

[Upgrade to revision]

R20TS0077EJ0100

Rev.1.00

CS+ Integrated Development Environment V4.01.00

Oct. 01, 2016

Outline

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

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 Program V3.00.00 to V3.03.00 and V4.00.00

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

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

2. Points Upgraded

The following points are to be upgraded.

2.1 CS+ common programs (with building, debugging, analysis, and other capabilities)

- The common programs of CS+ for CC (for RX, RH850, and RL78 devices) have been updated from V4.00.00 to V4.01.00.
- The common programs of CS+ for CA, CX (for 78K, RL78, and V850 devices) have been updated from V3.02.00 to V3.03.00.

The main items updated in CS+ for CC V4.01.00 and CS+ for CA, CX V3.03.00 are as follows.

(1) Changes to the operating environment

Due to the change in system requirements for Windows10, we have modified the conditions for main memory of the host machine on which CS+ can be assumed to run smoothly.

Before	At least 1 Gbyte (or 2 Gbytes for any 64-bit version of Windows), 2 Gbytes or more recommended
Now	At least 1 Gbyte (or 2 Gbytes for Windows 10 and any 64-bit version of Windows), 2 Gbytes or more recommended

(2) Changes to the support for Internet Explorer

We have changed the condition for support for Internet Explorer.

Before	Internet Explorer 7 or a later version
Now	Internet Explorer 9 or a later version

(3) CS+ for CC (for RX, RH850, and RL78 devices)

(a) Improved basic facilities

The following are the main items. Refer to the following release note for details. This information will be available from October 5.

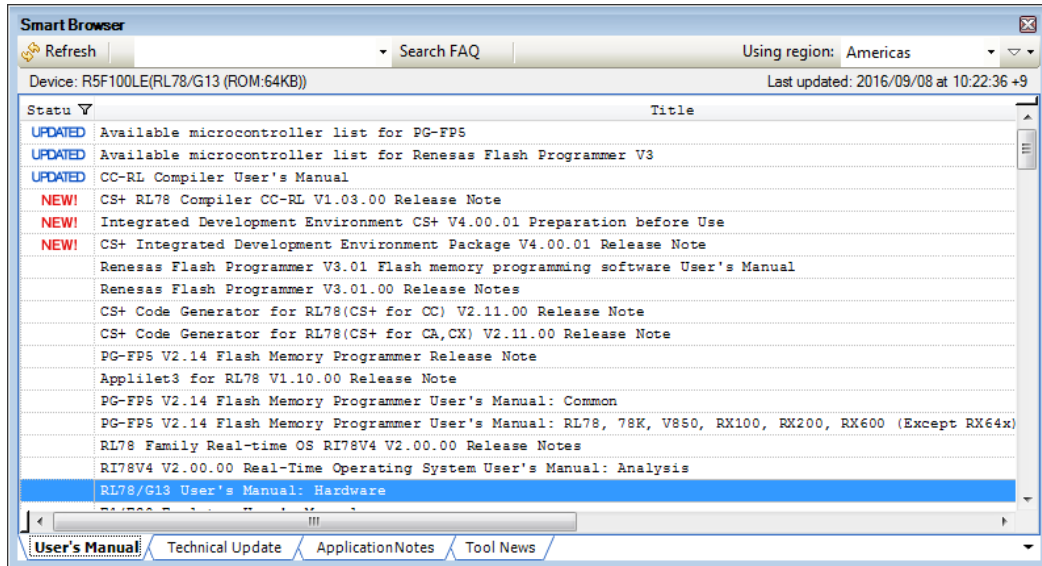
https://www.renesas.com/cs+_document

CS+ Integrated Development Environment Package V4.00.00 Release Note

- We have started to supply new solutions shown below.

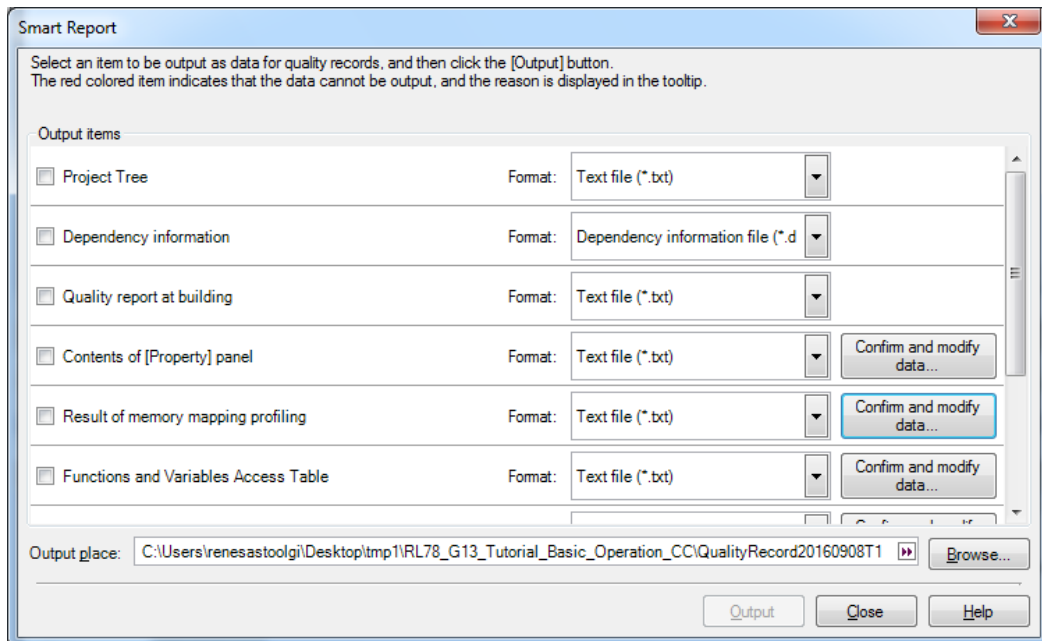
➤ Smart Browser

You can use this feature to view required information, including the contents of user’s manuals and sample code. The [Smart Browser] panel lists various documents (user’s manuals, technical updates, application notes, and tool news) related to the device selected for the active project and allows downloading of sample code, if any, that comes with the applicable application notes.



➤ Smart Reports

You can use this feature to make settings for the collective output of quality-related information such as the listings of source files, build option settings, information on functions and variables, and coverage rates.



- Support for use of the C source code converter in creating projects (applicable MCUs: RL78 family)
- Enhanced facilities for comparing performance with optimization
- Enhanced control of checkboxes
- Enhanced coloring
- Enhanced help information

(b) Additions and modification to the build tool

- Support for the build tool from Green Hills Software, Inc.
- A forcible reset function has been added. (Applicable MCUs: RH850 family)
- The problem regarding the following point, of which we informed you in RENESAS TOOL NEWS Document No. R20TS0062, has been fixed.
 - Using the RH850 Compiler (CC-RH) V1.02.00 with CS+ V4.00.00 or V4.00.01

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

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0062>

(c) Additions and improvements to the debugging tool

- A facility to simulate current drawn by RL78/G13 products has been added. (Applicable MCUs: RL78 family)
- Checking for exclusive control in simulation has been added. (Applicable MCUs: RH850 family)
- An additional version of the GHS compiler is possible to download. (Applicable MCUs: RH850 family)
- Tracing with the E1 and E20 emulators has been changed. (Applicable MCUs: RH850 family)
- The piggyback board for the RH850/P1M group is now selectable. (Applicable MCUs: RH850 family)
- The problem regarding the following point, of which we informed you in RENESAS TOOL NEWS Document No. R20TS0052, has been fixed.

1. Using an on-chip debugging emulator while the sub-system clock of certain RL78 family products is operating

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

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0052>

- The problem regarding the following point, of which we informed you in RENESAS TOOL NEWS Document No. R20TS0061, has been fixed.

1. Point for caution on the setting of [Trace data type] when using an E1 or E20 emulator to debug RX71M series products

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

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0061>

(d) **Addition of functionality to the Python console**

- The Python functions described below have been newly added.

Function name	Functional Overview
debugger.CurrentConsumption.Clear	Clears data on current drawn that have been acquired. (Applicable MCUs: RL78 family)
debugger.CurrentConsumption.Disable	Disables the acquisition of data on current drawn. (Applicable MCUs: RL78 family)
debugger.CurrentConsumption.Enable	Enables the acquisition of data on current drawn. (Applicable MCUs: RL78 family)
debugger.CurrentConsumption.Get	Displays the maximum and average values of data on current drawn that have been acquired. (Applicable MCUs: RL78 family)
debugger.CurrentConsumption.Information	Displays data on current drawn that have been acquired. (Applicable MCUs: RL78 family)
debugger.PseudoError.Clear	Causes release from error states created by pseudo-errors. (Applicable MCUs: RH850 family)

- The following parameters have been added to the listed Python function. (Applicable MCUs: RH850 family)

Function name	Newly Added Parameter	Description
project.Create	ProjectKind.GHSCCProject	Indicates that a CS+ project is based on an existing project file from Green Hills Software, Inc.'s MULTI IDE
	Compiler.GHSCC	Selects the compiler from Green Hills Software, Inc.

- The following Python classes have been added.

Class Name	Class Overview
CurrentConsumptionInfo	Holds data on current drawn that have been acquired. (Applicable MCUs: RL78 family)
ProcessorElement	Holds the current PE number when a multi-core MCU is in use. (Applicable MCUs: RH850 family)
debugger.Option.AccessDuringExecution	Selects whether to allow access to memory during execution. (Applicable MCUs: RH850 family)
debugger.Option.MainClockFrequency	Specifies the main clock frequency (numerical value) in units of kHz. (Applicable MCUs: Those not of the RX family)
debugger.Option.TracePriority	Selects whether the acquisition of all data or real-time operation should have priority in the acquisition of trace data. (Applicable MCUs: RH850 family)
debugger.Option.TraceTarget	Selects the target of tracing. (Applicable MCUs: RH850 family)

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

(a) **Improvement to the build tool**

- The problem regarding the following point, of which we informed you in RENESAS TOOL NEWS Document No. R20TS0023, has been fixed.
 1. When the user attempts to duplicate a build mode of a project for which the CA78K0R build tool is in use, the following settings return to their initial values and the mode settings from the source for duplication are not copied. (R20TS0023EJ0100)

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

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0023>

(b) **Improvement to the debugging tool**

- The problem regarding the following point, of which we informed you in RENESAS TOOL NEWS Document No. R20TS0052, has been fixed.
 1. Using an on-chip debugging emulator while the sub-system clock of certain RL78 family products is operating.

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

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0052>

- Functionality for the uploading of binary files has been expanded. (Applicable MCUs: 78K0 family)

2.2 Code generators

2.2.1 RL78 code generator for CS+

The version has been upgraded from V2.11.00 to V2.12.00.

For details, go to:

- RL78 code generator for CS+ (CS+ for CC)
http://www.renesas.com/cubesuite+/CSP_Code_Generator_for_RL78_CC.html
- RL78 code generator for CS+ (CS+ for CA, CX)
http://www.renesas.com/cubesuite+/CSP_Code_Generator_for_RL78_CA_CX.html

This information will be available from Oct. 5.

2.2.2 RX code generator for CS+

The version has been upgraded from V1.10.00 to V1.11.00.

For details, go to:

- RX code generator for CS+
http://www.renesas.com/cubesuite+/CubeSuitePlus_Code_Generator_for_RX.html

This information will be available from Oct. 5.

2.3 Device information file

2.3.1 RH850 device information file managed by CS+

The version has been upgraded from V4.00.01 to V4.00.02.

The following revisions were made in V4.00.02.

(1) **Adjustments to device information**

The device information relevant to MCUs of the following groups has been adjusted.

- RH850/E1L group (RH850 family)

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

For details, go to:

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

This information will be available from Oct. 5.

2.3.2 RX device information file managed by CS+

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

The following revisions were made in V1.12.00.

(1) Adjustments to device information

I/O header file for the C language and the register information displayed in IOR panel have been updated for the groups of MCUs listed below.

- RX110
- RX111
- RX24T

For details, go to:

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

This page will be updated on October 5, 2016.

2.3.3 RL78 device information file managed by CS+

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

The following revisions were made in V4.00.02.

(1) Addition of supported MCUs

The following groups of MCUs have been added to the supported line.

- RL78/L1A (RL78 family)
- RL78/G11 (RL78 family)

(2) Adjustments to device information

The device information relevant to the MCUs of the following groups has been adjusted.

- RL78/G1F (RL78 family)

For details, go to:

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

This information will be available from Oct. 5.

2.4 Quick and Effective Tool Solution

The version has been upgraded from V1.00.00 to V1.01.00.

The following revisions were made in V1.01.00.

(1) **Checking for exclusive control in simulation (Applicable MCUs: RH850 family)**

V1.01.00 supports checking of whether memory values are modified by specified ranges of code (e.g. a range in which interrupts are enabled) even when the actual MCU (on a board) is not connected. That is, the facility of checking for exclusive control is now also available with the simulator.

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 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 to 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) From the “Start” menu, select “Programs” and then “Renesas Electronics CS+” to start the Update Manager. This service will be available on and after October 5.

Note: If your CS+ has been set up for rapid startup, exit from CS+, and then run the Update Manager. If CS+ is resident in the notification area of Windows (system tray) due to being set up for rapid startup, an error occurs if you attempt to run the Update Manager. The error produces the following message.

M0120001

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 October 5.

3.2 For CubeSuite+ V2.00.00 to 2.02.00

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

3.3 For CubeSuite+ V1.03.00 or earlier

Download and install the evaluation edition of CS+ for CC V4.01.00 or CS+ for CA, CX V3.02.00 from the following URL:

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

The program will be available from October 5.

4. Evaluation Edition

Before purchasing our compiler products, you can evaluate their performance and functionality by using the evaluation editions.

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 on the above page from October 5.

You can turn an evaluation edition into the commercial edition after installing an evaluation edition through the input of a license for CubeSuite, CubeSuite+, or a related compiler product.

Note: Even if you have a license for V1 of the CA78K0R or CA78K0RL78 C compiler (conventional C compiler for RL78, 78K family), input of the license will not lift the restrictions on the evaluation edition of V1 of the RL78 family C compiler package (CC-RL), 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. Purchasing the Product

Purchase a compiler product which includes CS+.

To check the prices or order the product, contact your local Renesas Electronics marketing office or distributor with the following information.

The following compiler products 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 version of CS+ which is included with a compiler product might not be the latest version, you may need to upgrade it with reference to 3, Updating Your Product, before using it.

Please refer to the Web pages of the individual products regarding the product names and names for ordering.

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	Oct. 01, 2016	-	First edition issued

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 Renesas Electronics Corporation

■Inquiry

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