RENESAS Tool News

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Note on Using Code Generator for RX Family Managed by CubeSuite+

When using CubeSuite+ Code_Generator for RX, the code generator for the RX Family managed by CubeSuite+, take note of the following problem:

- With setting of the multi-function timer pulse unit (MTU) and 16-bit timer pulse unit (TPU) (target: RX111 and RX64M groups)
 - 1. Product and Version Concerned CubeSuite+ Code_Generator for RX V1.02.00
 - 2. MCUs Involved RX111 and RX64M groups of MCUs (RX family)
 - 3. Description

In some cases, required code for setting the TGRC and TGRD registers is not output to the create function that is generated in response to setting up the multi-function timer pulse unit (MTU) or 16-bit timer pulse unit (TPU) (see NOTE below).

NOTE:

For products of the RX111 group, the 16-bit timer pulse unit (TPU) is not included among the items for setting.

4. Conditions

The problem arises if either of the following conditions is met:

- (1) "PWM mode 1" is selected for either "MTU3" or "MTU6" (see NOTE below) while "Multi-Function Timer Pulse Unit (MTU)" is selected in the tree view.
- (2) "PWM mode 1" is selected for "MTU3" while "16-Bit Timer Pulse Unit (TPU)" is selected in the tree view.

NOTE:

For products of the RX111 group, "MTU6" is not included among the items for setting of the multi-function timer pulse unit (MTU).

5. Workaround

Add code for setting the TGRC and TGRD registers to the create function.

Example:

```
For a product of the RX111 group, "PWM mode 1" is used for "MTU3"
while "Multi-Function Timer Pulse Unit 2" is selected in the tree view
and the values below are set in the fields for PWM output settings.
 - Initial of compare match A value (TGRA) = 100
 - Initial of compare match B value (TGRB) = 100
 - Initial of compare match C value (TGRC) = 100
 - Initial of compare match D value (TGRD) = 100
_____
void R_MTU2_U0_Create(void)
{
. . . . . . . . . . . .
  /* Channel 3 is used as PWM1 mode */
  MTU3.TCR.BYTE = _00_MTU_PCLK_1 | _00_MTU_CKEG_RISE |
           00 MTU CKCL DIS;
  MTU3.TGRA = _0064_TGRA_VALUE;
  MTU3.TGRB = 0064 TGRB VALUE;
  MTU3.TGRC = 0x64; //0x64 in hexadecimal is 100 in decimal.
                //Add code for setting the TGRC register.
  MTU3.TGRD = 0x64; //Add code for setting the TGRD register.
. . . . . . . . . . . .
}
```

Schedule for Fixing the Problem
 This problem will be fixed in the next version of CubeSuite+
 Code_Generator for RX.

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