

[Notes]

R20TS0422EJ0100
Rev.1.00
Apr. 16, 2019

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. Using link mode of DMAC

1. Using Link Mode of DMAC

1.1 Applicable Products

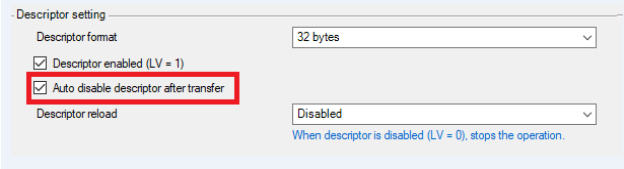
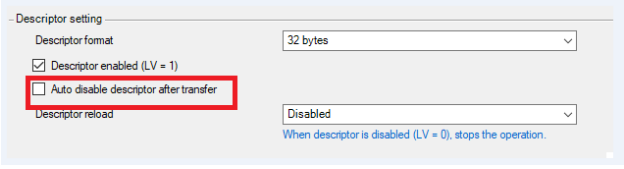
- e² studio V4.0.0.26 (Code Generator plug-in V2.0.0 and later versions)
- AP4 coding assistance tool for RZ V1.00.00 and later versions

1.2 Applicable MCUs

- RZ family: RZ/T1 group

1.3 Details

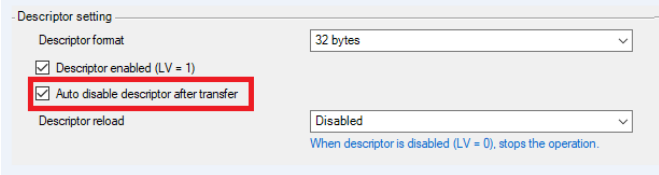
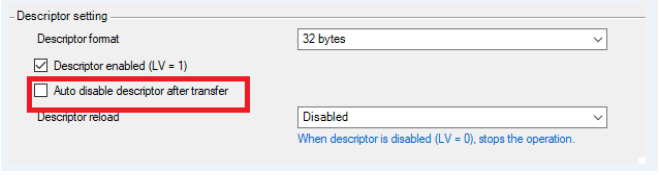
When using link mode of DMAC, the code generator setting value for descriptor after transfer will be different from the WBD bit in the descriptor header, resulting in unexpected operation.

Code generator setting value	WBD bit in the descriptor header
 <p>Check "Auto disable descriptor after transfer".</p>	<p>1 (descriptor not disabled automatically after transfer)</p>
 <p>Uncheck "Auto disable descriptor after transfer".</p>	<p>0 (descriptor disabled automatically after transfer)</p>

1.4 Workaround

Modify the code in r_cg_dmac.c after code generation.

The following modification example is when ch0 of DMAC0 is selected. Modifications are indicated in red.

Code generator setting value	Code modification example in r_cg_dmac.c
 <p>Check "Auto disable descriptor after transfer".</p>	<p>[Before modification]</p> <pre>void R_DMAMC0_Create(void) { (Omitted) dmac0_ch0_descriptor0.header = (Omitted) _DMAMC_DSC_HEADER_WBD_ENABLE (*1) [After modification] void R_DMAMC0_Create(void) { (Omitted) dmac0_ch0_descriptor0.header = (Omitted) _DMAMC_DSC_HEADER_WBD_DISABLE (*2)</pre>
 <p>Uncheck "Auto disable descriptor after transfer".</p>	<p>[Before modification]</p> <pre>void R_DMAMC0_Create(void) { (Omitted) dmac0_ch0_descriptor0.header = (Omitted) _DMAMC_DSC_HEADER_WBD_DISABLE (*2) [After modification] void R_DMAMC0_Create(void) { (Omitted) dmac0_ch0_descriptor0.header = (Omitted) _DMAMC_DSC_HEADER_WBD_ENABLE (*1)</pre>

(*1)(*2): The codes in e² studio V4.0.1.007 (Code Generator Plug-in V2.0.0) or earlier and AP4 coding assistance tool for RZ V1.01.0 or earlier are displayed as follows.

- (*1) _DMAMC_DSC_HEADER_WRITE_BACK_ENABLE
- (*2) _DMAMC_DSC_HEADER_WRITE_BACK_DISABLE

1.5 Schedule for Fixing the Problem

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

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Apr.16.19	-	First edition issued

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