

MPE720 Ver.7.92 version upgrade information

1. Function addition/improvement items

1.1 Ver.7.92 version upgrade information

The following are the items to add or improve MPE720 Ver.7.86→ Ver.7.92 functions.

No.	Function items	Classification
1	YRM-X series controller CPU-12 was added.MPX series controller MPX1312-2 was added.	New Function
2	The newly added controller is supported by the project conversion function.	New Function
3	Compatible with SLIO I/O Series.	New Function
4	SLIO M-4 bus coupler is supported.	New Function
5	Regarding the Equipment configuration definitions, scan information was added to the Equipment I/F setting for multi-scan models.	Function Enhancement
6	For the data sharing setting function, scan information was added for the multi-scan model.	Function Enhancement
7	YNX controllers are supported in the Equipment definition function.	Function Enhancement
8	The restrictions on the number of connection stations and transmission bite size have been partially changed in MECHATROLINK-4.	Improving
9	Fixed a bug in which the shortcut keys for "Importing variables and comments" and "Importing local variables and comments" overlapped in a particular OS.	Improving
10	In the "Comment string" tab of the search in the project, the check box order is different depending on the display language, and the bug was improved.	Improving
11	Improved the table data function.	Improving
12	Improved task lists.	Improving
13	Improved the display of the individual transfer screen.	Improving
14	Improved equipment definition.	Improving
15	Improved the scan time setting page.	Improving
16	Improved the navigation window.	Improving
17	Improved the variable window.	Improving
18	For multi-scan models, when a ladder program in which drawings including SEE instructions are copied and pasted to P2 drawings is transferred to the controllers, an error-related problem has been solved.	Improving
19	Fixed a bug that prevents overwriting when copying and pasting a MPE720Ver.7 to a different project while several are running.	Improving
20	Fixed a bug in which MPE terminated abnormally when the variable group information was registered in the import source file in the variable import function.	Improving
21	In the equipment definition function, the bug where full-width characters are replaced by different half-width characters when they are entered in the device identifier has been improved.	Improving
22	For multi-scan models, improved the problem that MPE720Ver.7 is forcibly terminated when the number of D registers is changed by the ladder property.	Improving
23	Improved to display trace status from the menu bar in multi-scan models.	Improving
24	Fixed a bug in which MPE terminated abnormally when comparing projects with different copy register settings for multi-scan models.	Improving

2. Description

No. 1 YRM-X series controller CPU-12 was added.MPX series controller MPX1312-2 was added.

CPU-12 was added as a YRM-X series controller.

A MPX1312-2 has been added as a MPX series-controller.

- 1) You can create a project file by specifying the series name "YRM-X" and model "CPU-12".
- 2) You can create a project file by specifying the series name "MPX" and model "MPX1312-2".

- 3) You can connect to CPU-12, MPX1312-2 for engineering.

- 4) The multi-scan function is supported in the supported controllers.

[Multi-scan compatible model]

Series	Controller
YRM-X	CPU-12
MPX	MPX1312-2

[Compatible Versions]

○Controller

Controller	Supported firmware versions
YRM-X::CPU-12	2.00
MPX::MPX1312-2	2.00

No. 2 The newly added controller is supported by the project conversion function.

The conversion rules in the table below allow project conversion to a newly added controller.

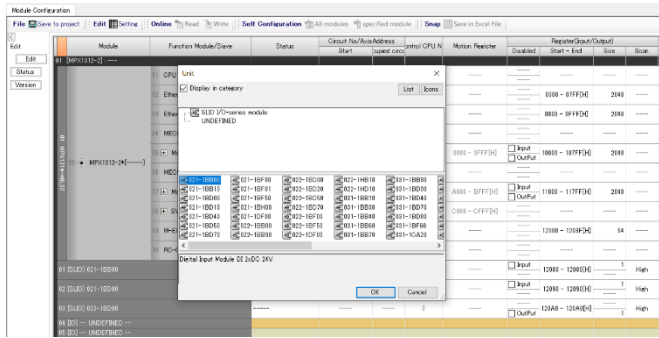
[Conversion Rule]

Converter series: Model	Conversion destination controller
YRM-X::CPU-01	CPU-12 MPX1312-2
MP3000	CPU-12 MPX1312-2
Sigma-7C	CPU-12 MPX1312-2

No. 3 Compatible with SLIO I/O Series.

Compatible with SLIO I/O Series.

1)SLIO I/O series-compatible controllers can be assigned.

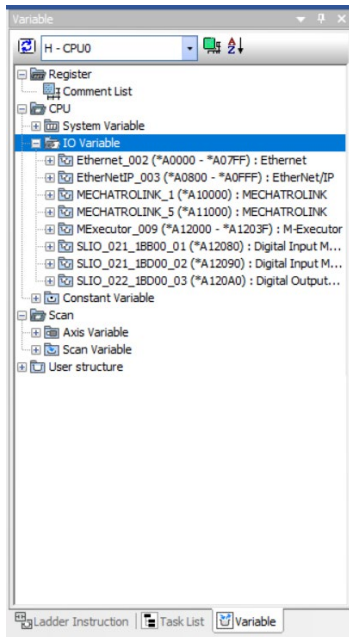


【Compatible controller】

Series	Controller
YRM-X	CPU-12
MPX	MPX1312-2

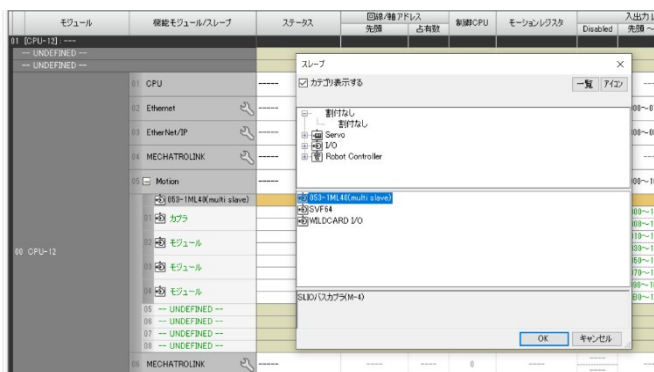
2)Parameters can be set for SLIO I/O series.

3)With the assignment of SLIO I/O series, SLIO informations is added to the input/output data.



No.4 SLIO M-4 bus coupler is supported.

A SLIO M-4 bus coupler was supported as a MECHATROLINK-4 slave..



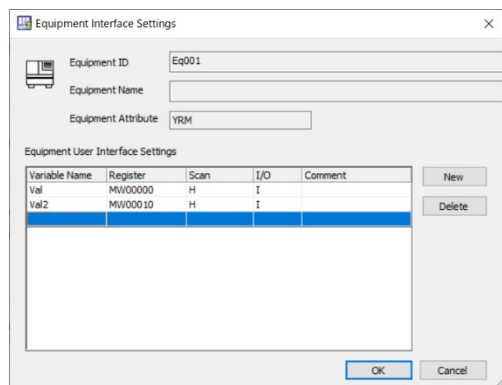
[Response Versions]

○Controller

Controller/Option	Supported firmware versions
YRM-X::CPU-12	After Ver.2.00
MPX::MPX1312-2	After Ver.2.00
MPX1012J	After Ver.2.00
MP3000::CPU-203F	After Ver.1.59
SVF-01	Ver.1.00

No.5 Regarding the Equipment configuration definitions, scan information was added to the Equipment I/F setting for multi-scan models.

For multi-scan models and YRM controllers, the scan information is displayed in the Equipment I/F setting of the Equipment configuration definitions.



[Compatible controller]

Series	Controller
YRM-X	CPU-12

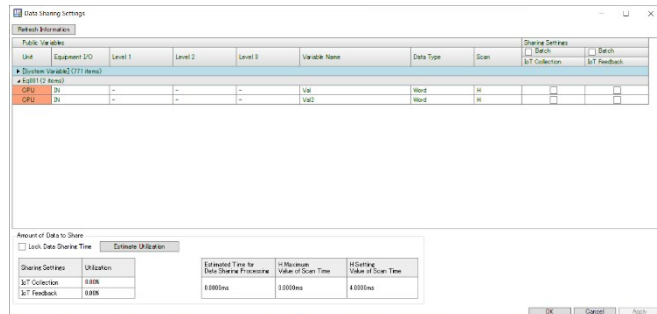
No.6 For the data sharing setting function, scan information was added for the multi-scan model.

For multi-scan models and YRM controllers, the following measures have been taken.

[Compatible controller]

Series	Controller
YRM-X	CPU-12

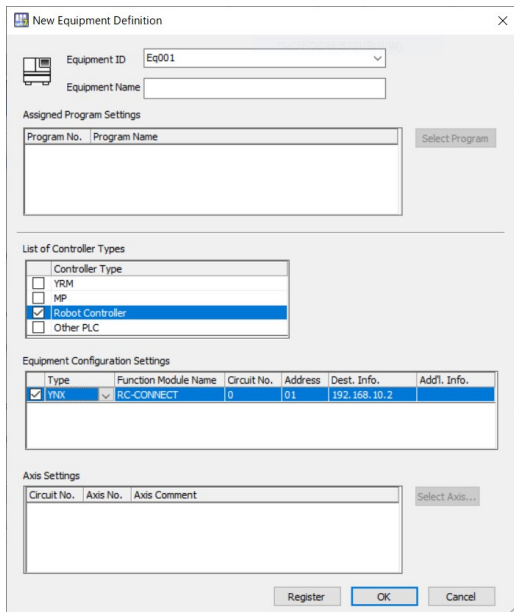
1) Scan information was added on the data sharing settings screen.



2) For the feedback setting of the data sharing setting, a constraint that prevents feedback is added when the register is selected as the copy destination register in the register mapping setting.

No.7 YNX controllers are supported in the Equipment configuration definition function.

YNX controllers can be selected in the Equipment configuration definition function.



No.8 The restrictions on the number of connection stations and transmission bite size have been partially changed in MECHATROLINK-4.

Regarding the built-in MECHATROLINK-4 module. It was changed to the specification in which the number of connection stations is limited, provided that the transmission size of servo slaves and IO slaves is 48Byte. This allows you to increase the number of connection stations when IO slaves are assigned than prior to the change.

[Compatible controller]

Series	Controller
YRM-X	CPU-01
	CPU-12
MPX	MPX1312-2
	MPX1012J
MP3000	MP-31J

No.9 Fixed a bug in which the shortcut keys for "Importing variables and comments" and "Importing local variables and comments" overlapped in a particular OS.

This was corrected because the shortcut key for "Importing variables and comments" and "Importing local variables and comments" was duplicated in the simplified display.

No. 10 In the "Comment string" tab of the search in the project, the check box order is different depending on the display language, and the bug was improved.

In the "Comment string" tab of the search in the project, there was a bug where the order of the check boxes differed depending on the display language. This has been corrected.

No.11 Improved the table data function.

- 1)Improved so that forwarding does not terminate even if more than 1001 table data items are registered.
- 2)Improved the ability to register new table data when the maximum number is reached.
- 3)Improved the ability to successfully close windows when editing multiple table data.
- 4)Improved to allow opening properties even when the maximum number of table data is registered.
- 5)Improved to close the table data window when the project is closed while the table data is being displayed.

No.12 Improved task lists.

- 1)When a sequence program is deleted, it is improved so that it is also deleted in the task list display.
- 2)Improved the task list so that the task list is displayed under the corresponding folder even if the sequence program is deleted.

No.13 Improved the display of the individual transfer screen.

In the individual transfer screen, the target data tree corresponding to the selection of the transfer file type is displayed.

No.14 Improved equipment definition.

- 1)This has been improved so that the registered address is displayed even if you re-display the axis address after registering it on the Equipment I/F.
- 2)Improved to prevent MPE720 from being terminated forcibly even when a Equipment is deleted.

No.15 Improved the scan time setting page.

In YRM controllers, it is improved to show the present value and the max value of H/L in the scan time setting page even when offline.

No.16 Improved the navigation window.

- 1)Improved to update the display name in the table data screen even when table data is changed from the navigation window.
- 2)Reduced function folder expansion time in navigation window.
- 3)Improved to add electronic cam data to a specified scan when it is newly added.
- 4)Corrected the conversion function of CP ladder so that it can be used.

No.17 Improved the variable window.

In multi-scan models, fixed a bug that the group definition screen was not displayed when "Axis variable" was selected from the variable window.

No.18 For multi-scan models, when a ladder program in which drawings including SEE instructions are copied and pasted to P2 drawings is transferred to the controllers, an error-related problem has been solved.

In the multi-scan compatible model, when a drawing including SEE command is copied and pasted to P2 drawing, the ladder program was transferred to the controller, there was a problem that caused an error. This was corrected.

【Compatible controller】

Series	Controller
YRM-X	CPU-12
	MPX1312-2
MPX	MPX1012J

No.19 Fixed a bug that prevents overwriting when copying and pasting a MPE720Ver.7 to a different project while several are running.

Fixed this problem, which was not possible to overwrite when copying and pasting to a different project with more than one MPE720Ver.7 started.

No.20 Fixed a bug in which MPE terminated abnormally when the variable group information was registered in the import source file in the variable import function.

In the variable import function, there was a bug that caused MPE720Ver.7 to terminate abnormally when the variable group information is registered in the import source file. This has been corrected.

No.21 In the equipment definition function, the bug where full-width characters are replaced by different half-width characters when they are entered in the device identifier has been improved.

In the equipment definition function, there was a bug where entering full-width characters in the device identifier would replace it with a different half-width character. This has been corrected.

【Compatible controller】

Series	Controller
YRM-7	CPU-202Y1
YRM-X	CPU-01
	CPU-12

No.22 For multi-scan models, improved the problem that MPE720Ver.7 is forcibly terminated when the number of D registers is changed by the ladder property.

In multi-scan models, there was a problem in which MPE720Ver.7 was forcibly terminated when the number of D registers was changed by the ladder property, so this was corrected.

【Compatible controller】

Series	Controller
YRM-X	YRM-12
	MPX1312-2
MPX	MPX1012J

No.23 Improved to display trace status from the menu bar in multi-scan models.

Improved to display trace status information in the trace menu in the menu bar.

No.24 Fixed a bug in which MPE terminated abnormally when comparing projects with different copy register settings for multi-scan models.

Improved to prevent forced termination when comparing projects with differences in copy register settings.

Appendix A:

【About compile of the parallel circuit】

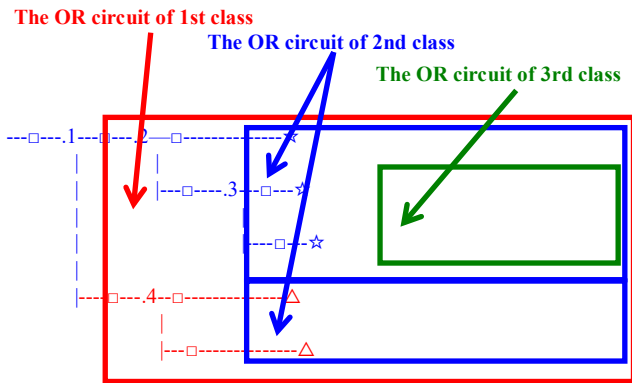
In the Ladder program of MPE720 Ver7 before MPE720 Ver7.23, when the parallel circuit is used, the following phenomena may occur.

<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

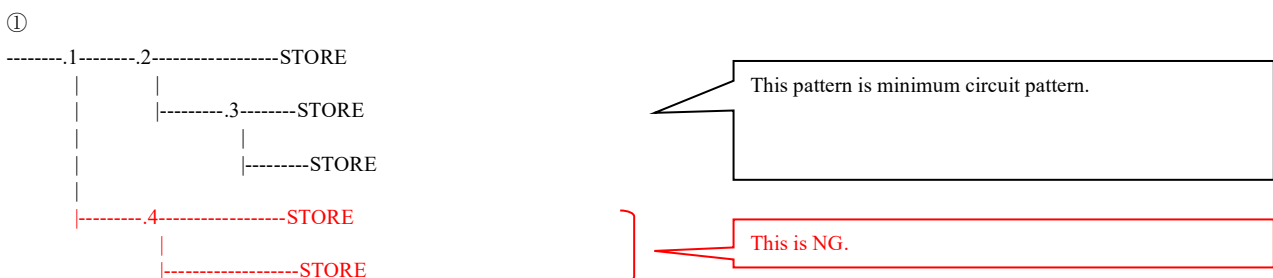
※However, when all ☆ is coil commands, a phenomenon does not occur.

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

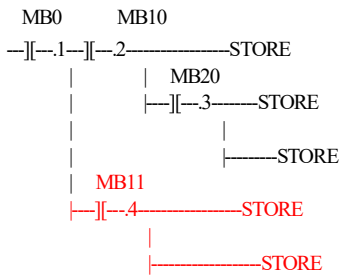
<Pattern >

Symbol	Instruction
]	NO Contact
STORE	STORE instruction
()	Coil

<NG Pattern >



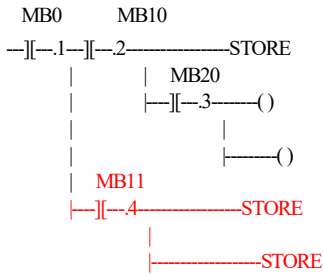
②



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

This is NG

③

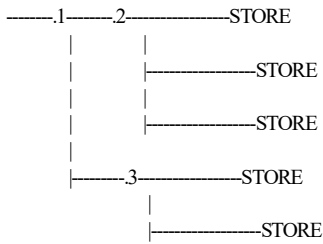


It is NG when there are at least one block commands (STORE command etc.) here.

This is NG

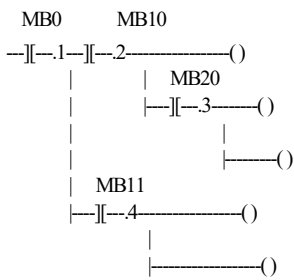
< OK Pattern >

①



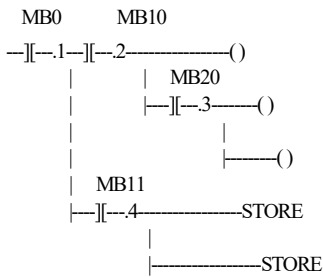
Since it is the OR circuit of 2nd, it is OK.

②



Since it is the coil altogether, it is OK.

③



Since it is the coil altogether, it is OK.

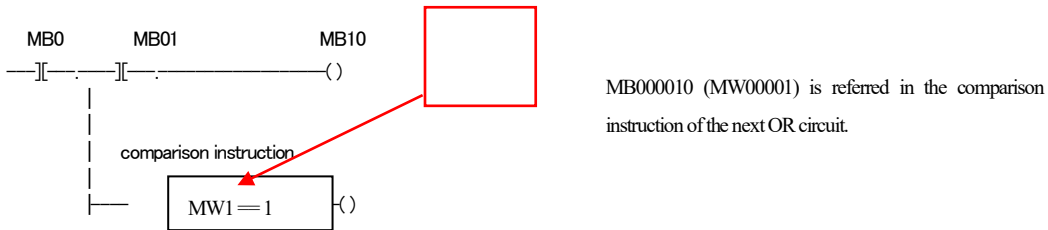
Appendix B:

【About compile with a comparison instruction in branch】

In the Ladder program of MPE720 Ver7 before MPE720 Ver7.63, when a comparison instruction is used in branch, the following phenomena may occur.

<Phenomena>

When the circuit containing the following pattern was created, the value of the register set in the upper OR circuit must be reflected to the comparison instructions in the lower OR circuit in the same scan. However, there was a phenomenon that it was reflected in the next scan.



<Measures>

When a phenomenon occurs, please carry out re-compile about the Ladder program in MPE720 Ver7 after MPE720 Ver7.64. Or please carry out again “Compile All Programs” of “Compile” menu. Also, about these programs that include circuits with this pattern, the number of internal steps will change in Ver7.64 or later, so when cross-reference is performed in a project created in an earlier version, there is a possibility of jumping to an unintended location. In this case, please recompile too.

Appendix C:

【About high DPI setting】

When MPE720 Ver.7 is started on a computer that supports high DPI such as a 4K display, part of MPE720 screen may not be displayed depending on the resolution and scale settings. From MPE720 Ver.7.67, the high DPI setting of MPE720's property is set to disable. This avoids phenomena such as the screen being cut off. If you want to use the high DPI setting, please change the MPE720 Ver.7's property setting.