

[Featured Tools]

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Improve Performance by Upgrading the C/C++ Compiler for RX Family from Renesas at Reasonable Cost!

Introduction of the Upgrade (Version) License

Outline

We would like to introduce a low-cost license that you can use to upgrade the C/C++ compiler for RX family from Renesas (CC-RX) from V2 to V3.

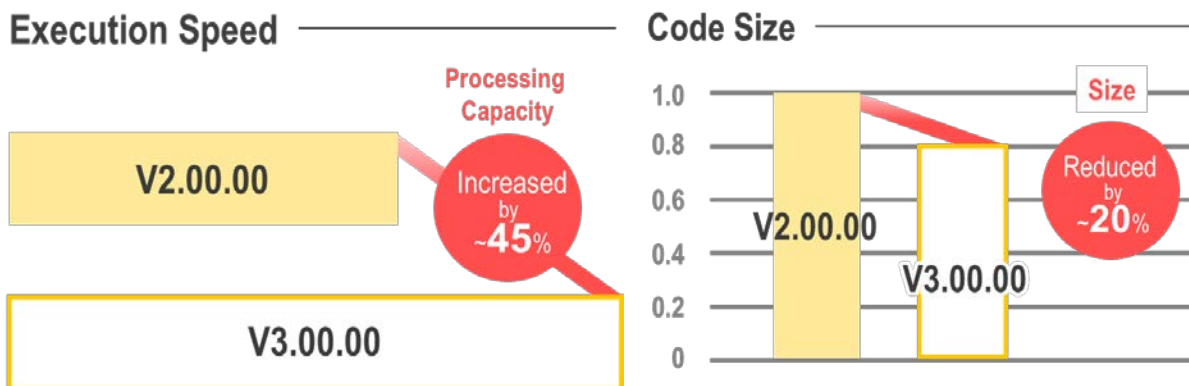
By upgrading to V3, you can expect to see performance improvements in a system equipped with an RX MCU.

1. Expected Performance Improvements in an RX MCU-Equipped System After Upgrading CC-RX

1.1 Generated-Code Efficiency Improvement

Codes generated by the compiler become increasingly more efficient as CC-RX is updated.

The following graphs show the results of comparative tests ^(Note) for execution speed and code size for V2 and V3, respectively. Upgrading from V2.00.00 to V3.00.00 shows a significant increase in code efficiency.



(Note): The comparative tests were performed on a benchmark program for embedded systems using a same MCU with the same option settings. The improvement will depend on the program used.

1.2 Expansion of Available Functions

In addition to improved generated-code efficiency, V3 also brings functional enhancements.

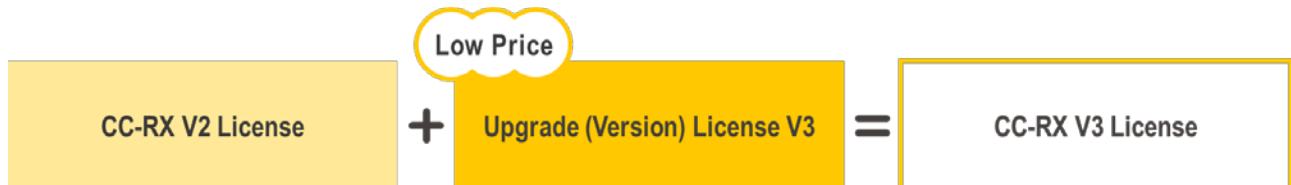
The following lists some of the functional enhancements to V3 (CC-RX V3.02.00) from V2.

- Addition of the -g_line option
This option improves the accuracy of the source debugging information when the optimization is applied.
- Improved performance of the exp function group
Execution performance of standard library functions expf, exp, and expl has been improved.

2. Upgrade (Version) License: An Outstanding Upgrade Opportunity for Ver.3

CC-RX needs a different license for each version. This means V2 (V2.**.***) and V3 (V3.**.***) are separate licenses. Therefore, you need a V3 license to use V3.

However, if you own a V2 license, you can use V3 by purchasing an additional Upgrade (version) license. You do not need to purchase a new V3 license. Note that these licenses are not available as annual licenses.



Features

- **More cost-effective than purchasing a V3 license.**
- **The V2 license will remain valid. You will be able to use both V2 and V3.**

If you are a V2 licensee, purchase an Upgrade (version) license to enjoy the improved performance of an RX MCU-based system at reasonable cost!

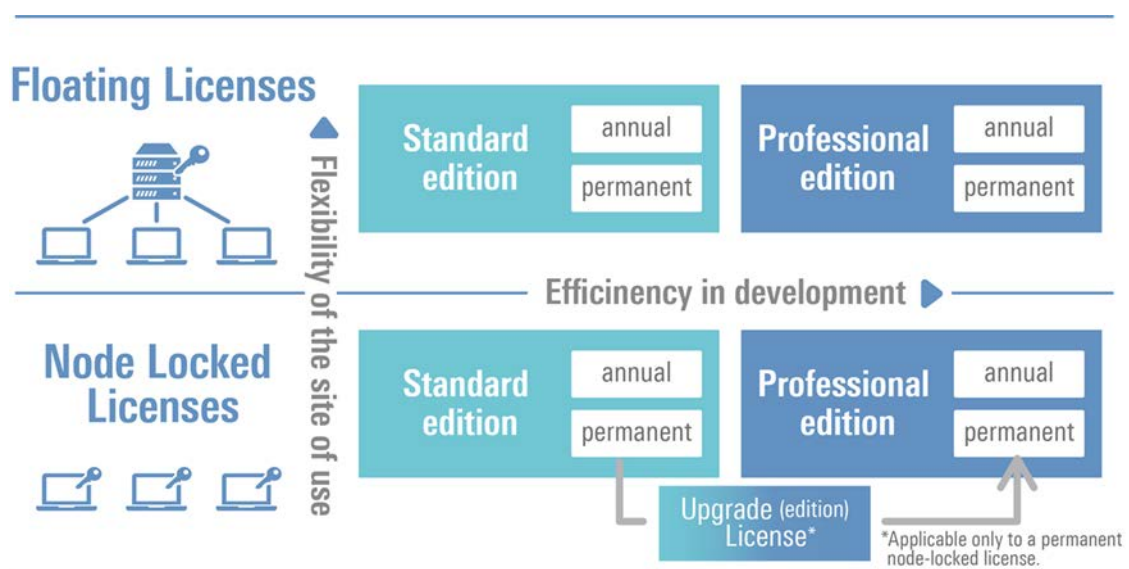
3. Introducing Other Compiler Licenses

For the CC-RX package from Renesas, the following licenses are available in addition to a floating license and a node-locked license:

- Standard license and professional license (they differ in compiler additional functions)
- Annual license and permanent license (they differ in effective period)

There is also an Upgrade (edition) license for upgrading the standard version to the professional version.

Choose an optimum combination of licenses depending on your development needs.



For more information about licenses, see the compiler license web page below.

https://www.renesas.com/compiler_licenses

4. Purchasing the Product

For product ordering, contact your local Renesas Electronics sales office or distributor.

Refer to the CC-RX web page for more information.

https://www.renesas.com/rx_c

Revision History

| Rev. | Date | Description | |
|------|-----------|-------------|----------------------|
| | | Page | Summary |
| 1.00 | Jun.01.20 | - | First edition issued |
| | | | |

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