

RENESAS TOOL NEWS on October 16, 2004: RSO-H8C-041016D

Renesas C/C++ Compiler Packages for the H8, H8S, and H8SX families Revised to Their V.6.00 Release 03

We have revised the C/C++ compiler packages for the H8, H8S, and H8SX families from V.6.00 Release 02 to V.6.00 Release 03.

1. Descriptions

1.1 Functions Improved and Introduced

- (1) In the Windows version of the integrated development environment High-performance Embedded Workshop, directory information on include files has hitherto been output to a Make file using relative path expressions if the nesting level of include files is ten or less. In this revision, the maximum value of the nesting level of include files expressed in relative paths is extended from 10 to 50. (If a nesting level is larger than 50, the include files are expressed in absolute paths.)
- (2) In the optimizing linkage editor introduced the Data_stuff option:
This option reduces unused areas within the same section that have been brought at each compilation by adjusting the section's boundaries, which minimizes the size of the data area.

1.2 Problems Fixed

1.2.1 In the Windows version of the High-performance Embedded Workshop

The following problems have been fixed:

- (1) When memory maps displayed:
 - o The Map command is not provided in the Memory menu.
 - o The memory map of "Linker section setting" does

not appear in the Map window.

- (2) On the virtual desktop when a starting address for displaying a Memory window is specified in the window configuration, the display of the window is started from an incorrect address.
- (3) If a project that contains source files written in assembly language is opened with the navigation function activated, the automatic analyses of the navigation function will not terminate.
For details, see RENESAS TOOL NEWS "A Note on Using Integrated Development Environment High-performance Embedded Workshop--On the Navigation Function" issued on July 16, 2004.
- (4) If the last label in ASCII order is searched for using the search function* in the Label window, the error message "LABEL NOT FOUND" appears.
* This function becomes available by following these steps: Right-click an unoccupied area in the Label window. You see a pop-up menu appears. Then select the Search command in this menu.
- (5) If multiple-step execution is discontinued and then the program is executed in the usual way, the STOP button on the toolbar for manually stopping the program stays not illuminated, which may disable the manual stopping of the program.
At the same time, such operations of the High-performance Embedded Workshop may not be managed as closing the workspace by selecting the File -> Close Workspace command or ending the application by selecting the File -> Exit command.
For details of items (5), see RENESAS TOOL NEWS "A Note on Using Integrated Development Environment High-performance Embedded Workshop--On Discontinuing Multi-Step Execution" issued on August 16, 2004.
- (6) Using the Open Workspace command in the interface of the High-performance Embedded Workshop's server function* may cause an application error to arise.
* For details of the High-performance Embedded Workshop's server function, see HewServer Document on the online manual(Manual Navigator).

- (7) If load modules written in the ELF/DWARF2 format are downloaded and the source file containing them is displayed in the Source window, the addresses of the source lines in which no program statements are written may incorrectly be provided.
For details, see RENESAS TOOL NEWS "A Note on Using Integrated Development Environment High-performance Embedded Workshop--On Debugging Load Modules Written in ELF/DWARF2 Format" issued on August 16, 2004.
- (8) Context-sensitive help menus may be unavailable when the following tabs are selected in their respective dialog boxes:
- (a) The Build and Editor tabs in the Options dialog box
 - (b) The Toolbars, Placeholders, Debugger, Log, and Help tabs in the Customize dialog box
 - (c) The Options tab in the Debug Settings dialog box

1.2.2 In Compilers

- (1) When members of a bit field are assigned to or referenced by addresses, they may be interpreted as illegal objects.
For details, see [HERE](#).

1.2.3 In Assemblers

- (1) If a structured assembly directive in which no size is specified exists in the program, error "(E) 300 ILLEGAL MNEMONIC" arises.
For details, see [HERE](#).
- (2) If any instruction other than the one-word instructions is used as an instruction for a delay slot, error "(E) 150 INVALID DELAY SLOT INSTRUCTION" is not provided.
For details, see [HERE](#).

1.2.4 In the Optimizing Linkage Editor

- (1) By optimization at linking, debug information (line information) is incorrectly edited and displayed in the debugger. This problem may occur if the following conditions are all satisfied:
- 1. The "debug" and "goptimize" options are selected as compiler options.
 - 2. Some types of optimization at linking are effective.
 - 3. By these optimizations, lines of debug information are output at regular

intervals of 255.

(2) In an object file generated by the assembler, illegal optimization is performed for sections not to be optimized. This problem may occur if the following conditions are all satisfied:

1. In the source file is used a PC index relative instruction (BRA Rn.B/W/L or BSR Rn.B/W/L).
2. At assembling the source file in 1, the assembler's goptimize option is used.
3. A relocatable file is generated by linking the object file obtained in 2.
4. At linking the relocatable file in 3, optimization is enabled.

(3) If an absolute file generated by using the "optimization with the same-code unification" option is input to the "helfcnv" file formatting converter, the G2003 error arises.

This problem may occur if the following conditions are all satisfied:

1. The "debug" and "goptimize" option are selected as compiler options.
2. The "optimization with the same-code unification" (optimize=same_code) is enabled.

2. How to Revise Your Product

2.1 For Windows Version

Online revision is available free of charge. Please download the revised product from **HERE**.

2.2 For Solaris Version or HP-UX Version

Free-of-charge revision is available. Please contact your local Renesas Technology sales office or distributor with the following items of information:

Product Type	Solaris Version or HP-UX Version
Version No.	V.6.00
Release No.	Release 03

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