

[Upgrade to Revision]

R20TS0992EJ0100

Rev.1.00

C Compiler Package for RL78 Family [CC-RL] V1.13.00

Jan. 16, 2024

## Outline

C Compiler Package for RL78 Family [CC-RL] has been updated from V1.12.01 to V1.13.00.

V1.13.00 includes feature enhancements.

## 1. Products to Be Updated

CC-RL V1.00.00 to V1.12.01

## 2. Description

Main changes are as follows. For details, see the release note at the link below. (The note is applicable as of January 22.)

<https://www.renesas.com/software-tool/c-compiler-package-rl78-family#documents>

C Compiler Package for RL78 Family V1.13.00 Release Note

### 2.1 Addition of the library generator

A library generator has been added, enabling the setting of various options such as the optimization level and generating various types of standard library with priority for execution speed or code size.

For example, if a standard library is to be generated with optimization giving priority to the execution speed, the speed will be improved by about 1.2 times\* in comparison with the library generated with priority given to the code size.

If a standard library is generated with optimization giving priority to the code size, the size will be reduced by about ten percent\* in comparison with the library generated with priority given to the execution speed.

Note: These are measured values for programs held by Renesas.

### 2.2 Modification of the -P option

If a file other than a C source file was used as the input when the -P option has been specified, preprocessing is executed with this input file handled as a C source file, and in such cases, this would almost always lead to an error. This problem has been modified by including a check of the filename extension of the input file to make sure that only C source files are subject to preprocessing.

### 2.3 Addition of the -ALLOW\_OPTIMIZE\_ENTRY\_BLOCK option

The -ALLOW\_OPTIMIZE\_ENTRY\_BLOCK option, which specifies the entry address of the execution program as a target for optimization, was added to the linker. Use of this option may enlarge the scope of optimization at the time of linkage.

### 2.4 Modification of the specifications of the -RRM option

The specifications were modified so that the area starting at the address specified with the -RRM option of the linker becomes a reserved area in order to prevent the placement of other data in that area.

## 2.5 Modification of the specifications of the -ROM option

The specifications were modified so that wildcard characters can be specified for the -ROM option of the linker.

## 2.6 Rectification of the -VFINFO option

In V1.11.00 and later versions of the CC-RL, an extra underscore ( `_` ) was prefixed to the symbol names in the variable information and function information that are output when the -VFINFO option is specified. This problem has been rectified.

## 2.7 Rectification of the intrinsic function `__mulsl` or `__mulul`

The problem of an unnecessary error (E0520020) occurring when using the intrinsic function `__mulsl` or `__mulul` with the `-lang=c99` and `-strict_std` options specified has been rectified.

## 3. Updating the Product

### 3.1 Online Update[Windows only]

On the Windows Start menu, select [Renesas Electronics CS+], and then run the update manager. (The service is available as of January 22.)

If you are using a floating license, the Software for floating license management V2.04.00 is required. Download and install it from the link below.

[https://www.renesas.com/r178\\_c\\_download](https://www.renesas.com/r178_c_download)

### 3.2 Download the Installer

Download the installer from the link below. (The installer is available as of January 22.)

[https://www.renesas.com/r178\\_c\\_download](https://www.renesas.com/r178_c_download)

Note that License Manager V2.06.00 is required. Download and install it from the link above.

If you are using a floating license, the Software for floating license management V2.04.00 is also required. Download and install it from the link above.

## 4. Purchasing the Product

Contact your local Renesas Electronics sales office or distributor and inform them of the product information.

For the price of the product, contact the sales office or distributor.

For the product name and orderable part number, refer to the link below.

[https://www.renesas.com/r178\\_c](https://www.renesas.com/r178_c)

**Revision History**

Rev.	Date	Description	
		Page	Summary
1.00	Jan.16.24	-	First edition issued

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