

[Notes]

R20TS0488EJ0100

Rev.1.00

Oct. 01, 2019

C Compiler Package for RH850 Family

Outline

When using the C compiler package for RH850 family CC-RH, note the following point.

1. #pragma block_interrupt directive (No.27)

* The number after the note is the note's identification number.

1. #pragma block_interrupt Directive (No.27)

1.1 Applicable Products

CC-RH V1.07.00 to V2.01.00

1.2 Details and Conditions

A function that disables interrupts in the entire function by using the "#pragma block_interrupt" directive closes without releasing the interrupt-disabled state.

1.3 Examples

Below is an example of the error.

```
#pragma block_interrupt fun
void fun(){
    ...
}
```

[Assembly source when the phenomenon occurs]

```
_fun:
    .stack _fun = 0
    di
    ...
    jmp [r31]
    ei ; <- The location of this instruction is invalid.
```

1.4 Workaround

At the exit of the function, use a built-in function "__EI()" that releases the interrupt-disabled state.

If the function has multiple exits, all the exits must have "__EI()".

```
#pragma block_interrupt fun
void fun(){
    ...
    __EI();          /* <- Add a built-in function that releases the interrupt-disabled state */
}
```

[Assembly source after the workaround is applied]

```
_fun:
    .stack _fun = 0
    di
    ...
    ei          ;<- An instruction to release the interrupt-disabled state is generated.
    jmp [r31]
    ei
```

1.5 Schedule for Fixing the Problem

This problem will be fixed in the next version. The release date has not yet been determined.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Oct.01.19	-	First edition issued

Renesas Electronics has used reasonable care in preparing the information included in this document, but Renesas Electronics does not warrant that such information is error free. Renesas Electronics assumes no liability whatsoever for any damages incurred by you resulting from errors in or omissions from the information included herein.

The past news contents have been based on information at the time of publication. Now changed or invalid information may be included.

URLs in Tool News also may be subject to change or become invalid without prior notice.

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu, Koto-ku, Tokyo 135-0061 Japan
www.renesas.com

Contact information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit:
www.renesas.com/contact/

Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.