under the Unite... with the International Tele-Commu... neva 1959) Article 13, to study and... questions on technical operation an... is attempting to establish standards... on a worldwide basis.
(2) An international organization t... ommendations on issues related t... ogy. *Note:* Also know in English ... and Telephone Consultative Comm...

comma In 1000BASE-X, the seven-... an 8B/10B code-group that is use... group alignment.

comma- In 1000BASE-X, the seven... an encoded data stream.

comma+ In 1000BASE-X, the sev... of an encoded data stream.

command (1) (logical link contro... an instruction represented in the ... data unit (PDU) and transmitted... (LLC). It causes the addressed L... data link control function.
(LM/PE/C/TR/CC...
(2) (A) (electronic computatio... signals (or groups of signals) tha... preting an instruction; the comm... steps that form the process of ex... eration. **(B) (electronic computa...** in machine language. **(C) (electr...** a mathematical or logic operator... tion) Loosely: an operation.
(MIL/C/Std1...
(3) An input variable establishe... independent of, the feedback (a... sets, is equivalent to, and is exp... the ideal value of the ultimately ... feedback control system; set poi...
(4) (software) An expression th... system to initiate an action or a... puter program; for example, the ... a computer session.
(5) A pulse, signal, or set of sig... performance of a controlled ope...

(6) A procedure in the Forth pro... ecution of a command perform... fecting the state of one or mor... defined way. (New command... of previously defined comman...

miting, or both voltage-switching
r, depending upon the character-
     (SPD/PE) C62.48-1995

nd fire-alarm system A coded
ne stations of which are equipped
eport signal or repeated fire-alarm
e signaling.   (EEC/PE) [119]

ombination wave is delivered by a
50 voltage impulse across an open
e current into a short circuit. The
ve forms that are delivered to the
PD) are determined by the gener-
PD) to which the surge is
circuit voltage to peak short-circuit
    (PE) C62.34-1996

n instrument that has the inherent
2/50-voltage wave across an open-
8/20-current wave into a short cir-
pedance to which the combination
es the exact wave that is delivered.
he voltage or current wave shall be
bination surge.
     (SPD/PE) C62.62-2000

combinational circuit.

write head.

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    (COM) 312-1977w

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ator; tower.   (T&D/PE) [10]

form of accelerated aging in which
lied simultaneously. Ideally, the rela-
es are adjusted to produce the antici-
rational and environmental stresses in
    (DEI/RE) 775-1993w

A telephone set including in a single
ents required for a complete telephone
which it is arranged to support. Note:
sets are of this type, but the term is
self-contained desk telephone set to
k telephone sets requiring an associated
-battery telephone set may be referred
if it includes in its mounting all com-
sociated local batteries. See also: tele-
    (EEC/PE) [119]

The uncertainty resulting from combin-
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are determined by estimating from other
oximation to a corresponding "standard
se existence is assumed. They are com-
all standard deviations.
    (NI) N42.14-1991

current influence (wattmeter) The per-
full-scale value) in the indication of an
aused solely by a voltage and current de-
ed references while constant power at the
is maintained. See also: accuracy rating.
    (EEC/AII) [102]

of undergoing combustion in air, at pres-
tures that might occur during a fire in a
ore severe environment when specified.
    (DEI) 1221-1993w

combustible materials (power and distribution transformers) Materials which are external to the apparatus and made of or surfaced with wood, compressed paper, plant fibers, or other materials that will ignite and support flame.
    (PE/TR) C57.12.80-1978r

combustion A chemical process of oxidation that occurs at a rate fast enough to produce heat and usually light, either as a glow or flame.   (DEI) 1221-1993w

combustion control The regulation of the rate of combination of fuel with air in a furnace.   (T&D/PE) [10]

COM device See: computer output microfilmer.

come-along See: conductor grip.

comic-strip oriented image In micrographics, an image appearing on a roll of microfilm in such a manner that the top edge of the image is parallel to the long edge of the film. Synonym: landscape image. Contrast: cine-oriented image.
    (Std100) 10.2-1987

COMIT One of the first languages designed to manipulate text strings; provides pattern matching and substitution capabilities.   (C) 610.13-1993w

Comité Consultatif Internationale Télégraphique et Téléphone (CCITT) (1) (data transmission) An advisory committee established under the United Nations in accordance with the International Tele-Communications Convention (Geneva 1959) Article 13, to study and recommend solutions for questions on technical operation and tariffs. The organization is attempting to establish standards for intercountry operation on a worldwide basis.   (PE) 599-1985w
(2) An international organization that studies and issues recommendations on issues related to communication technology. Note: Also know in English as International Telegraph and Telephone Consultative Committee.
    (C) 610.10-1994w

comma In 1000BASE-X, the seven-bit sequence that is part of an 8B/10B code-group that is used for the purpose of code-group alignment.   (C/LM) 802.3-1998

comma- In 1000BASE-X, the seven-bit sequence (1100000) of an encoded data stream.   (C/LM) 802.3-1998

comma+ In 1000BASE-X, the seven-bit sequence (0011111) of an encoded data stream.   (C/LM) 802.3-1998

command (1) (logical link control) In data communications, an instruction represented in the control field of a protocol data unit (PDU) and transmitted by a logical link control (LLC). It causes the addressed LLC(s) to execute a specific data link control function.
    (LM/PE/C/TR/CC) 799-1987w, 8802-2-1998
(2) (A) (electronic computation) One of a set of several signals (or groups of signals) that occurs as a result of interpreting an instruction; the commands initiate the individual steps that form the process of executing the instruction's operation. **(B) (electronic computation)** Loosely: an instruction in machine language. **(C) (electronic computation)** Loosely: a mathematical or logic operator. **(D) (electronic computation)** Loosely: an operation.
    (MIL/C/Std100) [2], [20], [85], 162-1963
(3) An input variable established by means external to, and independent of, the feedback (automatic) control system. It sets, is equivalent to, and is expressed in the same units as the ideal value of the ultimately controlled variable. See also: feedback control system; set point.   (IA/ICTL/IAC) [60]
(4) (software) An expression that can be input to a computer system to initiate an action or affect the execution of a computer program; for example, the "log on" command to initiate a computer session.   (C) 610.12-1990
(5) A pulse, signal, or set of signals initiating one step in the performance of a controlled operation.
    (SUB/PE) 999-1992w
(6) A procedure in the Forth programming language. The execution of a command performs some operation, usually affecting the state of one or more system resources in a pre-defined way. (New commands may be defined as sequences of previously defined commands. Most commands have hu-

man-readable names expressed as a sequence of textual characters.) See also: word name; Forth word.
    (C/BA) 1275-1994
(7) Any communication from a commander to a message-based servant, consisting of a write to the servant's data low register, possibly preceded by a write to the data high or data high and data extended registers.   (C/MM) 1155-1992
(8) A directive to the shell to perform a particular task.
    (C/PA) 9945-2-1993
(9) (A) In hardware, a control signal. **(B)** An expression that can be input to a computer system to initiate aan action or affect the execution of a computer program; for example, the (log on(command to initiate a computer session. **(C)** Loosely, a mathematical or logic operator. **(D)** Loosely, a computer instruction.   (C) 610.10-1994
(10) A message from the host directed to the printer that may or may not include print data.   (C/MM) 1284.1-1997
(11) A package of information transmitted from the roadside to the vehicle that requests that the transponder on the vehicle perform a specific action.   (SCC32) 1455-1999
(12) The instruction sent from an initiator to a target directing the target to execute a specified process.
    (C/MM) 1284.4-2000

command character See: control character.

command control (electric power system) An automatic generation control methodology that reduces unit control error irrespective of area control error.   (PE/PSE) 94-1991w

command-driven Pertaining to a system or mode of operation in which the user directs the system through commands. Contrast: menu-driven.   (C) 610.12-1990

commander A message-based device that is also a bus master and can control one or more servants.   (C/MM) 1155-1992

command group A set of commands with defined behaviors, the group as a whole providing some particular capability (for example, one command group is concerned with client program debugging).   (C/BA) 1275-1994

command guidance (navigation aid terms) Guidance in which information transmitted to a craft from an outside source causes it to follow a prescribed path.
    (AES/GCS) 172-1983w

command interpreter The portion of a Forth system that processes user input and Forth language source code by accepting a sequency of textual characters representing Forth word names and executing the corresponding Forth words.
    (C/BA) 1275-1994

command key Any control key on a keyboard used to represent a particular machine command.   (C) 610.10-1994w

command language (1) (software) A language used to express commands to a computer system. See also: command-driven.
    (C) 610.12-1990
(2) A computer language used to express commands to a computer system and to control their execution. For example, job control language, or REXX. Synonym: command-level language. See also: interactive language; declarative language; rule-based language.   (C) 610.13-1993w
(3) A type of dialog in which a user composes entries to evoke a system response.   (PE/NP) 1289-1998

command language interpreter See: shell.

command-level language See: command language.

command line interface A means of invoking utilities by issuing commands from within a POSIX.2 shell, implying that neither graphics nor windows are required.
    (C/PA) 1387.2-1995

command link (communication satellite) A data transmission link (generally earth to spacecraft or satellite) used to command a satellite or spacecraft in space.   (COM) [24]

command protocol data unit (PDU) (1) (logical link control) All PDU's transmitted by a logical link control (LLC) in which the C/R (command/response) bit is equal to "0."
    (PE/TR) 799-1987w

(2) All PDUs sent by an LLC in which the C/R bit in the SSAP address field is equal to "0."

(C/LM/CC) 8802-2-1998

command rate (gyros) The input rate equivalent of a torquer command signal. (AES/GYAC) 528-1994

command readout (numerically controlled machines) Display of absolute position as derived from position command. *Note:* In many systems the readout information may be taken directly from the dimension command storage. In others it may result from the summation of command departures.

(IA) [61]

command reference (power supplies) (servo or control system) The voltage or current to which the feedback signal is compared. As an independent variable, the command reference exercises complete control over the system output. *See also:* operational programming. (AES) [41]

command_reset An initialization event that is initiated by a write to the RESET_START CSR.

(C/BA) 896.2-1991w, 896.10-1997

Command Resource Unavailable (CRU) bit A bit in the Bus Error register of all S-modules. An S-module sets this bit to indicate that resources required to complete execution of a command were not available and that the command was not executed. (TT/C) 1149.5-1995

commands, class of One of the groups of MTM-Bus commands. Every MTM-Bus command is assigned to a command class. (TT/C) 1149.5-1995

Command Sequence Error (CSE) bit A bit in the Bus Error register of all S-modules. An S-module sets this bit to indicate that the module has received a command that requires a previous enabling command without receipt of such an enabling command. (TT/C) 1149.5-1995

command set A field in the Device ID message identifying the type of data expected by the peripheral. For example, a printer might use this field to report which page description language(s) it supports. (C/MM) 1284-1994

command transfer The passing of command information over the system control signal group, from the bus owner to the replying agent(s), during the request phase of a transfer operation. Command information includes parameters for the impending transfer operation, as well as additional address space information not transmitted with the address transfer. *See also:* system control signal group; request phase.

(C/MM) 1296-1987s

command & US core;_reset An initialization event that is initiated by a write to the RESET_START register.

(C/MM) 1212-1991s

command *X,* receipt of Error-free receipt of the HEADER packet containing in its Command field the command code of *X.* (TT/C) 1149.5-1995

comment (software) Information embedded within a computer program, job control statements, or a set of data, that provides clarification to human readers but does not affect machine interpretation. (C) 610.12-1990

comment source statements Source statements that provide information to people reading the software source code and are ignored by the compiler. (C/SE) 1045-1992

commercial character (A) One of the set of characters used commonly in commercial operations; for example, CR (credit) and DB (debit). **(B)** A character within a picture specification that represents one of the characters as in (A).

(C) 610.5-1990

commercial data processing Data processing performed to support a commercial organization or function.

(C) 610.2-1987

commercial grade dedication A process of evaluating (which includes testing) and accepting commercial grade items to obtain adequate confidence of their suitability for safety application. (PE/NP) 7-4.3.2-1993

commercial grade item An item satisfying a), b), and c) below:

a) Not subject to design or specification requirements that are unique to nuclear facilities

b) Used in applications other than nuclear facilities

c) Ordered from the manufacturer/supplier on the basis of specifications set forth in the manufacturer's published product description (for example, catalog)

(PE/NP) 7-4.3.2-1993

commercial grade part (replacement parts for Class 1E equipment in nuclear power generating stations) A part that is:

a) Not subject to design or specification requirements that are unique to nuclear power plants;

b) Used in applications other than nuclear power plants;

c) Ordered from the manufacturer/supplier on the basis of specifications set forth in the manufacturer's published product description (for example, a catalog).

(PE/NP) 934-1987w

commercial-off-the-shelf (COTS) Software defined by a market-driven need, commercially available, and whose fitness for use has been demonstrated by a broad spectrum of commercial users. (C/SE) 1062-1998

commercial operation The acceptance, by the user, of the static var compensator (SVC) from the supplier.

(PE/SUB) 1031-2000

commercial power (1) (emergency and standby power) Power furnished by an electric power utility company; when available, it is usually the prime power source. However, when economically feasible, it sometimes serves as an alternative or standby source. *Synonym:* utility power.

(IA/PSE) 446-1995

(2) Power furnished by an electric power utility company.

(IA/PSE) 1100-1999

commercial, residential, and institutional buildings All buildings other than industrial buildings and residential dwellings.

(IA/PSE) 241-1990r

commercial tank (electrorefining) An electrolytic cell in which the cathode deposit is the ultimate electrolytically refined product. *See also:* electrorefining. (EEC/PE) [119]

commercial zone A zone that includes offices, shops, hotels, motels, service establishments, or other retail/commercial facilities as defined by local ordinances.

(PE/SUB) 1127-1998

commissioning The process of providing to the appropriate components, the information necessary for the designed communication between components. (IM/ST) 1451.1-1999

Commission Internationale de l'Eclairage The initials CIE are the initials of the official French name of the International Commission on Illumination. This translated name is approved for usage in English-speaking countries, but at its 1951 meeting the Commission recommended that only the initials of the French name be used. The initials ICI, which have been used commonly in this country, are deprecated because they conflict with an important trademark registered in England and because the initials of the name translated into other languages are different. (BT/AV) 201-1979w

commissioning tests (rotating machinery) Tests applied to a machine at site under normal service conditions to show that the machine has been erected and connected in a correct manner and is able to work satisfactorily. *See also:* asynchronous machine. (PE) [9]

common *See:* common storage.

common ancestor constraint A kind of constraint that involves two or more relationship paths to the same ancestor class and states either that a descendent instance must be related to the *same* ancestor instance through each path or that it must be related to a *different* ancestor instance through each path.

(C/SE) 1320.2-1998

common area *See:* common storage.

common-battery central office *See:* common-battery office.

common-battery office (telephone switching systems) A central office that supplies transmitter and signaling currents for its associated stations and current for the central office equipment from a power source located in the central office.

(COM) 312-1977w

common-battery signaling (data t... actuating a line or supervisory sig... telephone line by the closure of a... with the exchange providing the f...

common-battery switchboard A... serving common-battery telephon...

common block *See:* common stora...

common bonding network (CBN) ... affecting bonding and earthing in... of metallic components that are i... interconnected to form the (ea... mesh) in a building. These con... steel or reinforcing rods, metalli... duit, equipment grounding condu... ing conductors. The CBN always... connected to the grounding electr... may also be known in the publ... integrated ground plane.

COmmon Business-Oriented La... order programming language stan... designed for business applicatio... guage; general-purpose programm...

common carrier (1) In telecomm... company that is recognized by... agency as having a vested intere... nishing communication services... *also:* value-added service; specia...

(2) *See also:* communications c...

common-cause failure (1) (relia... **drivers, valve actuators, and** ... dant component failures due to a... cause events that cause multiple... ary events or events that exceed... component.

(2) (nuclear power generating ... tiple failures attributable to a co...

(PE/NP) 37...

common-channel interoffice sig... **systems)** The use of separate pat... to carry the signaling associate... cation paths.

common class Defines those aspe... jects that are the same. The com... are software_collections, softw... names of these classes are also... any object that shares that com...

common control (telephone swit... switching arrangement in whic... essary for the establishment of... associated with a given call on... to accomplish the control funct...

common coupling *See:* common...

common data *See:* global data.

common device (of a superviso... the master or remote station ... operation of the supervisory ... equipment for the individual p...

common-environment coupling ... two software modules access a... common coupling. *Contrast:* ... coupling; data coupling; contr...

common equipment That comp... remote station supervisory equ... interconnecting channel and is...

an nuclear facilities
rer/supplier on the basis of
he manufacturer's published
mple, catalog)

(PE/NP) 7-4.3.2-1993

nt parts for Class 1E equip-
ng stations) A part that is:

pecification requirements that
r plants;

han nuclear power plants;
turer/supplier on the basis of
the manufacturer's published
ample, a catalog).

(PE/NP) 934-1987w

'S) Software defined by a mar-
y available, and whose fitness
d by a broad spectrum of com-

(C/SE) 1062-1998

eptance, by the user, of the static
n the supplier.

(PE/SUB) 1031-2000

ergency and standby power)
ric power utility company; when
prime power source. However,
it sometimes serves as an alter-
ynonym: utility power.

(IA/PSE) 446-1995

electric power utility company.

(IA/PSE) 1100-1999

l institutional buildings All build-
uildings and residential dwellings.

(IA/PSE) 241-1990r

refining) An electrolytic cell in
is the ultimate electrolytically re-
lectrorefining. (EEC/PE) [119]

hat includes offices, shops, hotels,
nents, or other retail/commercial fa-
l ordinances.

(PE/SUB) 1127-1998

ss of providing to the appropriate
tion necessary for the designed com-
nponents. (IM/ST) 1451.1-1999

le de l'Eclairage The initials CIE are
al French name of the International
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ame be used. The initials ICI, which
only in this country, are deprecated
ith an important trademark registered
e the initials of the name translated into
fferent. (BT/AV) 201-1979w

otating machinery) Tests applied to a
normal service conditions to show that
erected and connected in a correct man-
k satisfactorily. See also: asynchronous

(PE) [9]

storage.

traint A kind of constraint that involves
ship paths to the same ancestor class and
escendent instance must be related to the
ce through each path or that it must be
ancestor instance through each path.

(C/SE) 1320.2-1998

mmon storage.

ral office See: common-battery office.
ce (telephone switching systems) A cen-
lies transmitter and signaling currents for
ns and current for the central office equip-
source located in the central office.

(COM) 312-1977w

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common-battery signaling (data transmission) A method of
actuating a line or supervisory signal at the distant end of a
telephone line by the closure of a direct-current (dc) circuit
with the exchange providing the feeding current.

(PE) 599-1985w

common-battery switchboard A telephone switchboard for
serving common-battery telephone sets. (COM) [48]

common block *See:* common storage.

common bonding network (CBN) **(A)** The principal means for
affecting bonding and earthing inside a building. **(B)** The set
of metallic components that are intentionally or incidentally
interconnected to form the (earthed) bonding network (a
mesh) in a building. These components include structural
steel or reinforcing rods, metallic plumbing, ac power con-
duit, equipment grounding conductors, cable racks, and bond-
ing conductors. The CBN always has a mesh topology and is
connected to the grounding electrode system. *Note:* The CBN
may also be known in the public telephone network as an
integrated ground plane. (IA/PSE) 1100-1999

COmmon Business-Oriented Language (COBOL) A high-
order programming language standardized by ANSI and ISO,
designed for business applications. *See also:* common lan-
guage; general-purpose programming language; IDS/1.

(C) 610.13-1993w

common carrier **(1)** In telecommunications, a public utility
company that is recognized by an appropriate regulatory
agency as having a vested interest and responsibility in fur-
nishing communication services to the general public. *See
also:* value-added service; specialized common carrier.

(LM/COM) 168-1956w

(2) *See also:* communications common carrier.

(C) 610.7-1995

common-cause failure **(1)** **(reliability data for pumps and
drivers, valve actuators, and valves)** Two or more redun-
dant component failures due to a single cause. The common-
cause events that cause multiple failures are usually second-
ary events or events that exceed the design envelope of the
component. (PE/NP) 500-1984w
(2) **(nuclear power generating station safety systems)** Mul-
tiple failures attributable to a common cause.

(PE/NP) 379-1994, 603-1998, 933-1999

**common-channel interoffice signaling (telephone switching
systems)** The use of separate paths between switching entities
to carry the signaling associated with a group of communi-
cation paths. (COM) 312-1977w

common class Defines those aspects of different software ob-
jects that are the same. The common classes for this standard
are software_collections, software, and software_files. The
names of these classes are also used to generically describe
any object that shares that common class.

(C/PA) 1387.2-1995

common control (telephone switching systems) An automatic
switching arrangement in which the control equipment nec-
essary for the establishment of connections is shared, being
associated with a given call only during the period required
to accomplish the control function. (COM) 312-1977w

common coupling *See:* common-environment coupling.

common data *See:* global data.

common device (of a supervisory system) A device in either
the master or remote station that is required for the basic
operation of the supervisory system and is not part of the
equipment for the individual points. *Synonym:* basic device.

(SWG/PE) C37.100-1992

common-environment coupling A type of coupling in which
two software modules access a common data area. *Synonym:*
common coupling. *Contrast:* pathological coupling; content
coupling; data coupling; control coupling; hybrid coupling.

(C) 610.12-1990

common equipment That complement of either the master or
remote station supervisory equipment that interfaces with the
interconnecting channel and is otherwise basic to the opera-

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tion of the supervisory system, but is exclusive of those ele-
ments that are peculiar to and required for the particular ap-
plications and uses of the equipment.

(SWG/PE/SUB) C37.100-1992, C37.1-1987s

common language Any programming language that is used
widely on a variety of computers; For example, BASIC, C,
COBOL, and FORTRAN. *See also:* general-purpose pro-
gramming language. (C) 610.13-1993w

Common LISP A dialect of LISP that is widely accepted as the
standard language for LISP. *See also:* CLOS.

(C) 610.13-1993w

Common LISP Object System An object-oriented language
based on Common LISP. (C) 610.13-1993w

common-mode **(1)** **(general)** The instantaneous algebraic av-
erage of two signals applied to a balanced circuit, both signals
referred to a common reference. *See also:* oscillograph.

(IM/HFIM) [40]

(2) **(medical electronics)** (in-phase signal) A signal applied
equally and in phase to the inputs of a balanced amplifier or
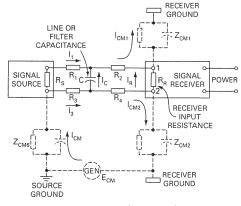other differential device. (EMB) [47]

common-mode conversion (interference terminology) The
process by which differential-mode interference is produced
in a signal circuit by a common-mode interference applied to
the circuit. Common-mode currents are converted to differ-
ential-mode voltages by impedances R_1, R_2, R_3, R_4, R_S, R_R,
and c. The differential-mode voltage at the receiver resulting
from the conversion is the algebraic summation of the voltage
drops produced by the various currents in these impedances.
Various of the impedances may be neglected at particular
frequencies. At direct current,

$$V_{CM} = I_r R_r \approx I_{CM1} (R_S + R_1 + R_2) - I_{CM2} (R_3 + R_4)$$

At

$$f > \frac{I}{c(R_1 + R_3 + R_S)}$$

$$V_{CM} \approx I_c X_c \frac{R_R}{R_2 + R_4 + R_R}$$

See also: interference.

common-mode conversion

(IE) [43]

**common-mode failure (nuclear power generating station)
(safety systems equipment in nuclear power generating
stations)** Multiple failures attributable to a common cause.

(SWG/PE/NP) 627-1980r, 650-1979s, 649-1980s,
308-1980s, C37.100-1992

common-mode interference **(1)** **(automatic null-balanced
electrical instruments)** Interference that appears between
both signal leads and a common reference plane (ground) and
causes the potential of both sides of the transmission path to
be changed simultaneously and by the same amount relative
to the common reference plane (ground). *See also:* interfer-
ence. (IE/EMC/PE/SUB) [43], C63.13-1991, C37.1-1994

memory array (1) A matrix of memory locations arranged in a rectangular geometric pattern on an integrated circuit.
  (C) 610.10-1994w

(2) *See also:* array.
  (ED) 1005-1998

memory bank *See:* bank.

memory board A circuit board that provides random-access memory to a system.   (C) 610.10-1994w

memory boundary The last address of an aligned data block. The maximum data block size that can be transferred by an IUT Master is the product of data width and data length.
  (C/BA) 896.4-1993w

memory buffer register A register in which a word is stored as it is read from memory or as it is written to memory. *Synonym:* memory data register.   (C) 610.10-1994w

memory bus A bus connecting memory to the devices which can access it, including the processor and peripheral devices.
  (C) 610.10-1994w

memory capacity (1) The maximum number of bits that a memory is capable of storing.   (ED) 641-1987w
(2) (software) The maximum number of items that can be held in a given computer memory; usually measured in words or bytes.   (C) 610.12-1990
(3) *See also:* capacity.   (ED) 1005-1998
(4) (electronic computation) *See also:* channel capacity; storage capacity.

memory cell (1) The smallest subdivision of a memory into which a unit of data has been or can be entered, in which it is or can be stored, and from which it can be retrieved.
  (ED) 641-1987w
(2) The combination of one or more single or merged transistors formed to provide a means of accessing, changing, and storing data.   (ED) 1005-1998

memory compaction (A) A storage allocation technique in which the contents of all allocated storage areas are moved to the beginning of the storage space and the remaining storage blocks are combined into a single block. *Synonym:* garbage collection. **(B)** A storage allocation technique in which contiguous blocks of nonallocated storage are combined to form single blocks.   (C) 610.12-1990

memory core *See:* magnetic core.

memory cycle (1) (test, measurement, and diagnostic equipment) The time required to read information from memory and replace it.   (MIL) [2]
(2) A single complete access (read or write) of memory.
  (C) 610.10-1994w

memory data register *See:* memory buffer register.

memory device A device that contains only memory and implements configuration registers.   (C/MM) 1155-1992

memory dump A display of the contents of all or part of a computer's internal storage, usually in binary, octal, or hexadecimal form. *See also:* static dump; selective dump; snapshot dump; dynamic dump; change dump.
  (C) 610.12-1990

memory image A series of bits that can be stored within a contiguous portion of transponder memory and that may be passed as a parameter within commands initiated by the road-side equipment (RSE).   (SCC32) 1455-1999

memory integrated circuit An integrated circuit consisting of memory cells and usually including associated circuits such as signal amplification and address selection.
  (ED) 1005-1998

memory location A subdivision of a memory, including one or several memory cells, that is the smallest part of the memory that can be addressed. *Note:* The content of a memory location is usually called a bit, a byte, or a word, as appropriate.
  (ED) 1005-1998

memory management unit (MMU) A device that performs address translation between a CPU's virtual addresses and the physical addresses of some bus; typically, the bus represented by the root node.   (C/BA) 1275-1994

memory map (1) A diagram that shows where programs and data are stored in a computer's memory.   (C) 610.12-1990

(2) A list of all the current addresses in a computer. *Note:* This may indicate what is currently allocated, who is using it and where it is located. *Synonym:* memory map list.
  (C) 610.10-1994w

memory map list *See:* memory map.

memory mapping (A) The manner in which an address is translated into a physical address of a storage location. *See also:* biasing; segmenting; paging. **(B)** The process of translating addresses as in definition (A).   (C) 610.10-1994

memory-mode agent An agent that communicates with others by using memory and/or I/O space on the parallel system bus.
  (C/MM) 1296-1987s

memory-mode system A system in which the agents communicate with one another with data structures in memory and/or I/O space.   (C/MM) 1296-1987s

memory object (1) Either a file or shared memory object. When used in conjunction with *mmap*(), a memory object will appear in the address space of the calling process.
  (C/PA) 9945-1-1996
(2) Either a file or shared memory object. When used in conjunction with Map_Memory, Open_And_Map_Shared_Memory, or Open_Or_Create_And_Map_Shared_Memory, a memory object will appear in the address space of the calling process.
  (C) 1003.5-1999

memory organization The arrangement of memory cells, either by geometrical arrangement in rows and columns or by organization of the data to be stored.
  (ED) 1005-1998, 641-1987w

memory page A segment of transponder memory that is assigned a unique location by which it may be referenced.
  (SCC32) 1455-1999

memory relay (A) A relay having two or more coils, each of which may operate independent sets of contacts, and another set of contacts that remain in a position determined by the coil last energized. **(B)** Sometimes erroneously used for polarized relay. *See also:* relay.   (EEC/REE) [87]

memory-resident Managed by the implementation in such a way as to provide an upper bound on memory access times.
  (C/PA) 9945-1-1996, 1003.5-1999

memory space The address space used for accessing physical memory devices for storage and retrieval of code and data.
  (C/MM) 1296-1987s

memory window The difference in threshold voltage between the low- and high-conductance logic states of a memory cell.
  (ED) 641-1987w

MENTOR A block-structured language used widely in computer-aided instruction; characterized by its ability to model a student's knowledge.   (C) 610.13-1993w

menu (1) A list of options available for selection by the user of a computer system. *Synonyms:* display menu; help menu; menu selection.   (C) 610.2-1987, 610.6-1991w
(2) A rectangular visual user interface control containing a group of controls used to select an action from a group of choices.   (C) 1295-1993w

menu bar A visual user interface control that is the bounded area near the top of a window, below the title bar, and above the rest of the window that contains cascade buttons that provide access to other menus.   (C) 1295-1993w

menu by-pass In a menu-driven system, a feature that permits advanced users to perform functions in a command-driven mode without selecting options from the menus.
  (C) 610.12-1990

menu-driven Pertaining to a system or mode of operation in which the user directs the system through menu selections. *Contrast:* command-driven. *See also:* menu by-pass.
  (C) 610.12-1990

menu selection (A) The process of choosing an item from a menu. **(B)** The item chosen from a menu.   (C) 610.2-1987

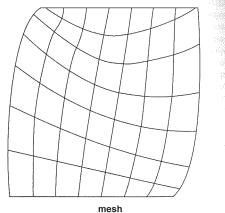**mercury-arc converter, pool-cathode** *See:* pool-cathode mercury-arc converter; oscillatory circuit.

mercury-arc rectifier A gas-filled rectifier tube in which the gas is mercury vapor. *See also:* rectification.
  (ED) [45], [84]

mercury cells Electrolytic cells having mercury cathodes with which deposited metals form amalgams. (EEC/PE) [119]

mercury-contact relays (A) (mercury plunger relay) A relay in which the magnetic attraction of a floating plunger by a field surrounding a sealed capsule displaces mercury in a pool to effect contacting between fixed electrodes. **(B) (mercury-wetted-contact relay)** A form of reed relay in which the reeds and contacts are glass enclosed and are wetted by a film of mercury obtained by capillary action from a mercury pool in the base of a glass capsule vertically mounted. **(C) (mercury-contact relay)** A relay mechanism in which mercury establishes contact between electrodes in a sealed capsule as a result of the capsule's being tilted by an electromagnetically actuated armature, either on pick-up or dropout or both. *See also:* mercury relay.

mercury fluorescent lamp (illuminating engineering) An electric discharge lamp having a high-pressure mercury arc in an arc tube, and an outer envelope coated with a fluorescing substance (phosphor) which transforms some of the ultraviolet energy generated by the arc into light. (EEC/IE) [126]

mercury-hydrogen spark-gap converter (dielectric heating) A spark-gap generator or power source which utilizes the oscillatory discharge of a capacitor through an inductor and a spark gap as a source of radio-frequency power. The spark gap comprises a solid electrode and a pool of mercury in a hydrogen atmosphere. *See also:* induction heating.
(IA) 54-1955w, 169-1955w

mercury lamp (illuminating engineering) A high intensity discharge (HID) lamp in which the major portion of the light is produced by radiation from mercury operating at a partial pressure in excess of 1.013×10^5 Pa (one atmosphere). Includes clear, phosphor-coated (mercury-fluorescent), and self-ballasted lamps. (EEC/IE) [126]

mercury-lamp ballast *See:* ballast.

mercury-lamp transformer *See:* constant-current (series) mercury-lamp transformer.

mercury motor meter A motor-type meter in which a portion of the rotor is immersed in mercury, which serves to direct the current through conducting portions of the rotor. *See also:* electricity meter.

mercury oxide cell A primary cell in which depolarization is accomplished by oxide of mercury. *See also:* electrochemistry. 341

mercury-pool cathode (gas tube) A pool cathode consisting of mercury. (ED) [45], [84]

mercury relay A relay in which the movement of mercury opens and closes contacts. (EEC/REE) [87]

mercury storage A type of storage that utilizes the acoustic wave propagation properties of mercury to store data. *See also:* acoustic delay line. (C) 610.10-1994w

mercury vapor lamp transformers (power and distribution transformers) (multiple-supply type) Transformers, autotransformers, or reactors for operating mercury or metallic iodide vapor lamps for all types of lighting applications, including indoor, outdoor area, roadway, uviarc, and other process and specialized lighting. (PE/TR) C57.12.80-1978r

mercury-vapor tube A gas tube in which the active gas is mercury vapor. (ED) 161-1971w

merge (1) (computers) To combine two or more sets of items into one, usually in a specified sequence. (C/C) [20], [85] **(2) (data management)** To combine the items of two or more sets, all in the same order, into one set in that order. *See also:* unbalanced merge; collate; bitonic merge; coalesce; order-by-merging; balanced merge; merge sort. (C) 610.5-1990w

merge exchange sort *See:* Batcher's parallel sort.

merge search A sequential search in which the set of search arguments is ordered in the same sequence as the set to be searched; the set is searched sequentially, using the first search argument, until an equal or greater search key is found, the former case signifying a successful search, the latter, an unsuccessful search; the search for the next search argument begins where the last search left off. (C) 610.5-1990w

merge sort A sort in which the set to be sorted is divided into subsets, the items in each subset are sorted, and the sorted subsets are merged. *Synonym:* merging sort. *See also:* internal merge sort; external merge sort. (C) 610.5-1990w

merging Reconfiguration function that involves dual ring stations ceasing to use contra-rotating links in favor of a restored link or station. (LM/C) 802.5c-1991r

merging sort *See:* merge sort.

meridional ray (fiber optics) A ray that passes through the optical axis of an optical waveguide (in contrast with a skew ray, which does not). *See also:* optical axis; skew ray; paraxial ray; axial ray; geometric optics; numerical aperture.
(Std100) 812-1984w

Merritt and Miller's Own Block Structured Simulation Language (MOBSSL-UAF) A simulation language used to model continuous systems using an augmented block structure. (C) 610.13-1993w

Mesa An application development language used by Xerox to program Viewpoint applications. (C) 610.13-1993w

mesh (1) A set of branches forming a closed path in a network, provided that if any one branch is omitted from the set, the remaining branches of the set do not form a closed path. *Note:* The term loop is sometimes used in the sense of mesh. *See also:* network analysis. (Std100) 270-1966w
(2) (computer graphics) A group of polygons that, when placed on the surface of a three-dimensional object, visually describes the shape of the exterior surface. (See the corresponding figure.)

mesh
(C) 610.6-1991w

mesh-connected circuit A polyphase circuit in which all the current paths of the circuit extend directly from the terminal of entry of one phase conductor to the terminal of entry of another phase conductor, without any intermediate interconnections among such paths and without any connection to the neutral conductor, if one exists. *Note:* In a three-phase system this is called the delta (or D) connection. *See also:* network analysis. (Std100) 270-1966w

mesh current A current assumed to exist over all cross sections of a given closed path in a network. *Note:* A mesh current may be the total current in a branch included in the path, or it may be a partial current such that when combined with others the total current is obtained. *See also:* network analysis. (Std100) 270-1966w

mesh equations Any set of equations (of minimum number) such that the independent mesh or loop currents of a specified network may be determined from the impressed voltages. *Notes:* 1. For a given network, different sets of equations, equivalent to one another, may be obtained by different choices of mesh or loop currents. 2. The equations may be differential equations, or algebraic equations when impedances and phasor equivalents of steady-state single-frequency sine-wave quantities are used. *Synonym:* loop equations. *See also:* network analysis. (Std100) 270-1966w

mesh table A multidimension table [...] delay model in terms of discrete po[...] a delay value in terms of several c[...] nect parameters. The delay calcula[...] interpolate between these points ba[...] pression defined by the technolog[...]

mesh voltage The maximum touch [...] ground grid.

mesial point (pulse terminology) [...] point at the intersection of a wave[...] *also:* waveform epoch.

mesopause The upper boundary of [...]

mesopic vision (illuminating engi[...] adapted eyes at luminance condi[...] topic and scotopic vision, that is [...] $(2.2 \times 10^{-3} \text{ cd/in}^2)$ (1.0 fL) and [...] in^2) (0.01 fL).

mesosphere That part of the Earth'[...] the stratosphere, in which the te[...] creasing height. The mesospher[...] around 85 km, where the temp[...] value.

message (1) (telephone switching[...] or the information content there[...]
(2) (A) In telecommunications, [...] and symbols transferred from [...] bisync-type devices, the data [...] transmission to the first end-of-[...] information theory, an ordered [...] intended to convey informatio[...] and control bit sequences transf[...] source to a data sink, where the [...] determined by the data source [...] information whose beginning a[...]

(3) A value or set of values re[...] between functions. The term a[...] very primitive, not implying a [...] protocol unless modified by [...] transaction-initiation message)[...] simple (a signal) or complicate[...]
(4) A set of packets starting w[...] that HEADER and all (ACKN[...] ets transmitted as the immed[...] mand in that HEADER, and te[...] returns to the IDLE Master C[...]

(5) An ordered series of chara[...] tion.
(6) Information that can be t[...] threads by being added to [...] queue. A message consists of [...]

(7) A logical grouping of one [...] host to printer (a command [...] (a response message).
(8) A package of information[...] is sent to or from a transpon[...]

(9) A communication sent fr[...] *sage* encompasses requests t[...] simple informative commun[...]

(10) Information that can be [...] bly in different processes) [...] from a message queue. A m[...] size buffer.
(11) A grouping of data ele[...] as associated message metad[...] plete unit of information. F[...] a message is an abstract des[...]

to be sorted is divided into
are sorted, and the sorted
rging sort. *See also:* internal
(C) 610.5-1990w

that involves dual ring sta-
links in favor of a restored
(LM/C) 802.5c-1991r

ray that passes through the
ide (in contrast with a skew
tical axis; skew ray; paraxial
numerical aperture.
(Std100) 812-1984w

Structured Simulation Lan-
mulation language used to
an augmented block struc-
(C) 610.13-1993w
language used by Xerox to
(C) 610.13-1993w

a closed path in a network,
is omitted from the set, the
not form a closed path. *Note:*
d in the sense of mesh. *See*
(Std100) 270-1966w
up of polygons that, when
-dimensional object, visually
rior surface. (See the corre-

sh
(C) 610.6-1991w

hase circuit in which all the
nd directly from the terminal
or to the terminal of entry of
ut any intermediate intercon-
without any connection to the
Note: In a three-phase system
onnection. *See also:* network
(Std100) 270-1966w
to exist over all cross sections
twork. *Note:* A mesh current
ranch included in the path, or
ch that when combined with
ned. *See also:* network analy-
(Std100) 270-1966w
ations (of minimum number)
or loop currents of a specified
from the impressed voltages.
, different sets of equations,
ay be obtained by different
nts. 2. The equations may be
braic equations when impe-
s of steady-state single-fre-
re used. *Synonym:* loop equa-
is.
(Std100) 270-1966w

mesh table A multidimension table that defines every type of delay model in terms of discrete points. Each point represents a delay value in terms of several cell parameters or interconnect parameters. The delay calculation module is expected to interpolate between these points based on a mathematical expression defined by the technology file.
(C/DA) 1481-1999

mesh voltage The maximum touch voltage within a mesh of a ground grid.
(PE/SUB) 80-2000

mesial point (pulse terminology) A magnitude referenced point at the intersection of a waveform and a mesial line. *See also:* waveform epoch.
(IM/WM&A) 194-1977w

mesopause The upper boundary of the mesosphere.
(AP/PROP) 211-1997

mesopic vision (illuminating engineering) Vision with fully adapted eyes at luminance conditions between those of photopic and scotopic vision, that is, between about 3.4 cd/m² $(2.2 \times 10^{-3}$ cd/in²$)$ (1.0 fL) and 0.034 cd/m² $(2.2 \times 10^{-5}$ cd/in²$)$ (0.01 fL).
(EEC/IE) [126]

mesosphere That part of the Earth's atmosphere, located above the stratosphere, in which the temperature decreases with increasing height. The mesosphere extends to an altitude of around 85 km, where the temperature reaches a minimum value.
(AP/PROP) 211-1997

message (1) (telephone switching systems) An answered call or the information content thereof.
(COM) 312-1977w

(2) (A) In telecommunications, a combination of characters and symbols transferred from one point to another. **(B)** For bisync-type devices, the data unit from the beginning of a transmission to the first end-of-text (ETX) characters. **(C)** In information theory, an ordered series of characters or bits intended to convey information. **(D)** A group of characters and control bit sequences transferred as an entity from a data source to a data sink, where the arrangement of characters is determined by the data source. **(E)** An arbitrary amount of information whose beginning and end are defined or implied.
(PE/SUB) 999-1992

(3) A value or set of values representing an interface event between functions. The term as used here is intended to be very primitive, not implying a particular structure or interface protocol unless modified by an appropriate adjective (like transaction-initiation message). A message can be arbitrarily simple (a signal) or complicated.
(C/MM) 1212.1-1993

(4) A set of packets starting with a HEADER, consisting of that HEADER and all (ACKNOWLEDGE and DATA) packets transmitted as the immediate consequence of the command in that HEADER, and terminating when the M-module returns to the IDLE Master Controller state.
(TT/C) 1149.5-1995

(5) An ordered series of characters used to convey information.
(C) 610.7-1995

(6) Information that can be transferred among processes or threads by being added to and removed from a message queue. A message consists of a fixed-size message buffer.
(C/PA) 9945-1-1996

(7) A logical grouping of one or more packets sent either from host to printer (a command message) or from printer to host (a response message).
(C/MM) 1284.1-1997

(8) A package of information meeting a standard format that is sent to or from a transponder's memory.
(SCC32) 1455-1999

(9) A communication sent from one object to another. *Message* encompasses requests to meet responsibilities as well as simple informative communications. *See also:* request.
(C/SE) 1320.2-1998

(10) Information that can be transferred among tasks (possibly in different processes) by being added to and removed from a message queue. A message queue consists of a fixed-size buffer.
(C) 1003.5-1999

(11) A grouping of data elements and/or data frames, as well as associated message metadata, that is used to convey a complete unit of information. For the purposes of this document, a message is an abstract description using a message set tem-

plate (MST); it is not a specific instance.
(SCC32) 1488-2000

(12) A set of ordered data (possibly empty) that includes a message boundary indication. Message data may span multiple packets. A packet shall not hold data from more than one message.
(C/MM) 1284.4-2000

message attribute Information that describes a message and which may specify, at the logical level, relevant associated requirements for data exchange, interpretation, and handling.
(SCC32) 1488-2000

message-based device An intelligent device that implements the defined VXIbus registers and communication protocols.
(C/MM) 1155-1992

message body That portion of a message specification that describes the data elements and/or data frames contained within the message.
(SCC32) 1488-2000

message box A visual user interface control used to display information not requested by the user but displayed in a secondary window by an application in response to an unexpected event or a possibility of something undesirable happening.
(C) 1295-1993w

message code (MC) The predefined 12-bit code contained in an Auto-Negotiation Message Page.
(LM/C) 802.3-1998

message-extension An allocated buffer in System Memory containing items that either would not fit in the primary-message or that are only needed for unusually large messages.
(C/MM) 1212.1-1993

message group A collection of related messages.
(SCC32) 1488-2000

message identifier An identifier used to identify derived MAC protocol data units (DMPDUs) derived from the same initial MAC protocol data unit (IMPDU).
(LM/C) 8802-6-1994

message instance An occurrence of a message containing the actual values for the data elements and, in some cases, data about the message.
(SCC32) 1488-2000

message length Although messages can be of any length up to 65 539 bytes, the packet size should be selected for effective transmissions over the physical link without requiring disassembly and reassembly. For connections through a network, the packet size of that network would generally be the most efficient.
(C/MM) 1284.1-1997

message-mode agent An agent that exclusively uses message space for communication with other agents.
(C/MM) 1296-1987s

message-mode system A system in which communication between agents is via blocks of data transmitted in the message space.
(C/MM) 1296-1987s

message page (MP) An Auto-Negotiation Next Page encoding that contains a predefined 12-bit Message Code.
(C/LM) 802.3-1998

message queue (1) A data structure and related procedures for passing a sequence of primary-messages from one or more producers to a consumer.
(C/MM) 1212.1-1993

(2) An object to which messages can be added and removed. Messages may be removed in the order in which they were added or in priority order.
(C/PA) 9945-1-1996, 1003.5-1999

message queue descriptor A per-process unique value used to identify an open message queue.
(C) 1003.5-1999

message set A collection of messages based on the ITS class names.
(SCC32) 1488-2000

message set template (MST) An abstract structure addressing the message attributes and syntax used to specify ITS messages, as well as rules for producing message standards using the MST (e.g., conformance statements).
(SCC32) 1488-2000

message sink The part of a communications system that is the final destination of a message. *Contrast:* message source.
(C) 610.7-1995

message source (1) That part of a communication system where messages are assumed to originate. *See also:* information theory.
(Std100) 171-1958w

(2) The part of a communications system from which a message originates. *Synonym:* information source. *Contrast:* message sink. (C) 610.7-1995

message space The address space used for packet based communications ranging from interrupts to negotiated data movement. *See also:* packet. (C/MM) 1296-1987s

messages, species of A group of messages having in the Command fields of their respective HEADER packets a common command code. The name, S, of a message species is the same as the name of the command that defines the message species. (TT/C) 1149.5-1995

message stream modification Attempts to modify, delete, reorder, duplicate, or insert information while the message stream is being transmitted over a communication channel. Message stream modification attacks may be perpetrated at any point in the communication architecture (e.g., data link, network, transport, application), and could result in unauthorized modification of information or unauthorized receipt of services. (C/BA) 896.3-1993w

message switch (data transmission) A technique whereby messages are routed to the appropriate receiver by way of message address codes rather than by switching of the communication channel itself. (PE) 599-1985w

message switching (1) A method of handling messages over communications networks. The entire message is transmitted to an intermediate point (that is, a switching computer), stored for a period of time, perhaps very short, and then transmitted again towards its destination. The destination of each message is indicated by an address integral to the message. *See also:* circuit switching. (LM/COM) 168-1956w
(2) In data communications, a method of transporting messages by receiving, storing, and forwarding complete messages over communications networks. *See also:* time multiplexed switching; circuit switching; space-division switching. (C) 610.7-1995

message telecommunication network (telephone switching systems) An arrangement of switching and transmission facilities to provide telecommunication services to the public. (COM) 312-1977w

message-timed release (telephone switching systems) Release effected automatically after a measured interval of communication. (COM) 312-1977w

message unit (telephone switching systems) A basic chargeable unit based on the duration and destination of a call. (COM) 312-1977w

message-unit call (telephone switching systems) A call for which billing is in terms of accumulated message units. (COM) 312-1977w

meta (1) A word denoting a description that is one level of abstraction above the entity being described. (SCC32) 1489-1999
(2) A Greek prefix meaning that which pertains to the whole or overall entity or that which is in common or shared with all member entities comprising the whole. (IM/ST) 1451.2-1997

meta-attribute A documenting characteristic of a data concept. (SCC32) 1489-1999

metacomment A VHDL comment (--) that is used to provide synthesis-specific interpretation by a synthesis tool. (C/DA) 1076.6-1999

metacompiler *See:* compiler generator.

metadata (1) Data that describes other data; for example, a data dictionary contains a collection of metadata. (C) 610.5-1990w
(2) The information kept about software. It consists of the values of the various attributes of each of the objects. (C/PA) 1387.2-1995
(3) Information about the way asset description data is stored and organized within a library. (C/SE) 1430-1996
(4) Data that defines and describes other data. (SCC32) 1489-1999

metafile A file of device-independent commands, typically used to store graphical information to be displayed at a later time or on a different system or device. (C) 610.6-1991w

META 5 (A) A programming language used for symbolic data manipulation and for syntax-directed computing. **(B)** An assembly language for CDC computers. (C) 610.13-1993

metalanguage (1) A language used to specify some or all aspects of itself or of another language; for example, Backus-Naur form. (C) 610.13-1993w, 610.12-1990
(2) A form of notation used to rigorously define the syntax, and sometimes the semantics, of another language. (SCC20) 771-1998

metal clad The conducting parts are entirely enclosed in a metal casing. (EEC/PE) [119]

metal-clad switchgear (1) (electric power distribution for industrial plants) Metal-enclosed power switchgear characterized by the following necessary features.

a) The main circuit switching and interrupting device is of the removable type arranged with a mechanism for moving it physically between connected and disconnected positions and equipped with self-aligning and self-coupling primary and secondary disconnecting devices.

b) Major parts of the primary circuit, such as the circuit switching or interrupting devices, buses, potential transformers, and control power transformers, are enclosed by grounded metal barriers. Specifically included is an inner barrier in front of or a part of the circuit interrupting device to ensure that no energized primary circuit components are exposed when the unit door is opened.

c) All live parts are enclosed within grounded metal compartments. Automatic shutters prevent exposure of primary circuit elements when the removable element is in the test, disconnected, or fully withdrawn position.

d) Primary bus conductors and connections are covered with insulating material throughout. For special configurations, insulated barriers between phases and between phase and ground may be specified.

e) Mechanical interlocks are provided to ensure a proper and safe operating sequence.

f) Instruments, meters, relays, secondary control devices, and their wiring are isolated by grounded metal barriers from all primary circuit elements with the exception of short lengths of wire, such as at instrument transformer terminals.

g) The door through which the circuit interrupting device is inserted into the housing may serve as an instrument or relay panel and may also provide access to a secondary or control compartment within the housing.

Notes: 1. Auxiliary frames may be required for mounting associated auxiliary equipment, such as potential transformers, control power transformers, etc. 2. The term metal-clad switchgear can be properly used only if metal-enclosed switchgear conforms to the foregoing definition. All metal-clad switchgear is metal-enclosed, but not all metal-enclosed switchgear can be correctly designated as metal-clad. The most prevalent type of switching and interrupting device used in metal-clad switchgear is the air-magnetic power circuit breaker over 1000 volts (V). (IA/PSE) 141-1986s
(2) Switchgear that is characterized by the following necessary features:

a) The main switching and interrupting device is of the removable (drawout) type arranged with a mechanism for moving it physically between connected and disconnected positions and equipped with self-aligning and self-coupling primary disconnecting devices and disconnectable control wiring connections.

b) Major parts of the primary circuit, that is, the circuit switching or interrupting devices, buses, voltage transformers, and control power transformers, are completely enclosed by grounded metal barriers, that have no intentional openings between compartments. Specifically included is a metal barrier in front of, or a part of, the circuit

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interrupting device to ensu
position, no primary circu
the opening of a door.

c) All live parts are enclo
compartments.

d) Automatic shutters that c
when the removable eleme
or removed position.

e) Primary bus conductors an
insulating material throug

f) Mechanical interlocks are
sequence under normal op

g) Instruments, meters, relays
their wiring are isolated b
all primary circuit elemen
lengths of wire such a
terminals.

h) The door through which t
inserted into the housing
relay panel, and may also
or control compartment w

Notes: 1. Auxiliary vertical
mounting devices or for use
metal- clad (as applied to swi
used only in connection with
this definition for metal-clad
gear is metal-enclosed, but n
can be correctly designated a (SWG/PE)

metal distribution ratio (electr
nesses (weights per unit area
parts of a cathode. *See also:*

metal-enclosed (1) (metal-enc
in isolated-phase bus) (as
Surrounded by a metal case
grounding.
(2) (as applied to a switch
thereof) Surrounded by a
grounded.

metal-enclosed bus (1) (elect
dustrial plants) An assemb
associated connections, join
housed within a grounded m
of metal-enclosed bus constr
gated phase, segregated pha
prevalent type used in indu
segregated phase, which is c
conductors are in a common
between the phases. When r
are used with metal-clad sw
connections are covered wit
When metal-enclosed buse
closed 1000 V and below p
or metal-enclosed interrupt
conductors and connections

(2) (metal-enclosed bus an
phase bus) An assembly of
nections, joints, and insula
metal enclosure. The condu
ible.
(3) An assembly of conduc
joints, and insulating suppo
closure.
(4) An assembly of conduc
joints, and insulating suppo
closure. The conductors ma
In general, three basic type
segregated-phase, segregate

• *nonsegregated-phase bus.*
tors are in a common

ndent commands, typically used
to be displayed at a later time
evice.   (C) 610.6-1991w
anguage used for symbolic data
directed computing. **(B)** An as-
mputers.   (C) 610.13-1993
used to specify some or all as-
anguage; for example, Backus-
C) 610.13-1993w, 610.12-1990
to rigorously define the syntax,
, of another language.

(SCC20) 771-1998

s are entirely enclosed in a metal
(EEC/PE) [119]

ctric power distribution for in-
sed power switchgear character-
ary features.

g and interrupting device is of
ged with a mechanism for mov-
connected and disconnected po-
self-aligning and self-coupling
sconnecting devices.
ary circuit, such as the circuit
devices, buses, potential trans-
er transformers, are enclosed by
Specifically included is an inner
of the circuit interrupting device
zed primary circuit components
t door is opened.
ed within grounded metal com-
utters prevent exposure of pri-
en the removable element is in
fully withdrawn position.
nd connections are covered with
ghout. For special configurations,
n phases and between phase and

provided to ensure a proper and

ays, secondary control devices,
ated by grounded metal barriers
elements with the exception of
ch as at instrument transformer

the circuit interrupting device is
g may serve as an instrument or
provide access to a secondary or
hin the housing.

may be required for mounting as-
t, such as potential transformers,
s, etc. 2. The term metal-clad
y used only if metal-enclosed
foregoing definition. All metal-
closed, but not all metal-enclosed
y designated as metal-clad. The
hing and interrupting device used
s the air-magnetic power circuit
.   (IA/PSE) 141-1986s
acterized by the following neces-

l interrupting device is of the re-
arranged with a mechanism for
ween connected and disconnected
with self-aligning and self-cou-
cting devices and disconnectable
ons.
mary circuit, that is, the circuit
g devices, buses, voltage trans-
wer transformers, are completely
etal barriers, that have no inten-
n compartments. Specifically in-
in front of, or a part of, the circuit

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interrupting device to ensure that, when in the connected position, no primary circuit components are exposed by the opening of a door.

c) All live parts are enclosed within grounded metal compartments.

d) Automatic shutters that cover primary circuit elements when the removable element is in the disconnected, test, or removed position.

e) Primary bus conductors and connections are covered with insulating material throughout.

f) Mechanical interlocks are provided for proper operating sequence under normal operating conditions.

g) Instruments, meters, relays, secondary control devices and their wiring are isolated by grounded metal barriers from all primary circuit elements with the exception of short lengths of wire such as at instrument transformer terminals.

h) The door through which the circuit-interrupting device is inserted into the housing may serve as an instrument or relay panel, and may also provide access to a secondary or control compartment within the housing.

Notes: 1. Auxiliary vertical sections may be required for mounting devices or for use as a bus transition. 2. The term metal- clad (as applied to switchgear assemblies) is correctly used only in connection with switchgear conforming fully to this definition for metal-clad switchgear. Metal-clad switchgear is metal-enclosed, but not all metal-enclosed switchgear can be correctly designated as metal-clad.
(SWG/PE) C37.100-1992, C37.20.2-1993

metal distribution ratio (electroplating) The ratio of the thicknesses (weights per unit areas) of metal upon two specified parts of a cathode. *See also:* electroplating.
(PE/EEC) [119]

metal-enclosed (1) (metal-enclosed bus and calculating losses in isolated-phase bus) (as applied to metal-enclosed bus) Surrounded by a metal case or housing, with provisions for grounding.   (SWG/PE) C37.23-1987r
(2) (as applied to a switchgear assembly or components thereof) Surrounded by a metal case or housing, usually grounded.   (SWG/PE) C37.100-1992

metal-enclosed bus (1) (electric power distribution for industrial plants) An assembly of rigid electrical buses with associated connections, joints, and insulating supports, all housed within a grounded metal enclosure. Three basic types of metal-enclosed bus construction are recognized: nonsegregated phase, segregated phase, and isolated phase. The most prevalent type used in industrial power systems is the nonsegregated phase, which is defined as one in which all phase conductors are in a common metal enclosure without barriers between the phases. When metal-enclosed buses over 100 V are used with metal-clad switchgear, the bus conductors and connections are covered with insulating material throughout. When metal-enclosed buses are associated with metal-enclosed 1000 V and below power circuit breaker switchgear or metal-enclosed interrupter switchgear, the primary bus conductors and connections are usually bare.
(IA/PSE) 141-1986s
(2) (metal-enclosed bus and calculating losses in isolated-phase bus) An assembly of conductors with associated connections, joints, and insulating supports within a grounded metal enclosure. The conductors may be either rigid or flexible.
(SWG/PE) C37.23-1987r
(3) An assembly of conductors with associated connections, joints, and insulating supports within a grounded metal enclosure.
(PE/EDPG) 665-1995
(4) An assembly of conductors with associated connections, joints, and insulating supports within a grounded metal enclosure. The conductors may be either rigid or flexible. *Note:* In general, three basic types of construction are used: nonsegregated-phase, segregated-phase, and isolated-phase.

* *nonsegregated-phase bus.* A bus in which all phase conductors are in a common metal enclosure without barriers

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between phases. When associated with metal-clad switchgear, the primary bus and connections shall be covered with insulating material equivalent to the switchgear insulation system.

* *segregated-phase bus.* A bus in which all phase conductors are in a common metal enclosure but are segregated by metal barriers between phases.
* *isolated-phase bus.* A bus in which each phase conductor is enclosed by an individual metal housing separated from adjacent conductor housing by an air space. The bus may be self-cooled or may be forced-cooled by means of circulating a gas or liquid.

(SWG/PE) C37.100-1992

metal-enclosed equipment A capacitor equipment assembly enclosed in a metal enclosure or metal house, usually grounded, to prevent accidental contact with live parts *Synonym:* metal-housed equipment.   (T&D/PE) 18-1992

metal-enclosed interrupter switchgear (1) (electric power distribution for industrial plants) Metal-enclosed power switchgear including the following equipment as required: interrupter switches; power fuses; bare bus and connections; instrument and control power transformers; control wiring and accessory devices. The interrupter switches and power fuses may be of the stationary or removable type. For the removable type, mechanical interlocks are provided to ensure a proper and safe operating sequence.
(PE/SWG/IA/PSE) 141-1986s
(2) Metal-enclosed power switchgear including the following equipment as required: Interrupter switches; Power fuses (current limiting or noncurrent limiting); Bare bus and connections; Instrument transformers; Control wiring and accessory devices. The interrupter switches and power fuses may be stationary or removable (drawout) type. When removable type, automatic shutters that cover primary circuit elements when the removable element is in the disconnected, test, or removed position, and mechanical interlocks are to be provided for proper operating sequence.
(SWG/PE) C37.20.3-1996
(3) Metal-enclosed power switchgear that includes the following equipment as required: (1) interrupter switches, (2) power fuses, (3) bare bus and connections, (4) instrument transformers, and (5) control wiring and accessory devices. The interrupter switches and power fuses may be of the stationary or removable type. When of the removable type, mechanical interlocks are provided to ensure a proper and safe operating sequence.   (SWG/PE) C37.100-1992

metal-enclosed low-voltage power circuit-breaker switchgear (LV) (A) (metal-enclosed low-voltage power circuit-breaker switchgear) Low-voltage (LV) switchgear of multiple or individual enclosures, including the following equipment as required: low-voltage power circuit breakers (fused or unfused); bare bus and connections; instrument and control power transformers; instruments, meters, and relays; control wiring and accessory devices. The low-voltage power circuit breakers are contained in individual grounded metal compartments and controlled either remotely or from the front of the enclosure. The circuit breakers may be stationary or removable (drawout) type; when of removable type, mechanical interlocks are provided for proper operating sequence. **(B)** Metal-enclosed power switchgear, including the following equipment as required: 1000 V and below power circuit breakers (fused or unfused); bare bus and connections; instrument and control power transformers; instruments, meters, relays; control wiring and accessory devices; cable and busway termination facilities. The 1000 V and below power circuit breakers are contained in individual grounded metal compartments and controlled either remotely or from the front of the panels. The circuit breakers are usually of the drawout type, but may be nondrawout. When drawout-type circuit breakers are used, mechanical interlocks must be provided to ensure a proper and safe operating sequence.
(SWG/PE/IA/PSE) C37.20.1-1993, C37.100-1992, 141-1986