

## Upgrade Information of MPE720 Version 7.28

### 1. Added and Improved Functions

#### 1.1 Ver.7.28 Upgrade Information

Items added and features improved from MPE720 version 7.27 to version 7.28 are as follows.

No.	Feature	Classification
1	The MP3300 (CPU-301(32 axes)) controller was supported.	Add function
2	The Sigma-7W (SGD7W-****20*) SERVOPACK of 2-axis driving model was added.	Add function
3	MPHLS-01 module (HLS communication module) was added in the option modules of MP3000 series.	Add function
4	The maintenance monitor function was added.	Add function
5	The maximum communication size setting function was added to the communication platform.	Functional enhancement
6	The updating timing of comments has been improved in the Replace in project function.	Improvement
7	"Address search" in the search in project has been improved.	Improvement
8	The updating timing of the Setting Parameter and the Monitor Parameter has been improved.	Improvement
9	The current value display of the Ladder program has been improved.	Improvement
10	The operation of the "Write the parameter into the SERVOPACK" optional feature of Transfer function has been improved.	Improvement
11	"Save to Flash" operation has been improved.	Improvement
12	Enable or Disable switching behavior of CP Ladder was improved.	Malfunction correction

(\*): 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】

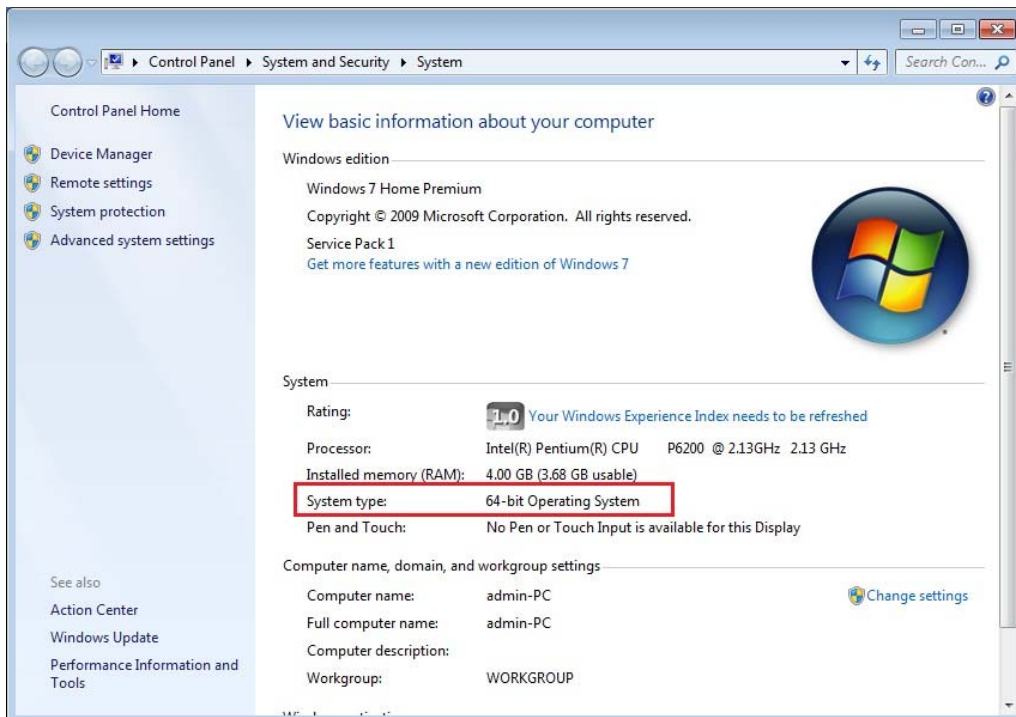
D(\*5):\Tools\CleanUp\MPE720Ver7\_x86.bat (32bitOS)

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

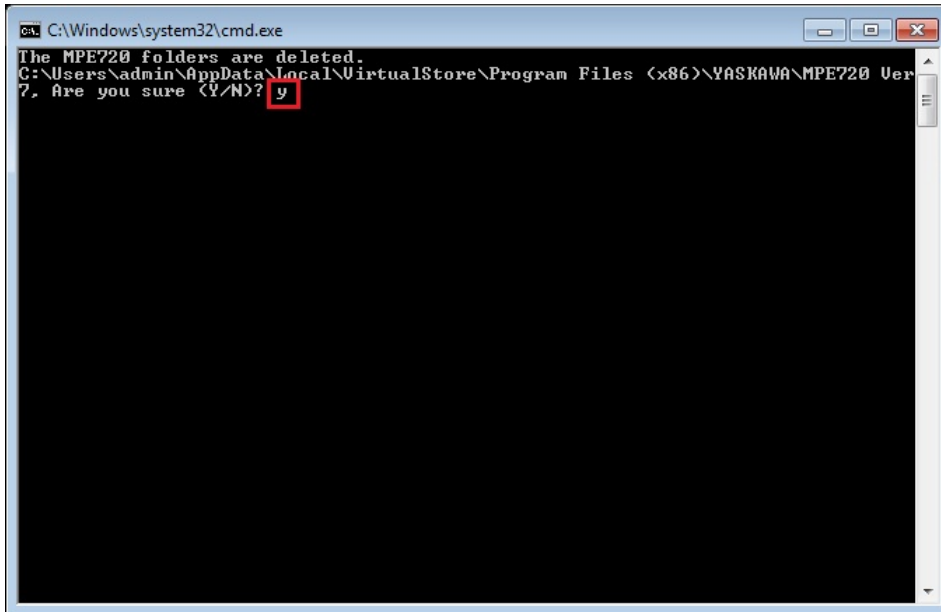
2. The copied batch file is performed.

MPE720Ver7\_x86.bat (32bitOS)

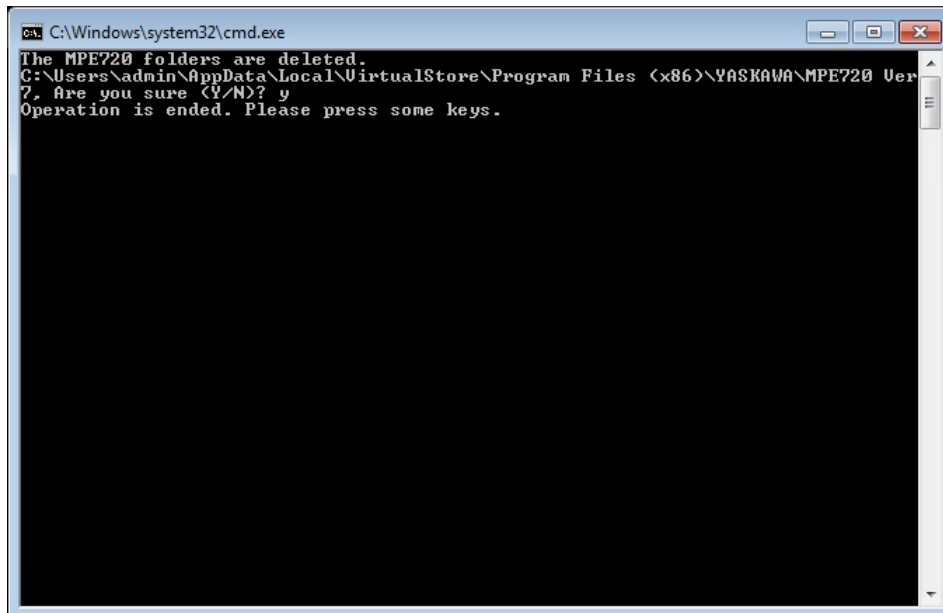
MPE720Ver7\_x64.bat (64bitOS)



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】

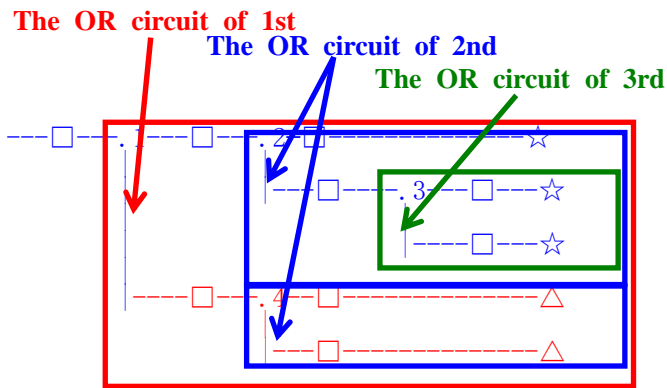
In the Ladder program of MPE720 Ver7 before MPE720 Ver7.23, when the parallel circuit is used, the following phenomena may occur.

<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.

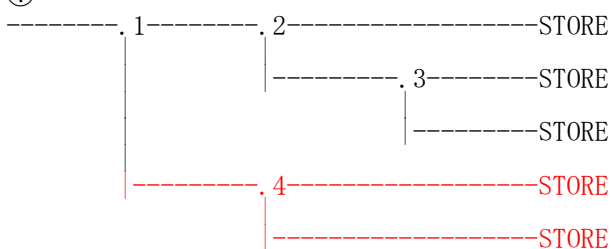
△(Output instruction): Coil, Block instruction(Expression, STORE, COPYW)etc

<Pattern>

Symbol	Instruction
	NO Contact
STORE	STORE instruction
()	Coil

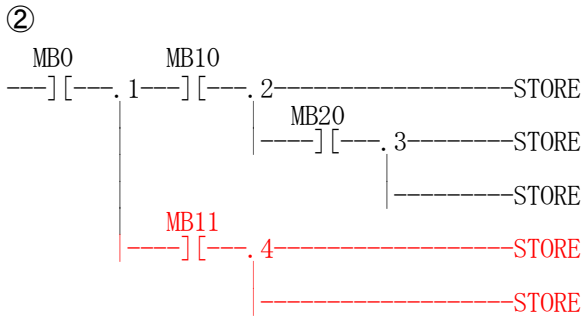
<NG Pattern>

①



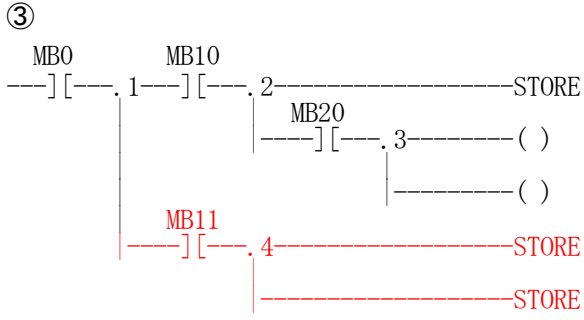
This pattern is minimum circuit pattern.

This is NG.



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

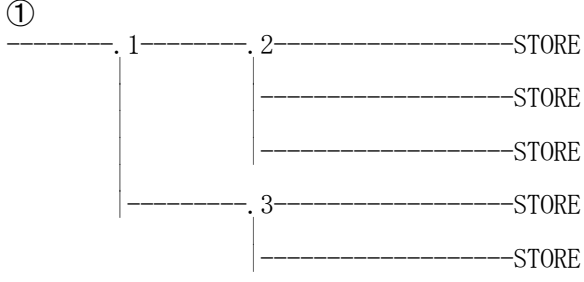
This is NG



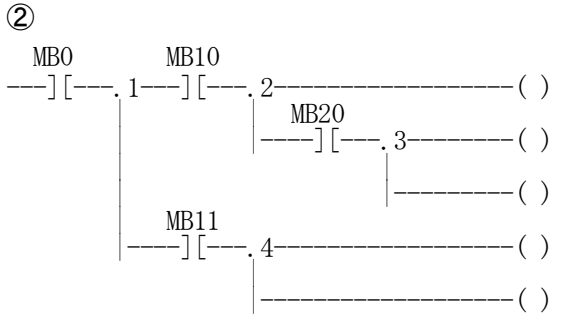
It is NG when there are at least one block commands (STORE command etc.) here.

This is NG

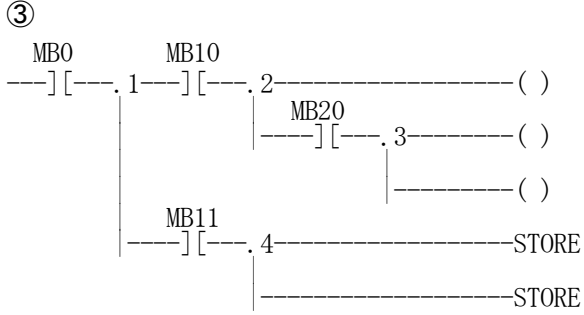
<OK Pattern>



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

## 2. Description

### No. 1 The MP3300 (CPU-301(32 axes)) controller was supported.

MP3300 (CPU-301(32 axes)) controller was supported.

1. For CPU-301(32 axes) controller  
CPU-301(32 axes) controller was added.  
The SVC module built in CPU can connect up to 32 axes.
2. The back ground flash preservation function  
The function to save the flash on the back ground was supported as a new function of MP3300.  
The other engineering operations cannot be done up to now until the flash preservation is completed. And the other engineering operations are possible while saving the flash.  
The status of the flash preservation can be monitored by confirming the status bar.  
As for the flash preservation operation, it is the same.
3. The FTP server and FTP client function  
The logging data and the register data stored in with built-in CPU RAM or USB memory can be downloaded from remoteness to the device by the file transfer feature (FTP server function).
4. The start measuring high-speed scan processing time mode  
The start measuring high-speed scan processing time mode was supported. The function was able to be selected "From 1st scan" and "From 2nd scan".  
The best function for the application where initialization etc. is executed to the first scan when the power supply is turned on, or the high-speed scan is postponed only to the first scan, where high-speed time over etc. is generated.

#### 【Support Version】

Controller	Support Version
MP3000 Series	MP3300 (CPU-301(32axes)) Ver1.12 or later
MP2000 Series	There is no correspondence.

## No. 2 The Sigma-7W (SGD7W-\*\*\*\*20\*) SERVOPACK of 2-axis driving model was added.

The Sigma-7 series SERVOPACK (2-axis driving model of MECHATROLINK-III communications reference, Sigma-7W (SGD7W-\*\*\*\*20\*)) was supported.

### 1. Module Configuration

In the Module Configuration, it changed so that the Sigma-7W series 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 Sigma-7W series was added.

### 3. Servo Parameter, Servo Monitor

The screen for carrying out a detailed setup of Servo Parameter and Servo Monitor of the Sigma-7W series was added.

Module	Function Module/Slave	Status	Circuit No./AxisAddress		Motion Register
			Start	cupied circui	
01 [CPU-301(32axes)] : ---					
01 MBU-303 00 CPU301(32)[-----]	01 CPU	----	----	----	----
	02 218IFD	----	Circuit No1	1	----
	03  SVC32	----	Circuit No1	2	8000 - 8FFF[H]
	SGD7W-****20*	----	04[H]	----	
	01  Control Axis(Rotary)	----	(00[H])	----	8000 - 807F[H]
	02  Control Axis(Rotary)	----	(01[H])	----	8080 - 80FF[H]
	03 -- UNDEFINED --	----			
	04 -- UNDEFINED --	----			
	05 -- UNDEFINED --	----			
	06 -- UNDEFINED --	----			
04  SVR32	----	Circuit No3	2	9000 - 9FFF[H]	
05 M-EXECUTOR	----	----	----	----	
06 -- UNDEFINED --	----				
07 -- UNDEFINED --	----				

### 【Support Version】

#### Controller

Controller		Support Version
MP3200	CPU-201, CPU-201(SUB), CPU-202, CPU-202(SUB)	Ver1.12 or later
MP3300	CPU-301(16axes)	Ver1.10 or later
	CPU-301(32axes)	Ver1.12 or later
MP2000 Series		Ver2.88 or later

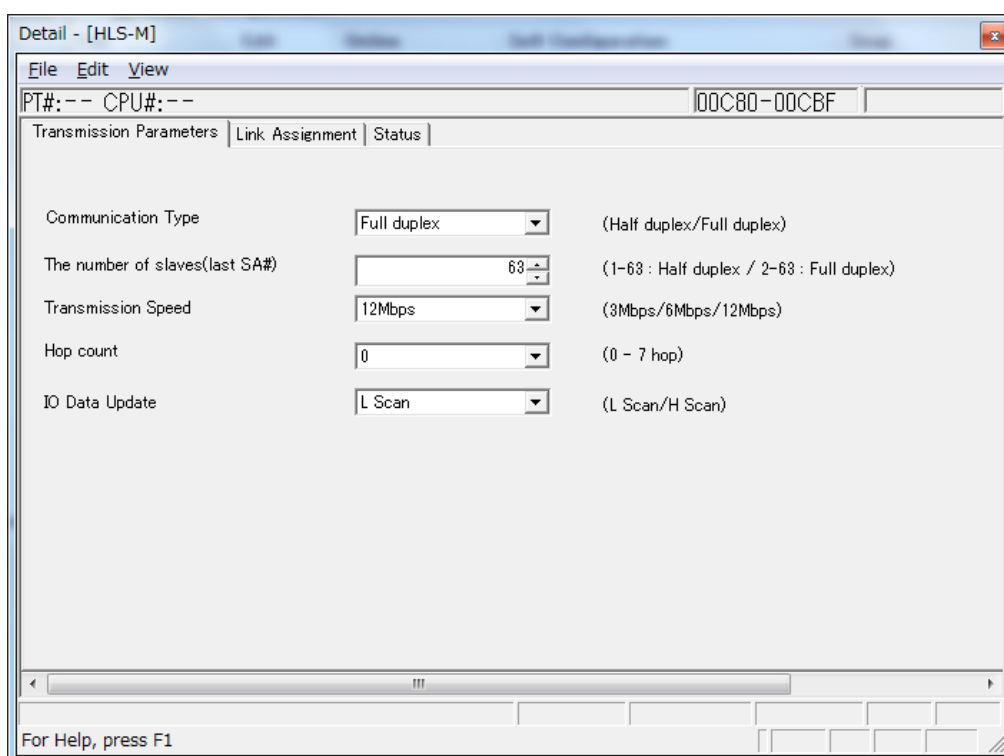
#### Option Module

Module	Support Version
SVC-01	Ver1.12 or later



No. 3 MPHLS-01 module (HLS communication module) was added in the option modules of MP3000 series.

MPHLS-01 module (HLS communication module: product by M-System Co, Ltd) was added to the option module with which MP3000 series can be assigned.



#### 【Support Version】

##### Controller

Controller	Support Version
MP3000 Series	Ver1.12 or later
MP2000 Series	Ver2.84 or later

##### Option Module

Module	Support Version
MPHLS-01	Ver1.00 or later

#### No. 4 The maintenance monitor function was added.

The maintenance monitor function was added as a new function of MP3000 series.

In the maintenance monitor function, it can monitor by assigning to the system register of MP3000 series controller by a user's operation about the following information which the SERVOPACK has.

Category	Item
Power consumption monitor	Power consumption per unit time
	Accumulated power consumption
	Accumulated power consumption (after the decimal point)
Installation environment monitor	Servopack installation environment
	Motor installation environment
Lifetime monitor	Total operation time
	Built in fan lifetime
	Built in capacitor lifetime
	Rush current prevention circuit lifetime
	Dynamic brake circuit lifetime

**Maintenance Monitor Setting**

Group	Monitor Function	Refresh Cycle	Device	Number of Words	Unit	S Register
1	Power consumption per u	Regular	Servo	2	Wh	SW27600
2	Accumulated power const.	Regular	Servo	2	Wh	SW27668
3	Accumulated power const.	Regular	Servo	2	0.001V	SW27736
4	SERVOPACK installation er	Regular	Servo	1	%	SW27804
5	Motor installation environn	Regular	Servo	1	%	SW27872
6	Motor installation environn	Regular	Servo	1	%	SW27940
7	Total operation time(servc	Regular	Servo	2	100ms	SW28008
8	Built in fan lifetime	Regular	Servo	1	0.01%	SW28076
9	Built in capacitor lifetime	Regular	Servo	1	0.01%	SW28144
10	Rush current prevention c	Regular	Servo	1	0.01%	SW28212
11	Dynamic brake circuit lifeti	Regular	Servo	1	0.01%	SW28280
12						SW28348
13						SW28416
14						SW28484
15						SW28552
16						SW28620

Select the monitor function and allocate the axis to be monitored.

[Group : 1]

S Register	Axis
SL27606	01.01 SGD7S-****20*
SL27610	01.02 SGD7W-****20*
SL27614	01.03 SGD7W-****20*
SL27618	01.04 SGDV-MDA02**M3*
SL27622	01.05 SGDV-MDA02**M3*
SL27626	01.06 SGDV-MDA02**M3*
SL27630	01.07 SGDV-MDA02**M3*
SL27634	01.08 SGDV-MDA02**M3*
SL27638	
SL27642	
SL27646	
SL27650	
SL27654	
SL27658	
SL27662	
SL27666	

Allocate Axis>

OK Apply Cancel

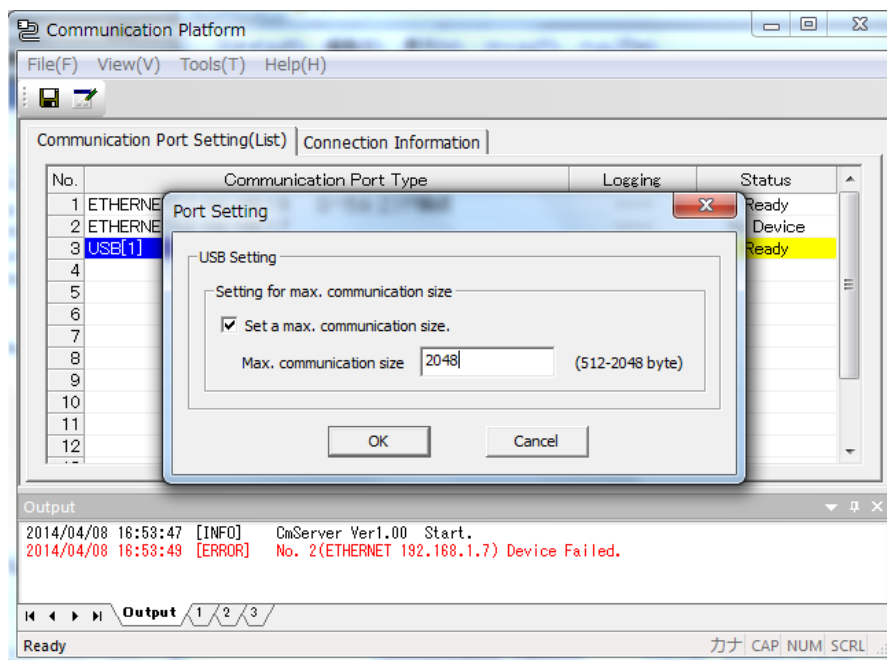
#### 【Support Version】

Controller	Support Version
MP3000 Series	Ver1.12 or later
MP2000 Series	There is no correspondence.

## No. 5 The maximum communication size setting function was added to the communication platform.

The maximum communication size setting function was added to the following communication port of the communication platform.

- USB communication
- Serial communication

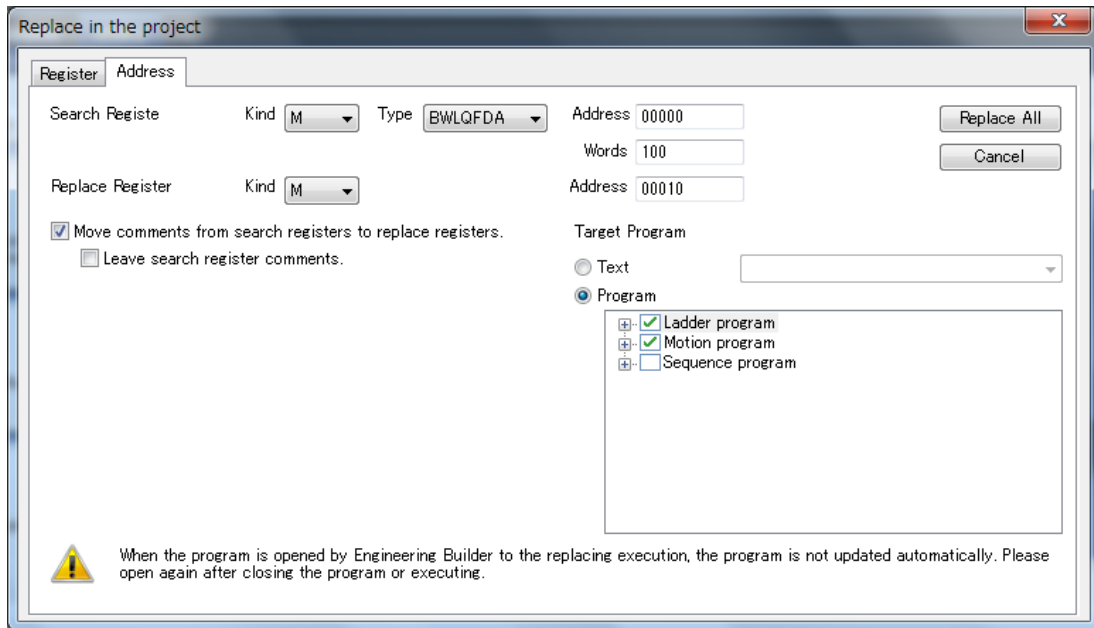


### 【Support Version】

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

**No. 6 The updating timing of comments has been improved in the Replace in project function.**

There was a phenomenon that the register comments in CP Ladder are not updated, when register comments move optional function was used in the replace in project function. So, this has been improved.

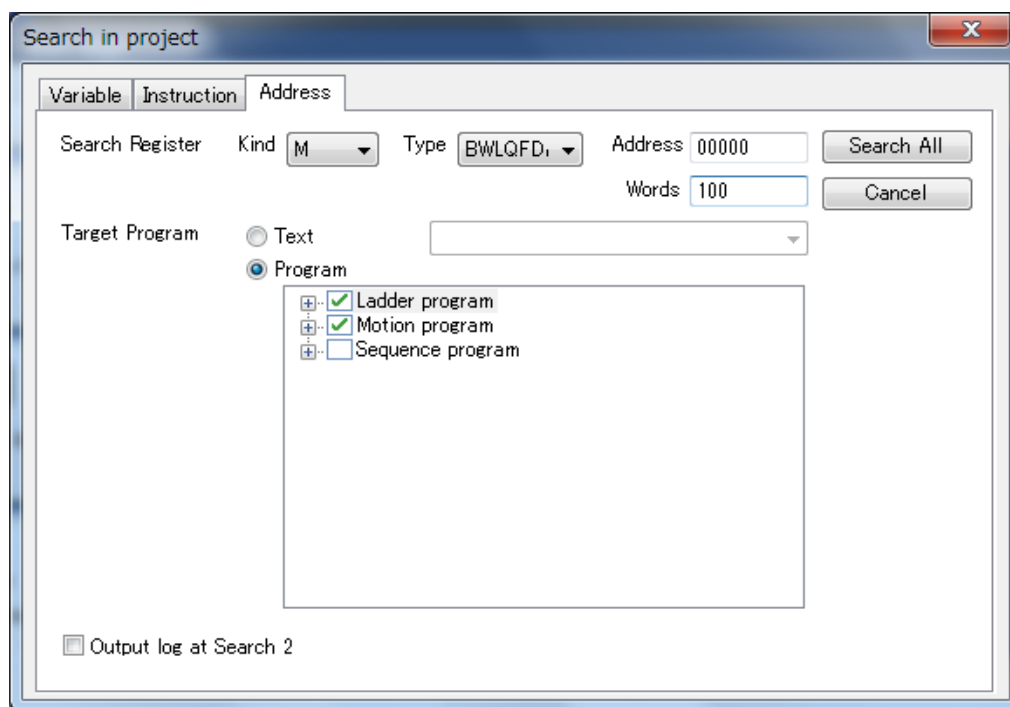


**【Support Version】**

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

## No. 7 "Address search" in the search in project has been improved.

In the search in project, since there was a phenomenon in which the register used for the Expression command was not searched when address search was carried out. 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. 8 The updating timing of the Setting Parameter and the Monitor Parameter has been improved.

Since there was a phenomenon in which a display is updated with the unit of a starting value about the following parameter (unit) when the motion register was changed in the Setting Parameter and the Monitor parameter of MC-Configurator. So, this has been improved.

- Speed unit selection
- Acceleration/ Deceleration unit selection
- Torque unit selection

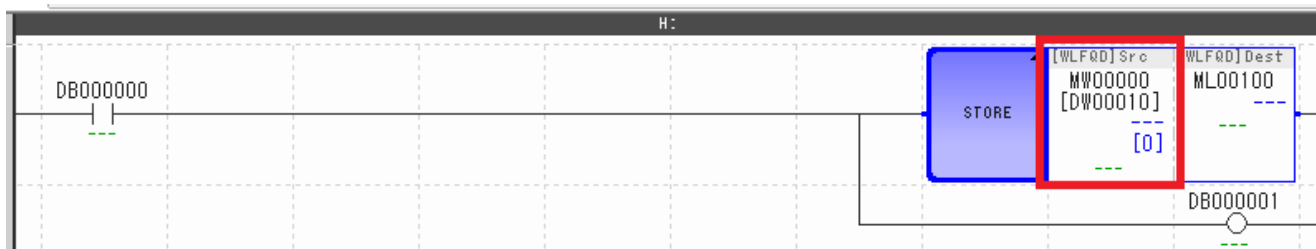
1	2	*	Address	Axis0101 Circuit#01 Axis#01 SGD7S-****20* 【Initial value】	Axis0101 Circuit#01 Axis#01 SGD7S-****20*	Axis0102 Circuit#01 Axis#02 SGDV-****21* (AC Inp...
				<input type="checkbox"/> Select All <input type="checkbox"/> Reflectio	Update	Update
+	0	:	Run command setting	0000[H]	0000[H]	0000[H]
+	1	:	Mode setting 1	0000[H]	0000[H]	0000[H]
+	2	:	Mode setting 2	0000[H]	0000[H]	0000[H]
+	3	:	Function setting 1	0011[H]	0000[H]	1011[H]
+	4	:	Function setting 2	0033[H]	0033[H]	0033[H]
+	5	:	Function setting 3	0000[H]	0000[H]	0000[H]
+	6	:	M-III Vendor Specific Servo Comma...	0000[H]	0000[H]	0000[H]
	8	:	Motion command	0 : No Command	0 : No Command	0 : No Command
+	9	:	Motion command control flag	0000[H]	0000[H]	0000[H]
	10	:	Motion subcommand	0 : No Command	0 : No Command	0 : No Command
	12	:	Torque/Thrust reference setting	0[0.01%	0[0.01%	0[0.0001%
	14	:	Speed limit setting at the torque/thr...	15000[0.01%	15000[0.01%	15000[0.01%
	16	:	Speed reference setting	3000[1000pulse/min]	3000[pulse/s]	3000[1000pulse/min]
	18	:	Speed limit value	0[0.01%	0[0.01%	0[0.01%
	20	:	Positive side limiting torque/thrust...	30000[0.01%	30000[0.01%	30000[0.0001%
	22	:	Secondly Speed Compensation	0[1000pulse/min]	0[pulse/s]	0[1000pulse/min]
	24	:	Override	10000[0.01%	10000[0.01%	10000[0.01%
	28	:	Position reference setting	0[pulse]	0[pulse]	0[pulse]
	30	:	Width of positioning completion	100[pulse]	100[pulse]	100[pulse]
	32	:	NEAR signal output width	0[pulse]	0[pulse]	0[pulse]
	34	:	Error count alarm detection	2147483647[pulse]	2147483647[pulse]	2147483647[pulse]
	38	:	Positioning completion check time	0[ms]	0[ms]	0[ms]
	40	:	Phase correction setting	0[pulse]	0[pulse]	0[pulse]
	42	:	Latch zone lower limit setting	-2147483648[pulse]	-2147483648[pulse]	-2147483648[pulse]
	44	:	Latch zone upper limit setting	2147483647[pulse]	2147483647[pulse]	2147483647[pulse]

### 【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 current value display of the Ladder program has been improved.

In the Ladder program, since "0" might be displayed on the index of the arrangement register currently used for the command in which conditions are not satisfied. So, this has been improved.



### 【Support Version】

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

## No. 10 The operation of the "Write the parameter into the SERVOPACK" optional feature of Transfer function has been improved.

The following improvement was carried out about the operation of the "Write the parameter into the SERVOPACK" optional feature of Transfer function.

### 【 Phenomenon 】

1. When the SERVOPACK which cannot do the writing of parameters existed in the SERVOPACK assigned to SVB or SVC (Ex the SERVOPACK does not exist etc.), it had interrupted the writing of parameters to the SERVOPACK after its station.
2. When this phenomenon occurred, the message was displayed "Writing was completed normally" on the Transfer log.

### 【 Improvement operation 】

1. Even when the servo pack which cannot be written in exists, it has improved the operation continues the writing to the SERVOPACK after the station.
2. The SERVOPACK which was not able to be written in has improved so that an error log may be displayed on the Transfer log.

### 【Support Version】

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

### No. 11 “Save to Flash” operation has been improved.

Since there was a phenomenon that the status of “Save to Flash” operation could not be checked when the project file was opened in the off-line, and the check was attached to “Save to flash after transferring to the controller” and it carried out “Write into controller”. So, this has been improved.

\* It is that a phenomenon occurs in CPU-301 (16axes).

#### 【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 Enable or Disable switching behavior of CP Ladder was improved.

In the program tree of Ladder window, when the enable and disable of CP Ladder were changed, there was fault that the error message was displayed and the change cannot perform.

#### 【Support Version】

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