RENESAS Tool News

RENESAS TOOL NEWS on April 1, 2013: 130401/tn4

Note on Using Renesas Peripheral Driver Libraries for RX210/RX630 Groups of MCUs and Peripheral Driver Generator --With Using Main Clock as System Clock--

When using Renesas Peripheral Driver Libraries for the RX210 and RX630 groups of MCUs and Peripheral Driver Generator, take note of the following problem:

- With using main clock as system clock

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1. Products and Versions Concerned

- RX210 Group Renesas Peripheral Driver Library V.1.01
- RX630 Group Renesas Peripheral Driver Library V.1.00
- Peripheral Driver Generator V.2.03 and later

2. Description

If the conditions (1) and (2) in Section 3 are satisfied in their respective products, the main clock is temporarily stopped. If the CPU is running from the main clock (or PLL), this will cause the CPU to stop. The reason is that the Main Clock Oscillator enable bit of the main clock is once set to Oscillation Stop in the functions in Section 3 to stop the main clock.

3. Conditions

(1) In Renesas Peripheral Driver Library

A call is made to the R_CGC_Set function with "PDL_CGC_CLK_MAIN" being passed as the first argument to the function.

(2) In Peripheral Driver Generator

Calls are made to the R_PG_Clock_Set and R_PG_Clock_WaitSet functions that are created by selecting Main clock oscillator in the Internal clock source drop-down list on the right pane of the System tab.

4. Workaround

4.1 In RX210 Group Renesas Peripheral Driver Library

Pass "PDL_CGC_CLK_MAIN" as the first argument to the R_CGC_Set function after switching the system clock once to any clock source except the main and PLL clocks by using the R_CGC_Set and R_CGC_Control functions; then make a call to the R_CGC_Set function.

4.2 In Peripheral Driver Generator

After switching the system clock once to any clock source except the main and PLL clocks by using the R_CGC_Set and R_CGC_Control functions of Renesas Peripheral Driver Library; then make calls to the R_PG_Clock_Set and R_PG_Clock_WaitSet functions of Peripheral Driver Generator.

4.3 In RX630 Group Renesas Peripheral Driver Library

This problem has already been fixed in RX630 Group Renesas Peripheral Driver Library V.1.10. So use this product.

V.1.10 has been released on April 1, 2013.
The revised sample program will be published in the Web page on April 5.
For details, see RENESAS TOOL NEWS Document No. 130401/tn7.

You can also see this news on the Web page at:

https://www.renesas.com/search/keyword-search.html#genre=document&q=130401tn7

This page will be opened on April 8.

5. Schedule of Fixing Problem

In RX630 Group Renesas Peripheral Driver Library V.1.10, we have already fixed this problem as described above.
As to the other products, RX210 Group Renesas Peripheral Driver Library and Peripheral Driver Generator, we plan to fix this problem in their later version.
