# 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	Functional enhancement
2	(CPU-301 (16axes and 32axes)).	
3	It was supported the EXIOIF module for expansion racks of MP3300 (CPU-301	Functional enhancement
5	(16axes and 32axes)).	
4	The parameter of "Slave detection waiting time" was added to the detail definition	Functional enhancement
7	screen of the SVC module.	r unetional 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	Improvement
10	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.

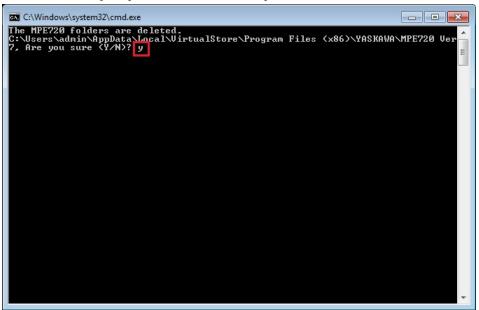
[Download Version] MPE720Ver7\_xxx(\*4)¥Tools¥CleanUp¥MPE720Ver7\_x86.bat (32bitOS) MPE720Ver7\_xxx(\*4)¥Tools¥CleanUp¥MPE720Ver7\_x64.bat (64bitOS) [DVD Media Version] D(\*5):¥Tools¥CleanUp¥MPE720Ver7\_x86.bat (32bitOS) D(\*5):¥Tools¥CleanUp¥MPE720Ver7\_x64.bat (64bitOS)

2. The copied batch file is performed.

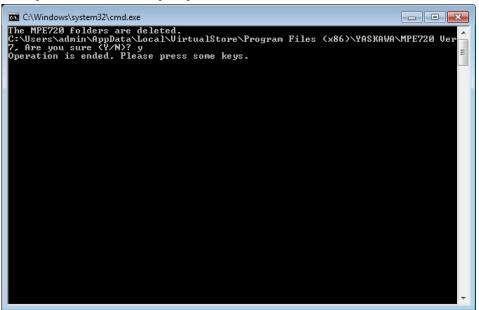
MPE720Ver7\_x86.bat (32bitOS) MPE720Ver7 x64.bat (64bitOS)

Control Panel 🕨	System and Security   System		← 4g Search Con P
Control Panel Home Control Panel Home Control Panel Home Control Panel Home Remote settings System protection Advanced system settings	View basic information Windows edition Windows 7 Home Premiur Copyright © 2009 Microso Service Pack 1 Get more features with a n	n ft Corporation. All rights res	
	System Rating: Processor: Installed memory (RAM): System type: Pen and Touch:	1.0 Your Windows Expe Intel(R) Pentium(R) CPU 4.00 GB (3.68 GB usable) 64-bit Operating System No Pen or Touch Input is i	rience Index needs to be refreshed P6200 @ 2.13GHz 2.13 GHz
See also Action Center Windows Update Performance Information and Tools	Computer name, domain, and Computer name: Full computer name: Computer description: Workgroup:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PChange settings

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]

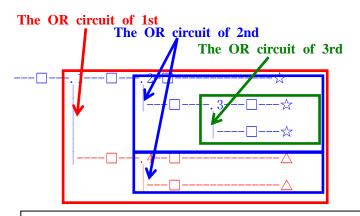
In the Ladder program of MPE720 Ver7 before MPE720 Ver7.23, when the parallel circuit is used, the following phenomena may occur.

#### <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  $1^{st}$  class must operate essentially in response to the conditional instruction before the OR circuit of  $1^{st}$  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 langue. The OR circuit of 2nd class: The OR circuit branched out of the OR circuit of 1st class.

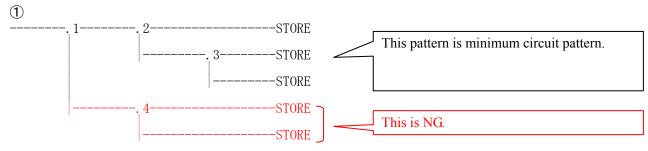
The OR circuit of 3rd class: The OR circuit branched out of the OR circuit of 2nd class.

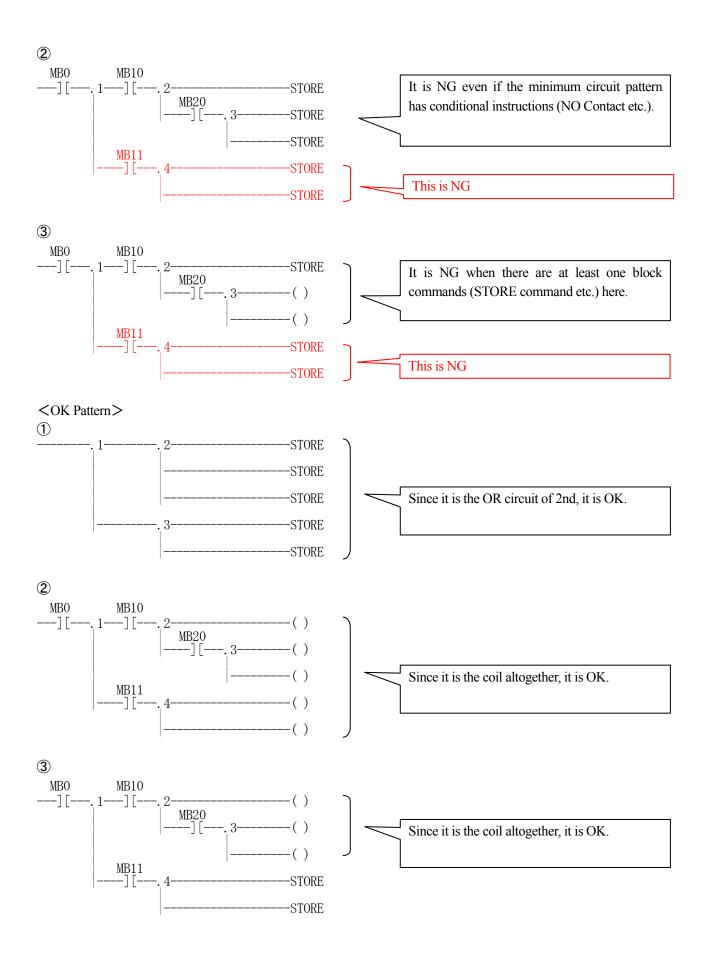
□(Conditional instruction): NO Contact, NC Contact, Coil, instruction(==, !=, >, <), power line (------) etc. ☆(Output instruction): Coil, Block instruction(Expression, STORE, COPYW) etc ※However, when all ☆ is coil commands, a phenomenon does not occur. △(Output instruction): Coil, Block instruction(Expression, STORE, COPYW)etc

#### <Pattern>

Symbol	Instruction
][	NO Contact
STORE	STORE instruction
	Coil

<NG Pattern>





# 1.2 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 $\rightarrow$ 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

## 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 SERVPACK of the Sigma-7S (SGD7S-\*\*\*\*10\*) Linear type could be assigned.

- 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.

	03 🖃 SVB	 💷 Circuit No1
	01 自 SGD7S-****10* (Linear)	 01
00 🝙 MP2310[]	02 UNDEFINED	
00 ( ) MF2010[]	03 UNDEFINED	
	04 UNDEFINED	
	05 UNDEFINED	
	06 UNDEFINED	
	07 UNDEFINED	
	08 UNDEFINED	
	04 🛨 SVR	 💷 Circuit No2

[Support Version]

 $\circ$ 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

	0	
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]

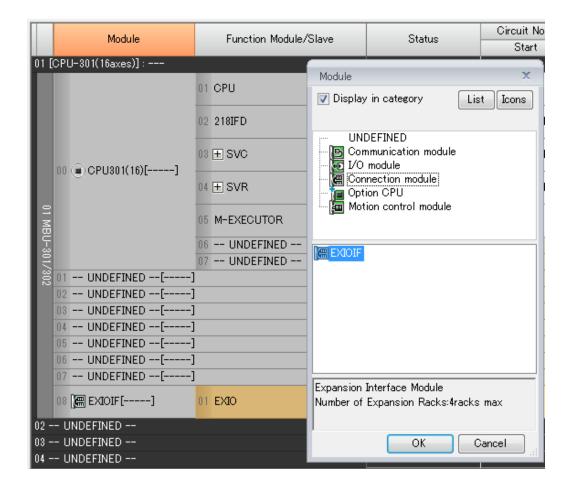
- 1. The project file of MP3300 (CPU-301 (16axes and 32axes)) creates.
- 2. MC-Configurator is started.
- 3. The unit of MP3300 is chosen, and "Device select" on the right click menu is chosen.
- 4. MBU-301/302 is chosen.

Module	Function Modul	e/Slave	Status	Circuit Star
01 [CPU-301(16axes)] :		Unit		×
	01 CPU	📝 Display i	n category List	Icons
	02 218IFD	Base Unit for Option Module		
00 (🗐 CPU301(16)[]	03 🛨 SVC	unde Unde	FINED	
	04			
	05 M-EXECUTOR			
	06 UNDEFINED -			
	07 UNDEFINED -			
UI UNDERINED[		2 MBU-304		
02 UNDEFINED[]				
03 UNDEFINED[]				
04 UNDEFINED[]				
05 UNDEFINED[]				
06 UNDEFINED[]				
07 UNDEFINED[]		Base unit for	MP2000 Optional Modu	les
08 UNDEFINED[]		No. of Slots:8		
02 UNDEFINED		Not available	for Expansion MP30008	Bus
03 UNDEFINED			OK Ca	ncel
04 UNDEFINED				

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



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

Detail - [MECHATROLINK]	
<u>F</u> ile <u>E</u> dit <u>V</u> iew	
PT#: CPU#:	CIR#01 00800-00BFF
Transmission Parameters Link Assignment	t   I/O Map   Status
Master/Slave	Master
Marshellow address	
My station address	0×0001
Communication Cycle	250us 💌
🔽 Enabled message commun	nication
Number of retry to slaves	1
Number of connection	8
Slave synchronous function	Disable 💌
Slave detection waiting time	0sec 💌
Set the high-speed scan time	e a 1sec
factor of 1 integer.	2sec 3sec
1	4sec 5sec
	6sec 7sec
	8sec 9sec
	10sec
For the large St	
For Help, press F1	

### [Support Version]

 $\circ$ Controller

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

### 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.

#### $\circ$ 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)

Start H	
0 0/0 1 1/1	H: MB000000
(F1) Help (F2) Edit	E F3 Sear(F4 Com(F5 A co(F6 B cor(F7 Coil (F8 Stor(F9 Creat F0 Join 1 F1 R
Output	
warning C5006 : [Ru Error 0 : Warning 1	Start compiling : H

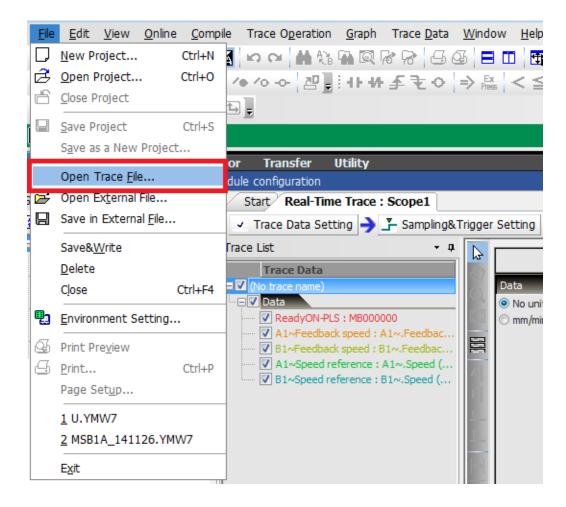
Controller Support Version		
MP3000 Series	It is not dependent on the version.	
MP2000 Series	It is not dependent on the version.	

#### 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".



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.

	Controller NRead िr,Write	Filter ⊯_Display in
1 2 *	A1 Gircuit#01 Axis#0 SGD7W-****20*	_
0 : Selection of operation modes	0 : Normal operati	ion mode
		0406[H]
		0000[H]
4 : Reference unit selection		1 : mm
5 : Number of digits below decimal point		3:0.123
6 : Travel distance per machine rotation	30.000	[mm] 🛄
8 : Servo motor gear ratio		1[rev]
9 : Machine gear ratio		1[rev]
Edit A1 Circuit#01 Axis#01 SGD7W-****		×
6 : Travel distance per machine rotation		
Value :		30.000
	(0.001 - 214	47483.647) [mm]
ОК	Cancel	Apply
40. User beledt bervul briver User Curi		ILWORDJ

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.

Star	ţŹŀ	1			
6		MB000000			MB000001
12/1	12				
	1		Start Proce	ss End	
<b>7</b> 14/	χ	Cu <u>t</u>	Ctrl+X		
147	Ð	<u>C</u> opy	Ctrl+C		
	ß	<u>P</u> aste	Ctrl+V		
		<u>D</u> elete	Delete		
		Insert Rung	Insert		
		Add Rungs			
		Insert R <u>u</u> ng Comment	Shift+Alt+Insert		
		Edit Rung <u>C</u> omment		1	

[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);

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.

Error Generating Information	
Error code :0xA0A00501 Unsupported command cod	le detected.
[CAUSE] 1. A command controller does not supp 2. A motion register not allbcated in Ma [SOLUTION] 1. Confirm the firmware version number 2. Check if unallocated motion I/O regi	dule Configuration is used in the application.
	Close

[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 V	Version
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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.

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