RENESAS Tool News

E7 Emulator Software Upgraded to V.2.3.01

We have upgraded emulator software for on-chip debugging emulator E7 from V.2.1.00 to V.2.3.01.

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1. **Functions Introduced to and Improved in the High-performance Embedded Workshop**
   (The High-performance Embedded Workshop has been upgraded to V.3.01.01 at this time.)

   1.1 The following functions introduced

   (1) Two functions in the Workspace window: one for sorting files displayed in the Projects tab of the window in the order of modified date and time; and another for identifying the files to build (those having been modified since the last build) by the specified color of their icons.

   (2) A function for customizing linking order: this function, however, is effective only when your tool chain (a compiler package) supports it.

   (3) A function for displaying a virtual desktop: it can keep a maximum of four window statuses and switch between them by menu commands or buttons on the toolbar (a virtual desktop function).

   (4) A function for direct displaying the source file presently indicated by the program counter: on the toolbar has been added a button that opens the above source file at the top of the overlaid windows and displays its lines.

   (5) A function for automatically backing up workspaces, projects, and session files periodically.

   1.2 The following functions improved or expanded

   (1) The Watch window improved: the variables entered in the Watch window are held after closing the window.

   (2) the Set Sections dialog box improved: the size of the Set Sections dialog box has been made variable. (This dialog box can be opened by clicking its button in the

tool-chain options dialog box.)

(3) Functions concerning the address field improved: the latest 20 items of data entered in address fields can be displayed on a drop-down list and, in addition, a function for browsing the label list to enter labels in address fields introduced.

(4) Makefile generation function expanded: makefiles in the GNUMake file format can be generated in addition to the HMake and NMake file formats; as well as compile options can be output to a sub-command file.

(5) The function for saving windows' contents expanded: the contents displayed in the I/O, PA, and Register windows can be saved as text files.

(6) The function for downloading load modules expanded: an option has been introduced to download modified source files after building them automatically; also another option is available for resetting the target programs after downloading load modules.

(7) The function for customizing display formats expanded: by this expansion, fonts and sizes of characters can be customized in many windows.

2. **Descriptions of Upgrade for Supporting the R8C/Tiny Series MCUs**

2.1 Functions Introduced and Improved

(1) R8C/12, /13 group MCUs supported
A total of 12 MCUs shown below have become supported.
R5F21102, R5F21103, R5F21104, R5F21112, R5F21113, R5F21114
R5F21122, R5F21123, R5F21124, R5F21132, R5F21133, and R5F21134

(2) A function for block-reprogramming Flash memory introduced
Flash memory can be erased and reprogrammed block by block when it is reprogrammed (including when a program is downloaded to it).

(3) A function for writes to the DataFlash area supported (R8C/12 and /13 groups only)
Downloading to and reprogramming in the DataFlash area are supported as well as the UserFlash area.

(4) The function for placing the emulator program improved in the R5F21124 and R5F21134 MCUs coming with DataFlash memory
At launching the E7, the UserFlash or DataFlash area is selectable for placing the emulator program.

(5) Variables of type long long supported
Setting and Referencing variables of type long long are allowed in the Watch

window of the High-performance Embedded Workshop.

2.2 Problems Fixed

The following problems have been fixed:

(1) A problem on opening source files using the Editor window of the High-performance Embedded Workshop
For details, see RENESAS TOOL NEWS "A Note on Using E7 Emulator Software" issued on April 1, 2004.

(2) A problem on verifying IEEE695-formatted files: because the High-performance Embedded Workshop does not support the function for verifying IEEE695-formatted files, the IEEE695_RENESAS, IEEE695_IAR, and IEEE695_TASKING formats have been deleted from the format list in the Verify Memory dialog box (*).

NOTE:

* This dialog box can be seen by opening the File menu and selecting Verify Memory command.

(3) Three problems on using the Watch window

a. The contents of a symbol cannot correctly be displayed when it is expanded.

b. The High-performance Embedded Workshop is unsuccessfully terminated when symbols of an array or pointer of type char are expanded and then edited.

c. The value of a variable of type enum cannot correctly be set or referenced in the Watch window when the size of the variable is set to 1 byte using a compiler option.

3. **How to Upgrade the Current Product**
Please download the upgraded product without charge from **HERE**.