

Upgrade Information of MPE720 Version 7.38

1. Added and Improved Functions

1.1 Version 7.38 Upgrade Information

Items added and features improved from MPE720 version 7.37 to version 7.38 are as follows.

No.	Feature	Classification
1	Supported the MP3100 (16Axes/32Axes) controller.	New Addition
2	Added a function to manage the common parameters of WildCard Servo / Stepper.	New Function
3	Added the function to detect a mismatch of RAM and FLASH memory contents in the controller.	New Function
4	Added the Fixed parameter of SVC module.	Functional Enhancement
5	Enhanced the function of [Check the compatibility with Ver6].	Functional Enhancement
6	Improve the communication load between MPE720 and controllers.	Improvement
7	Improved the compilation of the motion program.	Improvement
8	Improved the start-up process time that is delayed at the launching of multiple project files.	Improvement
9	Improved the conversion process from CP ladder to MP ladder.	Improvement
10	Improved the scroll bar display of ladder editor.	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】

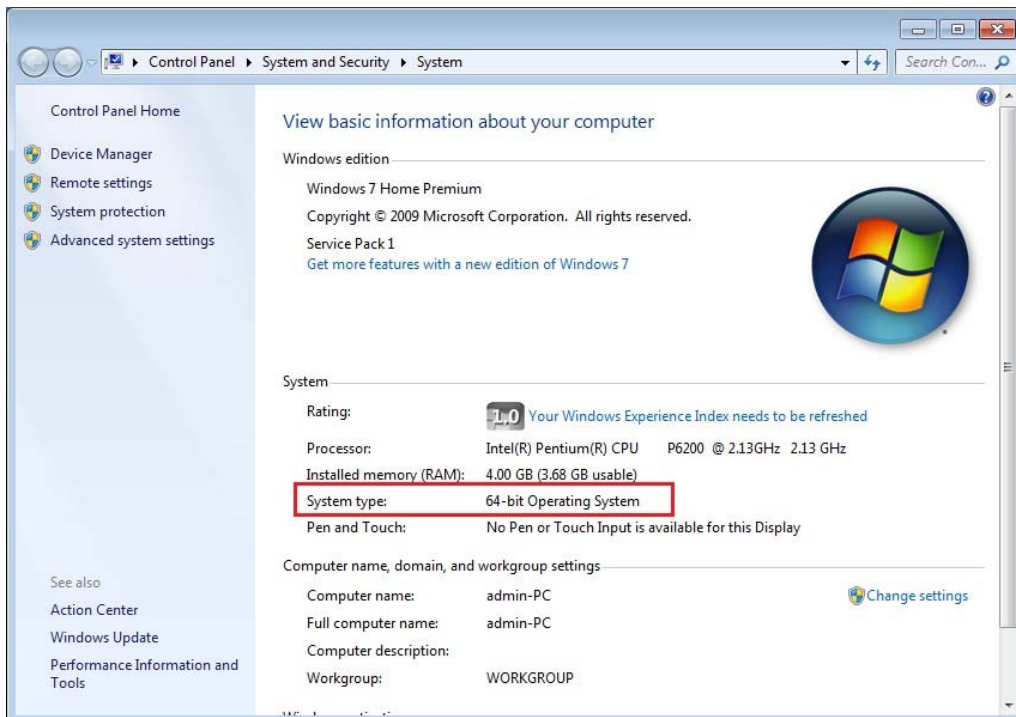
D(*5):\Tools\CleanUp\MPE720Ver7_x86.bat (32bitOS)

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

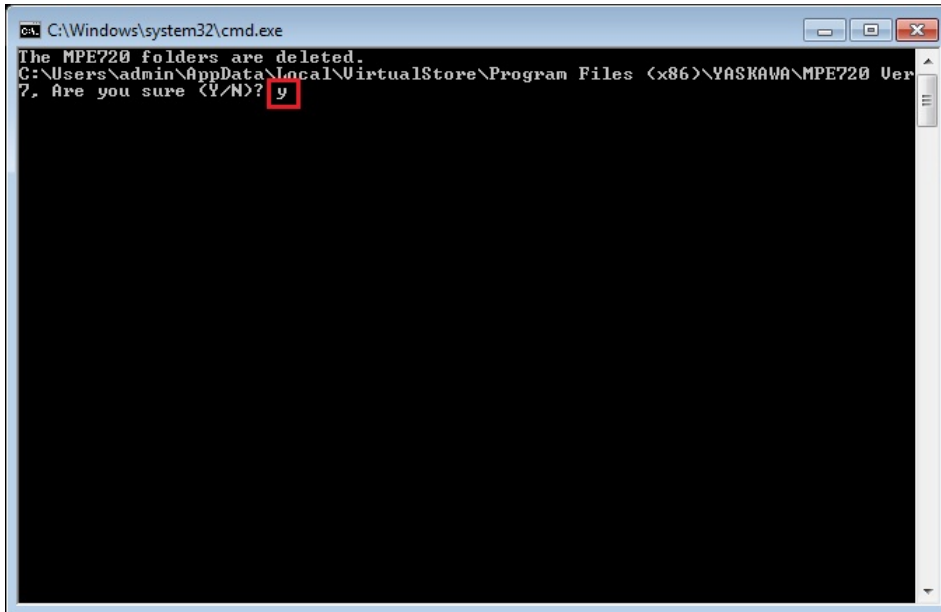
2. The copied batch file is performed.

MPE720Ver7_x86.bat (32bitOS)

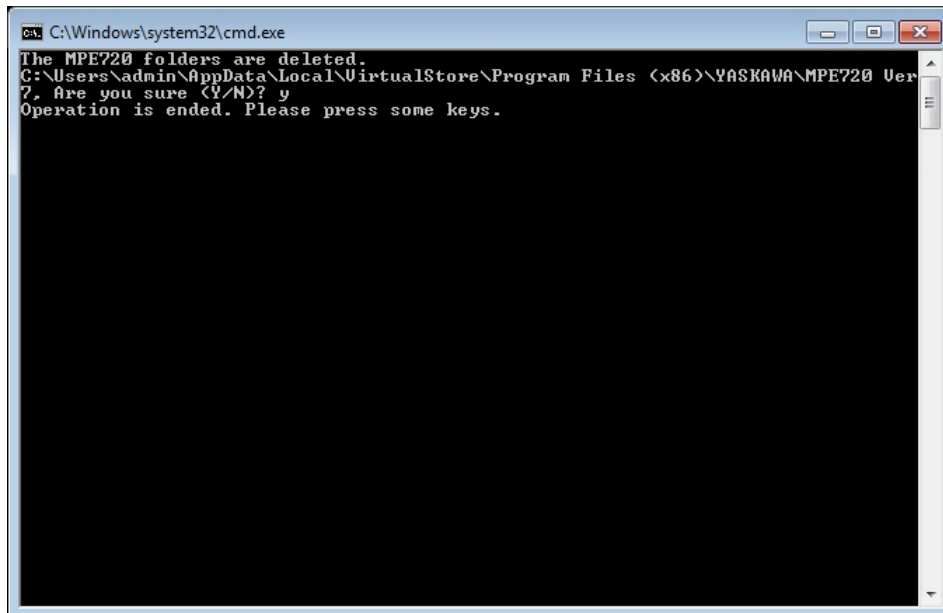
MPE720Ver7_x64.bat (64bitOS)



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】

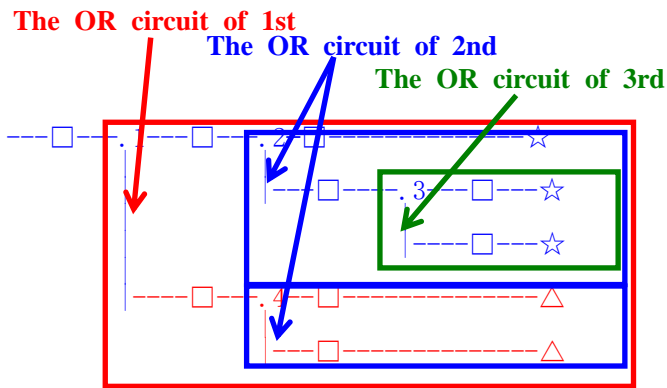
In the Ladder program of MPE720 Ver7 before MPE720 Ver7.23, when the parallel circuit is used, the following phenomena may occur.

<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.

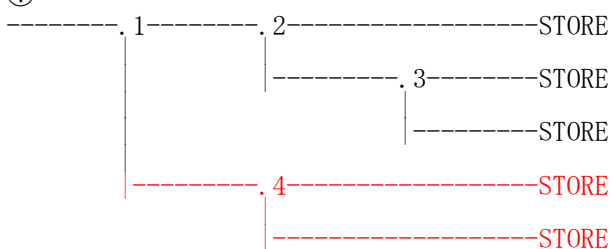
△(Output instruction): Coil, Block instruction(Expression, STORE, COPYW)etc

<Pattern>

Symbol	Instruction
	NO Contact
STORE	STORE instruction
()	Coil

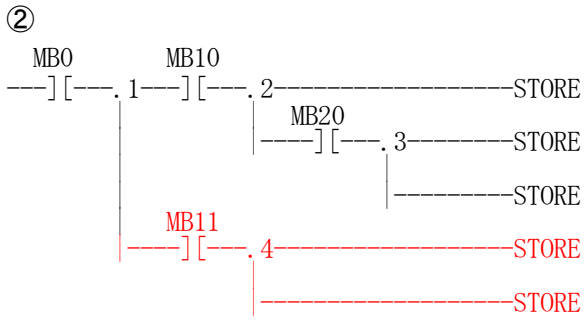
<NG Pattern>

①



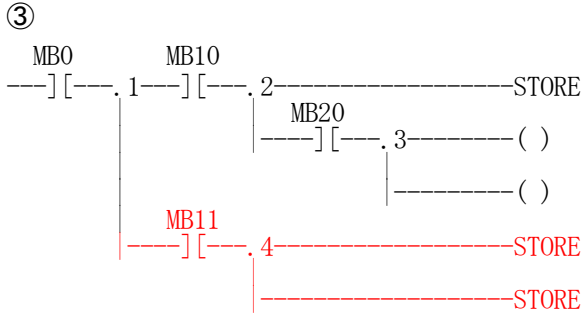
This pattern is minimum circuit pattern.

This is NG.



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

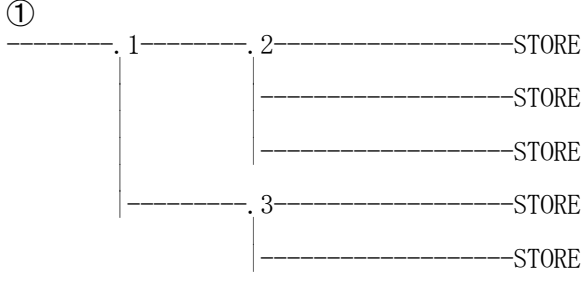
This is NG



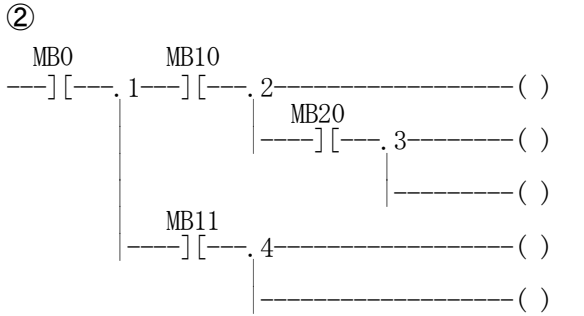
It is NG when there are at least one block commands (STORE command etc.) here.

This is NG

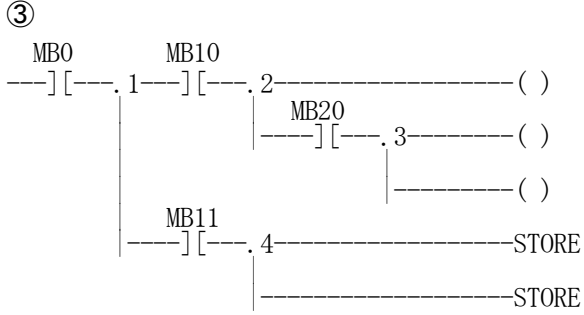
<OK Pattern>



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

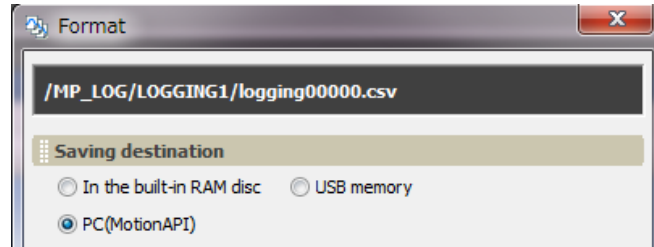
No.	Upgrade Information	Remarks
1	MPE720 version 7.11 upgrade information	version 7.10→version 7.11
2	MPE720 version 7.13 upgrade information	version 7.11→version 7.13
3	MPE720 version 7.14 upgrade information	version 7.13→version 7.14
4	MPE720 version 7.20 upgrade information	version 7.14→version 7.20
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

2. Description

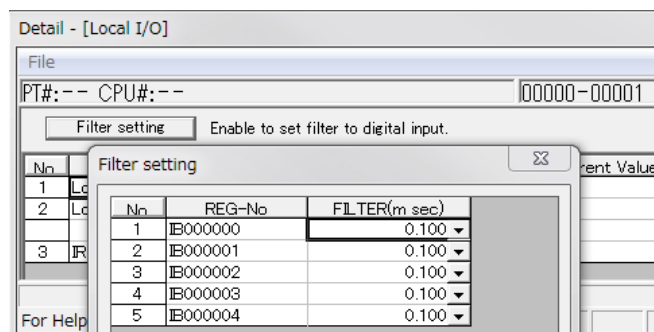
No. 1 Supported the MP3100 (16Axes/32Axes) controller.

Supported the MP3100 (16Axes/32Axes) controller.

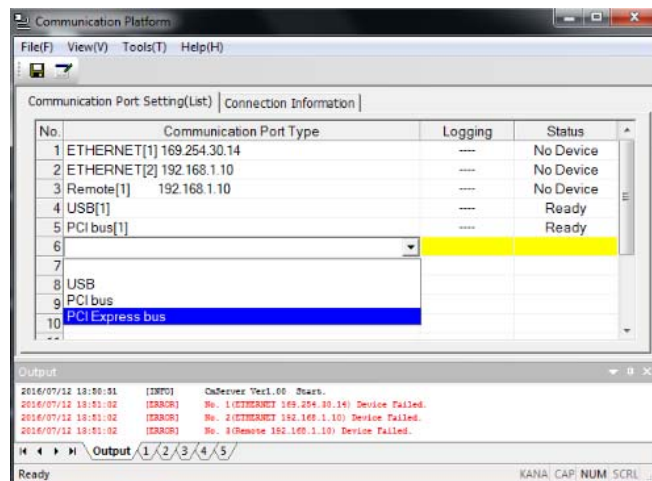
1. Supported the logging function that can be stored the data to HDD of PC via MotionAPI.

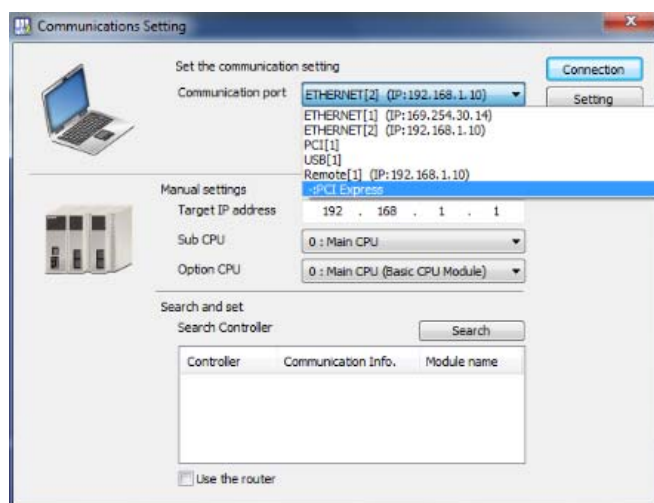


2. Supported the function of digital filter setting for built-in IO of MP3100.



3. Added the PCI Express port for communication to MP3100 controller in the communication platform.





【Support Version】

Controller	Support Version
MP3100 (MP3000 Series)	Ver1.29 or later
MP2000 Series	There is no correspondence.

No. 2 Added a function to manage the common parameters of WildCard Servo / Stepper.

Added the following functions for WildCard Servo and WildCard SteppingMotorDRV of MECHATROLINK-III.

1. Added the function for writing a backup file of the common parameters to the controller.
2. Supported the function that saved the common parameters to project file.
If the MPE720Ver.7 is online connection (project link connection) with the controller, it is possible to save the common parameters in the project file.
3. If there is a save data of the common parameters in the project file, it will be possible to edit and save in the offline.

<Behavior during offline>

○If there is stored data of the common parameters:

Can be edited and saved the common parameters.

○If there isn't stored data of the common parameters:

The common parameters are displayed as “-” and are not able to edit and save.

【Support Version】

○Controller

Controller	Support Version
MP3000 Series Built-in SVC	Ver1.28 or later
Sigma-7C Built-in SVC	Ver.1.01 or later
MP2000 Series Built-in SVC	It will be supported in a future version up.

○Option Module

Module	Support Version
SVC-01	It will be supported in a future version up.

No. 3 Added the function to detect a mismatch of RAM and FLASH memory contents in the controller.

Added the function to display a condition of mismatch of RAM and FLASH memory to status bar when it detect the difference of these contents.

1. Depend on the following condition, it will detect a mismatch of RAM and FLASH memory contents and change the color of FLASH button placed at status bar.

SW15910=1: synchronous
 SW15910=0: asynchronous

<Synchronous>



<Asynchronous>



2. If the following item is set to “NO”, each dialog will be shown by the condition of SW15910.

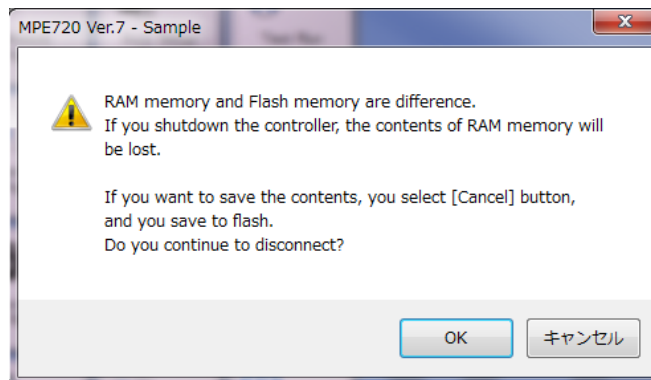
<Item>

Automatic run after disconnection the controller = No

SW15910=1: synchronous→No message.

SW15910=0: asynchronous→Display the following message.

<Asynchronous>



3. Added the function to execute the FLASH save when the FLASH button placed at status bar pushed.



【Support Version】

Controller	Support Version
MP3000 Series	Ver1.28 or later
MP2000 Series	MP2000 series is not applicable.

No. 4 Added the Fixed parameter of SVC module.

Added the Fixed parameter of SVC module.

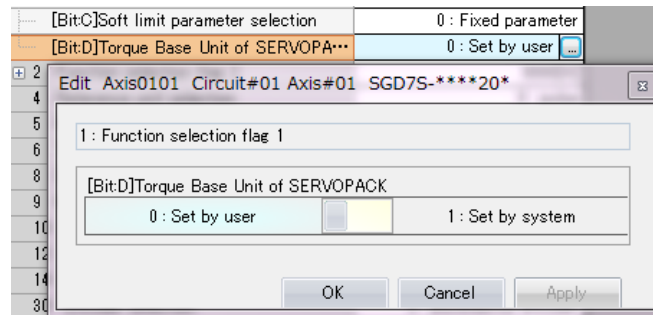
【Additional parameter】

Fixed Parameter: Function selection flag 1 Bit D

Name: Torque Base Unit of SERVOPACK

Value: Set by User(=0)/Set by System(=1)

Note: If the Torque Basic Unit of the SERVOPACK is enabled, the controller automatically reflect the setting of Torque unit selection([OWxx03 Bit C~F]) to the SERVOPACK.



【Support Version】

○Controller

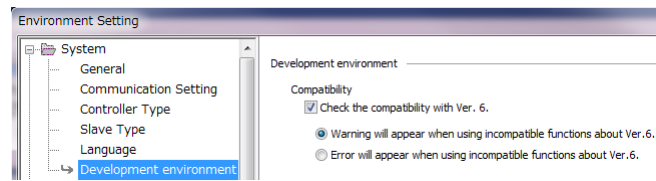
Controller	Support Version
MP3000 Series Built-in SVC	Ver1.28 or later
Sigma-7C Built-in SVC	Ver.1.01 or later
MP2000 Series Built-in SVC	It will be supported in a future version up.

○Option Module

Module	Support Version
SVC-01	It will be supported in a future version up.

No. 5 Enhanced the function of [Check the compatibility with Ver6].

[Check the compatibility with Ver6] function had only the function to display a warning message. So, added the choices of function and can choose a warning or an error action in the [Check the compatibility with Ver6] function.



1. Ladder editor

- The save confirmation message when it was closed the program in the edit state

(Warning): Display the warning message.
 (Error): Display the error message. (Can't be saved)

- EXPRESSION editor

Confirmation message of “Compilation version switching”
 (Warning): Display the warning message.
 (Error): Display the error message. (Can't be changed)

- Ladder compiler

Compatibility check of “Compilation version”
 (Warning): Display the warning message.
 (Error): Display the compile error.

- When parallel circuit exist

(Warning): Display the warning message.
 (Error): Display the compile error.

2. Motion editor

- The save confirmation message when it was closed the program in the edit state

(Warning): Display the warning message.
 (Error): Display the error message. (Can't be saved)

- Confirmation message of “Compilation version switching”

(Warning): Display the warning message.
 (Error): Display the error message. (Can't be changed)

- Motion compiler

Compatibility check of “Compilation version”
 (Warning): Display the warning message.
 (Error): Display the compile error.

【Support Version】

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

No. 6 Improved the communication load between MPE720 and controllers.

The registers that required for status display of each function had been read independently in the functional unit. For this reason, it had become to require more than one communication. So, improved for reading the registers that required for status display of each function by a single communication.

【Support Version】

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

No. 7 Improved the compilation of the motion program.

1. In one of the IF statement, the upper limit of the number of available IF statement was 100. So, improved the upper limit of the number of available IF statement to 1000 in one of the IF statement.
Further, when the IF statement that more than 1000 was used, improved so that displayed the following compilation error messages.

「The number of “IF” in one nesting exceeds upper limit 1000.」

2. In one of the WHILE statement, the upper limit of the number of available WHILE statement was 150. So, improved the upper limit of the number of available WHILE statement to 200 in one of the IF statement.
Further, when the WHILE statement that more than 200 was used, improved so that displayed the following compilation error messages.

「The number of “WHILE” in one nesting exceeds upper limit 200」

【Support Version】

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

No. 8 Improved the start-up process time that is delayed at the launching of multiple project files.

If it run the multiple project file at the same time, start-up processing of MPE720 was slowed. So, improved the start-up process time if it launches the multiple project files.

【Support Version】

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

No. 9 Improved the conversion process from CP ladder to MP ladder.

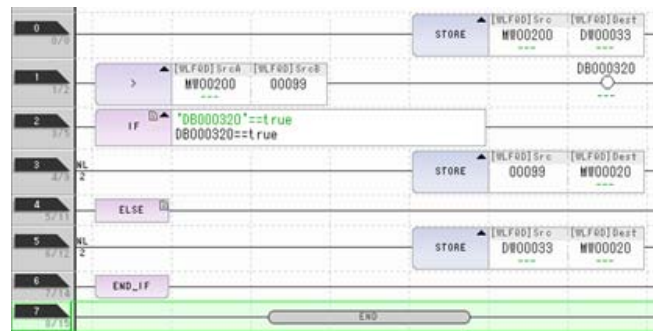
If it converted the CP ladder to MP ladder using a “CP ladder of conversion” function, there was a phenomenon that did not become a circuit of CP ladder equivalent because the retracting process to work register did not perform. So, improved the conversion process to make the equivalent circuit of MP ladder from CP ladder by using the “CP ladder conversion function”.

<Before conversion>

```

[L ] LADDER UZU3519(MP3300) CPU-201 Offline Local
PT#:- CPU#:-
1 0000  |> M00200 > 00099
1 0002  | | 00099 | => MW00020
0 0004  DEND
    
```

<After conversion>



【Support Version】

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

No. 10 Improved the scroll bar display of ladder editor.

When it minimizes the MPE720, if it presses any key of Shift, Ctrl or ALT, there was a phenomenon that the scroll bar of the ladder editor disappeared. So, improved the phenomenon not to be displayed the scroll bar of the ladder editor when it minimized and pressed any key of Shift, ctrl or ALT.

【Support Version】

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