RENESAS Tool News

A Note on Using C compiler M3T-NC30WA V.5.10 Release 1

Please take note of the following problem in using the M3T-NC30WA C compiler (with an assembler and integrated development environment) for the M16C/60, M16C/30, M16C/20, and M16C/10 series MCUs:

- On calling functions by using the indirection operator

1. **Description**

   Calling a function using the indirection operator results in incorrect code being generated.

2. **Conditions**

   This problem occur if the following three conditions are satisfied:

   (1) Either of the optimizing options -OR and-OS is selected.

   (2) Immediately before the ending process of a function A, another function B is called using an indirection operator.

   (3) A pointer variable pointing to function B is declared outside of function A.

3. **Example**

   ```
   ----------------------------------------------------------
   void (*sub)(void);  /* Condition (3) */
      :
   void func(void)
   {
      :
    (*sub)();       /* Condition (2) */
   }
   ----------------------------------------------------------
   ```

4.

Workaround

Place a dummy asm function immediately after calling a function using the indirection operator.

```
---------------------------------------------------------
  void (*sub)(void);
     :
  void func(void)
  {
    :
   (*sub)();
   asm();        /* A dummy asm function inserted */
  }
---------------------------------------------------------
```

5. ## Schedule of Fixing the Problem
   We plan to fix this problem in our next release of the product.