A Note on Using the C Compiler Package for the 740 MCU family

Please take note of the following problem in using the C compiler package for the 740 MCU family:

- With using variables of type unsigned char in the controlling expression of a for or while statement

1. Product and Versions Concerned
   C compiler package for the 740 family (M3T-ICC740)
   V.1.00 Release 1 through V.1.01 Release 02

2. Description
   If variables of type unsigned char are used in the controlling expression of a for or while statement, the result of operation and the number of looping may become incorrect.

3. Conditions
   This problem may occur if either of the following conditions is satisfied:
   **(1) In the for statement**
   Variables of type unsigned char are used in any operation performed in the reset expression within the for statement except the one using the ++ or -- operator.

   **(2) In the while statement**
   Variables of type unsigned char are used in any operation performed in the continuation conditional expression within the while statement except the one using the ++ or -- operator.

Example:
```
unsigned char i, j;
```
for( i = j; i > 9; i = i - 9 ) {
    . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
}

--------------------------------------------------------------------

4. Workaround

Replace the variables of type unsigned char used in the operation in 3-(1) or -(2) above with those of type that excludes unsigned char for example unsigned short or signed char.

Example:

unsigned short i, j;  /* unsigned short used */

for( i = j; i > 9; i = i - 9 ) {
    . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
}

--------------------------------------------------------------------

5. Schedule of Fixing the Problem

Sorry we have no plan to fix this problem. So avoid it using the method explained in 4 above.

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