

To our customers,

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## Old Company Name in Catalogs and Other Documents

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On April 1<sup>st</sup>, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

Send any inquiries to <http://www.renesas.com/inquiry>.

(Note)

These problems were fixed by H8S,H8/300 Series C/C++ compiler package Ver.4.0.05.

Please download the update program from the following URL.

[http://www.renesas.com/fmwk.jsp?cnt=/upgrades\\_h8v4005.jsp&fp=/support/downloads/download\\_results/C2002301-C2002400](http://www.renesas.com/fmwk.jsp?cnt=/upgrades_h8v4005.jsp&fp=/support/downloads/download_results/C2002301-C2002400)

## **HITACHI SEMICONDUCTOR TECHNICAL UPDATE**

DATE	14 February 2002	No.	TN-CSX-032A/E
THEME	H8S,H8/300 Series C/C++ compiler Package Ver.4.0, Ver.4.0A Updates		
CLASSIFICATION	<input checked="" type="checkbox"/> Spec. change <input type="checkbox"/> Limitation on Use <input type="checkbox"/> Supplement of documents		
PRODUCT NAME	PS008CAS4-MWR PS008CAS4-SLR PS008CAS4-H7R	Lot No. etc.	Ver4.0, Ver.4.0R1, Ver.4.0A Ver4.0AR1, Ver.4.0AR2
REFERENCE DOCUMENT	PS008CAS4-020131E (attached)	Effective Date	Eternity
		From	

The patch to fix problems in H8S,H8/300 series C/C++ compiler Package Ver.4.0, Ver4.0R1, Ver. 4.0A, Ver.4.0AR1 or Ver.4.0AR2 is released.

Make contact with sales office if you have a UNIX version.

If you have a PC version, you can download the patch from the URL below.

<http://www.hitachisemiconductor.com/sic/jsp/japan/eng/pdf/mpumcu/tool/cross/updater/v4bpatch.exe>

A user who has the following product should be notified.

H8S,H8/300 series C/C++ compiler Package Ver. 4.0 , Ver. 4.0R1, Ver.4.0A, Ver.4.0AR1, or Ver.4.0AR2.

Attached:

“H8S,H8/300 series C/C++ compiler Package Ver. 4.0B Updates”

(PS008CAS4-020131E) , 2 page

H8S,H8/300 series C/C++ compiler Ver4.0B  
Updated

This update program will fix following problems.

#### 1 Compiler (Ver.4.0A -> Ver.4.0B)

##### 1.1 Illegal debugging information of a structure size

Fixed the problem in which the debugging information is illegal when the structure size is 256 bytes or more.

##### 1.2 Illegal debugging information (line information)

Fixed the problem in which the debugging information is illegal when the number of include files in a file exceeds 256.

##### 1.3 Illegal reference of a parameter value in an endless-loop function

Fixed the problem in which the reference code of the parameter is illegal when there is a parameter for passing a stack in a function including an endless loop.

##### 1.4 Illegal code in passing an address parameter

Fixed the problem in which the code is illegal when the `-stack=small` is specified and an address for a local variable is described as a function parameter.

##### 1.5 Illegal align of the ABS16 section

When a section that does not exist in the current file is specified with a section address operator, the align of a section that the section name starts with "\$abs16" was changed from 1 to 2.

##### 1.6 Missed CONST attribute of the C++ initial value

Fixed the problem in which the initial value is not static and a substitution expression is generated when a constant address is specified for the initial value of the structure alignment in the C++ program.

##### 1.7 Illegal error of the #pragma section

Fixed the problem in which the 5987 error is illegally output when a section name including "\_" is specified for #pragma section in the C++ program.

##### 1.8 Changing the dummy section attribute starting with P

When a section that is specified by a section address operator does not exist in the file, the section attribute of size 0 that is automatically generated by the compiler was changed from "always DATA" to "a section starting with P should be CODE".

#### 2 Assembler (Ver.4.0B -> Ver.4.1)

##### 2.1 Illegal relocation

Fixed the problem in which the relocation is illegal for the symbol reference position defined by symbol: `.EQU $` when `goptimize` option is specified.

#### 3 Standard Library Generator(Ver.1.0A -> Ver.1.0.02)

##### 3.1 Incorrect option specified to the new library

Fixed the problem in which the `ecpp` option is always specified in generating though the contents of the new library changes depending on the `ecpp` option.

#### 4 Format converter (Ver.1.0B -> Ver1.0C)

##### 4.1 Illegal line information after changing an assembly section

Fixed the problem in which the line information is illegal after section change when a section of an object file is changed in an assembly file.

##### 4.2 Illegal align of the section

Fixed the problem in which the 2003 error is illegally output when the ELF/DWARF2 file is changed for ELF/DWARF1 or SYSROF.

##### 4.3 Illegal symbol-allocation address in an object without debugging information

Fixed the problem in which a symbol address is illegal in an object without debugging information when there are objects with/without debugging information in an absolute file.

#### 5 Optimizing linkage editor (Ver.7.0A -> Ver7.1)

##### 5.1 Adding options

The `compress` option was added to specify whether or not the debugging information is compressed.

## 5.2 Fixed internal errors

The following internal errors were fixed.

(1703) "File:oc\_updat.cpp Line:5496 /This IDisp is Limit Over" /"oc\_update\_jsrdsp()"  
(1704) "File:oc\_updat.cpp Line:6129 /This IDisp is Limit Over" /"oc\_update\_movdsp()"  
(3061) "File:dw\_arng.cpp Line:209 /Cannot find relocation table" /"DWArangeList::createArange()"  
(3081) "File:dw\_loc.cpp Line:191 /Illegal address size" /"createLocation()"  
(8090) "File:in\_devtb.cpp Line:9177 /Unexpected table end(add,sub,mov...etc..)" /"in\_lastcode\_chk\_SH"  
(8833) "File : ca\_updat.cpp Line : 3163 /The contents of the OFFINF\_SH->LITRINF table are not literal data." /"ca\_update\_Add\_Literal\_Operation"  
(8870) "File:oc\_updat.cpp Line:10251 /Position is NULL" /"OBF\_AT"  
(8874) "File:oc\_serch.cpp Line:2583 /Position is NULL" /"SUB\_AT"

## 5.3 Error at creating a library

Fixed the folloing problem.

The error "L3310 (F) Cannot open temporary file" occurs and no library is created when a standard library generator for UNIX is used and when HLNK\_DIR is specified at generating a standard library.

## 5.4 Illegal linking of absolute address sections

Fixed the problem in which an object is illegal when an absolute address section of size 0 is linked with the same name after the absolute address section.

## 5.5 Illegal execution with goptimize option

Fixed the problem in which the execution is illegal when there is a relationship that calls a function with the goptimize option from functions without (including an assembly function) and with the goptimize option.

## 5.6 Illegal branch width for a symbol

Fixed the problem in which the branch width for a symbol created by optimizing the common code is illegal when the following conditions are satisfied at the same time.

[conditions]

- (1) The goptimize option is specified in an input object.
- (2) A code section is specified as an operand of the rom option.
- (3) Optimize is specified at linking.

## 5.7 Deleting an illegal symbol

Fixed the problem in which a symbol is illegally deleted when the following conditions are satisfied at the same time.

[conditions]

- (1) A code exists to refer to an object without goptimize option from an object with goptimize option.
- (2) ENTRY is specified.
- (3) Deleting unreferred variables and functions is optimized (at specifying optimize=symbol\_delete).

## 5.8 Illegal save/retrieve register

Fixed the problem in which the register saving or retrieving code is illegally optimized when a function that is defined next from a function in the same C source.