

[Upgrade to revision]

R20TS0442EJ0100

Rev.1.00

CS+ Integrated Development Environment V8.02.00

Jul. 16, 2019

## Outline

We have updated the CS+ integrated development environment from V8.01.00 to V8.02.00.

### 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 V4.01.00, V5.00.00, V6.00.00 to V6.01.00, V7.00.00, V8.00.01 and V8.01.00

For checking the version number of CS+, see the following URL.

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

### 2. Main Features of the Update

Following features have been added in CS+ for CC.

- Python console sample script download function  
Target devices: RH850 family, RX family and RL78 family
- Additional components on the Virtual Board panel  
Target devices: RL78 family  
RL78/G10, RL78/G11, RL78/G12, RL78/G13, and RL78/G14 groups

For details about these features, see below.

#### (1) Python console sample script download function

A download function has been added in the [Sample Scripts] tab on the Python console panel, allowing users to download sample scripts which are executable in the Python console.

You can use the downloaded samples as Python scripts. You can also edit these samples and easily create Python scripts that are suitable for your debugging environment.

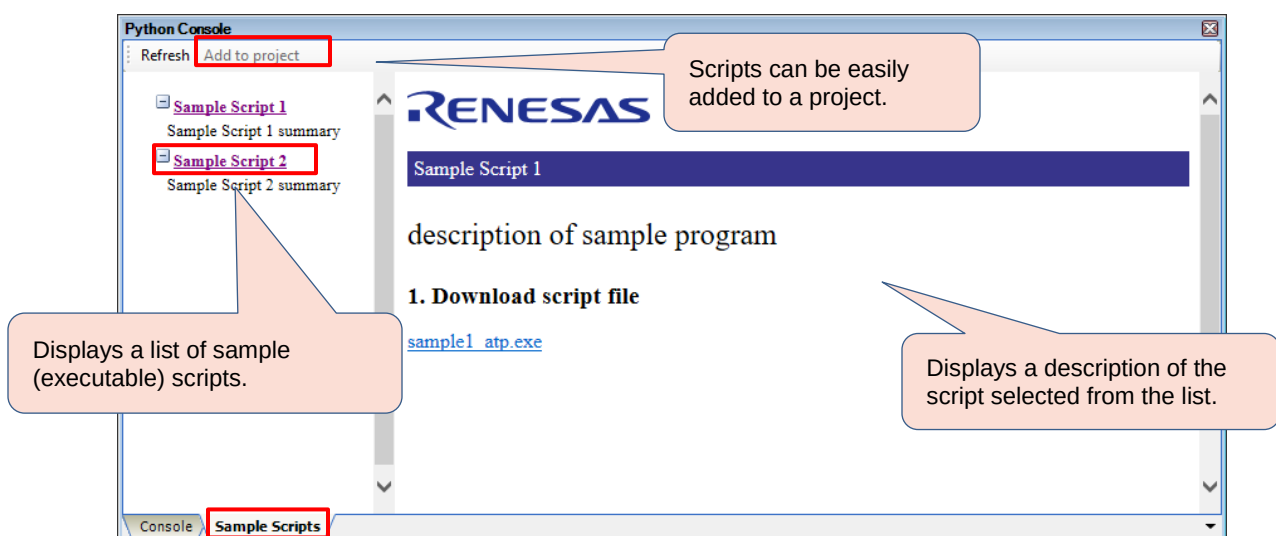


Figure 2-1 Python console panel

The usage instructions are as follows.

- Viewing description of sample scripts on the Python Console panel.

To display the description, follow the steps below.

- (1) From CS+ menu > select [View] > [Python Console].
- (2) On the Python console panel, select the [Sample Scripts] tab.
- (3) Click on the title of a sample script on the [Sample Scripts] tab.
- (4) The description of the selected sample script is displayed.

- Editing sample scripts on the Editor panel

Double-click on a sample script in the project tree to open the Editor panel for editing.

- Adding a sample script to an active project with a single click

Click on the [Add to project] button to add a sample script to an active project.

## (2) Additional components on the Virtual Board panel

Additional components such as the Shading sensor and DC motor are now supported on the Virtual Board panel. You can check the operations of a program that uses the Shading sensor and DC motor on the Virtual Board panel.

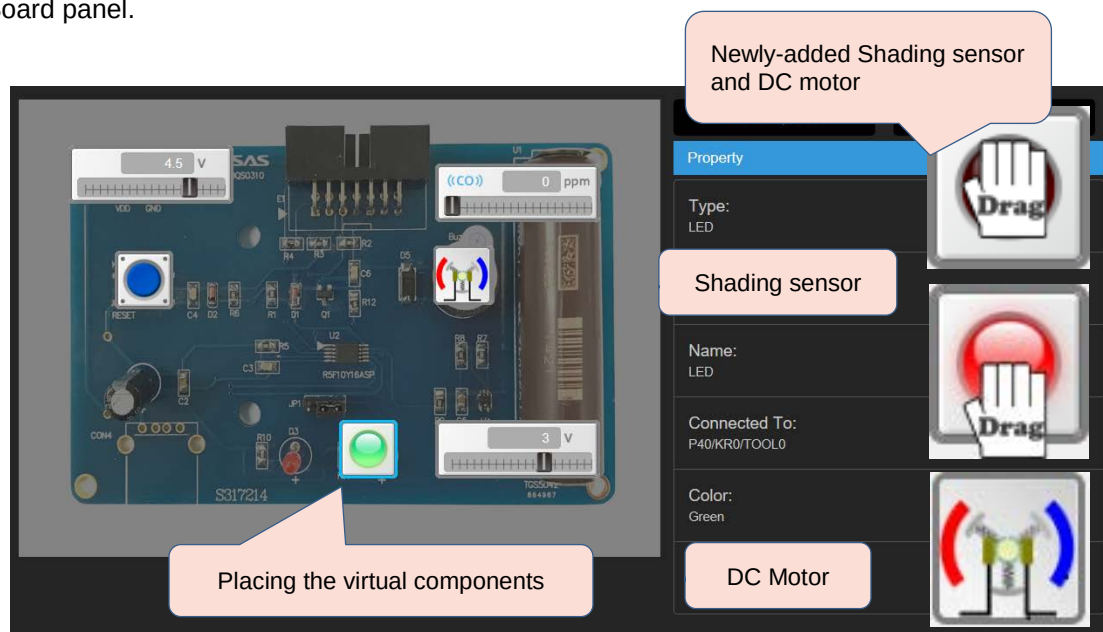


Figure 2-2 Virtual Board panel

### 3. Description of the Update

#### 3.1 CS+ Common Program (Common Program such as Build, Debug and Analysis)

- CS+ for CC (for RX, RH850 and RL78) Common Program has been updated from V8.01.00 to V8.02.00.
- CS+ for CA,CX (for 78K, RL78 and V850) Common Program has been updated from V4.02.00 to V4.03.00.

CS+ for CC V8.02.00 and CS+ for CA,CX V4.03.00 include the following updates.

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

- Microsoft Visual C++ Runtime Library (CS+ operating environment) has been modified.  
Before: Microsoft Visual C++ 2010 SP1 Runtime Library  
After: Microsoft Visual C++ 2015 Update 3 Runtime Library
- To rectify the problem described in RENESAS TOOL NEWS Document number: R20TS0375EJ0100, Microsoft Corporation has released update programs.

1. Contents of the offline help cannot be displayed.

For details about this problem, see the URL below.

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0375>

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

The version has been updated from V8.01.00 to V8.02.00.

Main items of the update are as follows. See the release note for details. (Scheduled to be released on July 22.)

[https://www.renesas.com/cs+\\_document](https://www.renesas.com/cs+_document)

CS+ for CC V8.02.00 Release Note

##### (a) Added features of build tools

- Changed the default values of the properties of the build tool when a project is created.
- Added support for the following versions of the RH850 compiler from Green Hills Software, Inc.
  - 2019.1.5
  - 2018.5.5.

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

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

##### (b) Improved functionalities of debug tools

- Improved the saving of data from memory function
- Improved the operations of the function for executing a specified routine.
- Improved the trace output of the write data for bit manipulation instructions.
- Added support for the following versions of the RH850 compiler from Green Hills Software, Inc.
  - 2019.1.5
  - 2018.5.5

- Updated Instruction Simulator for RX. See the release note for details.  
(Scheduled to be released on July 22.)  
<https://www.renesas.com/cs+ document>  
CS+ Simulator for RX V3.02.00 Release Note
- Updated Instruction Simulator for RL78. See the release note for details.  
(Scheduled to be released on July 22.)  
<https://www.renesas.com/cs+ document>  
Simulator for RL78/G11 V2.00.00 Release Note
- Fixed the following problem in RENESAS TOOL NEWS Document No. R20TS0402EJ0100.  
1. Using the watch panel, local variable panel, and Python console panel  
For details about this problem, see the URL below.  
<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0402>

(c) Improved optimization performance comparison tool

- Improved and extended the results of the measurement panel of the optimization performance comparison tool.

(d) Improved Python console functionalities

- Added new Python functions and extended functionalities of the existing Python functions.
- Fixed the following problem in RENESAS TOOL NEWS Document No. R20TS0405EJ0100.  
1. A load module downloaded by a Python function cannot be debugged normally  
For details about this problem, see the URL below.  
<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ts0405>

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

The version has been updated from V4.02.00 to V4.03.00.

Main item of the update is shown below. See the release note for details. (Scheduled to be released on July 22.)

<https://www.renesas.com/cs+ document>  
CS+ for CA,CX V4.03.00 Release Note

(a) Improved functionalities of debug tools

- Improved operations of the saving of data from memory function.

## 3.2 Code Generators

### 3.2.1 CS+ Code Generator for RL78

The version has been updated from V2.17.00 to V2.18.00.

For details, see the URL below. (The information will be available on July 22.)

- 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

The version has been updated from V8.01.01 to V8.02.00.

V8.02.00 has updated the followings.

##### (1) Addition of supported devices

Support for the following device has been added.

- RH850/E2M

##### (2) Corrected emulator information

The device information of the following series has been corrected.

- RH850/F1K-M group

For details, see the URL below. (The information will be available on July 22.)

[https://www.renesas.com/cs+/eng/CSPlus\\_DevInfo\\_RH850.html](https://www.renesas.com/cs+/eng/CSPlus_DevInfo_RH850.html)

#### 3.3.2 CS+ Device Information for RX Family

The version has been updated from V3.01.01 to V3.02.00.

V3.02.00 includes the following updates.

##### (1) Addition of supported devices

Support for the following device has been added.

- RX72M group

For details, see the URL below. (The information will be available on July 22.)

[https://www.renesas.com/cs+/eng/CSPlus\\_DevInfo\\_RX.html](https://www.renesas.com/cs+/eng/CSPlus_DevInfo_RX.html)

#### 3.3.3 CS+ Device Information for RL78 Family

The version has been updated from V8.01.00 to V8.02.00.

V8.02.00 includes the following updates.

##### (1) Device support removed

The following device is no longer supported.

- RAJ240073

For details, see the URL below. (The information will be available on July 22.)

[https://www.renesas.com/cs+/eng/CSPlus\\_DevInfo\\_RL78.html](https://www.renesas.com/cs+/eng/CSPlus_DevInfo_RL78.html)

### 3.4 Quick and Effective tool solution

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

For details, see the URL below. (The information will be available on July 22.)

[https://www.renesas.com/cs+/eng/CSPlus\\_QE.html](https://www.renesas.com/cs+/eng/CSPlus_QE.html)

### 3.5 CS+ Utilities

The version has been updated from V3.04.00 to V3.05.00.

For details, see the URL below. (The information will be available on July 22.)

[https://www.renesas.com/cs+/eng/CSPlus\\_Uutilities.html](https://www.renesas.com/cs+/eng/CSPlus_Uutilities.html)

### 3.6 Emulator Utilities

Emulator Utilities (CS+ for CA,CX) has been updated from V1.00.06 to V1.01.00.

For details, see the URL below. (The information will be available on July 22.)

[https://www.renesas.com/cs+/eng/CSPlus\\_Emulator\\_Uutilities.html](https://www.renesas.com/cs+/eng/CSPlus_Emulator_Uutilities.html)

## 4. Updating Your Product

Online update is available free of charge. Update method varies depending on the version 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.**

**Note, however, that a license for C Compiler Package for RL78, 78K Family (CA78K0R, CA78K0) cannot lift the restrictions on the CC-RL evaluation edition.**

**You will need to purchase the commercial edition of C Compiler Package for RL78 family (with IDE) V1 (CC-RL) if you wish to lift the restrictions on the CC-RL evaluation edition.**

**Note 2. A license for C Compiler Package for RH850 Family V1 (CC-RH) cannot lift the restrictions on the evaluation edition of C Compiler Package for RH850 Family V2 (CC-RH).**

**If you wish to lift the restrictions on C Compiler Package for RH850 Family V2 (CC-RH), you will need to purchase the commercial edition of C Compiler Package for RH850 Family V2 (CC-RH).**

**Note 3. A license for C/C++ Compiler Package for RX Family V1, V2 (CC-RX) cannot lift the restrictions on the evaluation edition of the C/C++ Compiler Package for RX Family V3 (CC-RX).**

**If you wish to lift the restrictions on C/C++ Compiler Package for RX Family V3 (CC-RX), you will need to purchase the commercial edition of C/C++ Compiler Package for RX Family V3 (CC-RX).**

**Note 4. For details about purchasing products, see section 6.**

### 4.1 For CS+ V3.00.00 or Later

You can update your program by either one of the following methods.

- (1) On the Start menu, select Programs > Renesas Electronics CS+ to start the Update Manager for updating. (The update will be available on July 22.)

**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:

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M0120001

"CubeSuiteW+.exe"

Installation is suspended because "CubeSuiteW+.exe" is running.

It will be resumed next time you start the tool.

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

(The program will be available on July 22.)

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

## 4.2 For CubeSuite+ V2.00.00 to 2.02.00

Update in the same way as in section 4.1.

## 4.3 For CubeSuite+ V1.03.00 or earlier

Download and install the evaluation edition of CS+ for CC V8.02.00 or CS+ for CA,CX V4.03.00 from the URL below. (The program will be available on July 22.)

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

## 5. Evaluation Edition

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

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

(The installer will be available on July 22.)

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

You can use your evaluation edition as a commercial edition by entering a license for CubeSuite, CubeSuite+ or a license for a compiler product when installing the evaluation edition.

**Notes 1. A license for C compiler package for RL78, 78K Family V1 (CA78K0R or CA78K0) cannot lift the restrictions on the evaluation edition of C Compiler Package for RL78 Family V1 (CC-RL).**

**If you wish to lift the restrictions on the evaluation edition of C Compiler Package for RL78 Family V1 (CC-RL), you will need to purchase the commercial edition of C compiler package for RL78 family V1 (CC-RL).**

**Note 2. A license for C Compiler Package for RH850 Family V1 (CC-RH) cannot lift the restrictions on the evaluation edition of C Compiler Package for RH850 Family V2 (CC-RH).**

**If you wish to lift the restrictions on C Compiler Package for RH850 Family V2 (CC-RH), you will need to purchase the commercial edition of C Compiler Package for RH850 Family V2 (CC-RH).**

**Note 3. A license for C/C++ Compiler Package for RX Family V1, V2 (CC-RX) cannot lift the restrictions on the evaluation edition of the C/C++ Compiler Package for RX Family V3 (CC-RX).**

**If you wish to lift the restrictions on C/C++ Compiler Package for RX Family V3 (CC-RX), you will need to purchase the commercial edition of C/C++ Compiler Package for RX Family V3 (CC-RX).**

## 6. Purchasing the Product

CS+ is included in the compiler products. Purchase a compiler product that includes CS+.

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

For product pricing, contact us in the same manner.

The compiler products that 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: CS+ included in compiler products may not be the latest version. You may need to update the version before use according to the instructions in “4. Updating Your Product”.**

CS+ is not included in the compiler product with the annual license. However, you can use it by installing the evaluation edition of CS+ for CC. For downloading the evaluation edition, see section 5.

For details about the products, see the product pages below.

C Compiler Package for RH850 Family: [https://www.renesas.com/rh850\\_c](https://www.renesas.com/rh850_c)

C/C++ Compiler Package for RX Family: [https://www.renesas.com/rx\\_c](https://www.renesas.com/rx_c)

C Compiler Package for RL78 Family: [https://www.renesas.com/rl78\\_c](https://www.renesas.com/rl78_c)

C Compiler Package for V850 Family: [https://www.renesas.com/v850\\_c](https://www.renesas.com/v850_c)

C Compiler Package for RL78 and 78K Families: [https://www.renesas.com/rl78\\_78k\\_c](https://www.renesas.com/rl78_78k_c)

For more information about compiler licenses, see the webpage below.

<https://www.renesas.com/products/software-tools/tools/compiler-assembler/compiler-licenses.html>



## Revision History

| Rev. | Date      | Description |                      |
|------|-----------|-------------|----------------------|
|      |           | Page        | Summary              |
| 1.00 | Jul.16.19 | -           | First edition issued |
|      |           |             |                      |

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