

JIS

JAPANESE INDUSTRIAL STANDARD

**Computer System
Configuration Diagram Symbols
and Conventions**

JIS X 0127—1988

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In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

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Computer System Configuration Diagram
Symbols and Conventions

X 0127-1988

1. Scope

This Japanese Industrial Standard establishes graphical symbols and their conventions for use in configuration diagrams for computer systems, including automatic data processing systems.

2. Graphs, Graphical Symbol and Conventions

The graphical symbols included in this Standard are intended to represent major hardware unit of a computer system configuration. However, this Standard does not cover the detailed representation of hardware such as logical or electronic circuit diagrams or pictures and drawings to depict the appearance of a system.

Nor does it include any abbreviations or mnemonics used to identify a specific kind of unit.

- (1) Computer System Configuration Diagram The computer system configuration diagram (hereafter referred to as the "configuration diagram") is used to represent the physical structure of computer systems such as the physical equipment and the connection cables.

A configuration diagram can represent the following.

- (a) The maximum configuration in which all hardware units are included
- (b) The configuration resulting from reallocation of hardware units and temporary withdrawal of service
- (c) The minimum configuration necessary for the solution of a given problem
- (d) Alternative configurations of the same resources

Corresponding International Standard:

ISO 8790-1987 Information processing systems-computer system configuration diagram symbols and conventions

Reference Standard:

JIS X 0121-Documentation Symbols and Conventions for Data, Program and System Flowcharts, Program Network Charts and System Resources Charts

(2) Use The configuration diagram has the following uses.

- (a) Commercial brochures of computer manufacturers and distributors
- (b) Selection and evaluation of computer configurations
- (c) The technical clauses of computer contracts for purchase or lease
- (d) Representation of equipment configurations of a computer center
- (e) Explanation of data processing applications
- (f) Specifications of data processing applications
- (g) Education

(3) Drawing of Configuration Diagram The configuration diagram shall be drawn using configuration diagram symbols and according to conventions. The configuration diagram symbols consist of the following graphical symbols and connection line symbols.

- (a) Hardware symbols where each symbol represents a physical unit by its essential function
- (b) Connection lines representing a local or distant (transmission line) physical connection
- (c) Conventions to facilitate the reading and writing of the diagram

3. Configuration Diagram Symbols

This clause defines the symbols for describing physical units and the means used to connect them. Conventions of graphical symbols are defined in clause 4.

Four levels of symbols are presented to permit various levels of detail to be shown in the diagram. The highest level represents only physical units and their connections. The second level represents the principal functional units of computer systems, such as processors, storage, input-output units, communications units, and means of connection. The third level represents the basic types of media or means of input-output used for storage and input-output. The lowest level provides the most detailed distinction between the various kind of units. (See consolidated table of symbols in clause 5.)

The same symbol is used at several different levels where there is no necessity for further details. Identification in such cases is supplied by the use of symbol identification (see 4.3).

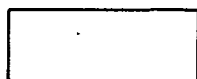
3.1 Physical Unit or Its Enclosure These symbols are basic symbols representing any kind of physical unit or set of physical units. These symbols also represent an enclosure of a unit or a set of units (see 4.4).



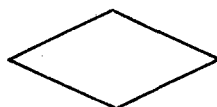
3.1.1 Processing or Control Unit These symbols represent any kind of processing or control unit, for example, central processing unit, arithmetic unit, main storage control unit, auxiliary storage control unit, input-output control unit, communication control unit, configuration control unit, channel unit, communication node, modem, multi-component terminals, multi-component consoles.



3.1.1.1 Processing or Control Unit This symbol represents a processing or a control unit.



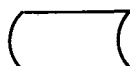
3.1.1.2 Selection Unit This symbol represents a selection unit.



3.1.1.3 Conversion Unit This symbol is a generic symbol representing any kind of conversion unit; for example, sensor, modulator, decoder, concentrator.

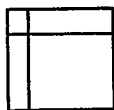


3.1.2 Storage Unit This symbol is a generic symbol representing any kind of storage unit.

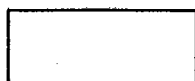


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3.1.2.1 Main Storage Unit This symbol represents a main storage unit.



The basic symbols for a physical unit may be used if a suitable identifier is supplied; this is only used in depicting a composite item, as illustrated in 4.4 (3).



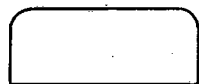
3.1.2.2 Sequential Access Storage Unit This symbol is a generic symbol representing any kind of sequential access storage unit which is only sequentially accessible; for example, magnetic tape unit, cartridge tape unit, cassette tape unit.



3.1.2.2.1 Magnetic Tape Unit This symbol represents a magnetic tape unit.



3.1.2.2.2 Cartridge or Tape Cassette Unit This symbol represents a cartridge or tape cassette unit.



3.1.2.3 Direct Access Storage Unit This symbol is a generic symbol representing any kind of direct access storage unit; for example, magnetic disk pack unit, fixed disk unit, disk cartridge unit, drum unit, flexible disk unit.



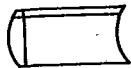
3.1.2.3.1 Magnetic Disk or Drum Unit This symbol represents a magnetic disk or drum unit; for example, disk pack unit, fixed disk unit, disk cartridge unit, drum unit.



3.1.2.3.2 Flexible Disk Unit This symbol represents a flexible disk unit.



3.1.2.3.3 Solid-state or Magnetic Core Peripheral Unit This symbol is a generic symbol representing any kind of solid-state or magnetic core peripheral storage unit; for example, CCD, magnetic core, or magnetic bubble peripheral storage unit.



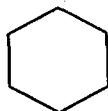
3.1.2.4 Mass Storage Unit This symbol is a generic symbol representing any kind of mass storage unit; for example, tape-cartridge-based mass storage unit, optical disk storage unit, video disk storage unit, laser beam storage unit, electron beam storage unit.



3.1.2.4.1 Mass Storage Unit This symbol represents a mass storage unit.



3.1.2.4.2 Tape-cartridge-based Mass Storage Unit This symbol represents a tape-cartridge-based mass storage unit.



3.1.3 Input-output Unit This symbol is a generic symbol representing any kind of input-output unit.

