RENESAS Tool News

A Note on Using the C Compiler Package for the M16C Series and R8C Family of MCUs

When you use the C compiler package for the M16C series and R8C family of MCUs, take note of the following problem:

- With the definitions of interrupt vector functions of UART1

1. Product and Versions Concerned

The C compiler package for the M16C series and R8C family
V.5.42 Release 00 and later

2. Description

When you create a C startup file in a new workspace by using High-performance Embedded Workshop, and if you select any of the MCU groups listed below from among the CPU Groups list, and select the use of an on-chip emulator, the interrupt vector functions of UART1 defined in the created C startup file, intprg.c, cannot be compiled. (See NOTE.)

MCU groups involved:
  (1) In the M16C series, M16C family
       M16C/56D, /5LD, /63, /64A, /65, /6B3, /6B4, and /6C groups
  (2) In the R8C/3x and R8C/Lx series, R8C family
       - R8C/33T, /34C, /35A, /35C,
          /36C, /36E, /36G, /36W, /36Y,
          /38C, /38G, /38W, /38Y,
          /3JC, /L35C, /L36C, /L38C, /L3AA, and /L3AC groups

NOTE:
   When systems designed with various types of MCUs are debugged by using the E8a on-chip debugging emulator, usually this emulator uses UART1 exclusively. So the definitions of interrupt vector functions of UART1 have been made disabled if the use of the E8a is selected.

However, for the MCUs belonging to the MCU groups involved, the E8a does not use UART1 exclusively, so UART1 can be used while the E8a is operating.

2.1 Conditions

This problem arises if a new workspace is created by following these steps:
(1) "C source startup Application" is selected as a project type.
(2) Select any of the MCU groups involved from among the CPU Groups list.
(3) Select the Use OnChip Debugging Emulator check box.

3. Workaround

We supply the device file updater V.1.07 specific to the C compiler package for the M16C series and R8C family of MCUs (M3T-NC30WA) so that you can resolve this problem. For how to obtain this product, see RENESAS TOOL NEWS Document No. 101116/tn2.
This item of news is also accessible at:
   https://www.renesas.com/search/keyword-search.html#genre=document&q=101116tn2
The Web page will be opened on December 6.
After the device file updater V.1.07 has been installed, the problem-fixed intprg.c file is created in the new workspace.

In existing workspaces, replace their intprg.c files with those created after the device file updater V.1.07 has been installed.