

Notes on Using the Real-Time OSes HI7750/4, HI7700/4, HI7000/4 and HI1000/4

Please take note of the following problems in using the real-time OSes HI7750/4, HI7700/4, HI7000/4 and HI1000/4:

- On setting the value of timer interrupt priority level CFG_TIMINTLVL
- On reading files not supported

NOTES:

- HI7000/4: for the SH-1, SH-2, SH2-DSP, SH2A, and SH2A-FPU
- HI7700/4: for the SH-3, SH-3-DSP, and SH4AL-DSP
- HI7750/4: for the SH-4 and SH-4A
- HI1000/4: for the H8Sx family

1. Problem on Setting the Value of Timer Interrupt Priority Level (CFG_TIMINTLVL)

1.1 Products and Versions Concerned

Product	Versions
HI7750/4	V1.00r1, V1.01r1, V1.0Ar1, V1.0Br1, V1.0Cr1, and V1.1.00
HI7700/4	V1.00r1, V1.01r1, V1.0Ar1, V1.0Br1, V1.0Cr1, V1.1.00, V1.2.00, V1.3.00, V.1.03 Release 01, and V.1.03 Release 02
HI7000/4	V1.00r1, V1.01r1, V1.0Ar1, V1.0Br1, V1.0Cr1, V1.0.04, V1.0.05, V.2.00 Release 00, V.2.00 Release 01, and V.2.00 Release 02

1.2 Description

The configurator may output an incorrect value of the timer interrupt priority level TIM_LVL to the kernel_macro.h file.

As a result, if the TIM_LVL value is greater than the value of the kernel interrupt mask level hi_knlmsklvl outputted to the kernel_cfg_main.h file, the kernel will not perform its functions properly. Note that the configurator outputs the kernel

interrupt masking level (CFG_KNLMSKLVL) to hi_knlmsklvl.

1.3 Condition

This problem occurs if the kernel interrupt masking level (CFG_KNLMSKLVL) is modified to a smaller value than the timer interrupt priority level (CFG_TIMINTLVL), and the Configuration File Creation command is executed with no Time Management Function view being displayed.

1.4 Workaround

Display the Time Management Function view before executing the Configuration File Creation command.

1.5 Schedule of Fixing the Problem

For the HI7000/4 V.2, we plan to fix this problem in the next release. For the others, we have no plan to fix it, so circumvent it as described in 1.4 above.

2. Problem on Reading Files Not Supported

2.1 Products and Versions Concerned

Product	Versions
HI7750/4	V1.00r1, V1.01r1, V1.0Ar1, V1.0Br1, V1.0Cr1, and V1.1.00
HI7700/4	V1.00r1, V1.01r1, V1.0Ar1, V1.0Br1, V1.0Cr1, V1.1.00, V1.2.00, V1.3.00, V.1.03 Release 01, and V.1.03 Release 02
HI7000/4	V1.00r1, V1.01r1, V1.0Ar1, V1.0Br1, V1.0Cr1, V1.0.04, and V1.0.05
	Only if Condition (2) satisfied: V.2.00 Release 00, V.2.00 Release 01, and V.2.00 Release 02
HI1000/4	Only if Condition (2) or (3) satisfied: V.1.0.05, V.1.0.06, and V.1.01 Release 00

2.2 Description

Either of the following problems may occur if files not supported are read:

- The configurator abnormally shuts down.
- HCF files are not properly saved so they cannot be read into the configurator.

2.3 Conditions

This problem occurs if any of the following conditions is satisfied:

- (1) A file other than HCF files is opened.

- (2) First, a page that contains an object list is displayed (for example, the semaphore page). Then, a file not supported is opened with one or more objects being entered in the object list (at this time, the error message saying " Unexpected file format" appears). Lastly changes are made to the entry information of the object list.
- (3) First, a page that contains an object list is displayed (for example, the semaphore page). Then, a file not supported is opened with one or more objects being entered in the object list. At this time, the error message saying " Unexpected file format" appears. However, operations are continued neglecting the message to save the HCF file.

If Condition (1) or (2) is satisfied, the configurator abnormally shuts down. And if Condition (3) satisfied, the HCF file is not properly saved so it cannot be read into the configurator.

2.4 **Workaround**

Don't open files not supported.

2.5 **Schedule of Fixing the Problem**

For the HI7000/4 V.2 and HI1000/4 we plan to fix this problem in the next release of these products.

For the others, we have no plan to fix it, so circumvent it as described in 2.4 above.

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