

[Upgrade to version]

R20TS0113EJ0100

Rev.1.00

CS+ Integrated Development Environment V5.00.00

Jan. 16, 2017

Outline

We will be revising the CS+ integrated development environment from V4.01.00 to V5.00.00.

1. Products 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 Programs V3.00.00 to V3.03.00 and V4.00.00 to V4.01.00

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

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

2. Description of Upgrade

The main contents of the upgrade are described below.

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

- The common programs of CS+ for CC (for RX, RH850, and RL78) have been updated from V4.01.00 to V5.00.00.
- The common programs of CS+ for CA, CX (for 78K, RL78, and V850) have been updated from V3.03.00 to V4.00.00.

The main items updated in CS+ for CC V5.00.00 and CS+ for CA, CX V4.00.00 are as follows.

(1) Addition of supported emulators

Support for the emulators listed below has been newly added.

Development of new programs is possible by using the new emulators.

- E2 emulator Lite (Applicable MCUs: RX and RL78 families)



Figure 1 E2 emulator Lite

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

(a) Improvement of basic functions

Main improvements are shown below. For more details, refer to the following release note.

<https://www.renesas.com/cs+ document> (It will be available from January 20.)

CS+ Integrated Development Environment Package V5.00.00 Release Note

- The project appropriation function has been improved.
- The MyRenesas login function has been enhanced.
- The following problem (informed in RENESAS TOOL NEWS Document No. R20TS0097EJ0100) has been fixed.

1. RI850V4 V2 Does Not Operate Normally

For details about the problem, refer to the URL below.

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0097>

(b) Addition of features to debugging tools

- Simulation of consumption current for RL78/G10 is now supported. (Applicable MCUs: RL78 family)
- Simulation of peripheral modules for RL78/G12 is now supported. (Applicable MCUs: RL78 family)
- The following problem (informed in RENESAS TOOL NEWS Document No. R20TS0068EJ0100) has been fixed.

1. Using the P125/KR1/SI01/RESET and P11/ANI17/SI00/RxD0/SDA00 Pins of RL78/G12 Group Products

For details about the problem, refer to the URL below.

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0068>

- The following problem (informed in RENESAS TOOL NEWS Document No. R20TS0117EJ0100) has been fixed.

1. Saving Trace Data to a File

For details about the problem, refer to the URL below.

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0117>

(This document will be available from January 18.)

(c) Addition of features for the Python console

- The arguments and return values described below have been newly added to the Python functions.

| Function name | Added argument | Description |
|---------------------------|------------------|------------------|
| debugger.DebugTool.Change | DebugTool.E2Lite | E2 emulator Lite |

| Function name | Added return value | Description |
|----------------------------|--------------------|------------------|
| debugger.DebugTool.GetType | E2Lite | E2 emulator Lite |

- The RL78/G10 has been newly added to MCUs which support the following Python functions.

| Function name | Brief description |
|-------------------------------------|---|
| debugger.CurrentConsumption.Clear | Consumption current data is cleared. |
| debugger.CurrentConsumption.Disable | The obtainment of consumption current data is disabled. |
| debugger.CurrentConsumption.Enable | The obtainment of consumption current data is enabled. |

| | |
|---|---|
| debugger.CurrentConsumption.Get | The maximum current and average current of the obtained consumption current data are displayed. |
| debugger.CurrentConsumption.Information | Information about obtainment of consumption current data is displayed. |

- The RL78/G10 has been newly added as MCU which supports the following Python class.

| Name of class | Brief description |
|------------------------|---|
| CurrentConsumptionInfo | Information about consumption current data is retained. |

- The following Python properties (for debugging tools) have been newly added.

| Property name | Brief description |
|-------------------------------------|---|
| debugger.Option.AccumulateTraceTime | Set whether to accumulate trace time tags. |
| debugger.Option.TraceBranchPC | Set whether to collect the PC value which occurs during execution of a program as trace data of an instruction at the branch source/branch destination. |
| debugger.Option.TraceDataAccess | Set whether to collect the data information of an access-related event which is established during execution of a program as trace data. |

- The following Python properties (for debugging tools) have been renamed.

| Before modification | After modification |
|------------------------------------|------------------------------------|
| Performanceltem.IfuFetchRequestHit | Performanceltem.CpuFetchRequestHit |
| Performanceltem.IfuFetchRequest | Performanceltem.CpuFetchRequest |

(d) Additions of features to the I/O header file generation tool

- A function for dividing the comment of a generation file has been newly added.
(Applicable MCUs: RH850 family)
- A macro creation function for the specified device has been newly added.
(Applicable MCUs: RL78 family)

2.2 Build Tools

2.2.1 CC-RH (Compiler for RH850 Family)

The version has been upgraded from V1.04.00 to V1.05.00.

For details, go to:

https://www.renesas.com/cs+/eng/CSPlus_CC-RH.html

(This page will be updated on January 20.)

Note: To use CC-RH V1.05.00, install V2.00.00 of License Manager.

2.2.2 CC-RX (Compiler for RX Family)

The version has been upgraded from V2.05.00 to V2.06.00.

For details, go to:

https://www.renesas.com/cs+/eng/CSPlus_CC-RX.html

(This page will be updated on January 20.)

Note: To use CC-RX V2.06.00, install V2.00.00 of License Manager.

2.2.3 CC-RL (Compiler for RL78 Family)

The version has been upgraded from V1.03.00 to V1.04.00.

For details, go to:

https://www.renesas.com/cs+/eng/CSPlus_CC-RL.html

(This page will be updated on January 20.)

Note: To use CC-RL V1.04.00, install V2.00.00 of License Manager.

2.3 Code Generators

2.3.1 CS+ Code Generator for RX

The version has been upgraded from V1.11.00 to V1.12.00.

For details, go to:

- CS+ Code Generator for RX

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

(This page will be updated on January 20.)

2.3.2 CS+ Code Generator for RL78

The version has been upgraded from V2.12.00 to V2.13.00.

For details, go to:

- CS+ Code Generator for RL78 (CS+ for CC)

https://www.renesas.com/cs+/eng/CSPlus_CC_Code_Generator_for_RL78.html

(This page will be updated on January 20.)

- CS+ Code Generator for RL78 (CS+ for CA, CX)

https://www.renesas.com/cs+/eng/CSPlus_CACX_Code_Generator_for_RL78.html

(This page will be updated on January 20.)

2.4 Device Information File

2.4.1 Device information file managed by CS+ for the RH850 family

The version has been upgraded from V4.00.02 to V5.00.00.

The following revisions have been made in V5.00.00.

- (1) Addition of supported MCUs

The following group of MCUs has been added to the supported line:

- RH850/P1L-C group (RH850 family)

- (2) Modification of device information

The device information in the following groups of MCUs has been modified:

- RH850/F1K group (RH850 family)
- RH850/D1L group (RH850 family)
- RH850/D1M group (RH850 family)

- (3) Fix for the problem (informed in RENESAS TOOL NEWS Document No. R20TS0097EJ0100)

The reset vector address information in the following groups of MCUs has been modified:

- RH850/C1M group (RH850 family)
- RH850/C1H group (RH850 family)
- RH850/D1L group (RH850 family)
- RH850/D1M group (RH850 family)
- RH850/E1L group (RH850 family)
- RH850/E1M-S group (RH850 family)
- RH850/E1M-S2 group (RH850 family)
- RH850/F1M group (RH850 family)
- RH850/P1M group (RH850 family)
- RH850/P1M-C group (RH850 family)
- RH850/P1H-C group (RH850 family)

For details, go to:

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

(This page will be updated on January 20.)

2.4.2 Device information file managed by CS+ for the RX family

The version has been upgraded from V1.12.00 to V2.00.00.

The following revisions have been made in V2.00.00.

- (1) Addition of supported MCUs

The following MCUs have been added to the supported line:

- RX651 group
R5F56514AxFP, R5F56517AxFP, R5F56519AxFP, R5F56514AxFB,
R5F56517AxFB, R5F56519AxFB, R5F56514AxLK, R5F56517AxLK,
R5F56519AxLK
- RX65N group
R5F565N4AxFP, R5F565N7AxFP, R5F565N9AxFP, R5F565N4AxFB,
R5F565N7AxFB, R5F565N9AxFB, R5F565N4AxLK, R5F565N7AxLK,
R5F565N9AxLK
- RX24T group
R5F524T8AxFM
R5F524TAAxFM

- (2) Modification of device information

Information on registers displayed in the I/O header file for the C language and in the IOR panel for debugging has been updated for the groups of MCUs listed below.

- RS113 group
- RX130 group
- RX230 group
- RX231 group
- RX24T group
- RX651 group
- RX65N group

For details, go to:

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

(This page will be updated on January 20.)

2.4.3 Device information file managed by CS+ for the RL78 family

The version has been upgraded from V4.00.02 to V5.00.00.

The following revision has been made in V5.00.00.

- (1) Modification of SFR information

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

- RL78/G10 group of MCUs (RL78 family)

For details, go to:

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

(This page will be updated on January 20.)

2.5 Emulator Utility

The version has been upgraded from V1.00.06 to V1.01.00.

The following revisions have been made in V1.01.00.

- (1) Update of user's manuals

User's manuals for the E1/E20 emulators have been updated.

For details, go to:

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

(This page will be updated on January 20.)

2.6 CS+ Utility

The version has been upgraded from V3.02.00 to V3.03.00.

For details, go to:

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

(This page will be updated on January 20.)

2.7 Quick and Effective tool solution (QE)

The version has been upgraded from V1.01.00 to V1.02.00.

The following revisions have been made in V1.02.00.

(1) Improvement of the tool for checking exclusive control

In accordance with the change of the compiler version, a change has been made so that the setting of whether a button to be started is enabled or disabled is automatically reflected.

Additionally, the tool name has been renamed "Exclusive control checking tool".

(2) Change of a message from pseudo-errors debugging

A message displayed when the [Delete] key in the [Breakpoint List] tree is pressed has been changed.

For details, go to:

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

(This page will be updated on January 20.)

2.8 License Management Tool

(1) Normal licenses (Node locked licenses)

We have revised the license manager to V2.00.00. For details, refer to 2.8.1.

(2) Floating licenses

The floating license management software has been divided into client features and server features.

The client features have been integrated into the license manager. For details, refer to 2.8.1.

For details about the server features, refer to 2.8.2.

2.8.1 License Manager

The version has been upgraded from V1.25.00 to V2.00.00.

The following revisions have been made in V2.00.00.

(1) Provision form

The method of product provision has been changed from being part of the CS+ utility to being provided as the license manager. For details about the startup method, refer to (3).

(2) License management

Although node locked licenses and floating licenses (client side) were managed by a separate license manager in the past, a change has been made so that both are managed by a single license manager.

(3) Startup method

V2.00.00 or later of the product starts up by the following procedure.

Windows start menu -> [All Programs] -> [Renesas Electronics Utilities] -> [Renesas License Manager]

2.8.2 Floating License Server

The version has been upgraded from V1.00.00 to V2.00.00.

The following revision has been made in V2.00.00.

(1) Output of CSV files

Usage of licenses can now be output to CSV files.

3. Updating Your Product

Online updating is available free of charge. The method of updating depends on the edition of CS+.

Note: An evaluation edition of the CC-RL build tool is included if you update from CubeSuite+ to CS+ V3.03.00.

However, we are unable to lift the restrictions on the evaluation edition of CC-RL in response to customers holding licenses for earlier RL78, 78K family C compiler packages (CA78K0R or 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 from 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 software tools you want from the web site at:
https://www.renesas.com/cs+_download
(The program will be available from January 20.)

3.2 For CubeSuite+ V2.00.00 to 2.02.00

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

3.3 For CubeSuite+ V1.03.00 or Earlier

Download and install the evaluation edition of CS+ for CC V5.00.00 or CS+ for CA, CX V4.00.00 from the following URL:

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

(The program will be available from January 20.)

4. Evaluation Edition

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

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

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

(The installer will be available from January 20.)

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

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

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

5. Purchasing the Product

Purchase a compiler product which includes CS+.

For product ordering, contact your local Renesas Electronics marketing 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.

- RH850 Family C Compiler Package (with IDE) Professional edition
- RH850 Family C Compiler Package (with IDE) Standard edition
- RX Family C/C++ Compiler Package (with IDE) Professional edition
- RX Family C/C++ Compiler Package (with IDE) Standard edition
- RL78 Family C Compiler Package (with IDE) Professional edition
- RL78 Family C Compiler Package (with IDE) Standard edition
- RL78, 78K Family C Compiler Package (with IDE)
- V850 Family C Compiler Package (with IDE)

Note: Since the CS+ which is included with a compiler product might not be the latest version, you may need to update it with reference to 3. Updating Your Product, before using it.

For ordering model names, refer to the product page at the URL below.

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

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

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

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

RL78, 78K Family C Compiler Package: https://www.renesas.com/rl78_78k_c

Revision History

| Rev. | Date | Description | |
|------|---------------|-------------|----------------------|
| | | Page | Summary |
| 1.00 | Jan. 16, 2017 | - | First edition issued |
| | | | |

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■Inquiry

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