# **RENESAS** Tool News

### RENESAS TOOL NEWS on November 16, 2015: 151116/tn3

## Revision of the RI850V4 V2 Real-time OS for the RH850 Family to V2.01.00

We are revising the RI850V4 V2 Real-time OS for the RH850 Family from V2.00.00 to 2.01.00.

Refer to the URL below for an overview of the RI850V4 Real-time OS for the RH850 Family. https://www.renesas.com/ri850v4\_rh850

- 1. Items Revised
  - (a) Support for the following series of the RH850 Family
    - RH850/C1x series
    - RH850/D1x series
    - RH850/E1x series
    - RH850/F1x series
    - RH850/P1x series
  - (b) Support for floating-point arithmetic features in hardware Since support for this function has been added, the following definition has been added to the system configuration file. DEF\_FPSR (fpsr) // Initial FPSR value
  - (c) Support for the MULTI integrated development environment from Green Hills Software, Inc.
    - Note: When using the MULTI integrated development environment, take the steps below to add the listed compiler options to the project file (sample.gpj) of the sample project (RH850 F1L RI850V4RH and RH850 F1H RI850V4RH).
      - (1) Open sample.gpj as a text file.
      - (2) Add the following two lines as the next lines after -Onolink.
        - -reserve r2
        - -D\_ghs\_

(d) Addition of a feature for detection of matching with output from the configurator (CF850V4)

RI850V4 V2.01.00 OS has dependences on multiple kernel libraries, so a feature has been added to generate a linkage error when a kernel library does not match an information file output from CF850V4 in linkage to create a single load module.

(e) Availability of structure packing

Structure packing is now available through the following options.

- CC-RH compiler for RH850: -Xpack option
- CCV850 from Green Hills Software, Inc.: -pack option
- (f) Ability to embed the RI850V4 V2 OS in processor elements (PEs) With V2.01.00, embedding in a PE can be selected by designating the -peid option of the configurator (CF850V4) for booting. Only embedding in main CPUs was possible with V2.00.00. This makes embedding of the RI850V4 in the performance CPU and in multiple PEs at the same time possible.
- (g) Addition to the kernel library and change in the location where it is stored

A kernel library (libri\_fpu) which supports floating-point arithmetic units (FPUs) has been added. The path to the folder in which the kernel libraries are stored has been changed.

(h) Update of the RTOS Plug-in

The plug-in has been updated in terms of real-time OS build settings, the display of real-time OS resource information, and real-time OS task analysis.

Refer to the following release note for details of the new revision. RH850 Family Real-time OS RI850V4 V2.01.00 Release Notes

- 2. Updating and Ordering
- 2.1 Updating

When you are using the RI850V4 V2, online updating will be available free of charge.

This service will be available from December 7.

Select All Programs -> Renesas Electronics CS+ from the start menu of Windows to start the update manager, and then proceed with updating.

### 2.2 Ordering

To check the prices or order the product, contact your local Renesas

Electronics marketing office or distributor with the following information.

Product name: RI850V4 Model names for ordering: RTRRH8500TR01w\*

\*: The letter w denotes the type of license. It is replaced with the desired string from among those listed below.

For example, the model name for ordering a license to mass-product a product with this OS without limit but where the customer will not require the source code will be RTRRH8500TR01RRRUU.

Type: Terms of agreement

- ERR : Evaluation license, installable on one host computer
- ERRLU : Evaluation license, no limit on number of host computers for installation
- RRRUL : Mass-production license, allowing embedding in up to 3,000 devices, without the source code
- RRRUU : Mass-production license, unlimited embedding, without the source code

SRRUU : Mass-production license, unlimited embedding, with the source code

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