

RENESAS TOOL NEWS on February 16, 2016: 160216/tn2

Note on Using the C Compiler Package for RL78 Family

When using the CC-RL C Compiler package for the RL78 Family, take note of the problem described in this note regarding the following point.

 Designating a member of a packed structure or union in an initializing declaration (CCRL#007)

Note: The number which follows the description of the precautionary note is an identifying number for the precaution.

1. Applicable Products
CC-RL V1.00.00 to V1.02.00

2. Description

When packing of structures and unions is designated, the initializers of variable declarations for the members of structures or unions may lead to an error with the following code.

- E0562332: Relocation value is odd number: "file"-"section"-"offset"

3. Conditions

void func(void)

This problem may arise if both of the following conditions are met.

- (1) The -pack option is designated.
- (2) The initializer of a declaration of a structure or union member in an area having the static attribute includes the (.) operator to indicate the member.

```
Example: The -pack option is designated

char c1;

struct _st1 {

    short s1;
} st1;
```

```
volatile short tmp = st1.s1; /* condition (2) */
}
Example of output code:
  .SECTION .textf,TEXTF
func:
  .STACK func = 6
  push hl
  movw ax, !LOWW(_st1); Access to an odd-numbered address
  movw [sp+0x00], ax
  pop hl
  ret
  .SECTION .bss,BSS
c1:
  .DS (1)
st1:
  .DS (2)
```

4. Workaround

Separate the declaration and initializer of the member variable.

```
Example of the workaround:
```

```
void func(void)
{
   volatile short tmp; /* variable declaration */
   tmp = st1.s1; /* initializer */
}
```

5. Schedule for Fixing the Problem

This problem will be fixed in the next version.

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