

RENESAS TOOL NEWS on April 16, 2015: 150416/tn1

Integrated Development Environment CS+ Revised to V3.01.00

We will be revising the CS+ integrated development environment from V3.00.00 to V3.01.00.

1. Product and Versions to Be Updated

CubeSuite+ Common Programs V1.00.00 to V1.03.00 and V2.00.00 to V2.02.00
CS+ Common Program V3.00.00

For how to confirm which version you currently have, refer to the following URL.

The service is available from April 20.

https://www.renesas.com/cs+_ver

2. Descriptions of Revision

2.1 CS+ Common Programs (with building, debugging, analysis, and other capabilities)

- The common programs of CS+ for CC (RX, RH850, and RL78) have been updated from V3.00.00 to V3.01.00.
- The common programs of CS+ for CA, CX (78K, RL78, and V850) have been updated from V3.00.00 to V3.00.01.

The main items updated in CS+ for CC V3.01.00 and CS+ for CA, CX V3.00.01 are as follows.

(1) CS+ for CC (for RX, RH850, and RL78)

(a) Improved basic functions

- Support for the CC-RL compiler for the RL78 Family, incorporating the latest compiler optimization technology from Renesas, has been added.

For details of the CC-RL compiler, refer to the URL below.

The information is available from April 16.

https://www.renesas.com/rl78_c

- The start menu of Windows has been modified to support CC-RL.
- The files generated in the process of creating a project have been changed, and the code setting up processing by the startup files for the boot loaders of the individual cores and for applications have been modified (RH850 family only).
- Information on the reset vector has been added to the [Microcontroller Information] tabbed page in the [Property] panel for working with MCUs where the reset vectors differ from core to core (RH850 family only).
- A placeholder designating the MCU's name has been added to the option for activating external tools, so that the MCU's name can be delivered to an external tool.
- Variable definitions have been added to the destinations that can be designated for the jump facility of the editor. This makes it easier to find the lines where variables are defined.

(b) Improved functionality for Python console

- Parameter for a Python function, class, properties, hook functions and callback function have been added to enable interrupt control by the RH850 simulator.
- A Python class and Python property have been added to enable control of files for downloading.

(2) CS+ for CC (RX, RH850, and RL78)

and CS+ for CA, CX (78K, RL78, and V850)

(a) Improvement of the debugging tools (for RL78 family)

- IECUBE is now usable with the following MCUs.

RL78/D1A group of RL78 family MCUs:

R5F10DPL, R5F10DPK, R5F10DSL, R5F10DSK, and R5F10DSJ

2.2 Build Tools

The new CC-RL V1.01.00 compiler with greatly improved performance for RL78 family products has been added.

Standard and professional editions of the CC-RL build tool have been prepared. The professional edition supports checking against MISRA-C: 2004 rules.

The following are the main features.

- Enhanced execution speeds of output code and reduced ROM sizes (compared to the current CA78K0R compiler) realized through Renesas' latest compiler optimization techniques
- Support for 64-bit variables: double (RL78-S3 core only) and long long

- Inline expansion of functions
- Acquisition of the addresses of sections (by __sectop and __secend operators)
- Control of the output of warnings
- Merging string literals
- Compiler option for specifying include files
- Qualification of external variables as volatile
- Checking against MISRA-C:2004 rules (professional edition only)
- Support for porting from other compiler

Note: We have an evaluation edition of the RL78 family C compiler package (with IDE) V1 (CC-RL). However, we are unable to lift the restrictions on the CC-RL evaluation edition in response to a customer holding a license for an earlier RL78, 78K family C compiler package (CA78K0R, CA78K0).

You need to purchase the commercial edition of RL78 family C compiler package (with IDE) V1 (CC-RL) if you wish to have the restrictions on the evaluation edition lifted.

Refer to "5. Purchasing the Product" for details.

For details of the CC-RL compiler, refer to the URL below.

This page is available from April 16, 2015.

https://www.renesas.com/rl78_c

2.3 Code Generators

(1) CS+ RL78 code generator

V2.07.00 has been added to CS+ for CC.

V2.07.00 supports the CC-RL compiler for the RL78 family.

(2) CS+ RL78 code generator(CS+ for CA,CX)

This generator has been updated from V2.06.01 to V2.07.00.

The main items updated in V2.07.00 are as follows:

(a) Problems fixed of RENESAS TOOL NEWS Document No. 140701/tn1

- With setting port 2
- With setting an interval timer

For details, go to:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=140701tn1>

(b) Problems fixed of RENESAS TOOL NEWS Document No. 140816/tn1

- With setting of P20 and P21 of port 2
- With setting of port 1

For details, go to:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=140816tn1>

(c) Problems fixed of RENESAS TOOL NEWS Document No. 141101/tn2

- Point for Caution on Settings for CPU Stack Pointer Monitoring
- Point for Caution on Writing to the Serial Flag Clear Trigger Register (SIR) When Using 3-wire Serial (CSI) Transfer

For details, go to:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=141101tn2>

(d) Problems fixed of RENESAS TOOL NEWS Document No. 141216/tn3

- Code Generated for Comparator Settings
- DTC Settings
- Setting the Voltage Detection Circuit to "Interrupt Mode"
- Saving Projects with Settings for the A/D Convertor
- Reflection of Pin Configurations in Generated Code

For details, go to:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=141216tn3>

(3) CS+ RX code generator

This generator has been updated from V1.05.00 to V1.06.00.

The main items updated in V1.06.00 are as follows:

(a) Problems fixed of RENESAS TOOL NEWS Document No. 140816/tn2

- With setting of the multi-function timer pulse unit (MTU) and 16-bit timer pulse unit (TPU)

For details, go to:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=140816tn2>

(b) Problems fixed of RENESAS TOOL NEWS Document No. 141216/tn2

- Settings for clocks in the output code
- Bus settings

For details, go to:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=141216tn2>

2.4 Device Information

(1) CS+ Device Information for RL78 Family

The version has been upgraded from V3.00.01 to V3.00.02.

The main items updated in V3.00.02 are as follows:

(a) Deletion

Two MCUs in the following group have been deleted.

RL78/G14 group (RL78 family)

R5F104JK and R5F104JL

For details, go to:

https://www.renesas.com/cubesuite+/CSP_DevInfo_RL78.html

This information will be available from April 20.

(2) CS+ Device Information for RX Family

The version has been upgraded from V1.06.00 to V1.07.00.

Support for debugging the trusted memory function in RX71M.

With CS+ V3.00.00, the older version, the Trusted Memory area might be erased when user program is downloaded even if the Trusted Memory function is enabled.

For details, go to:

https://www.renesas.com/cubesuite+/CubeSuitePlus_DevInfo_RX.html

This information will be available from April 20.

(3) CS+ Device Information for RH850

The version has been upgraded from V3.00.01 to V3.00.02.

The main items of updating in V3.00.02 are as follows:

(a) Addition of supported MCUs

The following MCUs have been added to the support line:

- RH850/C1H group of MCUs (RH850 family)
- RH850/C1M group of MCUs (RH850 family)
- RH850/P1M group of MCUs (RH850 family)

(b) Modification of device information

The device information relevant to the following MCUs has been modified:

- RH850/C1H group of MCUs (RH850 family)
- RH850/C1M group of MCUs (RH850 family)
- RH850/E1L group of MCUs (RH850 family)
- RH850/E1M-S group of MCUs (RH850 family)
- RH850/F1L group of MCUs (RH850 family)

For details, go to:

https://www.renesas.com/cubesuite+/CubeSuitePlus_DevInfo_RH850.html

This page will be updated on April 20, 2015.

2.5 CS+ Utility

This program has been updated from V3.00.00 to V3.01.00.

For details, go to:

https://www.renesas.com/cubesuite+/CubeSuitePlus_Uutilities.html

This page will be updated on April 20, 2015.

3. Updating Your Product

Online updating is available free of charge. The updating methods depend on the editions of CS+.

Note: An evaluation edition of the CC-RL build tool is included if you update to CS+ V3.01.00. However, we are unable to lift the restrictions on the evaluation edition of CC-RL in response to a customer holding a license for an earlier RL78, 78K family C compiler package (CA78K0R, CA78K0).

You need to purchase the commercial edition of RL78 family C compiler package (with IDE) V1 (CC-RL) if you wish to have the restrictions on the evaluation edition lifted.

Refer to "5. Purchasing the Product" for details.

3.1 For CS+ V3.00.00 or Later

To update your program, use either of the following methods:

(1) On the "Start" menu, select "Programs" and then "Renesas Electronics "CS+" to start the Update Manager.

This service will be available on and after April 20.

Note: If your CS+ has been launched with rapid startup enabled, exit the CS+ once, and then run the Update Manager.

If the CubeSuite+ is resident in the notification area of Windows (system tray) due to rapid startup, an error occurs and produces the following message:

M0120001

Installation is suspended because "CS+W.exe" is running.

It will be resumed next time you start the tool.

(2) Download the software tools you want from the web site at:

https://www.renesas.com/cs+_download

This program will be available from April 20.

3.2 For CubeSuite+ V2.00.00 to 2.02.00

Update this in the same way as is described above under 3.1.

3.3 For CubeSuite+ V1.03.00 or Earlier

Please download and install the evaluation edition of CS+ V3.00.00 from the following URL:

https://www.renesas.com/cs+_download

The program will be available from April 20.

4. Downloading Evaluation Edition

Before purchasing any of the commercial editions of CS+, you can evaluate its performance and functionality by using the evaluation edition of CS+.

To do so, download the evaluation edition from the Web site at:

https://www.renesas.com/cs+_download

The installer is scheduled for posting on April 20.

You can turn the evaluation edition into the commercial edition when installing the evaluation edition through the input of a license for CubeSuite, CubeSuite+, or separately purchased CS+.

Note: Even if you have a license for V1 of the CA78K0R or CA78K0RL78 C compiler (conventional C compiler for RL, 78K family), the restrictions on the evaluation edition of V1 of the RL78 family C compiler package (CC-RL) will not be lifted, since the latter is a new product with significantly enhanced capabilities. If you wish to lift the restrictions, please purchase the commercial edition of V1 of the RL78 family C compiler package (CC-RL).

5. Ordering

When ordering, please contact your local Renesas Electronics marketing office or distributor.

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