

## Upgrade Information of MPE720 Version 7.31

### 1. Added and Improved Functions

#### 1.1 Version 7.31 Upgrade Information

Items added and features improved from MPE720 version 7.30 to version 7.31 are as follows.

No.	Feature	Classification
1	The model of the Sigma-7 series SERVOPACK was added.	Add function
2	It was supported the 8 slot mount base unit (MBU-301 and 302) of MP3300 (CPU-301 (16axes and 32axes)).	Functional enhancement
3	It was supported the EXIOIF module for expansion racks of MP3300 (CPU-301 (16axes and 32axes)).	Functional enhancement
4	The parameter of "Slave detection waiting time" was added to the detail definition screen of the SVC module.	Functional enhancement
5	The compilation processing of the Ladder Program was improved.	Functional enhancement
6	The reading function of the trace definition file was added to the Real-Time Trace.	Functional enhancement
7	The allocation operation of the SVC module was improved.	Improvement
8	The check processing of the decimal point input of MC-Configurator was improved.	Improvement
9	The delete operation of Lang comment was improved.	Improvement
10	The compilation processing of the Expression instruction of the Ladder Program was improved.	Improvement
11	The processing of the motion compiler was improved.	Improvement
12	The process on the Communication Platform was improved.	Improvement
13	The closing process on the Communication Platform was improved.	Improvement
14	The scrolling action on the Comment List was improved.	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】

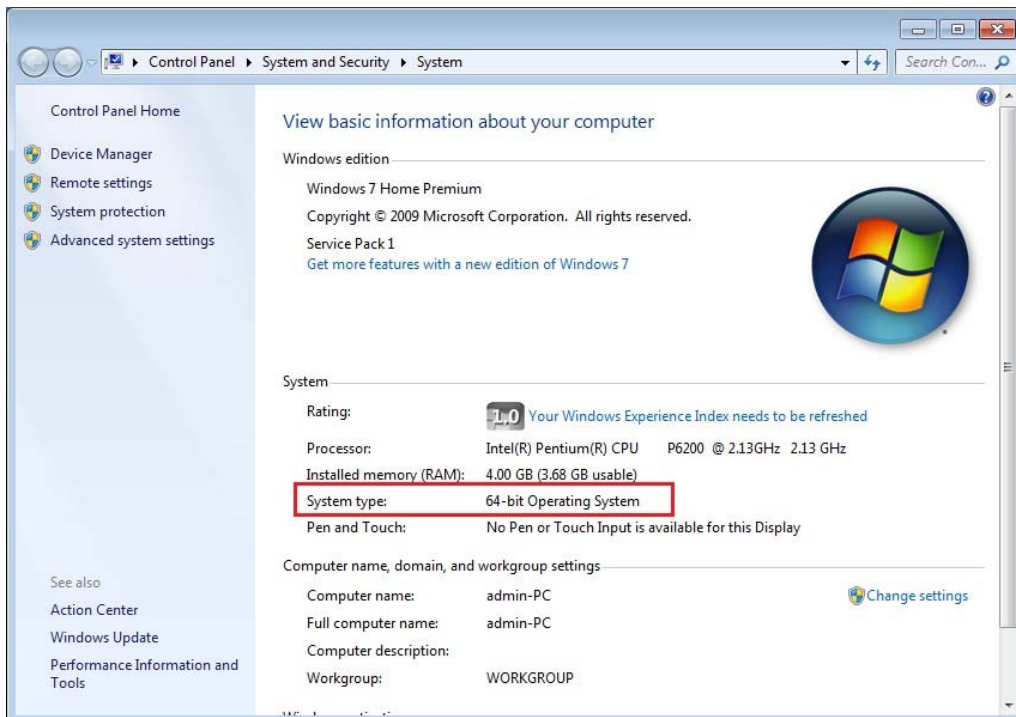
D(\*5):\Tools\CleanUp\MPE720Ver7\_x86.bat (32bitOS)

D(\*5):\Tools\CleanUp\MPE720Ver7\_x64.bat (64bitOS)

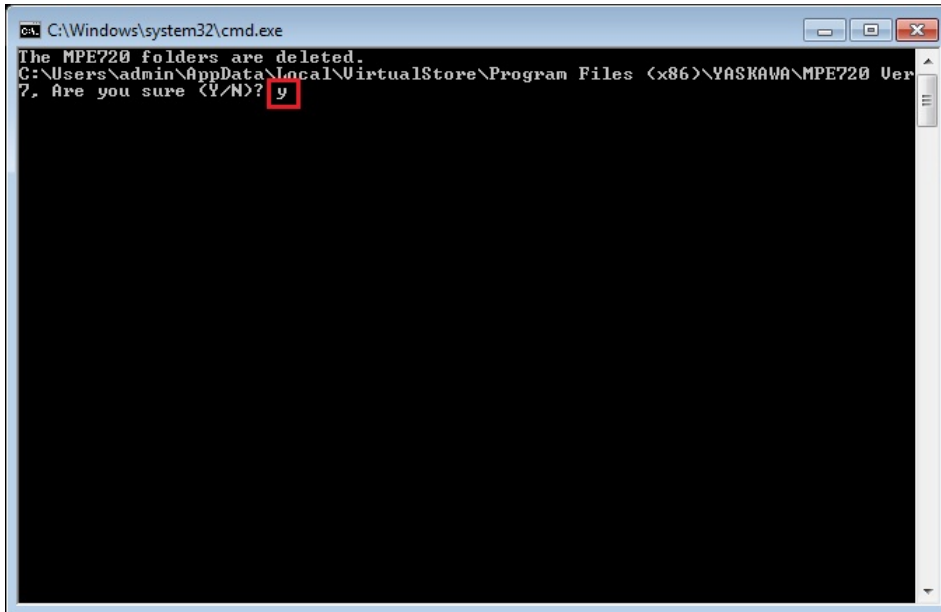
2. The copied batch file is performed.

MPE720Ver7\_x86.bat (32bitOS)

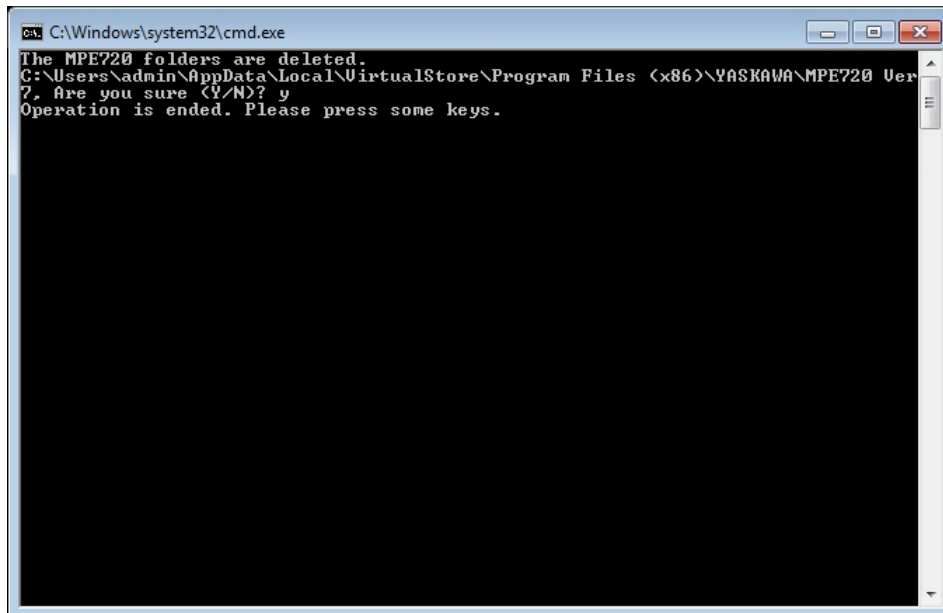
MPE720Ver7\_x64.bat (64bitOS)



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】

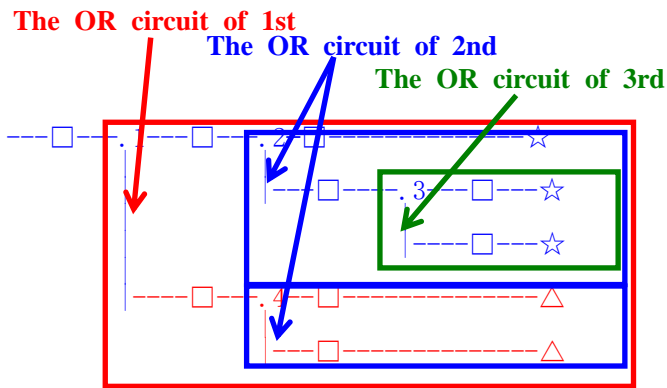
In the Ladder program of MPE720 Ver7 before MPE720 Ver7.23, when the parallel circuit is used, the following phenomena may occur.

<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 1<sup>st</sup> class must operate essentially in response to the conditional instruction before the OR circuit of 1<sup>st</sup> 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.

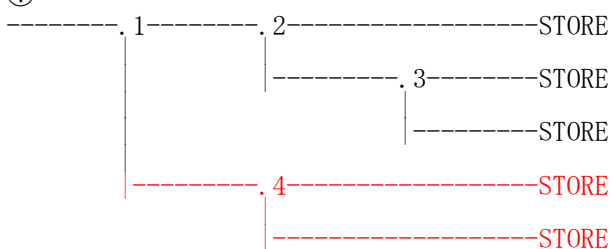
△(Output instruction): Coil, Block instruction(Expression, STORE, COPYW)etc

<Pattern>

Symbol	Instruction
	NO Contact
STORE	STORE instruction
()	Coil

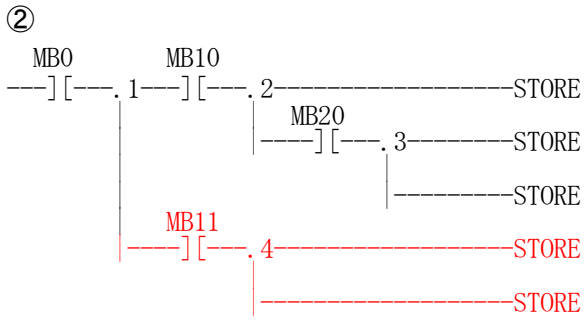
<NG Pattern>

①



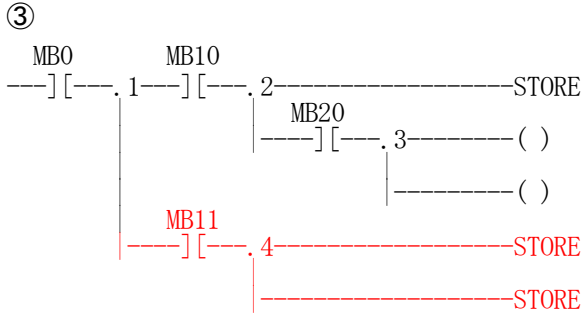
This pattern is minimum circuit pattern.

This is NG.



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

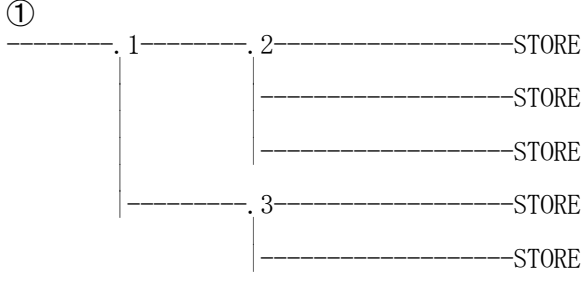
This is NG



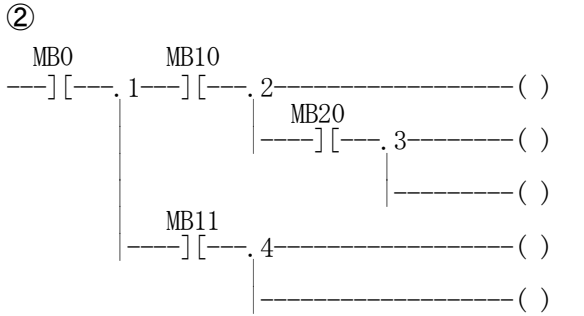
It is NG when there are at least one block commands (STORE command etc.) here.

This is NG

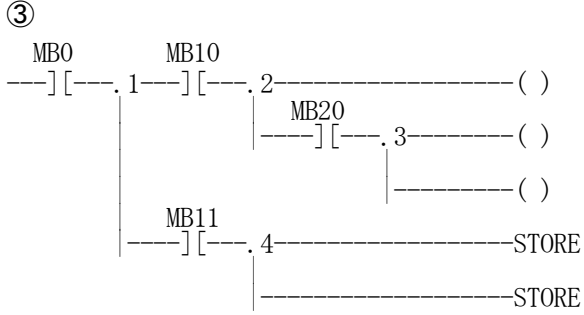
<OK Pattern>



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	<a href="#">MPE720 version 7.11 upgrade information</a>	version 7.10→version 7.11
2	<a href="#">MPE720 version 7.13 upgrade information</a>	version 7.11→version 7.13
3	<a href="#">MPE720 version 7.14 upgrade information</a>	version 7.13→version 7.14
4	<a href="#">MPE720 version 7.20 upgrade information</a>	version 7.14→version 7.20
5	<a href="#">MPE720 version 7.21 upgrade information</a>	version 7.20→version 7.21
6	<a href="#">MPE720 version 7.23 upgrade information</a>	version 7.21→version 7.23
7	<a href="#">MPE720 version 7.24 upgrade information</a>	version 7.23→version 7.24
8	<a href="#">MPE720 version 7.26 upgrade information</a>	version 7.24→version 7.26
9	<a href="#">MPE720 version 7.27 upgrade information</a>	version 7.26→version 7.27
10	<a href="#">MPE720 version 7.28 upgrade information</a>	version 7.27→version 7.28
11	<a href="#">MPE720 version 7.29 upgrade information</a>	version 7.28→version 7.29
12	<a href="#">MPE720 version 7.30 upgrade information</a>	version 7.29→version 7.30

## 2. Description

### No. 1 The model of the Sigma-7 series SERVOPACK was added.

It supported about the following SERVOPACK.

① MECHATROLINK-II Communications References Sigma-7S (SGD7S-\*\*\*\*10\*) SERVOPACK (Linear type)

1. Module Configuration

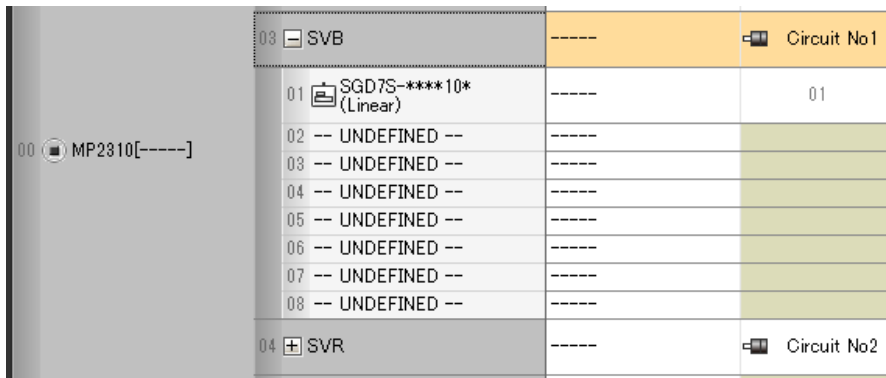
In the Module Configuration, it changed so that the SERVOPACK of the Sigma-7S (SGD7S-\*\*\*\*10\*) Linear type could be assigned.

2. Fixed, Setting, Monitor Parameter

The screen for carrying out a detailed setup of Fixed Parameters, Setting Parameters and Monitor Parameters of the SERVOPACK were added.

3. Servo Parameter, Servo Monitor

The screen for carrying out a detailed setup of Servo Parameter and Servo Monitor of the SERVOPACK were added.



#### 【Support Version】

##### ○Controller

Controller		Support Version
MP2000 Series	Built-in SVB	Ver2.92 or later

##### ○Option Module

Module	Support Version
SVB-01	Ver1.34 or later

##### ○Engineering Tool

Tool		Support Version
MPE720	Linear	Ver7.31 or later

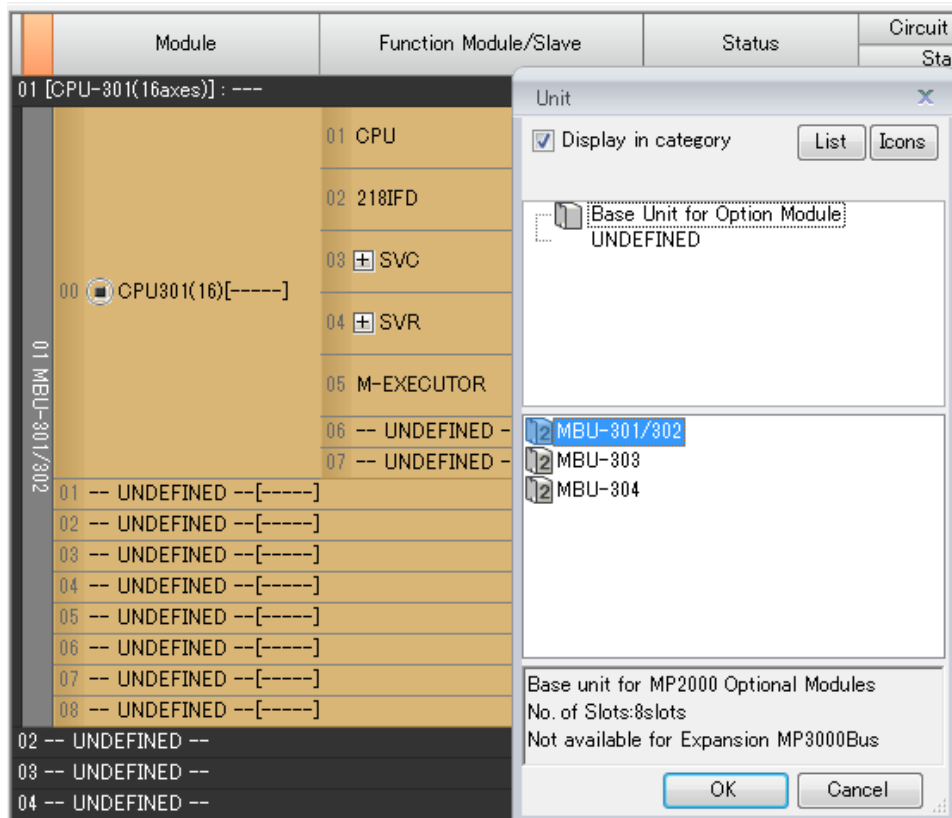
**No. 2 It was supported the 8 slot mount base unit (MBU-301 and 302) of MP3300 (CPU-301 (16axes and 32axes)).**

The 8 slot mount base unit (MBU-301 and 302) was added to the base unit for optional modules of MP3300 (CPU-301 (16axes and 32axes)).

The allocation method of MBU-301 and 302 by Off-line is the following procedure.

**【Operating method】**

1. The project file of MP3300 (CPU-301 (16axes and 32axes)) creates.
2. MC-Configurator is started.
3. The unit of MP3300 is chosen, and "Device select" on the right click menu is chosen.
4. MBU-301/302 is chosen.



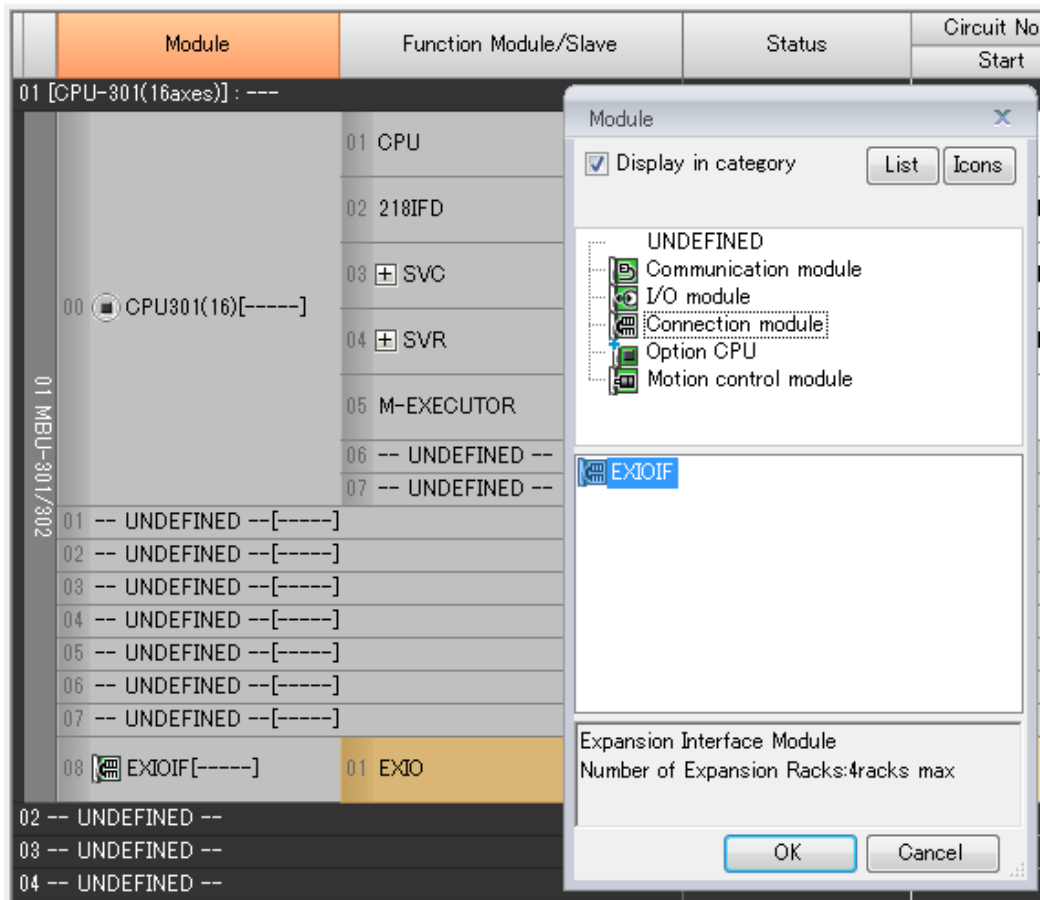
**【Support Version】**

Controller	Support Version
MP3200 CPU-201,202	There is no correspondence.
MP3300 CPU-301(16axes,32axes))	Ver1.17 or later
MP2000 Series	There is no correspondence.



**No. 3 It was supported the EXIOIF module for expansion racks of MP3300 (CPU-301 (16axes and 32axes)).**

The EXIOIF module which is a connection module during rack was supported in MP3300 (CPU-301 (16axes and 32axes)). It's possible to expand the number of the optional module by using the expansion rack unit and the EXIOIF module.



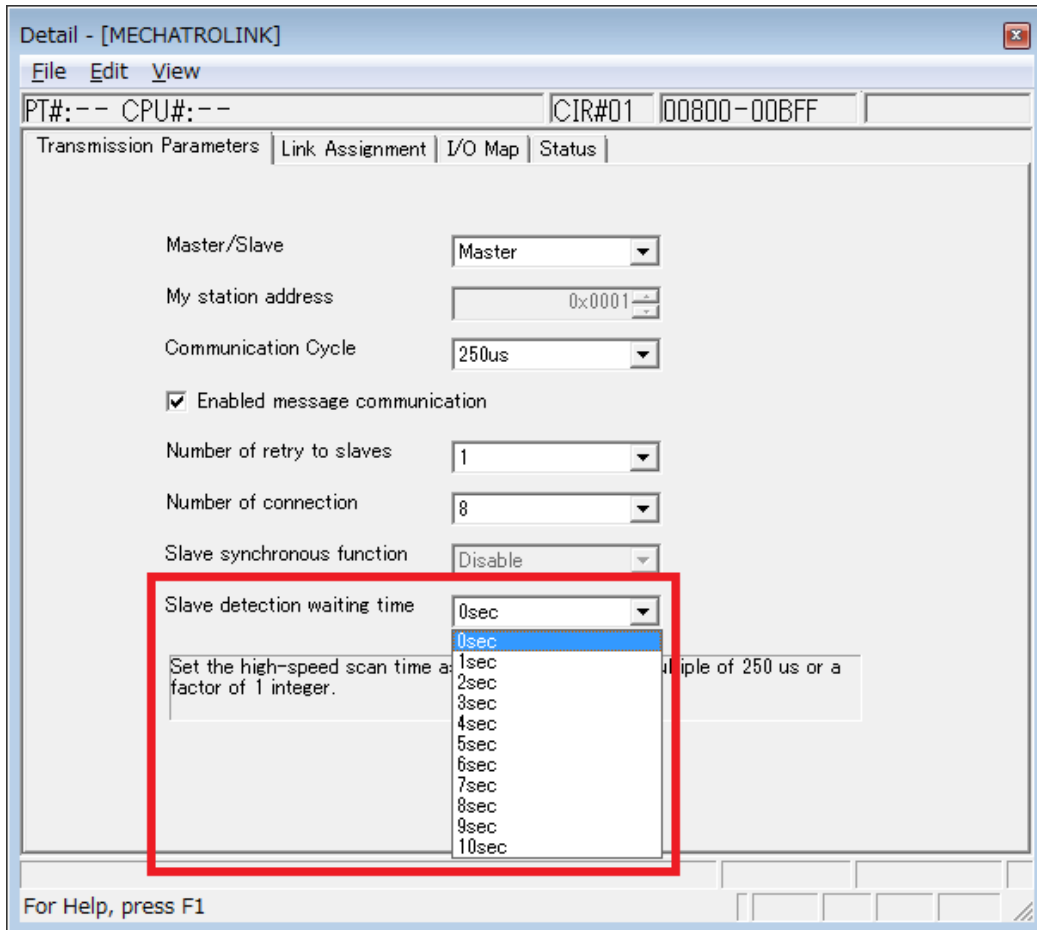
**【Support Version】**

Controller	Support Version
MP3200 CPU-201,202	There is no correspondence.
MP3300 CPU-301(16axes,32axes))	Ver1.17 or later
MP2000 Series	There is no correspondence.

**No. 4 The parameter of "Slave detection waiting time" was added to the detail definition screen of the SVC module.**

"Slave detection waiting time" was added to the detail definition screen of SVC of the motion control module.

"Slave detection waiting time" is the function the user keeps detecting slaves in which during set time in the timing by which a SVC module initializes MECHATROLINK-III communication.



**【Support Version】**

○Controller

Controller	Support Version
MP3000 Series Built-in SVC	Ver1.17 or later
MP2000 Series Built-in SVC	Ver2.92 or later

○Option Module

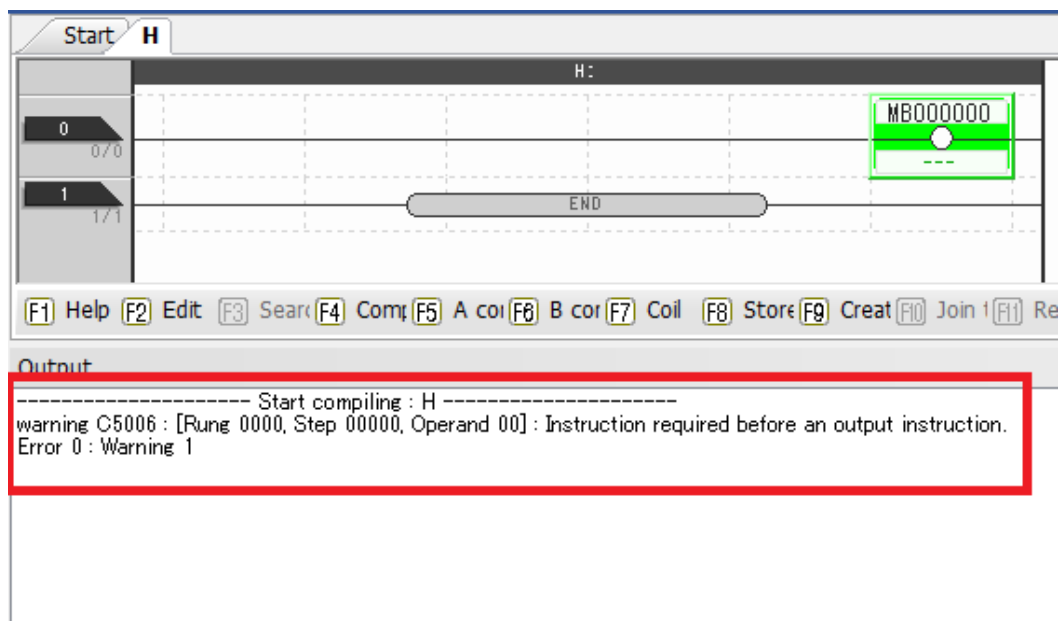
Module	Support Version
SVC-01	Ver1.14 or later

## No. 5 The compilation processing of the Ladder Program was improved.

In the Ladder Program, the following target instruction was arranged in the state in which a condition order doesn't exist, and it was improved so that a warning might be indicated when compiling.

### ○Target instruction

- 1-ms ON-Delay Timer (TON(1ms))
- 1-ms OFF-Delay Timer (TOFF(1ms))
- 10-ms ON-Delay Timer (TON(10ms))
- 10-ms OFF-Delay Timer (TOFF(10ms))
- 1-s ON-Delay Timer (TON(1s))
- 1-s OFF-Delay Timer (TOFF(1s))
- Rising-edge Pulses (ON-PLS)
- Falling-edge Pulses (OFF-PLS)
- Coil (COIL)
- Reverse Coil (REV-COIL)
- Rising-edge Detection Coil (ONP-COIL)
- Falling-edge Detection Coil (OFFP-COIL)
- Set Coil (S-COIL)
- Reset Coil (R-COIL)



### 【Support Version】

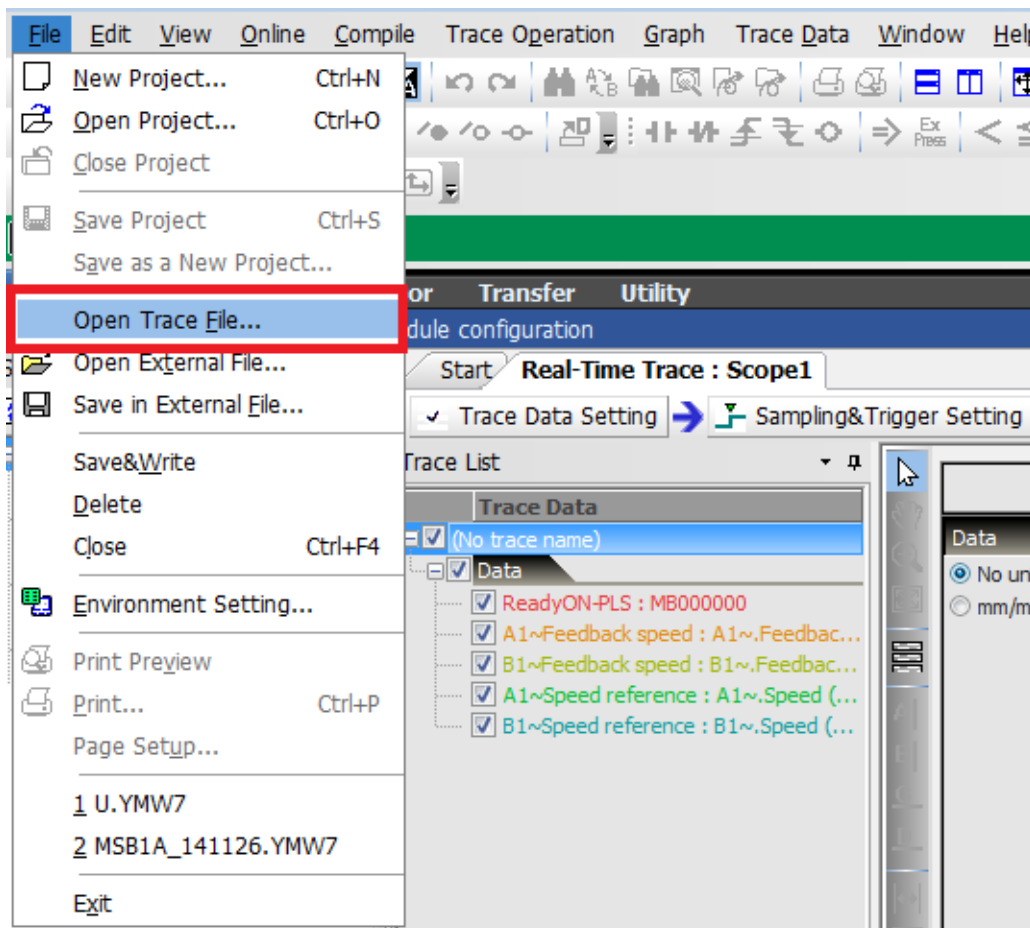
Controller	Support Version
MP3000 Series	It is not dependent on the version.
MP2000 Series	It is not dependent on the version.

**No. 6 The reading function of the trace definition file was added to the Real-Time Trace.**

The reading function of the trace definition file of "Trace Data Setting" and "Sampling & Trigger Setting" was added to the Real-Time Trace function.

**【Operating method】**

Select to "File" menu -> "Open Trace File".



**【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 The allocation operation of the SVC module was improved.

The following phenomenon was improved about allocation operation of the SVC module.

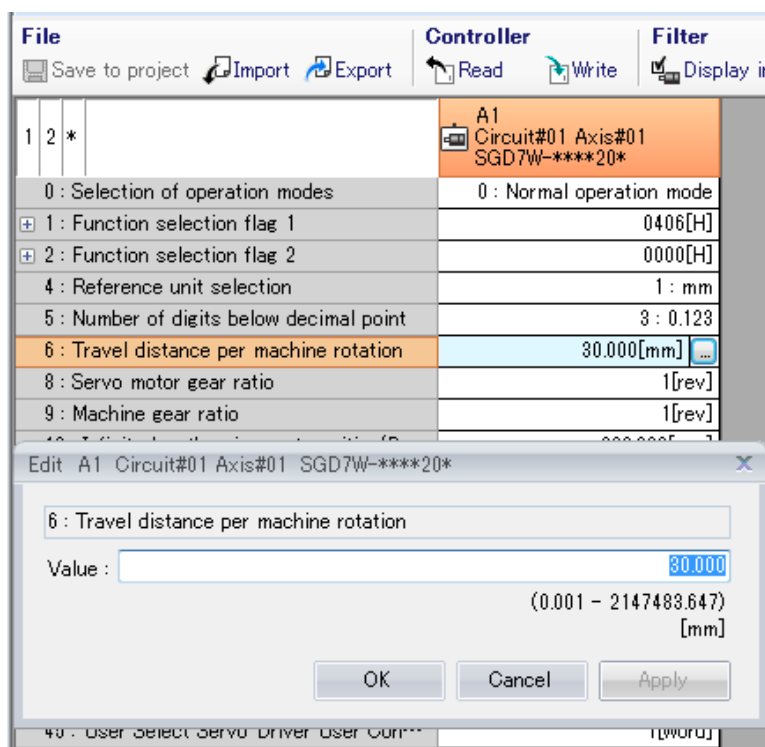
1. When setting the communication cycle of the SVC module as "125us", there was a phenomenon by which "MTD2310/30" isn't shown to the allocation screen of the slave. So this has been improved.
2. When allocating 1000 Series INVERTER in the SVC module, the initial value of transmission byte was changed to 64 bytes which are the default value of the inverter from 32 bytes.

### 【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 The check processing of the decimal point input of MC-Configurator was improved.

The language of OS (the language by which ", (comma)" is used for input in a decimal point) couldn't input a decimal point in a parameter screen of MC-Configurator (Ex. Fixed parameter No.6: Travel distance per machine rotation). So this has been improved.

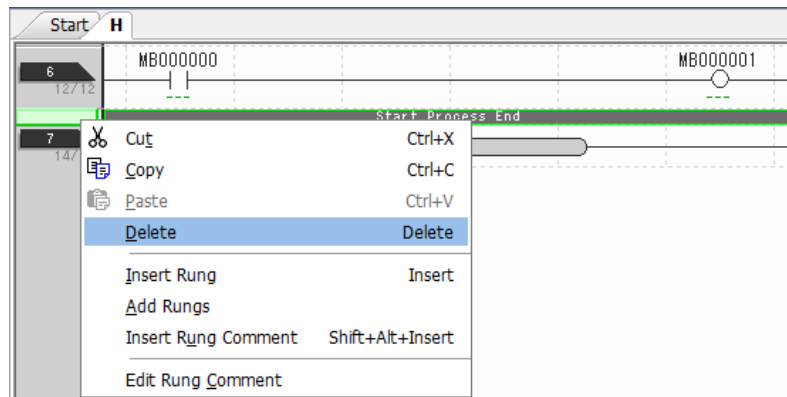


### 【Support Version】

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

**No. 9 The delete operation of Lang comment was improved.**

There was a phenomenon that it can't delete Lang comment of the last line in the Ladder Program (in front of END). So, this has been improved.



**【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 The compilation processing of the Expression instruction of the Ladder Program was improved.**

In the Expression instruction of the Ladder Program, when describing an arithmetic expression with the following arrangement register there was a phenomenon which isn't compiled right. So, this has been improved.

Example)

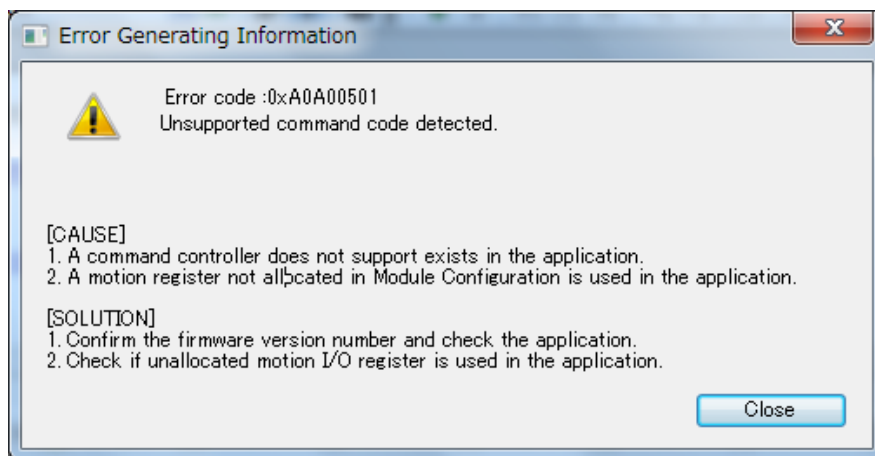
ML0000 = ML0002 (DL0010) + ML0004 (DL0010);

**【Support Version】**

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

### No. 11 The processing of the motion compiler was improved.

In the state which made an online connection to a controller, when writing the 18th axis defined in the Group Definition in the Motion Program and compiling, the error message of "Unsupported command code detected." was displayed. So this has been improved.



#### 【Support Version】

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

### No. 12 The process on the Communication Platform was improved.

When making an online connection to the board type controller at the same time by MPE720 Ver7 and SigmaWin+, which used a communication port of "PCI", the following phenomenon occurred. So this has been improved.

1. When doing Servo search of SigmaWin+ in the state which makes an online connection to the board type controller in MPE720 Ver7, the SERVOPACK isn't not found.
2. In the state which makes an online connection to the board type controller at the same time by MPE720 Ver7 and SigmaWin+, when MPE720 Ver7 is made an off-line connection, SigmaWin+ is also made an off-line connection.

#### 【Support Version】

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

### No. 13 The closing process on the Communication Platform was improved.

When shut down of the PC was carried out in the state which made an online connection to a controller, the Communication Platform had ended abnormally. So this has been improved.

#### 【Support Version】

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

**No. 14 The scrolling action on the Comment List was improved.**

In the Comment List function, when doing scrolling operation by a track point button of the PC made by Lenovo Corporation, the error message of "0x8001010D" was displayed. So this has been improved.

**【Support Version】**

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