[Notes]

C Compiler CA78K0R for RL78 Family and 78K0R,

C Compiler CC78K0R for 78K0R,

C Compiler CA78K0 and CC78K0 for 78K0

Outline

When using the C compiler CA78K0R for RL78 family and for 78K0R, C compiler CC78K0R for 78K0R, and C compiler CA78K0 and CC78K0 for 78K0, note the following point.

1. When the declaration of a structure tag, union tag, or enumeration tag exists in a function

1. When the Declaration of a Structure Tag, Union Tag, or Enumeration Tag Exists in a Function

1.1 Applicable Products

➢ CA78K0R V1.70 to V1.72 (CS+ integrated development environment)

➢ CA78K0R V1.20 to V1.70 (CubeSuite+ integrated development environment)

➢ CA78K0R V1.00 to V1.10 (CubeSuite integrated development environment)

➢ CC78K0R V1.00 to V2.13 (PM+ integrated development environment)

➢ CA78K0 V1.30 (CS+ integrated development environment)

➢ CA78K0 V1.20 to V1.21 (CubeSuite+ integrated development environment)

➢ CA78K0 V1.00 to V1.11 (CubeSuite integrated development environment)

➢ CC78K0 V1.00 to V4.10 (PM+ integrated development environment)

1.2 Details

When the declaration of a structure tag, union tag, or enumeration tag exists in a function, the debug tool may not operate properly, as follows.

(1) A created load module cannot be downloaded to the debug tool.

(2) When the symbol of a structure, union, or enumeration declared with tags is used, the watch panel, memory panel, and Python console do not work properly.

1.3 Conditions

This problem arises if all of the following conditions are met in the same compilation unit:

(1) The -ng compile option to suppress debug information output is not specified.

(2) A structure tag, union tag, or enumeration tag is declared in a function.

(3) The tag of (2) is used only by variables declared with extern.

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(4) One of the following conditions is met.

(4-1) Definition or provisional definition of external variables exists.

(4-2) Definition of the callt function exists.

(4-3) An interruption vector table defined by using the #pragma vect/interrupt/rtos_interrupt directive exists.

(4-4) Prior to (3), functions or variables in different compilation units are referenced.

(4-5) The following conditions (a) and (b) are met.

(a) A structure tag, union tag, or enumeration tag other than that of (2) is declared in a function.

(b) The tag of (a) is used only by variables declared with extern.

1.4   Example

The following is an example of the problem. Characters in red are the parts that correspond to the conditions.

[C source]

```
/* -ng is not specified for the compile option*/    /* Condition(1) */
unsigned char uc1;                                  /* Condition(4-1) */
void func(void)
{
    struct _st {
        unsigned char muc1;
        unsigned char muc2;
    };                                              /* Condition(2) */
    extern struct _st st1;                          /* Condition(3) */
    st1.muc2 = uc1;
}
```

1.5   Workaround

To avoid this problem, perform the following operation:

- Move the declaration of the structure tag, union tag, or enumeration tag out of the function.

1.6   Schedule for Fixing the Problem

We do not plan to make modifications.

Revision History

Rev.	Date	Page	Summary
			Description
1.00	Mar. 1, 2018	-	First edition issued

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