RENESAS Tool News

RENESAS TOOL NEWS on April 1, 2006: RSO-SHC_1-060401D

The C/C++ Compiler Package for the SuperH RISC Engine Family Revised to V.9.00 Release 04

We have revised the C/C++ compiler package for the SuperH RISC engine Family from V.9.00 Release 03 to V.9.00 Release 04.

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1. **Product Concerned**
   The SuperH RISC engine family C/C++ compiler packages V.9

2. **Descriptions of Revision**

   2.1 **Functions Introduced**

   2.1.1 To the Compiler
   The following two warning messages have been introduced:

   Message: C1402 (W) #pragma "identifier" ignored

   Meaning: Direction of #pragma "identifier" is ignored.

   Message: C1800 (W) Variable "variable name" type mismatch in files

   Meaning: The type of the variable is not the same in two files.
   Deselect the file_inline option.

   2.1.2 To the Optimizing Linkage Editor

   (1) The SEction_forbid option has been

introduced. This option suppresses optimization section by section.
For details of the function of this option, see the document "The new feature of Optimizing Linkage Editor V.9.01", which is included with the product.

(2) The function of the STARt option has been extended, and a notation of "()" introduced.
For details of the function of this option, see the above document.

(3) An option, optimize=register, to optimize code for saving and restoring registers has been introduced. This option is available for objects created for SH-2A-cored MCUs.

2.2 **Problems Fixed**

2.2.1 In the High-performance Embedded Workshop (Windows edition only)

The High-performance Embedded Workshop included with the compiler package has been updated to V.4.00.03, and the known three problems resolved.
For details see RENESAS TOOL NEWS No. RSO-HEW-051001D, published on October 1, 2005.

2.2.2 In the Compiler

The following problems have been fixed:

(1) The 11 problems described in RENESAS TOOL NEWS No. RSO-SHC_1-051101D, published on November 1, 2005.
For details of these problems, see Renesas Tool News.

(2) The 2 problems described in RENESAS TOOL NEWS No. RSO-SHC-051116D, published on November 16, 2005.
For details of these problems, see Renesas Tool News.

(3) The 12 problems described in RENESAS

TOOL NEWS No. RSO-SHC-060301D, published on March 1, 2006.
For details of these problems, see Renesas Tool News.

(4) The 4 problems described in RENESAS TOOL NEWS No. RSO-SHC_2-060401D, published on April 1, 2006.
For details of these problems, see Renesas Tool News.

(5) The unfixed problem described in Section 2.3 in RENESAS TOOL NEWS No.RSO-SHC-050801D, published on August 1, 2005.
For details of the problem, see Renesas Tool News.

(6) The problems that may cause C4098 and C4099 internal errors to arise.

(7) The problem that generates incorrect code of the OCBWB instruction when include function ocbwb() used.

2.2.3 In Assembler

The following problems have been fixed:

(1) When the .FDATA assembler directive takes either of the following as its operand, no errors arise but incorrect data is generated.

(a) floating-point number + (integer + floating-point number)

(b) Any operation except arithmetic ones

(2) When the operand of .FDATA has an unary minus, incorrect data is generated.

(3) When the operand of .FDATA satisfies all of the following conditions, an error arises though they are correct conditions.

(a) It consists of floating-point number + (floating-point number + floating-point number)

(b) It contains the precision of the first floating-point number.

(c) The exponent part of the first floating-point number is omitted.

2.2.4 In the Optimizing Linkage Editor

The following problems have been fixed:

(1) Optimization of saving and restoring registers using the optimize=register option generates incorrect object code.

Conditions:

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

(a) A C/C++ source file contains a switch statement.

(b) After compilation, one or more MOVA instructions are generated within the assembly code of a function containing a switch statement*.

(c) The goptimize option is selected at compilation.

(d) An option, optimize=register, to optimize code for saving and restoring registers is valid at linking.

* The instructions generated by compilation can be seen in the compile list file (.lst). To create a compile list, select the list and show=object options at compilation.

(2) Internal errors may arise.

Conditions:

This problem may occur if any of the following conditions is satisfied:

(a) The .EQU label is in the assembly

source file, and linkage optimization is valid (internal error: L4001).

(b) The output file is divided by specifying the address range using the "output" option (internal error: L4000-5560).

(c) The optimization of linker is valid when relocatable files (.rel) are input. (internal error: L4000-8150).

(d) The optimization of linker is valid with the program sections being described in the "rom" option of the linker (internal error: L4000-8151).

3. How to Update Your Product and Purchase the Revised One

3.1 Free-of-Charge Update

Free-of-charge update is available if you are using the edition concerned.

(1) For Windows edition
To update yours online, download the update program from Download site and execute it.

(2) For Solaris and HP-UX edition
Supply the following items of information to your local Renesas Technology sales office or distributor. We will send you the latest version of the product package by return:

Edition: Solaris or HP-UX
Version No.: V.9.00
Release No.: Release 04

3.2 Ordering Information

If you place an order for any of the editions, please supply

the following items of information to your local Renesas Technology sales office or distributor:

Edition: Windows, Solaris, or HP-UX
Version No.: V.9.00
Release No.: Release 04
Host OS:

- Windows XP, Windows Me, Windows 98, Windows 2000, or Windows NT 4.0 (Windows edition)
- Solaris 2.5, or Solaris 8 (Solaris edition)
- HP-UX 10.2 (HP-UX edition)

For the prices of the product, also contact the above.

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