

## 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 defining array-type variables
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### 1. Products and Versions Concerned

M3T-NC308WA V.5.00 Release 1 and V.5.10 Release 1  
for the M32C/80 and M16C/80 series

M3T-NC30WA V.5.10 Release 1 and V.5.20 Release 1  
for the M16C/60, M16C/30, M16C/Tiny, M16C/20, M16C/10, and R8C/Tiny series

### 2. Description

If two or more array-type external variables with the same name are defined, incorrect code may be generated at compilation without interpreting it as an error.

### 3. Conditions

This problem occurs if the following two conditions are satisfied:

- (1) Two or more array-type external variables with the same name are defined.
- (2) The array-type variables in (1) are different from each other in the number of elements.

### 4. Examples

Example 1

```
-----  
extern char a[10];  
char a[20];  
-----
```

### Example 2

```
-----  
char b[10];  
extern char b[20];  
-----
```

### Example 3

```
-----  
char c[10];  
char c[20];  
-----
```

In these examples, the code for reserving a 10-byte RAM area is generated for each of the variables *a*, *b*, and *c* without interpreting them as errors. (To each variable necessary memory is allocated to accommodate the number of elements declared at first.)

## 5. Workaround

Define two or more array-type variables with the same name such a way that their numbers of elements are the same.

### Example 1

```
-----  
extern char a[20];  
char a[20];  
-----
```

### Example 2

```
-----  
char b[20];  
extern char b[20];  
-----
```

### Example 3

```
-----  
char c[20];  
char c[20];  
-----
```

## 6. Schedule of Fixing the Problem

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

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