

Outline

CS+ integrated development environment has been updated from V8.02.00 to V8.03.00.

1. Products and Versions to Be Updated

- CubeSuite+ Common Program: V1.00.00 to V1.03.00 and V2.00.00 to V2.02.00
- CS+ Common Program: V3.00.00 to V3.03.00, V4.00.00 to V4.03.00, V5.00.00, V6.00.00 to V6.01.00, V7.00.00, V8.00.01, V8.01.00 and V8.02.00

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

<https://www.renesas.com/cs+ ver>

2. Main Features of the Update

The following features have been newly added and improved in CS+ for CC.

- Added a sample script to the Python console. (RH850, RX and RL78 family)
- Improved debugging functions. (RH850 family)

For details about these features, see the following.

- (1) A sample script has been added to the Python console. (RH850, RX and RL78 family)

A window and button (and respective sample script) have been added.

Because the script processing can be confirmed, the script can be reused and the customer can implement their desired GUI easily.

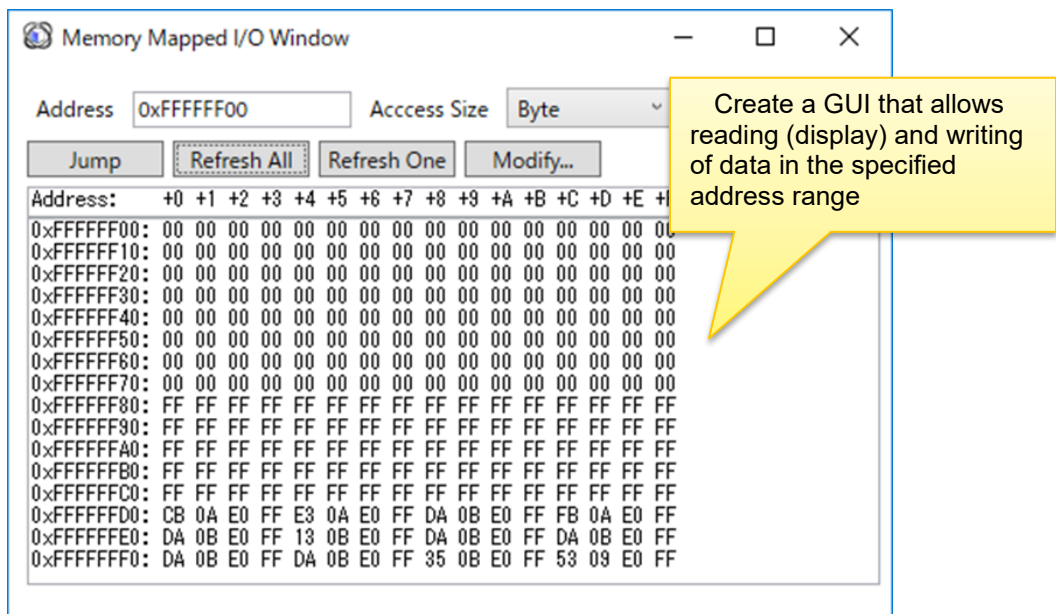


Figure 1 A GUI created by using the sample script

(2) The RH850 debugging functions have been improved. (RH850 family)

(a) A function that allows detailed event setting has been added.

A function that allows editing conditions for each event has been added.

You can edit conditions in the Detail dialog. You can open the dialog as follows:

Right-click on the event to be edited in the Events panel → [Edit Condition...] → [Detail]

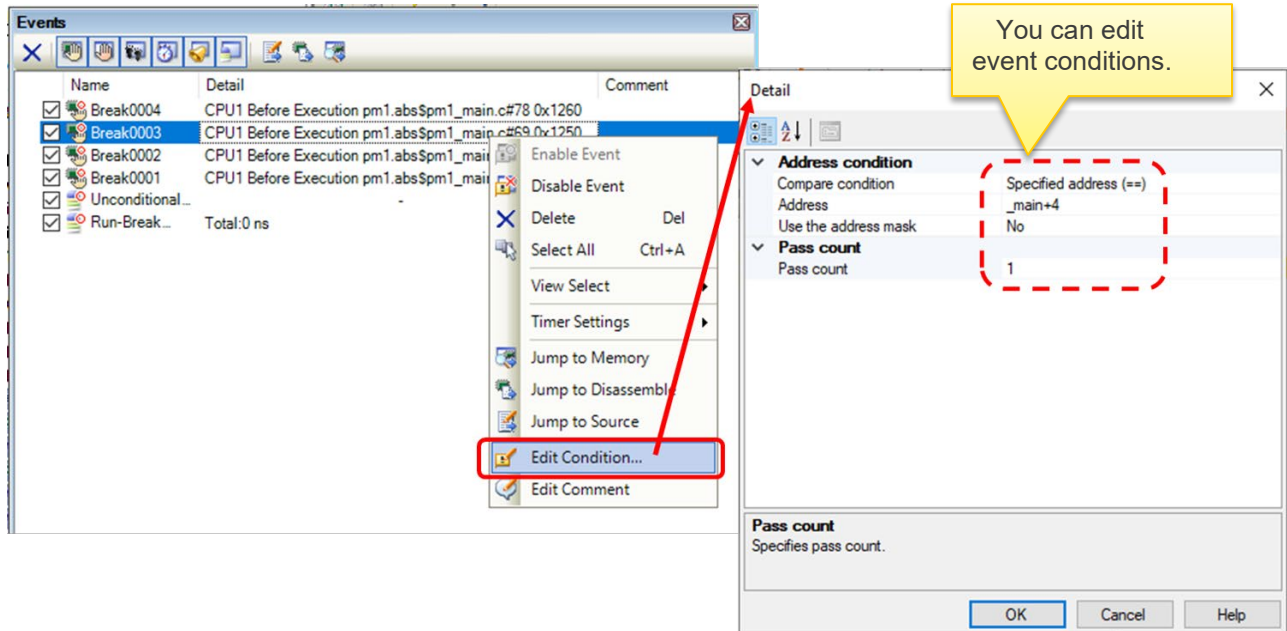


Figure 2 The Detail dialog in the Events panel

(b) Debugging in initial stop or standby mode is now supported.

It is now possible to debug a program that controls the core in the initial stop state or the core that transitions to standby mode. Figure 3 shows the startup sequence of the core in the initial stop state. A stopped core can be debugged immediately after startup, which was previously not possible. A core in transition to and recovery from standby mode can also be debugged.

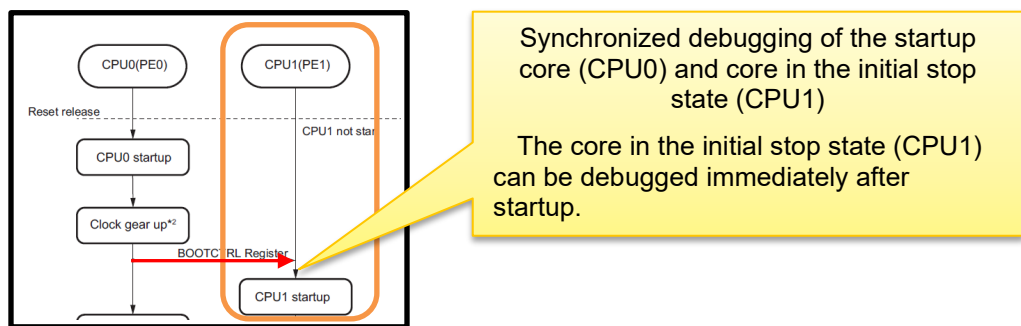


Figure 3 Startup sequence of the core in the initial stop state

To enable the setting, follow the steps below.

[Debug Tool] property → [Connect Settings] tab → [Debug the initial stop state and the standby mode] → [Yes]

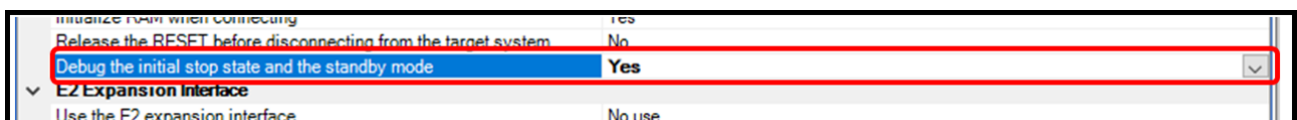


Figure 4 Setting to enable debugging of the CPU core in the initial stop state and the standby mode in CS+

- (c) A function that displays software trace information in the Trace panel has been added. You can now reference the software trace output results in the Trace panel.

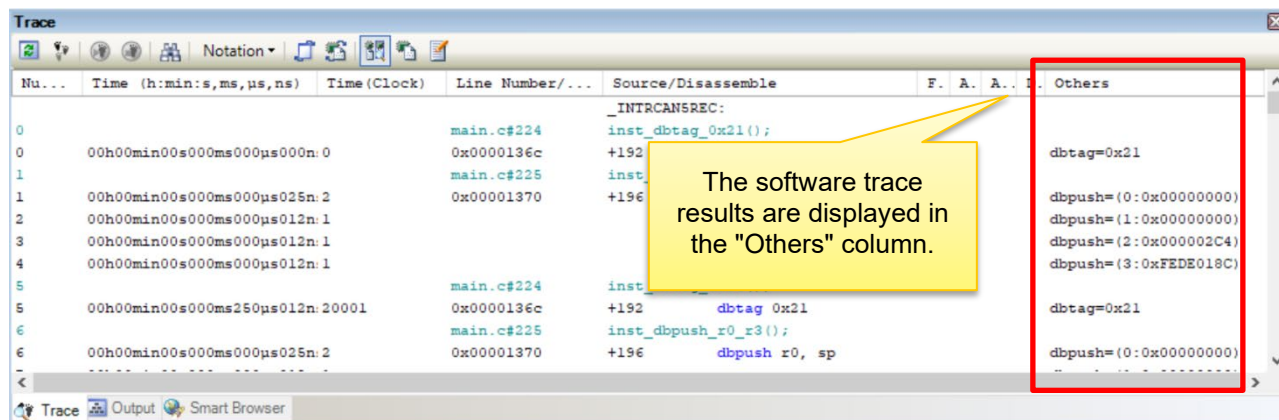


Figure 5 The software trace results on the Trace panel

3. Description of the Update

3.1 CS+ Common Program (with Building, Debugging, Analysis and Other Capabilities)

- The common programs of CS+ for CC (for RX, RH850 and RL78) has been updated from V8.02.00 to V8.03.00.
- The common programs of CS+ for CA,CX (for 78K, RL78 and V850) has been updated from V4.03.00 to V4.04.00.

CS+ for CC V8.03.00 and CS+ for CA,CX V4.04.00 include the following updates.

(1) CS+ for CC and CS+ for CA,CX Common

- CS+ no longer supports Windows 7 as support of Windows 7 by Microsoft ended.

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

V8.02.00 has been updated to V8.03.00.

The main updated items are as follows. Refer to the release note for more details. (Scheduled to be released on January 20.)

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

CS+ for CC V8.03.00 Release Note

(a) Additional features of the build tools

- The following compilers are now supported.
 - CC-RH V2.02.00
 - CC-RX V3.02.00
 - CC-RX V2.08.01
 - CC-RL V1.09.00
- The following version of the RH850 compiler from Green Hills Software, Inc. is now supported.
 - 2019.5.5

For more information about GHS compilers, contact Green Hills Software, Inc.

<http://www.ghs.com/>

(b) Improvement of the debug tools

- Support for the RH850 compiler from Green Hills Software, Inc.

The following version is now supported.

- 2019.5.5

- RX23E-A group emulator operation improvement

The power supply values that can be used in debugging the RX23E-A group by using the E1 or E2 emulator have been improved as follows:

- E1 emulator: 3.3V only → 3.3V or 5.0V
- E2 emulator: 1.8V to 3.3V → 1.8V to 5.0V

- The RL78 family peripheral module and consumption current simulation function supports more microcontrollers.

The following MCUs are now supported.

- RL78/G13A group
- RL78/L12 group

For details, refer to the release note. (Scheduled to be released on January 20.)

<https://www.renesas.com/cs+ document>

Simulator for RL78/G13, RL78/G13A V2.00.01 Release Note

Simulator for RL78/L12 V1.00.00 Release Note

- The RL78 family Virtual Board panel supports more components.

The following components are now supported by the Virtual Board panel.

- Wireless charging transmitter
- Infrared receiver

For details, refer to the User's Manual. (Scheduled to be released on January 20.)

<https://www.renesas.com/cs+ document>

CS+ integrated Development Environment V8.03.00 User's Manual RL78 Debug Tool

- Instruction Simulator for RL78 has been updated. Refer to the release note for details.

(Scheduled to be released on January 20.)

<https://www.renesas.com/cs+ document>

RL78/G11 Simulator V2.00.01 Release Note

- Instruction Simulator for RH850 has been updated. Refer to the release note for details.

(Scheduled to be released on January 20.)

<https://www.renesas.com/cs+ document>

CS+ Instruction Simulator for RH850 V5.01.00 Release Note

(c) Improvement of Python console

- Python functions have been added and existing Python functions have been extended.

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

V4.03.00 has been updated to V4.04.00.

For more details, refer to the release note. (Scheduled to be released on January 20.)

<https://www.renesas.com/cs+ document>

CS+ for CA,CX V4.04.00 Release Note

3.2 Code Generators

3.2.1 CS+ Code Generator for RL78

V2.18.00 has been updated to V2.19.00.

For details, refer to the URL below. (Scheduled to be released on January 20.)

- CS+ code generator for RL78 (CS+ for CC)
https://www.renesas.com/cs+/eng/CSPlus_CC_Code_Generator_for_RL78.html
- CS+ code generator for RL78 (CS+ for CA,CX)
https://www.renesas.com/cs+/eng/CSPlus_CACX_Code_Generator_for_RL78.html

3.3 Device Information

3.3.1 CS+ Device Information for RH850 Family

V8.02.01 has been updated to V8.03.00.

V8.03.00 includes the following updates.

(1) Correction of Device Information

The device information for the following MCU groups have been corrected.

- RH850/E2M group
- RH850/E2H group
- RH850/E2UH group
- RH850/U2A16 group
- R7F702Z02C
- R7F702Z04C
- R7F702Z11A
- R7F702Z12A
- R7F702Z19A

For details, refer to the URL below. (Scheduled to be updated on January 20.)

https://www.renesas.com/cs+/eng/CSPlus_DevInfo_RH850.html

3.3.2 CS+ Device Information for RX Family

V3.03.00 has been updated to V3.04.00.

V3.04.00 includes the following updates.

(1) Correction of Device Information

The device information for the following MCU group has been corrected.

- RX23W group

For details, refer to the URL below. (Scheduled to be updated on January 20.)

https://www.renesas.com/cs+/eng/CSPlus_DevInfo_RX.html

3.3.3 CS+ Device Information for RL78 Family

V8.02.01 has been updated to V8.03.00.

V8.03.00 includes the following updates.

(1) Addition of Supported Devices

The following devices are now supported.

- RL78/G13A group
- RL78/G1P group
- RL78/I1C group

For details, refer to the URL below. (Scheduled to be updated on January 20.)

https://www.renesas.com/cs+/eng/CSPlus_DevInfo_RL78.html

3.4 Update Manager

V2.03.00 has been updated to V2.03.01.

For details, refer to the URL below. (Scheduled to be updated on January 20.)

https://www.renesas.com/cs+/eng/CSPlus_Update_Manager.html

3.5 License Manager

V2.02.01 has been updated to V2.03.01.

For details, refer to the URL below. (Scheduled to be updated on January 20.)

https://www.renesas.com/cs+/eng/CSPlus_License_Manager.html

3.6 Floating License Management Software

V2.02.00 has been updated to V2.03.01.

V2.03.01 now supports License Manager V2.03.01. (Scheduled to be updated on January 20.)

4. Updating Your Product

Online update is available free of charge. The update method varies depending on the edition of CS+.

Note 1. An evaluation edition of the CC-RL build tool will be included when you update from CubeSuite+ to CS+ V3.01.00 or later.

However, we are unable to lift the restrictions on the evaluation edition of CC-RL in response to customers holding licenses for earlier C compiler package for RL78 and 78K families (CA78K0R, CA78K0).

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

Note 2. Even if you have a license for V1 of the C compiler package for RH850 family (CC-RH), the restrictions on the evaluation edition of V2 of the C compiler package for RH850 family (CC-RH) will not be lifted.

If you wish to lift the restrictions, please purchase the commercial edition of V2 of the C compiler package for RH850 family (CC-RH).

Note 3. Even if you have a license for V1, V2 of the C/C++ compiler package for RX family (CC-RX), the restrictions on the evaluation edition of V3 of the C/C++ compiler package for RX family (CC-RX) will not be lifted.

If you wish to lift the restrictions, please purchase the commercial edition of V3 of the C/C++ compiler package for RX family (CC-RX).

Note 4. Refer to section 6 for how to purchase the product.

4.1 For CS+ V3.00.00 or Later

Update your program in either of the following methods.

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

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

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

```
M0120001
"CubeSuiteW+.exe"
Installation is suspended because "CubeSuiteW+.exe" is running.
It will be resumed next time you start the tool.
```

- (2) Download the desired software tools from the URL below.

(Scheduled to be released on January 20.)

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

4.2 For CubeSuite+ V2.00.00 to 2.02.00

Update the program in the same way as described in section 4.1.

(Replace “Renesas Electronics CS+” in the above description with “Renesas Electronics CubeSuite+”.)

4.3 For CubeSuite+ V1.03.00 or Earlier

CubeSuite+ V1.03.00 or earlier versions do not support Update Manager.

Download the free evaluation edition of CS+ for CC V8.03.00 or CS+ for CA,CX V4.04.00 to install the update. (Scheduled to be released on January 20.)

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

5. Free Evaluation Edition

Before purchasing the compiler product, you can evaluate its performance and functionality by using the free evaluation edition.

Download the free evaluation edition of CS+ for CC or CS+ for CA,CX from the following URL.

(The installer will be available from January 20.)

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

You can turn the free evaluation edition into the commercial edition by inputting a license for CubeSuite, CubeSuite+ or compiler products at installation.

Note 1. Even if you have a license for V1 of the C compiler package for RL78 and 78K families (CA78K0R, CA78K0), the restrictions on the evaluation edition of V1 of the C compiler package for RL78 family (CC-RL) will not be lifted.

If you wish to lift the restrictions, please purchase the commercial edition of V1 of the C compiler package for RL78 family (CC-RL).

Note 2. Even if you have a license for V1 of the C compiler package for RH850 (CC-RH), the restrictions on the evaluation edition of V2 of the C compiler package for RH850 family (CC-RH) will not be lifted.

If you wish to lift the restrictions, please purchase the commercial edition of V2 of the C compiler package for RH850 family (CC-RH).

Note 3. Even if you have a license for V1, V2 of the C/C++ compiler package for RX family (CC-RX), the restrictions on the evaluation edition of V3 of the C/C++ compiler package for RX family (CC-RX) will not be lifted.

If you wish to lift the restrictions, please purchase the commercial edition of V3 of the C/C++ compiler package for RX family (CC-RX).

6. Purchasing the Product

Purchase a compiler product which includes CS+.

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 compiler products which include CS+ are as follows.

- C Compiler and IDE for RH850 Family Professional edition
- C Compiler and IDE for RH850 Family Standard edition
- C/C++ Compiler and IDE for RX Family Professional edition
- C/C++ Compiler and IDE for RX Family Standard edition
- C Compiler and IDE for RL78 Family Professional edition
- C Compiler and IDE for RL78 Family Standard edition
- C Compiler and IDE for RL78, 78K Family
- C Compiler and IDE for V850 Family

Note: Since the CS+ which is included with a compiler product may not be the latest version. You may need to update it with reference to section 4 before using it.

Although CS+ is not included with a compiler product with an annual license, you can use CS+ by installing a free evaluation edition of CS+ for CC. For how to download the free evaluation edition, refer to section 5.

For more information, see the product page at the URL below.

C Compiler Package for RH850 Family: https://www.renesas.com/rh850_c

C/C++ Compiler Package for RX Family: https://www.renesas.com/rx_c

C Compiler Package for RL78 Family: https://www.renesas.com/rl78_c

C Compiler Package for V850 Family: https://www.renesas.com/v850_c

C Compiler Package for RL78 and 78K Families: https://www.renesas.com/rl78_78k_c

Information about compiler licenses is available at the following web page.

https://www.renesas.com/compiler_licenses

Revision History

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

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