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()".

```c
#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]

```assembly
_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

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<td>Oct.01.19</td>
<td>-</td>
<td>First edition issued</td>
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