

[Notes]

R20TS0603EJ0100

Rev.1.00

Aug. 01, 2020

## e<sup>2</sup> studio Code Generator Plug-in, AP4 Coding Assistance Tool for RZ

### Outline

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

1. Notes on switching register set on transfer completion of the DMA controller

## 1. Notes on Switching Register Set on Transfer Completion of the DMA Controller

### 1.1 Applicable Products

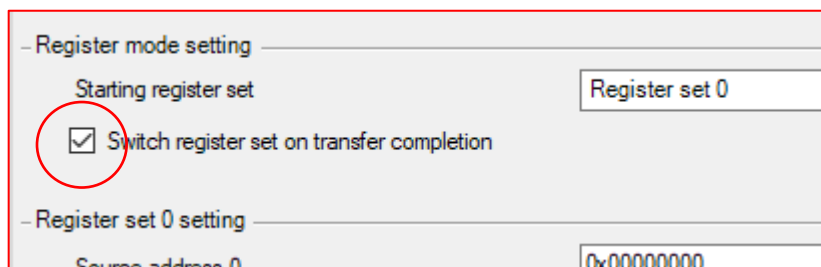
- e<sup>2</sup> studio V7.1.0 (Code Generator Plug-in V2.12 or later)
- AP4 for RZ V1.08.00 or later

### 1.2 Applicable Devices

- RZ family: RZ/T1 group

### 1.3 Details

There is an error in GUI control of the DMA controller, where clearing the [Switch register set on transfer completion] check box does not disable the setting.



### 1.4 Conditions

This error occurs when either of the following operations is performed after the [Switch register set on transfer completion] check box is cleared, while the DMA controller is used in register mode.

- (a) Display another DMA controller tab or another peripheral function.
- (b) Save the project and reload.

When operation (a) or (b) is performed, the disabled setting becomes enabled.

## 1.5 Workaround

To disable the setting for [Switch register set on transfer completion], modify the generated code (r\_cg\_dmac.c) as shown below.

Note: When code is generated again, generated code returns to the state before modification. Therefore, modify the source file each time you generate code.

- The function in the source file "r\_cg\_dmac.c":

"R\_DMAn\_Create(void)"<sup>(Note)</sup> and "R\_DMAn\_Cm\_Start(void)"<sup>(Note)</sup>

Note:  $n$  = DMA controller unit number (0,1),  $m$  = channel number ((0,1,...,15)

Before modification

```

/*****
* Function Name: R_DMAn_Create
* Description  : This function initializes the DMAC unit  $n$ .
* Arguments    : None
* Return Value : None
*****/
void R_DMAn_Create(void)
{
    /* Set configuration for DMAC $n$  channel  $m$  */
    DMA0.DMACn_CHCFG_m.LONG |= Omitted
                               | _DMAC_CHCFG_RSEL_REVERSE_ENABLE;

    Omitted

/*****
* Function Name: R_DMAn_Cm_Start
* Description  : This function enables the DMAC unit  $n$  channel  $m$  transfer.
* Arguments    : None
* Return Value : None
*****/
void R_DMAn_Cm_Start(void)
{
    DMA0.DMACn_CHCTRL_m.BIT.SETREN = 1U;
    DMA0.DMACn_CHCTRL_m.BIT.SETEN  = 1U;
}

```

After modification

```

/*****
* Function Name: R_DMAn_Create
* Description : This function initializes the DMAC unit n.
* Arguments : None
* Return Value : None
*****/
void R_DMAn_Create(void)
{
    /* Set configuration for DMACn channel m */
    DMA0.DMACn_CHCFG_m.LONG |= Omitted
                                | _DMAC_CHCFG_RSEL_REVERSE_DISABLE;

    Omitted
}

/*****
* Function Name: R_DMAn_Cm_Start
* Description : This function enables the DMAC unit n channel m transfer.
* Arguments : None
* Return Value : None
*****/
void R_DMAn_Cm_Start(void)
{
    DMA0.DMACn_CHCTRL_m.BIT.SETEN = 1U;
}

```

Change to DISABLE

Delete line 1

1.6 Schedule for Fixing the Problem

This problem will be fixed in the next version. (Scheduled to be released in October 2020.)

**Revision History**

Rev.	Date	Description	
		Page	Summary
1.00	Aug.01.20	-	First edition issued

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