MITSUBISHI ELECTRIC

Mitsubishi PLC

Changes for the Better

July 2005

New Product Release

No.242E

Q02, Q02H, Q06H, Q12H, Q25H

High Performance Model QCPU

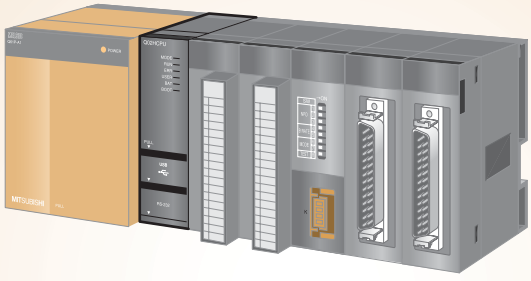
Q12PH, Q25PH

Process CPU

Q12PRH, Q25PRH

Redundant CPU

New Q-Series CPU functions take functionality and reliability to the next level!



Point 1 Increased functionality

- New SFC active step comment readout instruction.
- More flexibility in multiple PLC shared memory refresh settings.
- New clock data readout (in 1/1000-secs. units) instruction.

Point 2 Enhanced Debugging

- Sampling trace data can be saved to standard RAM.

Point 3 Improved System Reliability

- Power supply error detection function has been added for redundant power supply systems.

*1: To determine if a CPU model supports these new functions, use the check method given on page 2.
*2: Must be used in combination with GX Developer Ver. 8.24A or later.

Mitsubishi Electric Corporation Nagoya Works is a factory certified for ISO14001 (standards for environmental management systems) and ISO9001(standards for quality assurance managememt systems)

ISO 14001 JACO EC97J1113 UKAS ENVIRONMENTAL MANAGEMENT 051

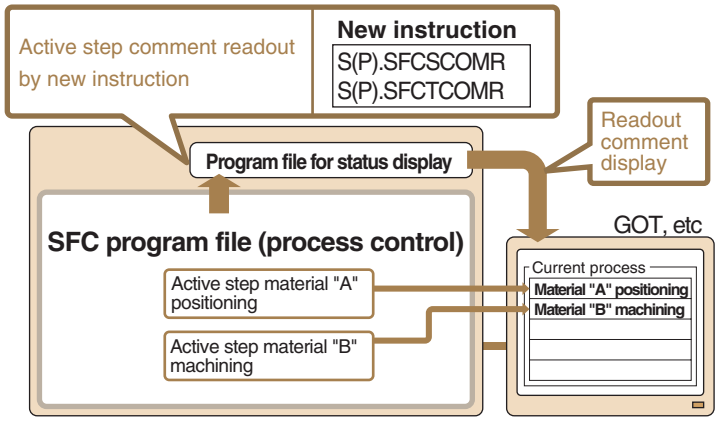
Certified ISO 9001 by BVQI UKAS QUALITY MANAGEMENT 008

Features

1. Increased functionality

New SFC active step comment readout instruction

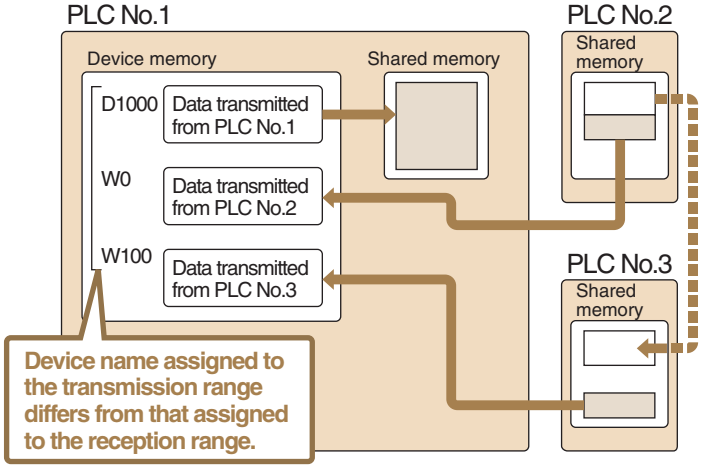
The SFC active step's transition conditions comment can be read out and displayed at GOT, etc., for easy checking and monitoring of the machine operating status.



More flexibility in multiple PLC shared memory refresh settings.

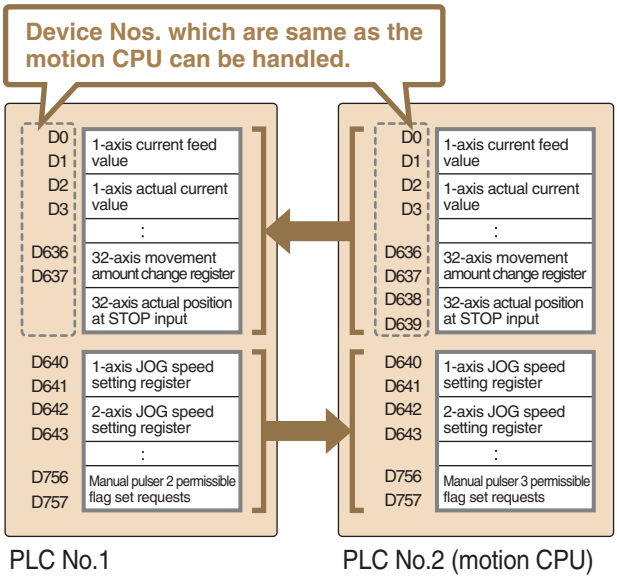
(1) Random settings

Previously, refresh settings were possible only by assigning continuous device ranges. The new function permits 1-to-4 refresh settings, with the first device and number-of-points set specifically to each PLC.



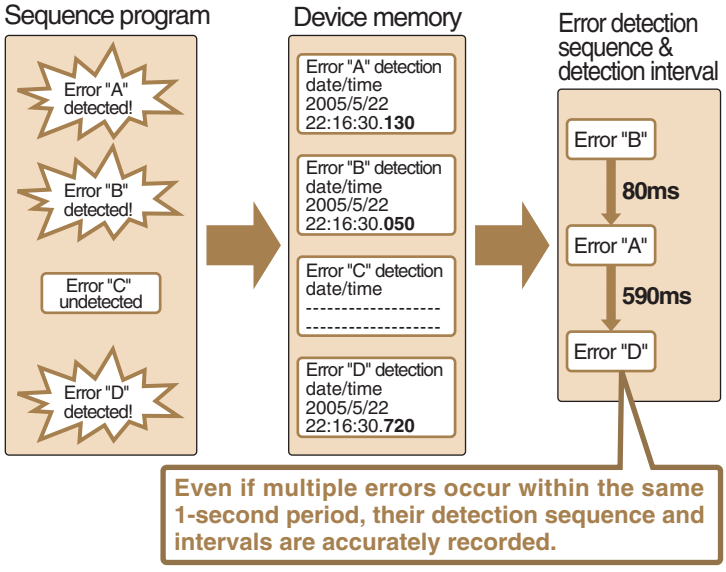
(2) Motion CPU settings

The refresh device range can now be specified in any desired order.
This is useful for the motion CPU, where the device memory map is stagnated.



New clock data readout (in 1/1000-secs. units) instruction

A new instruction permits clock data readouts from "1-sec." to "1/1000-sec." units. Previously, readouts were only possible in "1-sec. units", making it difficult to identify the short-time sequence of events leading to a failure. The new "1/1000-sec. units" readout simplifies the troubleshooting when the error occurs in a very short space of times.



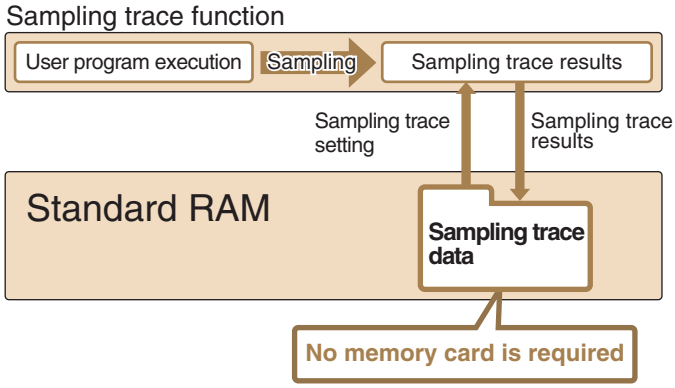
● Newly added instructions

S(P).DATERD, S(P).DATE+, S(P).DATE-

2. Enhanced Debugging

- Sampling trace data can be saved in the standard RAM.

Using this new function does away with the need of using a memory card.
Previous systems required an SRAM card for saving sampling trace data, but the new standard RAM format permits the selection of an ATA card or Flash card in accordance with the application and purpose in question.

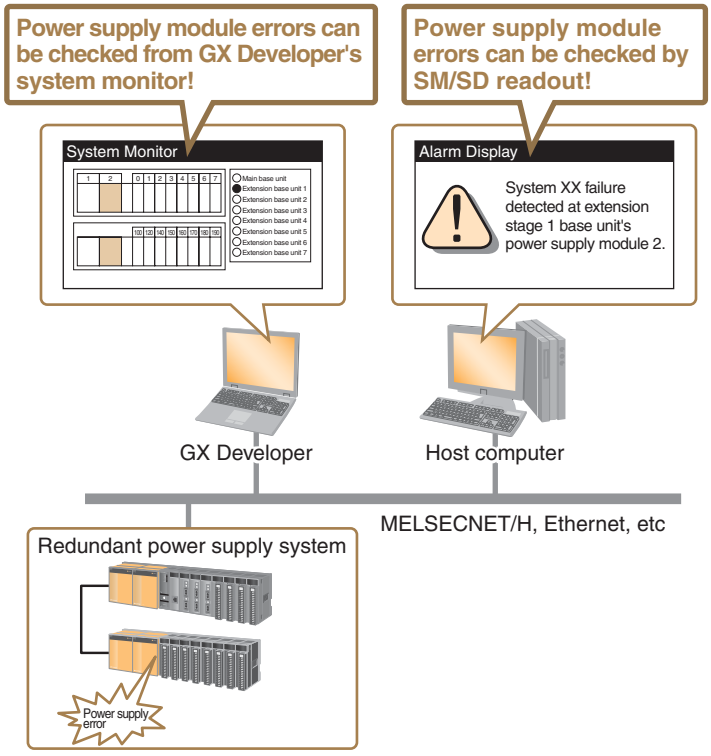


3. Improved System Reliability

- Power supply error detection function has been added for redundant power supply systems.*

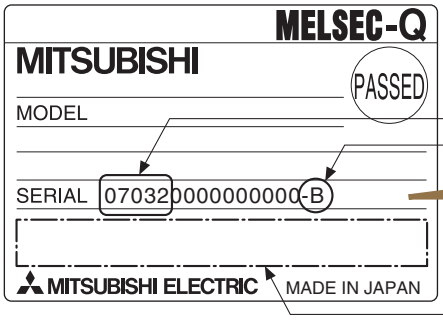
When a power supply error is detected at a redundant power supply system, this new function saves the detection results in a special relay and register, thereby permitting the creation of an alarm circuit in the sequence program.
Moreover, the detection results can also be checked in GX Developer's system monitor.
This function can be used to improve system reliability, both generally, and from a preventive maintenance viewpoint.

* This function is already supported by all QnPRHCPU models.



Checking to determine if a CPU model supports these new functions

The module serial No. and function version code are indicated on the rated plate located on the module's side face.



Serial No. (first 5 digits)
Function version code
Standards compliance marks are indicated here.

- Check the first 5 digits of the CPU serial No., and check the function version code. The CPU supports these new functions if its 5-digit No. and code match or follow the Nos. and codes listed below.

High performance model QCPU
07032 ----------B
Process CPU
07032 ----------C
Redundant CPU
07032 ----------D

Product list

PLC CPU (High Performace Model QCPU)

Product name	Model	Model code
Q02CPU program capacity: 28K steps, number of I/O points: 4096	Q02CPU	1W4A20
Q02HCPU program capacity: 28K steps, number of I/O points: 4096	Q02HCPU	1W4A30
Q06HCPU program capacity: 60K steps, number of I/O points: 4096	Q06HCPU	1W4A31
Q12HCPU program capacity: 124K steps, number of I/O points: 4096	Q12HCPU	1W4A32
Q25CPU program capacity: 252K steps, number of I/O points: 4096	Q25HCPU	1W4A33

Process CPU

Product name	Model	Model code
Q12PHCPU program capacity: 124K steps, number of I/O points: 4096	Q12PHCPU	1W4A51
Q25PHCPU program capacity: 252K steps, number of I/O points: 4096	Q25PHCPU	1W4A50

Redundant CPU

Product name	Model	Model code
Q12PRHCPU program capacity: 124K steps, number of I/O points: 4096	Q12PRHCPU	1W4A52
Q25PRHCPU program capacity: 252K steps, number of I/O points: 4096	Q25PRHCPU	1W4A53

Manuals

Manual name	Manual supply status	IB/SH No.	Model code
QCPU User's Manual (Function Explanation, Program Fundamentals)	Sold separately	SH-080484ENG-C	13JR74
QCPU User's Manual (Hardware Design, Maintenance and Inspection)	Sold separately	SH-080483ENG-C	13JR73
QCPU User's Manual (Multiple CPU System)	Sold separately	SH-080485ENG-B	13JR75
QnPRHCPU User's Manual (Redundant System)	Sold separately	SH-080486ENG-A	13JR76
QCPU (Q Mode) / QnACPU Programming Manual (Common Instructions)	Sold separately	SH-080039-J	13JF58
QCPU (Q Mode) / QnACPU Programming Manual (SFC)	Sold separately	SH-080041-F	13JF60
QCPU (Q Mode) Programming Manual (MELSAP-L)	Sold separately	SH-080076-F	13JF61
GX Developer Version 8 Operating Manual	Sold separately	SH-080373E-G	13JU41

Country/Region	Sales office	Tel/Fax
U.S.A	Mitsubishi Electric Automation Inc. 500 Corporate Woods Parkway Vernon Hills, IL 60061	Tel : +1-847-478-2100 Fax : +1-847-478-2396
Brazil	MELCO-TEC Rep. Com.e Assessoria Tecnica Ltda. Rua Correia Dias, 184, Edificio Paraiso Trade Center-8 ander Paraiso, Sao Paulo, SP Brazil	Tel : +55-11-5908-8331 Fax : +55-11-5574-5296
Germany	Mitsubishi Electric Europe B.V. German Branch Gothaer Strasse 8 D-40880 Ratingen, GERMANY	Tel : +49-2102-486-0 Fax : +49-2102-486-7170
U.K	Mitsubishi Electric Europe B.V. UK Branch Travellers Lane, Hatfield, Herts., AL10 8XB, UK	Tel : +44-1707-276100 Fax : +44-1707-278695
Italy	Mitsubishi Electric Europe B.V. Italian Branch Centro Dir. Colleoni, Pal. Perseo - Ingr.2 Via Paracelso 12, I-20041 Agrate Brianza (Milano), Italy	Tel : +39-039-60531 Fax : +39-039-6053312
Spain	Mitsubishi Electric Europe B.V. Spanish Branch Carretera de Rubi 76-80 E-08190 - Sant Cugat del Valles (Barcelona), Spain	Tel : +34-93-565-3131 Fax : +34-93-589-2948
France	Mitsubishi Electric Europe B.V. French Branch 25, Boulevard des Bouvets, F-92741 Nanterre Cedex, France	Tel : +33-1-5568-5568 Fax : +33-1-5568-5685
South Africa	Circuit Breaker Industries LTD. Private Bag 2016, 1600 Isando, Tripswitch Drive, Elandsfontein Gauteng, South Africa	Tel : +27-11-928-2000 Fax : +27-11-392-2354
Hong Kong	Mitsubishi Electric Automation (Hong Kong) Ltd. 10/F., Manulife Tower, 169 Electric Road, North Point, Hong Kong	Tel : +852-2887-8870 Fax : +852-2887-7984
China	Mitsubishi Electric Automation (Shanghai) Ltd. 1-3/F., Block5, 103 Cao Bao Road. Shanghai 200233, China	Tel : +86-21-6475-3228 Fax : +86-21-6474-6996
Taiwan	Setsuyo Enterprise Co., Ltd. 6F., No.105 Wu-Kung 3rd.Rd, Wu-Ku Hsiang, Taipei Hsine, Taiwan	Tel : +886-2-2299-2499 Fax : +886-2-2299-2509
Korea	Mitsubishi Electric Automation Korea Co., Ltd. Dong seo Game Channel Bldg. 2F 660-11,Deungchon-dong, Kangseo-ku, Seoul 157-030, Korea	Tel : +82-2-3660-9552 Fax : +82-2-3664-8372
Singapore	Mitsubishi Electric Asia Pte, Ltd. 307 Alexandra Road #05-01/02, Mitsubishi Electric Building Singapore 159943	Tel : +65-6470-2460 Fax : +65-6476-7439
Thailand	F. A. Tech Co., Ltd. 896/19,20,21,22 S.V.City Building, Office Tower 1, Floor 12 Rama III Rd, Bangpongpang, Yannawa, Bangkok 10120	Tel : +66-2-682-6522 Fax : +66-2-682-6020
Indonesia	P.T. Autoteknindo SUMBER MAKMUR Muara Karang Selatan Block A/Utara No.1 Kav. NO.11 Kawasan Industri/ Pergudangan Jakarta - Utara 14440	Tel : +62-21-663-0833 Fax : +62-21-663-0832
India	Messung Systems Pvt., Ltd. Electronic Sadan NO:111 Unit No15, M.I.D.C Bhosari, Pune-411026, India	Tel : +91-20-2712-3130 Fax : +91-20-2712-8108
Australia	Mitsubishi Electric Australia Pty. Ltd. 348 Victoria Road, Rydalmere, N.S.W 2116, Australia	Tel : +61-2-9684-7777 Fax : +61-2-9684-7245

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: 1-8-12, OFFICE TOWER Z 14F HARUMI CHUO-KU 104-6212, JAPAN
NAGOYA WORKS: 1-14, YADAMINAMI 5, HIGASIKU, NAGOYA, JAPAN

0507 (MDOC)