RENESAS Tool News

RENESAS TOOL NEWS [August 1, 2003: RSO-M3T-MR32R-030801D]

A Note on Using Real-Time OSes M3T-MR32R

Please take note of the following problem in using the M3T-MR32R real-time OSes for the M32R family MCUs:

- On using the chg_pri and ichg_pri system calls for changing the priority of a task

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1. **Versions Concerned**
   M3T-MR32R V.3.40 Release 1 and V.3.50 Release 1

2. **Description**
   Using the chg_pri or ichg_pri system call may cause a write to an indefinite address to occur. As a result arises such a symptom that a task in a waiting state joins a READY queue, and the program may not run properly.

3. **Conditions**
   This problem may occur if the chg_pri or ichg_pri system call is issued to change the priority of a task in any of the following waiting states (including WAIT-SUSPEND states). Note, however, that when a task issues the above system call to change its own priority, the problem will not arise.
   - The waiting state produced by dly_tsk, tslp_tsk, or slp_tsk
   - The state of waiting for an event flag
   - The state of waiting for a message
   - The state of waiting for a semaphore
   - The state of waiting for the reception to a message buffer
   - The state of waiting for the transmission from a message buffer
   - The state of waiting for the reception of a Rendezvous
   - The state of waiting for the call of a Rendezvous
   - The state of waiting for the end of a Rendezvous
   - The state of waiting for the acquisition of a variable-length memory pool
   - The state of waiting for the acquisition of a fixed-length memory pool

4. **Workaround**
   Change the priority of a task in the READY or RUN state only.

5. **Schedule of Fixing the Problem**
   We plan to fix this problem in our next release of the product.
