RENESAS Tool News

RENESAS TOOL NEWS on June 16, 2008: 080616/tn5

A Note on Using the C Compiler Package for the M16C MCU Family
--With Using the strcmp Function--

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

- With using the strcmp function

---

1. Product and Versions Concerned

C compiler package for the M16C series (M3T-NC30WA)
V.3.10 Release 1 through V.5.44 Release 00

2. Description

If the two parameters of the strcmp function are both the near pointers or the near pointers with parameters to auto variables or the addresses and the two character strings pointed to by the parameters of the function are quite the same from beginning to end including the NULL characters, the character strings may be compared running over the NULL characters.

2.1 Conditions

This problem occurs if the following conditions are all satisfied:
(1) Compile options -O5 and -OS are both used.
(2) The strcmp function is declared.
(3) The two parameters of the strcmp function in (2) are both the near pointers or the near pointers with parameters to auto variables or the addresses of auto variables.
(4) The two character strings pointed to by the parameters in (3) are quite the same from beginning to end including the NULL characters.

2.2 Example

```
------------------------------------------------------------------------
```

```
int  strcmp(const char _far *s1, const char _far *s2);

int func(char* p1, char* p2)
{
   return strcmp(p1, p2);
}

void xxx(void)
{
   char str1[] = "abcd¥0";
   char str2[] = "abcd¥0";

   int i;
   i = func(str1, str2);
}
```

---

3. Workaround

Use either compile option -O5 or -OS.

4. Schedule of Fixing the Problem

We plan to fix this problem in the next release of the product concerned.
