

A Note on Using the C Compiler Packages for the M16C MCU Family --With Expressions Comprising Ten or more Addition Operators--

Please take note of the following problem in using the C compiler packages for the M16C MCU family:

- With expressions comprising ten or more addition operators
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1. Products and Versions Concerned

- (1) The C compiler package for the M32C series*1 (M3T-NC308WA)
V.1.00 Release 1 through V.5.20 Release 1
- (2) The C compiler package for the M16C series*2 (M3T-NC30WA)
V.1.00 Release 1 through V.5.30 Release 1

*1. Generic name of the M32C/90, M32C/80, and M16C/80 series

*2. Generic name of the M16C/60, /30, /20, /10, /Tiny, and R8C/Tiny series

2. Description

When in the source program exists an expression that comprises ten or more addition operators and their operands, compiling the program may cause an application error to arise.

3. Conditions

This problem may occur if the following conditions are all satisfied:

- (1) An expression comprises ten or more addition operator (+) and their operands.
- (2) Every operand in the expression (1) is a variable.
- (3) One or more optimizing options are selected.

NOTICE:

When the host PC is provided with memory capacity sufficient to secure the stack size used by the compiler during compilation, this problem not arise if all the above conditions are satisfied.

The generated code is correct as long as an application error doesn't occur.

Example:

```
-----  
void func(void)  
{  
    int array[11];  
    int i;  
    i = array[0] + array[1] + array[2] + array[3] + array[4] +  
        array[5]+ array[6]+ array[7]+ array[8]+ array[9]+ array[10];  
}  
-----
```

4. Solution

This problem has already been fixed in the following versions:

- (1) The C compiler package for the M32C series V.5.20 Release 02 and later
- (2) The C compiler package for the M16C series V.5.30 Release 02 and later

So use the latest version of each package.

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