RENESAS Tool News

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Renesas Peripheral Driver Library for RX210 Group Revised to V.2.10

We have revised Renesas Peripheral Driver Library for RX210 Group from V.2.00 to v.2.10.

For an overview of the product, go to:
https://www.renesas.com/driver/rpdl

1. Descriptions of Revision

1.1 Conformed to user's manual Rev.1.50 for RX210 group of MCUs

The library functions have been updated conforming to the specifications of the latest user's manual Rev.1.50.

1.2 Options and functions added

Options and functions are added or modified as shown in (1) through (4) below so that the realtime clock (RTC) module can continue counting during warm start processing.

(1) Addition and Modification of Options in Clock Generation Circuit Setting Function Corresponding to RTC Clock Source Settings
A new argument (ninth argument) has been added to the clock generation circuit setting function (R_CGC_Set) with the option to set "sub-clock oscillator waiting time".
The clock setting processes for cold start and warm start have been modified.

(2) Addition and Modification of Options in Clock Generation Circuit Control Function Corresponding to RTC Clock Source Settings
The "RTC initialization control" option has been added to the third argument of the clock generation circuit control function (R_CGC_Control).
In addition, the following options have been deleted from the second argument.

- HOCO frequency option
  "High-speed on-chip oscillator frequency control"
- Main clock oscillator type 1 option
  "Main clock oscillator drive type 1 control"
- Main clock oscillator tyoe 2 option
  "Main clock oscillator drive type 2 control"
- Sub-clock oscillator drive control option
  "Sub-clock oscillator drive control"

(3) Deletion of Options from RTC Generation Function
The "RTC use control" option, which is used when the RTC is not used, has been deleted from the first argument of the RTC creation function (R_RTC_Create).

(4) Addition of RTC Creation Function for Warm Start
A new RTC creation function (R_RTC_CreateWarm) has been added to be used for warm start.

(5) Addition of Option to 16-Bit Timer Pulse Unit (TPUa) Creation Function
The "Timer start/stop" option has been added to the second argument of the TPUa creation function (R_TPU_Create).

(6) Modification and Addition in TPUa Control Functions
The TPUa control function (R_TPU_Control) has been changed to the channel control function (R_TPU_ControlChannel).
A new function for controlling the unit (R_TPU_ControlUnit) has been added.

1.3 Addition of library with debugging information

A library with debugging information has been added. This library enables the debug of the Renesas Peripheral Driver at the source-code level.

1.4 Problems fixed

The following two problems have been fixed.

(1) With Using an External Clock in the 16-bit Timer Pulse Unit (TPUa)
For details of the problem, see RENESAS TOOL NEWS Document No. 130901/tn3 at:
https://www.renesas.com/search/keyword-search.html#genre=document&q=130901tn3

(2) With Using Multi-Function Timer Pulse Unit 2 (MTU2), the 8-bit Timer (TMR), and the Serial Communications Interface (SCI) of Products in 145-pin and 144-pin Packages
For details of the problem, see RENESAS TOOL NEWS Document

No. 140116/tn4 at:
https://www.renesas.com/search/keyword-search.html#genre=document&q=140116tn4

Note that in the above problem (2), some problems have not been fixed yet in this version. For details, refer to the table below.
They will be fixed in a later version of the product.

Table: List of pin-function assignments which are not supported by the MPC of products in 145-pin and 144-pin packages

Module/Function	Channel	Pin function	Pin to which assignment is not supported
Multi-Function Timer Pulse Unit 2 (MTU2)	3	MTIOC3C	P56
	3	MTIOC3D	P81
	4	MTIOC4A	P82
	4	MTIOC4C	P83

1.5 Other changes

For the other changes, refer to the Revision History in the Renesas Peripheral Driver Library User's Manual.

2. Precaution

There is a restriction on this product. For details, refer to the following URL:
https://www.renesas.com/search/keyword-search.html#genre=document&q=140516tn2
This site will be opened on May 20, 2014.

3. Obtaining Library

Download the sample program of Renesas Peripheral Driver Library for RX210 Group from the following web page:
https://www.renesas.com/mw/rpdl_app_notes
Document Title: RX210 Group Renesas Peripheral Driver Library

This sample program will be published on this web page on May 20, 2014.