

[Notes]

R20TS0162EJ0100

Rev.1.00

Apr. 16, 2017

e² studio Code Generator Plug-in, AP4 Coding Assistance Tool for RZ

Outline

When using the products in the title, note the following point.

1. Prohibition of reading from and writing to registers protected from programming by mistake in multi-function timer pulse unit 3 (MTU3a)

1. Prohibition of Reading from and Writing to Registers Protected from Programming by Mistake in Multi-function Timer Pulse Unit 3 (MTU3a)

1.1 Applicable Products

- V4.0.0.26 of e² studio (V2.0.0 and later versions of the Code Generator plug-in)
- V1.00.00 and later versions of the AP4 coding assistance tool for RZ

1.2 Applicable MCUs

- RZ family: RZ/T1 group

1.3 Details

When MTU3, MTU4, MTU6, or MTU7 is used in multi-function timer pulse unit 3 (MTU3a), access to registers/counters protected from programming by mistake cannot be set to be disabled because the procedure that clears the RWE bit of the timer read/write enable register (TRWERA or TRWERB) is incorrect.

1.4 Workaround

Correct the processing that clears the RWE bit of the timer read/write enable register (TRWERA, TRWERB) in the following function.

The red text is the modification. This modification is required every time code is generated.

- The function is “void R_MTU3_Create(void)” in the source file “r_cg_mtu3.c”.

Before modification:

```

/*****
* Function Name: R_MTU3_Create
* Description   : This function initializes the MTU3 Unit0 module.
* Arguments     : None
* Return Value  : None
*****/
void R_MTU3_Create (void)
{
    Omitted
    /* Enable read/write to MTU registers */
    MTU.TRWERA.BYTE = _MTU_RWE_ENABLE;
    MTU.TRWERB.BYTE = _MTU_RWE_ENABLE;

    Omitted

    /* Disable read/write to MTU registers */
    MTU.TRWERA.BYTE = _MTU_RWE_DISABLE;
    MTU.TRWERB.BYTE = _MTU_RWE_DISABLE;
}

```

After modification:

```

/*****
* Function Name: R_MTU3_Create
* Description   : This function initializes the MTU3 Unit0 module.
* Arguments     : None
* Return Value  : None
*****/
void R_MTU3_Create (void)
{
    Omitted
    /* Enable read/write to MTU registers */
    MTU.TRWERA.BYTE = _MTU_RWE_ENABLE;
    MTU.TRWERB.BYTE = _MTU_RWE_ENABLE;

    Omitted

    /* Disable read/write to MTU registers */
    if(1U == MTU.TRWERA.BIT.RWE)
    {
        MTU.TRWERA.BYTE = _MTU_RWE_DISABLE;
    }

    if(1U == MTU.TRWERB.BIT.RWE)
    {
        MTU.TRWERB.BYTE = _MTU_RWE_DISABLE;
    }
}

```

1.5 Schedule for Fixing the Problem

This problem will be fixed in the next version.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Apr. 16, 2017	-	First edition issued

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