RENESAS Tool News

Notes on Using the Real-Time OS HI7000/4

Please take note of the following problems in using the real-time OS HI7000/4, which supports the SuperH RISC engine family of MCUs evolved from the SH-1, SH-2, SH2-DSP, SH-2E (excluding FPU version), SH-2A, and SH2A-FPU cores:

- On using SH-1-cored MCUs
- On using sample programs

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1. ## Problem on Using SH-1-Cored MCUs

    1.1   Versions Concerned
           HI7000/4 V.2.01 Release 00--V.2.02 Release 01

    1.2   Description
           If a service call that handles variable-size memory pools
           is made by using the new method* of managing them in
           any SH-1-cored MCU, a general invalid instruction
           exception may happen in the kernel, which prevents the
           system from operating normally.

        * To use this new method, open the Modification of
           Variable-Size Memory Pool Information dialog box in
           the configurator, and check the new method
           [CFG_NEWMPL] check box. For details of the new
           method, see the "Variable-Size Memory Pool" section
           in the user's manual.

    1.3   Workaround
           Don't use the new method of managing variable-size
           memory pools; that is, don't check the CFG_NEWMPL
           check box.

    1.4   Schedule of Fixing the Problem

We have no plan to fix this problem. It is a restriction imposed on all the SH-1-cored MCUs.

2. Problem on Using Sample Programs

2.1   Versions Concerned
HI7000/4 V.2.02 Release 00 and later

2.2   Description
A unified sample program "kernel_exp.src" (interrupt and exception processing routines) has been included with the HI7000/4 V.2.02 Release 00 and later instead of the previous two files of "nnnn_expent.src" and "nnnn_intdwn.src".
So use "kernel_exp.src" in the HI7000/4 V.2.02 Release 00 or later.