

## **TECHNICAL BULLETIN**

FA-A-0202-B

## Precautions when converting programs that use labels

Date of Issue
February 2016 (Ver. B: March 2018)
Relevant Models
R04CPU, R04ENCPU, R08CPU, R08ENCPU, R08SFCPU-SET, R16CPU, R16ENCPU, R16SFCPU-SET, R32CPU, R32ENCPU, R32SFCPU-SET, R120CPU, R120ENCPU, R120SFCPU-SET

Thank you for your continued support of Mitsubishi Electric programmable controllers, MELSEC iQ-R series. We will inform you of the precautions when programs that use labels are converted by using GX Works3 and written to the MELSEC iQ-R series CPU module (hereafter "RCPU") in STOP state.

## **1** Precautions

There are three methods for converting programs that use labels according to the combinations of the conversion types and the label assignment settings.

- Rebuild All (Reassignment)
- Rebuild All (Retain)
- Convert

The following table lists the specifications of the label data when programs that have been converted by using each method are written to the RCPU in STOP state and then the RCPU is switched to RUN state.

If the conversion that the current value of the label data is not retained (represented by  $\triangle$  in the following table) is executed, clear the label data before switching the state of the RCPU to RUN. To clear the label data, refer to Page 2 How to clear the label data.

○: The current value of the label data is retained, △: The current value of the label data is not retained

Operation for project	Conversion type (label assignment setting)					
	Rebuild All (Reassignment)		Rebuild All (Retain)		Convert	
	Global label	Local label	Global label	Local label	Global label	Local label
Adding/modifying the label definition <sup>*1</sup>		Δ	O <sup>*2</sup>	* <b>3</b>	O*2	* <b>3</b>
Deleting part(s) of the label definition		Δ	0	0	0	0
Not adding/modifying/deleting the label definition (changing only programs)			0	0	0	0

\*1 Modifying the label definition is to change the information (such as the name, data type, class, and label initial value of the label which are defined in advance) that is set by using the label editor.

\*2 Labels where label definitions are to be added/modified do not have the current value of the label data since the new memory will be assigned. Register the labels to Watch window of GX Works3 and initialize current values.

\*3 If the current value of the label data, where the label definition is not to be added/modified, is required to be retained, perform the "Online Program Change". Note that the RnSFCPU-SET does not support the "Online Program Change" for a safety label change.

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#### 2 How to clear the label data

To clear the current value of all the label data, take the following steps.

- **1.** Select [Online] ⇒ [CPU Memory Operation].
- 2. Select "Device/Label" on the "Memory Management" window, and click the [Clear Value] button.

Memory Management	
Memory Management CPU Built-in Memory SD Memory Card	CPU Built-in Memory
	Data Memory         Use Volume           145/2049KB         145/2049KB
	Device/Label
'	
	Detail Initialization(E) Dear Value Refresh(N) Close

**3.** Tick "Zero Clear" and "Include Latch (1) and Latch (2)" of "Device and Label" on the "Clear Value" window, and click the [Execute] button.

Clear Value	×
Execute zero clear and latch clear to the device and label and the value of file register. Select the clear target and press execution button.	
Device and Label	
Zero Clear	
🕼 Include Latch (1) and Latch (2)	
<u>B</u>	
File Register	
Zero Clear	
All Files	
Specify File	-
Zero Clear Not Including Latch (2)	
Latch Clear of the Device, Label, and File Register	
Execute	ancel

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## 3 Details on the specifications change

For the conversion (converting certain locations of the program or all programs (retaining label assignments)) according to the addition/modification of label definitions by using GX Works3, specifications of the label data are changed to retain the current values of the local label data where label definitions are not to be added/modified.

 $\bigcirc$ : The current value of the label data is retained,  $\triangle$ : The current value of the label data is not retained

Operation for project	Conversion type (label assignment setting)					
	Rebuild All (Reassignment)		Rebuild All (Retain)		Convert	
	Global label	Local label	Global label	Local label	Global label	Local label
Adding/modifying the label definition		Δ	0	∆→O	0	∆→O
Deleting part(s) of the label definition	Δ	Δ	0	0	0	0
Not adding/modifying/deleting the label definition (changing only programs)	Δ	Δ	0	0	0	0

## 4 Relevant models

The following products support the specifications change described in Page 3 Details on the specifications change.

Model	Firmware version
R04CPU, R08CPU, R16CPU, R32CPU, R120CPU	"18" or later (manufactured in February 2016 and after)
R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, R120ENCPU	"08" or later (manufactured in February 2016 and after)
R08SFCPU-SET, R16SFCPU-SET, R32SFCPU-SET, R120SFCPU-SET	"07" or later (manufactured in November 2016 and after)

#### REVISIONS

Version	Date of issue	Revision
_	February 2016	First edition
A	January 2017	Correction of Chapter 1 and 4
В	March 2018	Available for e-Manual Viewer