

RENESAS TOOL NEWS on November 16, 2007: 071116/tn1

# Notes on Using the Real-Time OS--HI1000/4-- for the H8SX and H8S MCU Families

Please take note of the following problems in using the real-time OS-- HI1000/4--for the H8SX and H8S MCU families:

- With issuing the chg\_pri service call
- With issuing the ter\_tsk service call

## 1. Product and Versions Concerned

Product: HI1000/4

Versions: V1.0.05, V1.0.06, V.1.01 Release 00, V.1.02 Release 00,

V.1.03 Release 00 and V.1.04 Release 00

#### 2. Problems

# 2.1 With Issuing the chg\_pri Service Call

When the chg\_pri service call is issued, execution of scheduled tasks may be retarded, or other symptoms arise.

#### **Conditions:**

This problem may occur if the following conditions are all satisfied:

- (1) The maximum mutex ID is zero (CFG\_MAXMTXID is set to 0 in the configurator).
- (2) An interrupt (including the timer interrupt) is requested during execution of the chg\_pri service call.
- (3) The interrupt or cyclic handler invoked by the interrupt in (2) above causes any of the following:
  - (a) The service call that transitions the task to the READY state is issued.
  - (b) The irot\_rdq service call is issued.
  - (c) A task waiting is timed out by a timer interrupt, or the dly\_tsk delay is completed.

# 2.2 With Issuing the ter\_tsk Service Call

When the ter\_tsk service call is issued, execution of scheduled tasks may be retarded, or other symptoms arise.

#### **Conditions:**

This problem may occur if the following conditions are all satisfied:

- (a) The mutex function is used.
- (b) A service call with timeout is issued.
- (c) A task exists which waits for the timeout after the mutex function is locked.
- (d) A task exists which waits for the mutex in (c) itself.
- (e) The ter\_tsk service call is issued to the task in (c), and during execution of this service call, an interrupt is requested.
- (f) A service call that terminates the wait in (c) is issued during the interrupt handling in (e).

### 3. Solution

Update yours free of charge to the latest version, HI1000/4 V.1.05 Release 00, which will be released on our Web site on and after December 5.

For details of the update, see RENESAS TOOL NEWS Document No. 071116/tn2, "The Real-Time OS--HI1000/4--for the H8SX and H8S MCU Families Revised to V.1.05 Release 00," published in this series of news on the Web page at

http://tool-support.renesas.com/eng/toolnews/071116/tn2.htm (available on and after December 5, 2007).

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