RENESAS Tool News

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A Note on Using Peripheral Driver Generator V.2.01

When you use Peripheral Driver Generator V.2.01, take note of the following problem:

- With capturing values of the timer general registers (TGRs) in the multifunction timer pulse unit 2 (MTU2)

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1. Description

In Peripheral Driver Generator V.2.01, if you make the setting for using the multifunction timer pulse unit 2 (MTU2) of an MCU of the RX62N group, a function for capturing values of the timer general registers (TGRs), R_PG_Timer_GetTGR_MTU_Um_Cn, is generated for each m and n. Here, m, a unit number, is 0 or 1; and n, a channel number, is 0, 1, 2, 3, . . . , or 11.

To the function for channel n, any of the following is passed as one of its arguments:

(1) Corresponding to a TGR that exists on channel n and whose value is captured:
a pointer pointing to the area where the value of the TGR is stored

(2) Corresponding to a TGR that exists on channel n and whose no value is captured:
a zero

(3) Corresponding to a TGR that does not exist on channel n:
a zero

For details of this function, see the RX62N Group Peripheral Driver Generator Reference Manual.

Here, the following problem arises: if a 0 is passed as the argument in (2), the value of the TGR in (1) cannot be captured. (If a 0 is passed only as the argument in (3), this problem does not arise.)

2. Example

When the value of timer general register A (TGRA) in channel 0 is captured:

```
------------------------------------------------------------
 uint16_t tgr_a;
 R_PG_Timer_GetTGR_MTU_U0_C0(
    &tgr_a,  /* argument in section 1(1) */
    0,       /* argument in section 1(2) */
    0,       /* argument in section 1(2) */
    0,       /* argument in section 1(2) */
    0,       /* argument in section 1(2) */
    0        /* argument in section 1(2) */
 );
------------------------------------------------------------
```

3. Workaround

Do not pass a 0 to the function as the argument for a TGR that exists in the channel involved, but pass a pointer for storing the value.
Example:

```
------------------------------------------------------------
uint16_t tgr_a, tgr_b, tgr_c, tgr_d, tgr_e, tgr_f;
R_PG_Timer_GetTGR_MTU_U0_C0(
   &tgr_a,
   &tgr_b,
   &tgr_c,
   &tgr_d,
   &tgr_e,
   &tgr_f
);
------------------------------------------------------------
```

4. Schedule of Fixing the Problem

We plan to fix this problem in Peripheral Driver Generator V.2.02.

be included. The URLs in the Tool News also may be subject to change or become invalid without prior notice.