[Upgrade to revision]
C/C++ Compiler Package for RX Family V3.02.00

R20TS0540EJ0100
Rev.1.00
Jan. 16, 2020

Outline

The C/C++ Compiler Package for RX Family CC-RX has been updated from V3.01.00 to V3.02.00.

Note that to use V3.00.00 or later version of the product, you will need a V3 license. The V3 license is not the same as the V1 and V2 license for V1.00.00 to V1.02.01 and V2.00.00 to V2.08.01.

1. Products and Versions to Be Updated

CC-RX V3.00.00 to V3.01.00

2. Description of the Update

The main features of the update are described in the following sections. Features available only to licensed users of the professional edition are marked as [Professional]. For details, refer to the release note at the URL below.

(Scheduled to be released on January 20.)

CS+ RX Compiler CC-RX V3.02.00 Release Notes

https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ut4649

RX Compiler CC-RX V3.02.00 Release Note

https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ut4646

2.1 End of support for Windows 7

V3.02.00 or later version no longer support Windows 7 as support of Windows 7 by Microsoft ended.

2.2 Support for the trigonometric function unit

The -tfu option that selects the usage of the trigonometric function unit has been added.

High-speed calculations by using a trigonometric function unit are possible in some mathematical library functions or built-in functions.

This option is enabled only for a device having a trigonometric function unit.

It is also available in CC-RX V3.01.00.

2.3 Extensions to the checking of source code against MISRA-C:2012 rules [Professional]

The following rule numbers have been added as arguments of the -misra2012 option for checking source code against the MISRA-C:2012 rules.

Mandatory rules: 14.2 and 14.3

Recommended rule: 8.13

2.4 Writing the #pragma section directive within functions

The #pragma section directive can be written within functions.

The section to which each of the following objects are allocated is individually specifiable.

- static variable in a function

2.5 Addition of the -g_line Option

The compiler option of -g_line, which improves the accuracy of the source debugging information when the optimization is applied, has been newly added.

Use of this option will make source debugging easier.

2.6 Allow duplicate module names when creating libraries

The -allow_duplicate_module_name option has been added.

By specifying this option, you can now allow duplicate module names to be specified when creating libraries.

2.7 Improved Performance of the exp Function Group

Execution performance of standard library functions expf, exp, and expl has been improved.

This improvement may shorten the number of execution cycles of these functions by as much as 30%.

Note that the calculation error may change through this improvement within the range specified by the C-language standard.

Also, although ERANGE was not returned sometimes for some input values when an underflow occurred, it will be returned through this improvement.

2.8 Improvement of Code Generation for Loop Processing

Code generation has been improved so that calculation that satisfies all the following conditions and that does not have to be executed in the loop is executed outside the loop.

- Integer division performed within the loop
- Both the dividend and the divisor of integer division does not change within the loop.
- The divisor is a constant other than 0.

2.9 Issues Fixed

The following issues have been fixed.

- - RENESAS TOOL NEWS Document number R20TS0461EJ0100

  1. Comparison expressions in a loop (No.52)

  For details about this issue, refer to the URL below.
  https://www.renesas.com/search/keyword-search.html#genre=document&q= r20ts0461

- - RENESAS TOOL NEWS Document number R20TS0473EJ0100

  1. Mathematical library function atan (No.53)

  For details about this issue, refer to the URL below.
  https://www.renesas.com/search/keyword-search.html#genre=document&q= r20ts0473

- - RENESAS TOOL NEWS Document number R20TS0530EJ0100

  1. Using the -alias=ansi option (No.54)

  For details about this issue, refer to the URL below.
  https://www.renesas.com/search/keyword-search.html#genre=document&q= r20ts0530

3. Updating Your Product

3.1 Updating Online

On the Start menu, select Programs > Renesas Electronics CS+ and then start Update Manager to install the update. (This service will be available on January 20.)

If you are using a floating license, also download and install Software for floating license management V2.03.01 from the following URL.

https://www.renesas.com/rx-c-download

3.2 Downloading the Installer from the Web

Download the installer from the URL below. (The installer will be available from January 20.)

https://www.renesas.com/rx_c_download

Also, download and install License Manager V2.03.01 from the above URL.

If you are using a floating license, also download and install Software for floating license management V2.03.01 from the above URL.

4. Purchasing the Product

For product ordering, contact your local Renesas Electronics sales office or distributor with the following information.

For product pricing, make inquiries in the same manner.

The information about the product names and orderable part numbers is available at the URL below.

https://www.renesas.com/rx_c

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Jan.16.20	-	First edition issued

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For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit:
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TS Colophon 4.1