

JIS

JAPANESE INDUSTRIAL STANDARD

Glossary of terms used in
programmable controller

JIS B 3500-1990

Translation without guarantee
In the event of any doubt arising, the original
standard in Japanese is to be evidence

Translated

by

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1. Scope

This Japanese Industrial Standard specifies the general terms, terms relating to functions and tests (hereafter referred to as the "terms"), and the definitions thereof to be used in the programmable controller (hereafter referred to as the "PC").

Remarks: The applicable standards to this Standard are given in the following:

JIS B 0134-Glossary of Terms for Industrial Robots

JIS B 0155-Glossary of Terms Used in Industrial Process Measurement and Control

JIS B 0181-Vocabulary for Numerically Controlled Machine Tools

JIS B 6015-Electrical Equipment of Machine Tools

JIS C 0703-Classification and Test Methods for Insulation of Household Appliances and Equipments

JIS C 1002-Glossary of Terms Used in Electronic Measuring Apparatus

JIS X 0001-Glossary of Terms Used in Information Processing (Fundamental Terms)

JIS X 0005-Glossary of Terms Used in Information Processing (Representation of Data)

JIS X 0007-Glossary of Terms Used in Information Processing (Digital Computer Programming)

JIS X 0012-Glossary of Terms Used in Information Processing (Data Media, Storage and Related Equipment)

JIS X 0203-Implementation of Code for Information Interchange and Numerical Control of Machines on Paper Tape

IEC 664-1980 Insulation co-ordination within low-voltage systems including clearances and creepage distances for equipment

2. Classification of terms

The classification of terms shall be in accordance with the following:

(1) General

- (a) Systems
- (b) Hardware
- (c) Peripherals
- (d) Software

(2) Functions and tests

- (a) Functions
- (b) Tests

3. Terms and definitions

The terms and definitions shall be in accordance with the following:

Furthermore, equivalent English is given for informative reference.

- Remarks 1. In the case where two or more of terms are given together, these are synonyms.
2. Numeral, in () after the term in the sentence of a definition indicates the number of the term in this Standard.

(1) General

(a) System

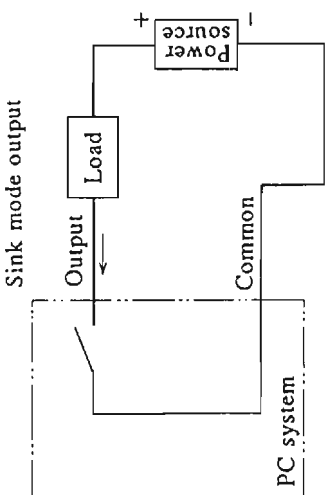
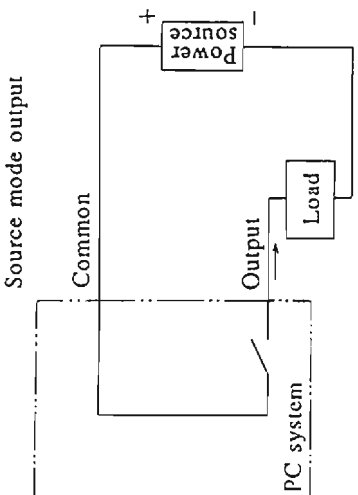
No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)								
1101	プログラマブルコントローラ PC	PUROGURAMABURU KONTORŌRA, PC	That industrial electronic equipment, having a memory which stores a controlling procedure in the form of a series of instruction words in order to allow the control actions to perform such as logic operation, sequence operation, time limitation, counting and arithmetic operation, which controls several types of machines and processes, by a digital system through the input of digital or analog, in accordance with the contents of this memory.	programmable controller, PC								
1102	プログラマブルコントローラ システム, PCシステム	PUROGURAMABURU KONTORŌRA SISUTEMU, PC SISUTEMU	That system composed of PC and peripherals. Remarks: General PC system. <table><tr><td>Main processing unit (1203)</td><td>Remote input/output station (1204)</td><td>Permanent peripheral (1302)</td><td>Non-permanent peripheral</td></tr><tr><td colspan="3">Permanent installation (1202)</td><td>Non-permanent installation</td></tr></table>	Main processing unit (1203)	Remote input/output station (1204)	Permanent peripheral (1302)	Non-permanent peripheral	Permanent installation (1202)			Non-permanent installation	programmable controller system, PC system
Main processing unit (1203)	Remote input/output station (1204)	Permanent peripheral (1302)	Non-permanent peripheral									
Permanent installation (1202)			Non-permanent installation									
1103	シーケンス制御システム	SĪKENSU SĒGYO SISUTEMU	That control system which proceeds each step of control successively in accordance with a predetermined sequence or logic.	sequential control system								
1104	論理制御システム	RONRI SĒGYO SISUTEMU	That control system which clarifies the states of output signal in accordance with the states of input signal based on the rules of Boole algebra.	logic control system								

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1105	オンライン	ONRAIN	That condition where a PC system is actually controlling machines and processes.	on-line
1106	フェールセーフ運転停止	FĒRUSEĒHU UNTEN TEISI	After the voltage drop of supply source or internal failure has been detected, the capability of a PC to perform a predetermined output treatment within a definite delayed time.	fail safe shutdown
1107	コールド再始動	KŌRUDO SAI SIDŌ	After all of the data (variables and programs of input and output image tables, internal register, timer, counter, etc.) have been initialized (1423) to the prescribed conditions automatically or manually (reset push-button or the like), that operation to start the PC system and application program (1405) again.	cold restart
1108	ホット再始動	HOTTO SAI SIDŌ	After power source cut-off has occurred, that operation to start again, restoring all of the data to the foregoing conditions by the PC system within the maximum permissible time of the process.	hot restart
1109	ウォーム再始動	WŌMU SAI SIDŌ	Having the function to inform the power source cut-off to the application program, that operation to start again being based on the data and application program which have been predetermined by the user, after the power source cut-off has occurred.	warm restart
1110	ウォッチドッグタイム, 監視タイム	UOTTIDOGU TAIMA, KANSI TAIMA	The timer which is for watching the predetermined execution time of a program and emitting an alarm in the case where the processing is not finished within a specified time.	watchdog timer
1111	内部故障	NAIBU KOSYŌ	The failure of the hardware (1201) or software (1401) of the PC system other than application program.	internal failure

(b) Hardware

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1201	ハードウェア	HĀDOUEA	The physical device to be used in data processing. Remarks: The term to be used in comparison with the computer program, procedure, rule, related document, etc.	hardware
1202	常設装置	ZYŌSETU SŌTI	A part of PC system indispensable to execute the application functions. Remarks: The permanent installation is composed of the main processing unit (1203), remote input/output station (1204) and permanent peripherals (1302). See Figure of No. 1102.	permanent installation
1203	主処理装置	SYU SYORI SŌTI	A part of PC system which performs the interpretation and execution of application program. Remarks: The main processing unit is composed of the execution processing part, memory part, input/output part, communication part, and all or a part of power source part.	main processing unit
1204	リモート入出力局	RIMŌTO NYŪSYUTURYOKU- KYOKU	Installing the input/output part at a remote place in respect to the main processing unit, that has been provided with the function to connect the main processing unit by communication means.	remote input/output station
1205	入力	NYŪRYOKU	General term of current, voltage, power, etc. to be supplied to a circuit or equipment.	input
1206	入力端子	NYŪRYOKU TANSI	General term of supply terminal or supply point of current, voltage, power, etc. to be supplied to a circuit or equipment.	input terminal

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1207	プログラム入力	PUROGURAMU NYURYOKU	Data which is capable of being read by an application program from the interface between the application program executing function and the other function of PC.	program input
1208	電流シンク	DENRYŪ SINKU	Flowing in of current.	current sinking
1209	電流ソース	DENRYŪ SŌSU	Flowing out of current.	current sourcing
1210	出力	SYUTURYOKU	General term of current, voltage, power, etc. to be supplied from a circuit or equipment.	output
1211	出力端子	SYUTURYOKU TANSI	General term of the supply terminal, supply point, etc. of the current, voltage, power, etc. to be supplied from a circuit or equipment.	output terminal
1212	プログラム出力	PUROGURAMU SYUTURYOKU	Data which are capable of being written by an application program to the interface between the application program executing function and the other function of PC.	program output

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1213	シンク出力	SINKU SYUTURYOKU	When a non-contactor output is activated (ON), flowing-in of current from the load to the output terminal.  Sink mode output Remarks: The common indicates the common line for current, voltage and the like.	sink mode output
1214	ソース出力	SŌSU SYUTURYOKU	When a non-contactor output is activated (ON), flowing-out of current from the output terminal to the load.  Source mode output Remarks: The common indicates the common line for current, voltage and the like.	source mode output

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1215	モジュール	MOZYŪRU	The standardized element, having a definite function, which constitutes a system (Sec JIS B 0155). Informative reference: Such an equipment as the input/output board which has been so assembled as to be inserted into a mother board base.	module
1216	多回路モジュール, マルチサークキットモジュール	TA KAIRO MOZYŪRU, MARUTI SAKITTO MOZYURU	A module including a number of insulated circuits. Remarks: As regards the input/output module, a number of insulated signal interfaces are included.	multi-circuit module
1217	多チャネルモジュール, マルチチャネルモジュール	TA TYANERU MOZYŪRU, MARUTI TYANERU MOZYŪRU	An input/output module having plural number of inputs or outputs or plural number of inputs and outputs.	multi-channel module
1218	ユニット	YUNITTO	A module or the assembly of modules constituting the minimum unit on the action of a PC system, and it constitutes a PC system being connected with the other module or the assembly of modules.	unit
1219	接続	SETUZOKU	Through a communication device or the like, to connect between the man-machine interface (1309) and the main processing device theoretically.	connect
1220	切断	SETUDAN	Through a communication device or the like, to disconnect between the man-machine interface and the main processing device theoretically.	disconnect
1221	プラグ	PURAGU	To connect between the peripheral and the module with a physical connector.	plug

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1222	アンプラグ	ANPURAGU	To disconnect between the peripheral and the module with a physical connector.	unplug

(c) Peripherals

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1301	周辺装置	SYŪHEN SŌTI	That equipment which has a function to program, control, monitor, test or record the action of a PC system.	peripheral
1302	常設周辺装置	ZYŌSETU SYŪHEN SŌTI	That peripheral which is indispensable for executing the applicational function of a PC system. Remarks: A peripheral which is not a permanent peripheral is called as a non-permanent peripheral.	permanant peripheral
1303	可搬形周辺装置	KAHAN GATA SYŪHEN SŌTI	A portable non-permanent peripheral which has been so made as to be capable of being connected by cable or cord to communicate with a PC system.	transportable peripheral
1304	携帯形周辺装置	KĒTAI GATA SYŪHEN SŌTI	A peripheral which can be carried by the hands.	portable peripheral
1305	ハンドヘルド形周辺装置	HANDO HERUDO GATA SYŪHEN SŌTI	A peripheral which can be held with one hand and be operated with the other hand.	hand held portable peripheral, hand held portable equipment