RENESAS Tool News

RENESAS TOOL NEWS [RSO-M3T-NC308WA-030616D]

A Note on Using C Compilers M3T-NC308WA and M3T-NC30WA

Please take note of the following problem in using the M3T-NC308WA and M3T-NC30WA C compilers (with an assembler and integrated development environment):

- On displaying the values of arguments passed to a function

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1. **Products and Versions Concerned**

   M3T-NC308WA V.5.10 Release 1
   for the M32C/80 and M16C/80 series MCUs
   M3T-NC30WA V.5.10 Release 1
   for the M16C/60, M16C/30, M16C/20, and M16C/10 series MCUs

2. **Description**

   The values of arguments passed to a function through a register may not correctly be displayed in the emulator debugger or simulator debugger. However, codes are created correctly.

3. **Conditions**

   The conditions under which this problem occurs are as follows:

   In the M3T-NC308WA
   The type of the first argument of a function is _Bool, char, int, or near pointer. (The arguments of these types are all passed to functions through registers.)

   In the M3T-NC30WA
   The type of the first argument of a function is _Bool, char, int, or near pointer; or that of the second argument is int or near pointer. (The arguments of these types are all passed to functions through registers.)

4. **Example**

   In the program shown below, the value of argument i cannot correctly be displayed in the debugger.

```
-------------------------------------------------------
  void func(int i, char c)  // 1st argument is of type int
  {
    :
  }
-------------------------------------------------------
```

5. **Workaround**

   This problem can be circumvented by performing the following steps:

   (1) Add storage class "register" to the argument displayed incorrectly.
   (2) Select the -fER/-fenable_register option at compilation.

```
-------------------------------------------------------
  void func(register int i, char c)
  {
     :
  }
-------------------------------------------------------
```

6. **Schedule of fixing the Problem**

   We plan to fix this problem in our next release of the products.
