

RENESAS TOOL NEWS on October 20, 2011: 111027/tn2

C/C++ Compiler Package for SuperH RISC engine Family Revised to V.9.04 Release 01

We have revised the C/C++ compiler package for SuperH RISC engine family of MCUs from V.9.04 Release 00 to V.9.04 Release 01.

For an overview of the C/C++ compiler package for SuperH RISC engine family, visit the Web site at:

<http://www.renesas.com/shc>

The above URL is one of our global sites.

1. Product to Be Updated

C/C++ Compiler Package for SuperH RISC engine family V.9

2. Descriptions of Revision

2.1 High-performance Embedded Workshop

The High-performance Embedded Workshop included in the compiler package has been updated from V.4.08.00 to V.4.09.00. For details of the update, see RENESAS TOOL NEWS Document No. 110316/tn1 on the Web page at:

<http://tool-support.renesas.com/eng/toolnews/110316/tn1.htm>

2.2 Optimizing Linkage Editor

The following options have been introduced:

(1) aligned_section

Changes the number of alignment of the specified section to 16 bytes link by link.

(2) binary=<section's attribute>

Defines the section's attribute of binary data.

2.3 Compiler

The following problems have been resolved:

(1) Seven problems reported in RENESAS TOOL NEWS Document No. 111027/tn1

For details of these problems, see at:

<http://tool-support.renesas.com/eng/toolnews/111027/tn1.htm>

1. Problem with using the `-global_volatile=1` option (SHC-0082)
2. Problem with referencing the address of the function whose name is the same as that of a local static variable (SHC-0083)
3. Problem with performing bitwise OR (`|`) operation of `-1` or bitwise AND (`&`) operation of `0` with a function call or a volatile-qualified variable (SHC-0084)
4. Problem with executing a loop containing the conditional operator or an if statement with a loop counter (SHC-0085)
5. Problem with updating the value of the variable referenced in a loop containing the conditional operator or an if statement by using any statement except an assignment one (SHC-0086)
6. Problem with using the function that accesses both a parameter to be saved on the stack and the stack area reserved in the function within the same control block (SHC-0087)
7. Problem with referencing an array element of type `char` twice or more times in a function (SHC-0088)

(2) Problem with the C4000, C4098, and C4099 internal errors

(3) Three problems arising in the standard library functions

- (3-1) When `_IONBF` is used as a buffer management system, the last of the character string of the argument is not outputted but remains in the stream buffer.

This problem may arise if any of the following functions is used:

`fprintf`, `printf`, `vfprintf`, `vprintf`, `fputc`, `fputs`,
`putc`, `putchar`, and `puts`

- (3-2) When an error arises in the IO file passed to the following functions as an argument, the following functions are not performed properly:

- `fclose` : Does not close the IO file.
- `fwrite` : Returns the number of characters different from the one written to the IO file.

- (3-3) If option `-reent` is used in the library generator, functions do not become reentrant. This problem arises if any of the following functions is used:

`fclose`, `fflush`, `freopen`, `setbuf`, `setvbuf`, `fprintf`,
`fscanf`, `vfprintf`, `fgetc`, `fgets`, `fputc`, `fputs`, `getc`,
`putc`, `ungetc`, `fread`, `fwrite`, `fseek`, `ftell`, `rewind`,

clearerr, feof, ferror, and perror

2.4 The Optimizing Linkage Editor

The following problem has been fixed:

- Problem with the L4000 internal error

3. Updating Your Product and Ordering Revised One

3.1 Updating

Online update is available free of charge. To update yours, use either of the following:

- (1) Use AutoUpdate Utility. This service will be available on and after October 27, 2011.

- (2) Download the update program of the product from the Web site at:

http://www.renesas.com/shc_download

Then execute it. The program will be published on this site on October 27.

The above URL is one of our global sites.

3.2 Ordering

When you place an order for the product, supply the following items of information to your local Renesas Technology marketing office or distributor:

Product type: C/C++ compiler package for SuperH RISC engine family

Version No.: V.9.04

Release No.: Release 01

Host OS: Windows(R) 7, Windows Vista(R), Windows(R) XP

NOTICE: The 64-bit editions of Windows Vista(R)
and Windows(R) XP are excluded.

For the price of the product, also contact the above marketing office or distributor.

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