RENESAS Tool News

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A Note on Using C-Compiler Packages M3T-NC308WA and M3T-NC30WA

--On Passing a Pointer or Address to a Function as an Argument--

Please take note of the following problem in using the M3T-NC308WA and M3T-NC30WA C-compiler packages (these C-compiler packages are used for the M16C family of MCUs):

- On passing a pointer or address to a function as an argument

1. **Products and Versions Concerned**
    - M3T-NC308WA V.5.20 Release 02
      (for the M32C/90, M32C/80 and M16C/80 series)
    - M3T-NC30WA V.5.30 Release 02
      (for the M16C/60, M16C/30, M16C/20, M16C/10, M16C/Tiny and R8C/Tiny series)

2. **Description**
   When making a call to a function that takes a pointer as an argument, a warning message may be displayed even if a correct type of argument is passed to the function.

   2.1 Conditions

   This problem occurs if the following conditions are all satisfied:

   (1) The parameter of a function to call is a pointer type not qualified with "const".

   (2) The argument of the function in (1) is a pointer or address qualified with "const".

   (3) The type pointed to by the pointer qualified with "const" in (2) is the same as the one pointed to by the pointer in (1).

   2.2 Example

```
-------------------------------------------------------------
void  subr2( int * );      /* Conditions (1) and (3) */
```

```
extern int   var;
int * const  p = &var;      /* Conditions (2) and (3) */

void  mainr2(void)
{
    subr2( p );          /* Condition (2) */
}
-----------------------------------------------------------------
```

3. Workaround

Explicitly convert the type of the argument to that of the parameter using the cast operator.

```
-----------------------------------------------------------------
void  subr2( int * );

extern int   var;
int * const  p = &var;

void  mainr2(void)
{

    subr2( (int*)p );       /* Cast operator used */
}
-----------------------------------------------------------------
```

4. Schedule of Fixing the Problem

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

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