

Upgrade Information of MPE720 Version 7.41

1. Added and Improved Functions

1.1 Version 7.41 Upgrade Information

Items added and features improved from MPE720 version 7.40 to version 7.41 are as follows.

No.	Feature	Classification
1	Added the Integrated Servomotor of Sigma-7 Series	New Addition
2	Supported the MP3100EX Module.	New Addition
3	Supported the MP3100SUB Module.	New Addition
4	Improved the phenomenon that character garbling occurs in Japanese text display and editing in the text editor function.	Functional Enhancement
5	Improved the internal processing of Expression editor.	Improvement
6	Improved the display of motion program not belonging to group.	Improvement
7	Improved the arithmetic processing of motion program.	Improvement
8	Improved the Backup Save of SERVOPACK Parameter function.	Improvement
9	Improved the insert processing of CP ladder.	Improvement
10	Improved the phenomenon that takes a long time to save under certain conditions.	Improvement
11	Changed the display part of Sigma-7C in 『TypeSelect』.	Improvement
12	Improved the compilation processing of motion program.	Improvement
13	Improved the screen update of Setting Parameters.	Improvement
14	Improved the error indication at communication disconnection.	Improvement
15	Improved the phenomenon that SVB-01 could not be assigned for specific controllers.	Improvement
16	Improved so that normalize numerical values exceeding allowable digits.	Improvement

(*): When MPE720 Ver.7 before MPE720 Ver.7.11 is already installed in Windows Vista and Windows 7, it may not operate for the newest information of the servo model addition by the axial setup wizard function (the newest information added into the database) updated by after MPE720 Ver.7.13.

Please refer to the following page for operating procedures.

【About the restriction matter when using MPE720 Ver.7 in Windows Vista and Windows 7】

When MPE720 Ver.7 is used in Windows Vista and Windows 7, the following phenomena might be generated.

<Phenomena>

When MPE720 Ver.7 before MPE720 Ver.7.11 is already installed in Windows Vista and Windows 7, it may not operate for the newest information of the servo model addition by the axial setup wizard function (the newest information added into the database) updated by after MPE720 Ver.7.13.

<Measures>

Using a batch file, the following folder is deleted. (*1)

C:\Users\UserName(*2)\AppData\Local\VirtualStore\Program Files(*3)\YASKAWA\MPE720 Ver7

Procedure

1. The batch file enclosed by MPE720 Ver.7 installer is copied to a desktop.

【Download Version】

MPE720Ver7_xxx(*4)\Tools\CleanUp\MPE720Ver7_x86.bat (32bitOS)

MPE720Ver7_xxx(*4)\Tools\CleanUp\MPE720Ver7_x64.bat (64bitOS)

【DVD Media Version】

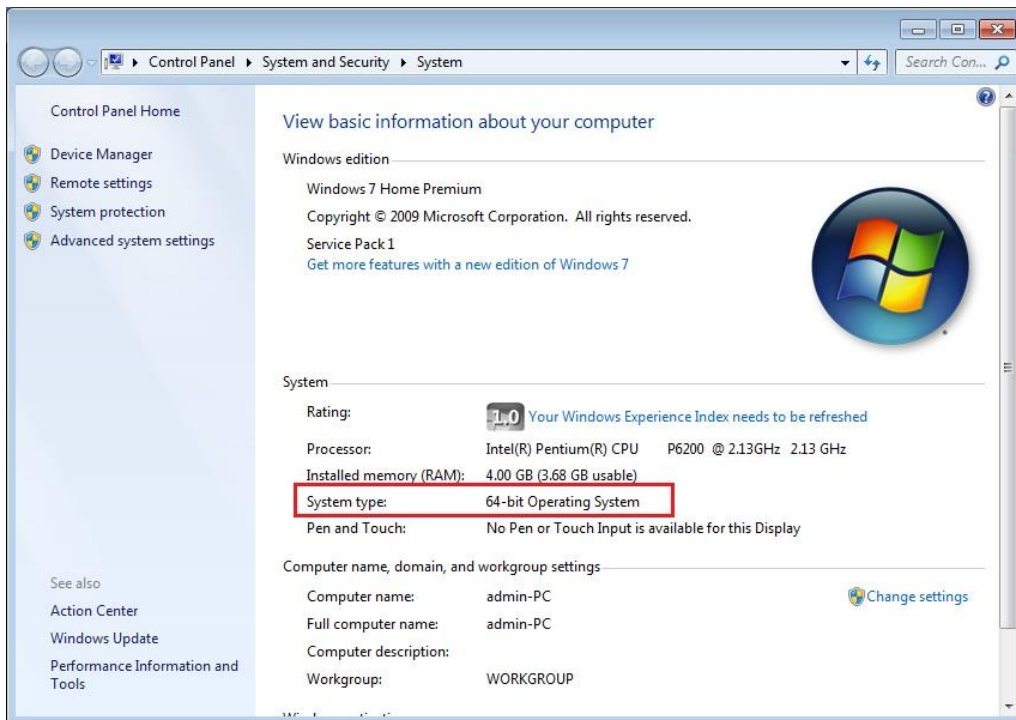
D(*5)\Tools\CleanUp\MPE720Ver7_x86.bat (32bitOS)

D(*5)\Tools\CleanUp\MPE720Ver7_x64.bat (64bitOS)

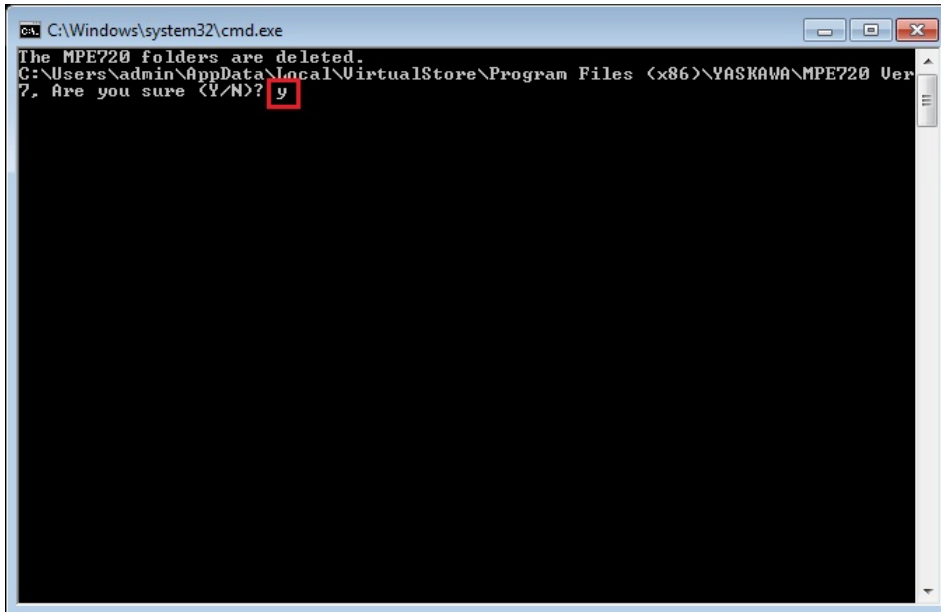
2. The copied batch file is performed.

MPE720Ver7_x86.bat (32bitOS)

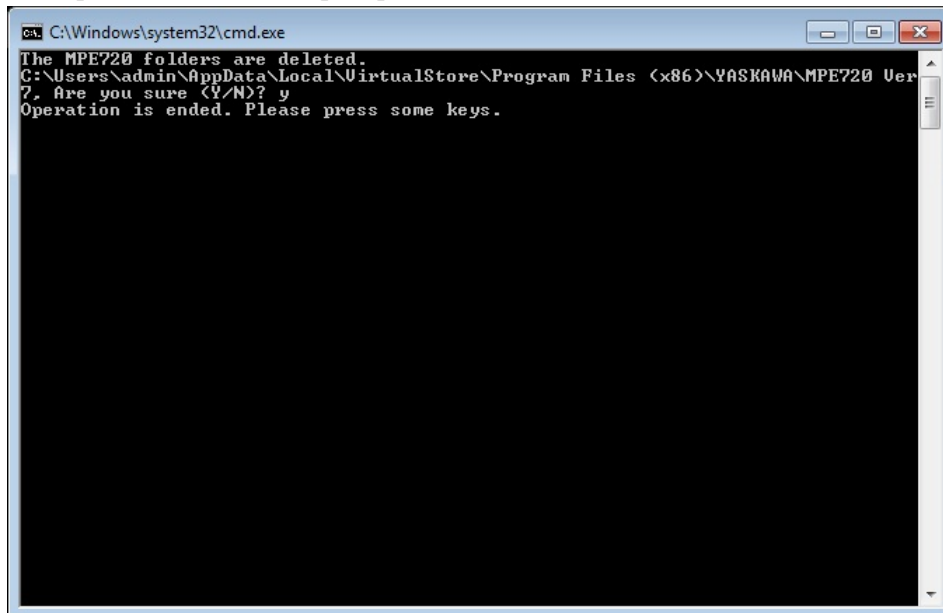
MPE720Ver7_x64.bat (64bitOS)



3. “y” is inputted on a command prompt and the Enter button is pushed.



4. The Enter button is pushed on a command prompt after deletion.



- (*1): When multi-user is using one set of PC, please operate it by each user.
- (*2): The user account name that logs in enters.
- (*3): The path changes by OS.
 - 32bitOS: Program Files
 - 64bitOS: Program Files (x86)
- (*4): The path changes by version.
- (*5): The path changes by DVD drive.
- (*6): When an installation path is changed at the time of MPE720 Ver.7 installation, please delete the “MPE720 Ver7” folder which a folder subordinate has below manually according to the installed path.
 - C:\Users¥UserName(*2)\AppData\Local\VirtualStore

【About compile of the parallel circuit】

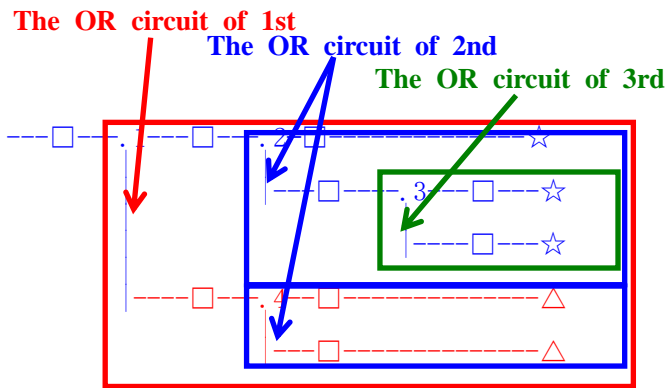
In the Ladder program of MPE720 Ver7 before MPE720 Ver7.23, when the parallel circuit is used, the following phenomena may occur.

<Phenomena>

When the circuit containing the following pattern was created, there was a phenomenon of operating without receiving the condition that the circuit below the OR circuit of 1st class must operate essentially in response to the conditional instruction before the OR circuit of 1st class.

<Measures>

When a phenomenon occurs, please carry out re-compile about the Ladder program in MPE720 Ver7 after MPE720 Ver7.24. Or please carry out again “Compile All Programs” of “Compile” menu.



The OR circuit of 1st class: The OR circuit branched from the bus-bar of language.

The OR circuit of 2nd class: The OR circuit branched out of the OR circuit of 1st class.

The OR circuit of 3rd class: The OR circuit branched out of the OR circuit of 2nd class.

□(Conditional instruction): NO Contact, NC Contact, Coil, instruction(==, !=, >, <), power line (-----) etc.

☆(Output instruction): Coil, Block instruction(Expression, STORE, COPYW) etc

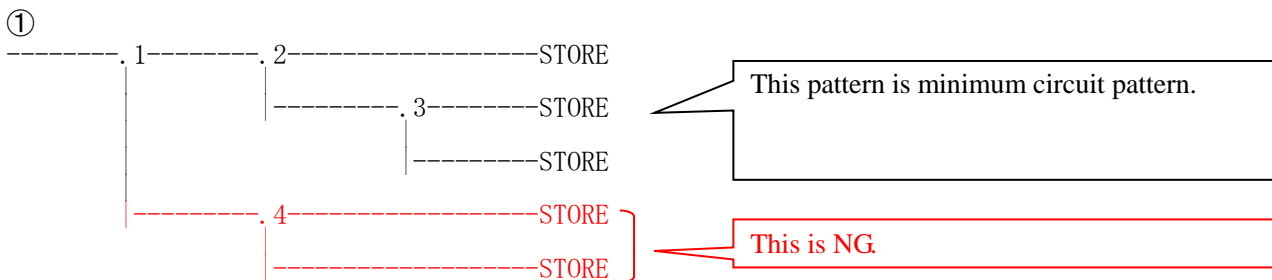
※However, when all ☆ is coil commands, a phenomenon does not occur.

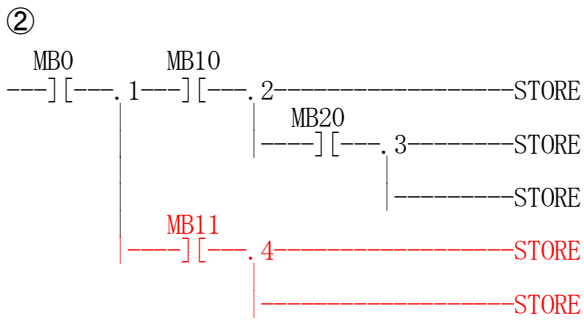
△(Output instruction): Coil, Block instruction(Expression, STORE, COPYW)etc

<Pattern>

Symbol	Instruction
	NO Contact
STORE	STORE instruction
()	Coil

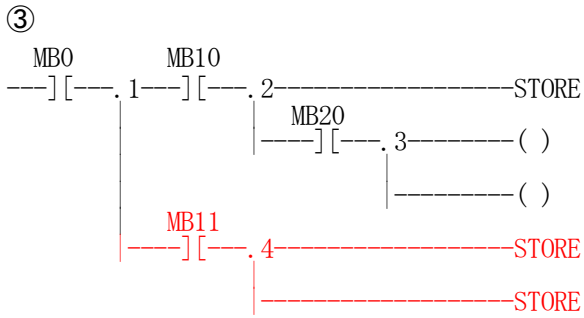
<NG Pattern>





It is NG even if the minimum circuit pattern has conditional instructions (NO Contact etc.).

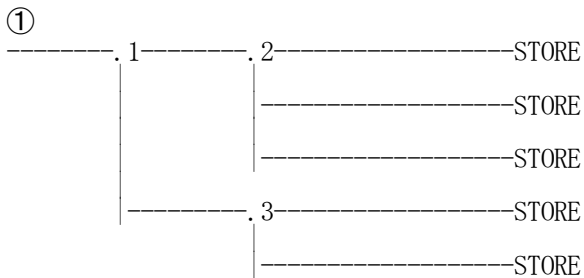
This is NG



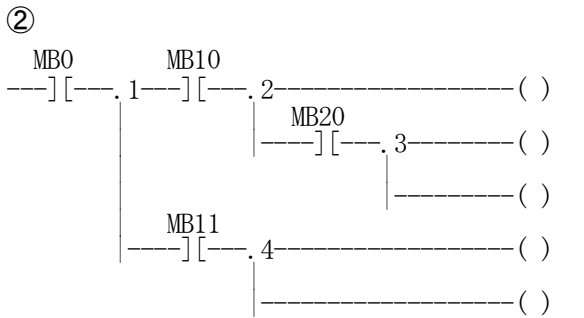
It is NG when there are at least one block commands (STORE command etc.) here.

This is NG

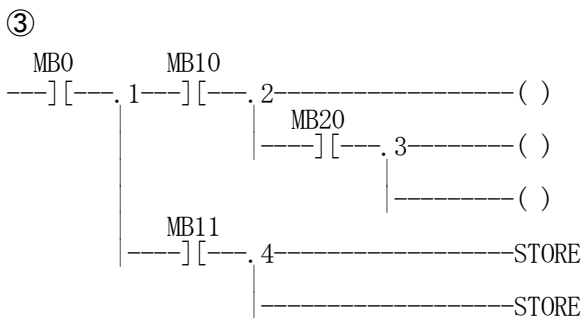
<OK Pattern>



Since it is the OR circuit of 2nd, it is OK.



Since it is the coil altogether, it is OK.



Since it is the coil altogether, it is OK.

1.2 Past Upgrade Information

No.	Upgrade Information	Remarks
1	MPE720 version 7.11 upgrade information	version 7.10→version 7.11
2	MPE720 version 7.13 upgrade information	version 7.11→version 7.13
3	MPE720 version 7.14 upgrade information	version 7.13→version 7.14
4	MPE720 version 7.20 upgrade information	version 7.14→version 7.20
5	MPE720 version 7.21 upgrade information	version 7.20→version 7.21
6	MPE720 version 7.23 upgrade information	version 7.21→version 7.23
7	MPE720 version 7.24 upgrade information	version 7.23→version 7.24
8	MPE720 version 7.26 upgrade information	version 7.24→version 7.26
9	MPE720 version 7.27 upgrade information	version 7.26→version 7.27
10	MPE720 version 7.28 upgrade information	version 7.27→version 7.28
11	MPE720 version 7.29 upgrade information	version 7.28→version 7.29
12	MPE720 version 7.30 upgrade information	version 7.29→version 7.30
13	MPE720 version 7.31 upgrade information	version 7.30→version 7.31
14	MPE720 version 7.33 upgrade information	version 7.31→version 7.33
15	MPE720 version 7.34 upgrade information	version 7.33→version 7.34
16	MPE720 version 7.35 upgrade information	version 7.34→version 7.35
17	MPE720 version 7.36 upgrade information	version 7.35→version 7.36
18	MPE720 version 7.37 upgrade information	version 7.36→version 7.37
19	MPE720 version 7.38 upgrade information	version 7.37→version 7.38
20	MPE720 version 7.39 upgrade information	version 7.38→version 7.39
21	MPE720 version 7.40 upgrade information	version 7.39→version 7.40

2. Description

No. 1 Added the Integrated Servomotor of Sigma-7 Series.

Supported the following Servomotor that can be assigned to SVC of motion control module. This product is a servomotor with servo amplifier function.

○SGF7*-*****2*

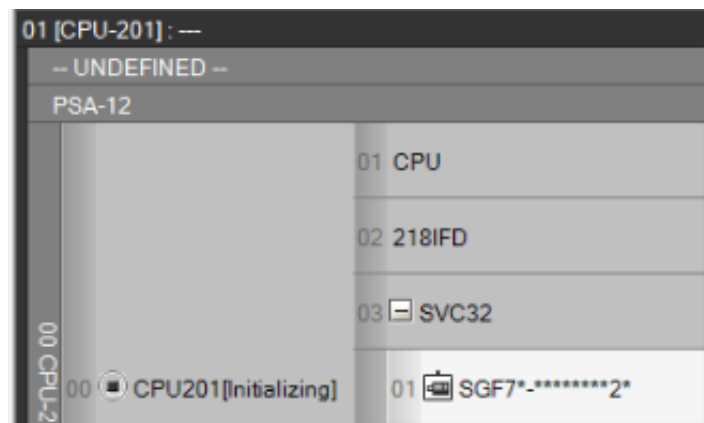
AC Servomotor Sigma-7 Series

MECHATROLINK-III Communications References

Integrated Servomotor

1. Module Configuration

Changed so that the Integrated Servomotor could now be assigned in the Module Configuration.



2. Fixed, Setting, Monitor Parameter

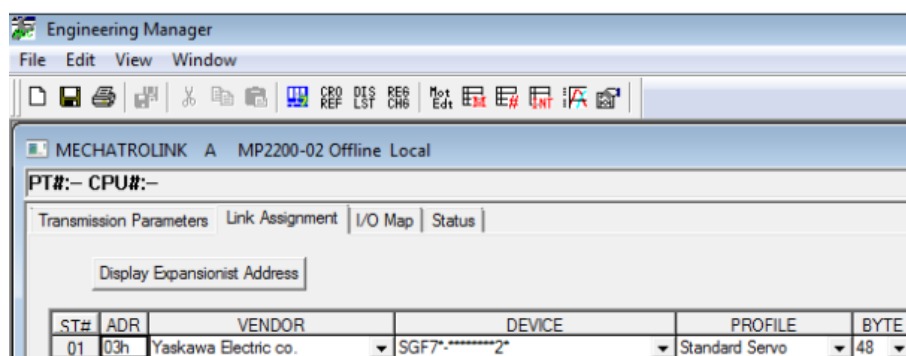
Added the screen for carrying out a detailed setup of Fixed Parameters, Setting Parameters and Monitor Parameters of the Integrated Servomotor.

3. Axis variable

Added the axis variables of SGF7*-*****2*

4. Engineering manager

Changed so that the Integrated Servomotor could now be assigned in the Module Configuration of Engineering manager.



【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

【Support Version】

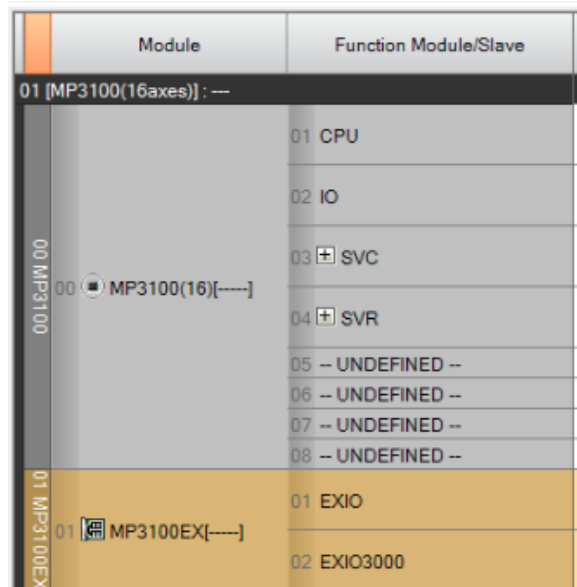
○Option Module

Module	Support Version
SVC-01	It is not dependent on the version.

No. 2 Supported the MP3100EX Module.

Added the expansion I/F board (MP3100EX, MP3101EX) for MP3100.

1. Changed so that the MP3100EX and MP3101EX could now be assigned to MP3100(16axes) and MP3100(32axes).



2. By the EXIO 3000 module of MP3100EX, sub CPU could now be assigned to rack 5 of MP3100.

○Assignable CPU

- CPU-201SUB
- CPU-202SUB
- MP3100(16)SUB
- MP3100(32)SUB

01 MP3100EX	01 [MP3100EX[----]	01 EXIO
		02 EXIO3000
02 -- UNDEFINED --		
03 -- UNDEFINED --		
04 -- UNDEFINED --		
05 Extension Rack		
MP3100EX		
-- UNDEFINED --		
31001	01 [MP3100(16)SUB[---]	01 CPUIF

3. By the EXIO of MP3100EX and MP3101EX, base unit (MBU-0*) for MP2000 option module could now be assigned to racks 2 ~ 4 of MP3100.

01 MP3100EX	01 [MP3100EX[----]	01 EXIO
		02 EXIO3000
02 Extension Rack		
01 MBU-0*	01 -- UNDEFINED --[----]	
	02 -- UNDEFINED --[----]	
	03 -- UNDEFINED --[----]	
	04 -- UNDEFINED --[----]	
	05 -- UNDEFINED --[----]	
	06 -- UNDEFINED --[----]	
	07 -- UNDEFINED --[----]	
	08 -- UNDEFINED --[----]	
	09 [EXIOIF[----]	01 EXIO

【Support Version】

○Controller

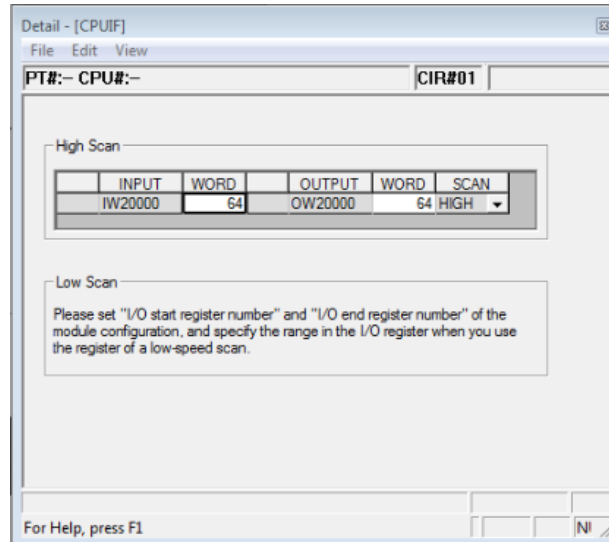
Controller	Support Version
MP3000 Series	Scheduled for Ver.1.34 or later.
Sigma-7 Series	Sigma-7 series is not applicable.
MP2000 Series	MP2000 series is not applicable.

No. 3 Supported the MP3100SUB Module.

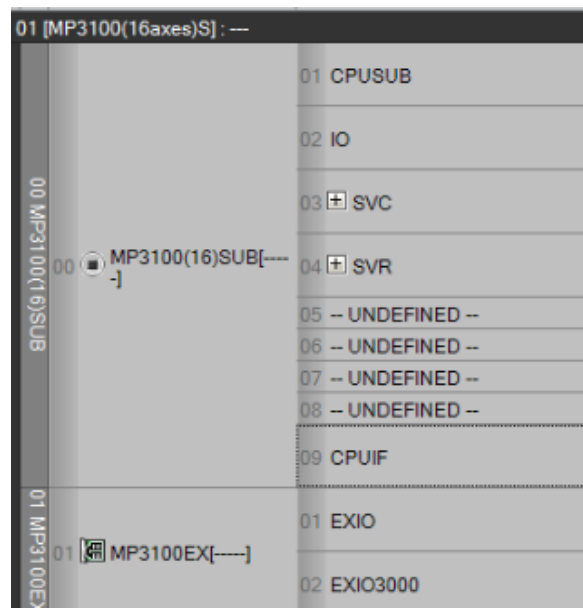
Added the MP3100(16axes)SUB and MP3100(32axes)SUB Module.

○New function

1. The registers for I/F could now be set from the CPUIF function module.



2. The option modules could now be assigned using EXIO of MP3100EX.



【Support Version】

○Controller

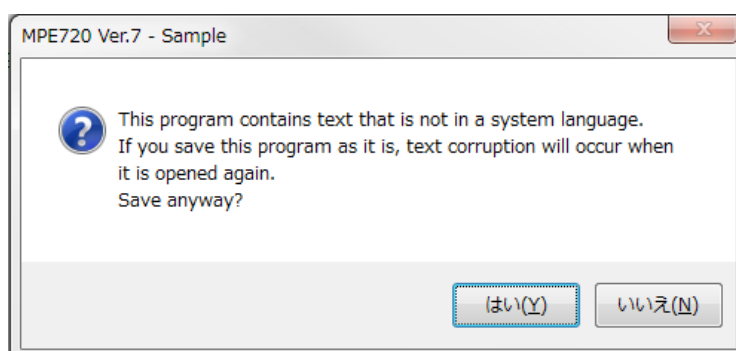
Controller	Support Version
MP3000 Series	Scheduled for Ver.1.34 or later.
Sigma-7 Series	Sigma-7 series is not applicable.
MP2000 Series	MP2000 series is not applicable.

No. 4 Improved the phenomenon that character garbling occurs in Japanese text display and editing in the text editor function.

When entering Japanese characters as comments of the motion program editor or Expression editor, there was a phenomenon that garbled characters occurred by display and character string selection operation. So, improved so that display a warning message when a character string other than the system language is described in the target editor.

Also, when compiling a program in which character strings other than system languages are described, improved so that display a warning message in the output window.

- Target editor
- Motion editor
- Expression editor
- Comment editor



【Support Version】

- Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No. 5 Improved the internal processing of Expression editor.

When scrolling the mouse on the Expression editor under the following conditions, a time lag may occur. So, improved so that internal processing that could operate smoothly.

【Conditions】

- Online connection
- "Display address" and "Display comment" are turned on.
- There are more than 30 rows in which registers are described on expression editor.

【Support Version】

- Controller

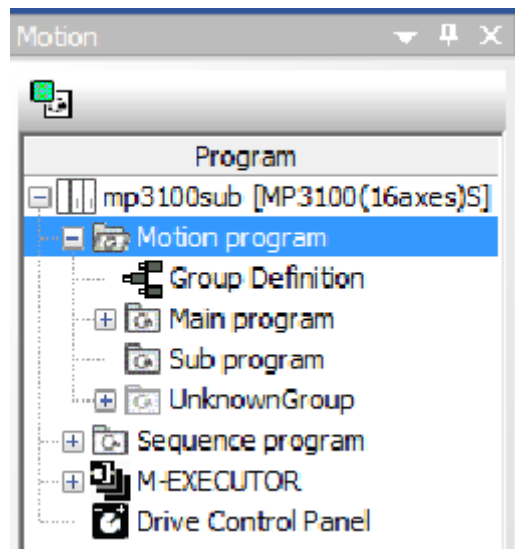
Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No. 6 Improved the display of motion program not belonging to group.

Under the following conditions, the motion program itself was existed but there was a phenomenon that it was not displayed on the tool because it was not belonging to the group. So, improved so that add "UnkwownGroup" to the motion program tree, and display motion programs not belonging to group to "UnkwownGroup".

【Conditions】

- ① Create multiple groups in group definition. (For example, Group 01 to Group 04)
- ② Create a motion program under Group 04.
- ③ Delete Group 04.



【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No. 7 Improved the arithmetic processing of motion program.

In the case of arithmetic expressions in which "(" is used immediately after "--", there was a phenomenon in which erroneous arithmetic processing was executed. So, improved so that the correct arithmetic processing was executed.

【Arithmetic expressions】

ML550=10;

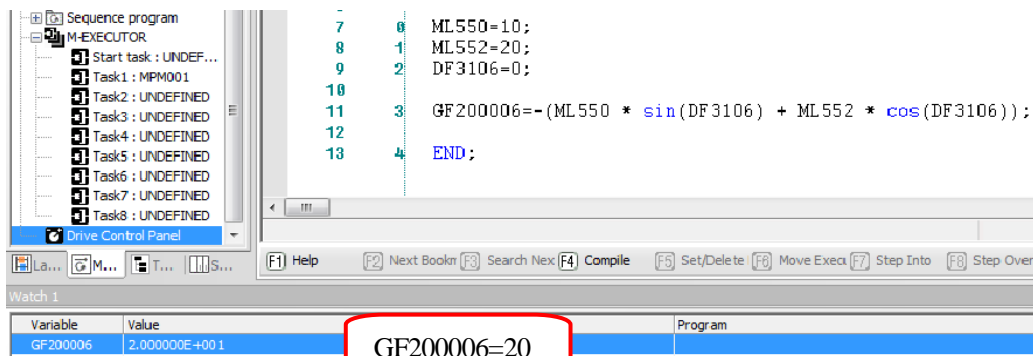
ML552=20;

DF3106=0;

GF200006=-(ML550 * sin(DF3106) + ML552 * cos(DF3106));

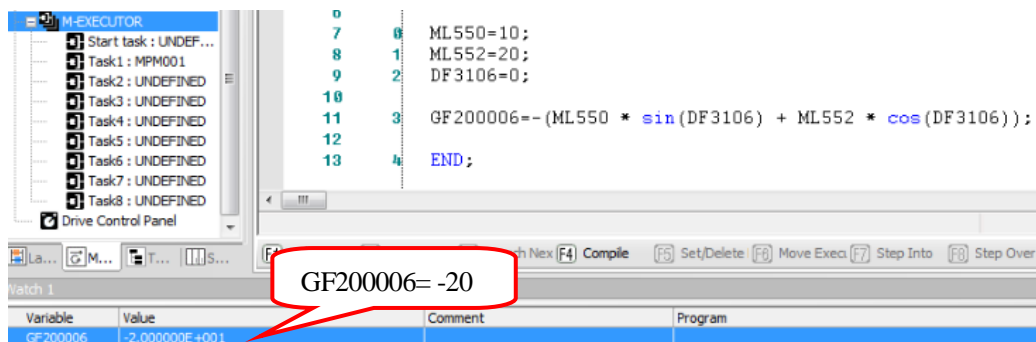
【Before improvement】

GF20006=20



【After improvement】

GF200006=-20



【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

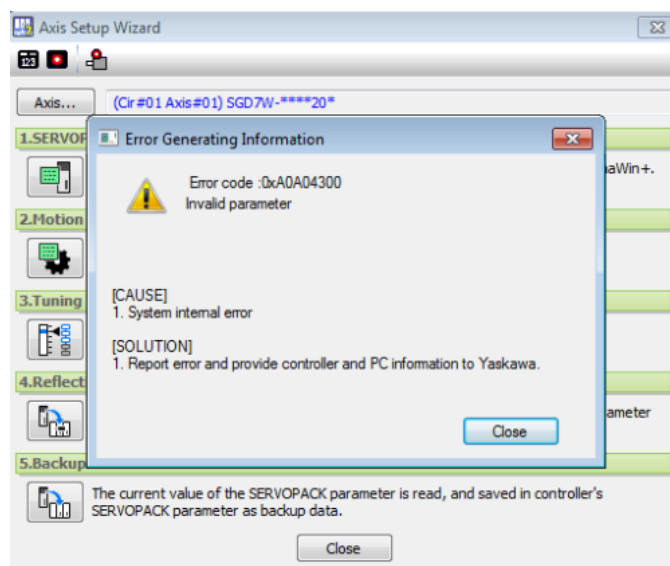
No. 8 Improved the Backup Save of SERVOPACK Parameter function.

Under the following conditions, there was a phenomenon that "Backup Save of SERVOPACK Parameter" function could not be executed in the axis setup wizard function. So, improved so that function could be executed under the following conditions.

【Conditions】

- SERVOPACK parameter backup file (SVP file) exists in the controller.
- "Detailed Servo Settings" is not executed from MC-Configurator.

【Before improvement】



【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No.9 Improved the insert processing of CP ladder.

In the CP ladder, when F1: Insert operation was repeated continuously, there was a phenomenon that the engineering manager go down. So, even if repeating the F1: Insert operation, improved so that the engineering manager will not go down.

【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No.10 Improved the phenomenon that takes a long time to save under certain conditions.

Under the following conditions, there was a phenomenon that takes time to save overwritten. So, improved so that it does

not take a long time to save.

【Conditions】

- A state in which many registers were searched as a result of cross reference.
- A state where the above-mentioned history is held in 20 cases.

【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

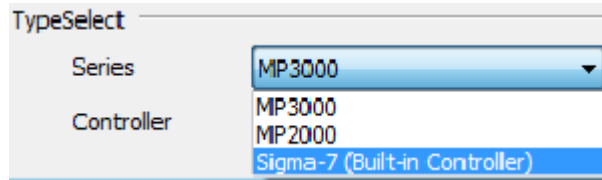
No.11 Changed the display part of Sigma-7C in 『TypeSelect』.

“SIGMA-7C” was displaying in the category of “MP3000”. So, changed the display and display place regarding “SIGMA-7C”.

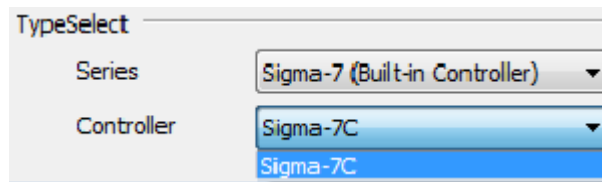
1. Unified the part which was indicated as “SIGMA-7C” to “Sigma-7C”.
2. Changed the part which was indicated as “MP3000” and “MP3000 Series” to “MP3000/Sigma-7(Built-in Controller)” and “MP3000 Series/Sigma-7 Series (Built-in Controller)”.

When the high-speed scan time of an MP3000/Sigma-7 (Built-in Controller) machine controller is set to less than 0.5 ms, the attached MP2000 option module will scan at 0.5 ms cycles.

3. Added the “Sigma-7(Built-in Controller)” to “TypeSelect”



4. When “Sigma-7(Built-in Controller)” is selected in the “Series”, changed so that only “Sigma-7C” can be selected as “Controller”.



5. When “MP3000” is selected in the “Series”, changed so that “Sigma-7C” is not displayed in the “Controller”.

【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No.12 Improved the compilation processing of motion program.

When 32 axes were defined in the Group Definition, there was a phenomenon that MPE720Ver.7 go down when compiling by describing all axes of 32 axes in one instruction (MOV etc.) in the motion program. So, improved so that the compilation succeeds even if compiles by describing all axes of 32 axes in one instruction.

【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No.13 Improved the screen update of Setting Parameters.

Under the following conditions, there was a phenomenon that "Initial value" of the Setting Parameter was not displayed in the latest state. So, improved so that update "Initial value" after changing the set value of "Initial value" and writing.

【Condition 1】

- ① Edit the set value of "Initial value".
- ② Go to "Current value".

【Condition 2】

- ① Edit the set value of "Initial value".
- ② Perform "Write".
- ③ Go to "Current value".

【Condition 3】

- ① Edit the set value of "Initial value".
- ② Go to "Current value" and rewrite the current value.
- ③ Perform "Reflection".
- ④ Go to "Initial value" and perform "Write".
- ⑤ Go to "Current value".

【Support Version】

○Controller

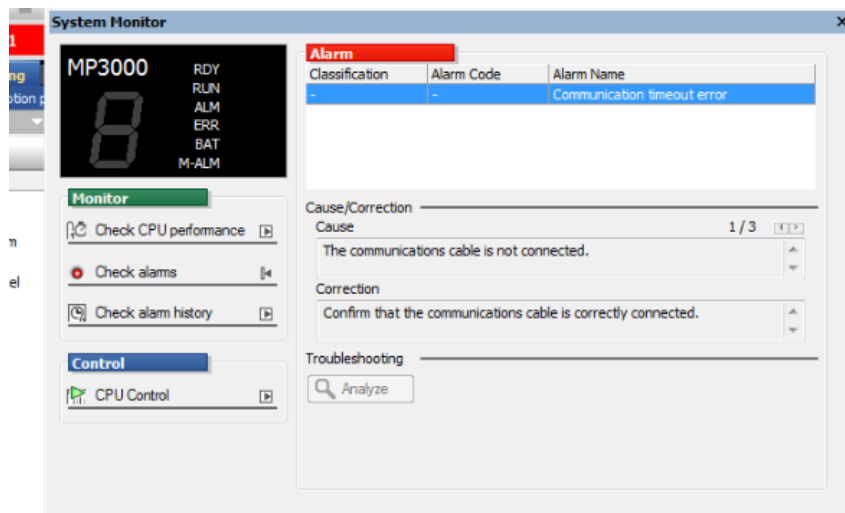
Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No.14 Improved the error indication at communication disconnection.

Under the following conditions, there was a phenomenon that an exception error (SB000413) was detected on the system monitor. So, improved to display communication disconnection error.

【Conditions】

- Online connection.
- When the power to the controller is turned on / off, and communication is disconnected.



【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No.15 Improved the phenomenon that SVB - 01 could not be assigned for specific controllers.

When a new project file was created in an offline environment, there was a phenomenon that SVB-01 could not be assigned the following controllers on the module configuration definition screen of MC-Configurator. So, improved so that SVB-01 could be assigned to the following controllers.

【Controllers】

- MP2300
- MP2310
- MP2300S

【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

No.16 Improved so that normalize numerical values exceeding allowable digits.

Under the following conditions, numerical normalization processing was not performed when opened the Edit Parameter screen and closed the screen. So, improved so that normalization to a 5-digit numerical when opened the Edit Parameter screen and closed the screen. (Example 0000000200 → 00200)

If it is normalized, compilation is necessary because the edit flag is set.

【Conditions】

- Project files created with MPE 720 Ver.5 or Ver.6.
- A numerical of 5 digits or more (example: 0000000200) is set in the setting value of the following instruction.

【Instruction】

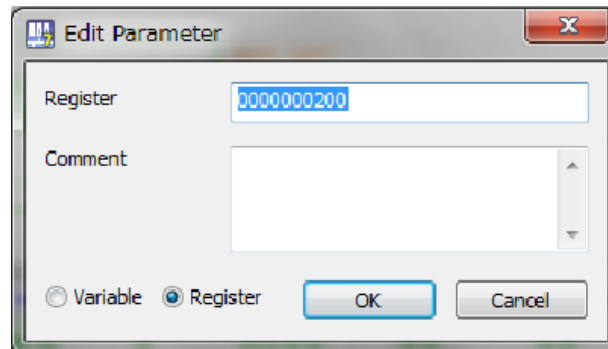
TON(10ms)

TON(1s)

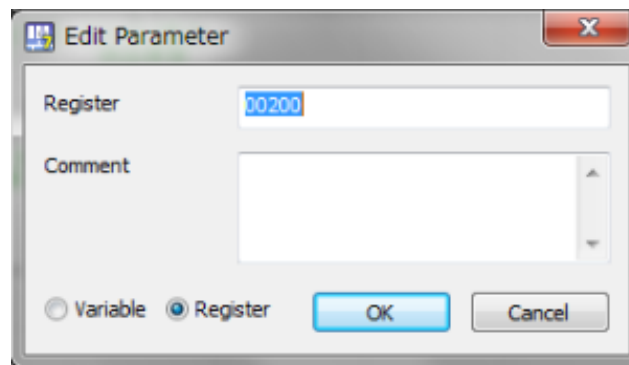
TOFF(10ms)

TOFF(1s)

【Before normalization processing】



【After normalization processing】



【Support Version】

○Controller

Controller	Support Version
MP3000 Series	It is not dependent on the version.
Sigma-7 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.