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[Notes]

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Rev.1.00

Feb. 16. 2021

CS+ Code Generator for RX,  
e<sup>2</sup> studio Code Generator Plug-in,  
AP4 Coding Assistance Tool for RX

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## Overview

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

1. Notes on using external pin interrupt (IRQ)

## 1. Notes on using external pin interrupt (IRQ)

### 1.1 Applicable Products

CS+ Code Generator for RX V1.03.00 (CS+ for CC V3.00) or later

Code Generator plug-in C1.0.0 (e<sup>2</sup> studio V2.1.0.021) or later

AP4 Coding Assistance Tool for RX V1.00.00 or later

### 1.2 Applicable MCUs

RX family

RX110, RX111, RX113, and RX130 groups

RX230, RX231, RX23T, RX24T, and RX24U groups

RX64M, RX651, RX65N, and RX71M groups

### 1.3 Description

When external pin interrupts (IRQ) are used, an interrupt request (IR) is not cleared in the generated code after a port is set up. Therefore, an external pin interrupt (IRQ) may occur when interrupts are enabled.

### 1.4 Conditions

- (a) External pin interrupt (IRQ) detection is set to low level, falling edge, or both edge.
- (b) The external pin holds a low-level input.

### 1.5 Workaround

In the Project Tree, expand [Code Preview] – [Interrupt Controller Unit] – [r\_cg\_icu\_user.c], right-click [R\_ICU\_Create\_UserInit], and then select [Generate Code] from the context menu. This generates the R\_ICU\_Create\_UserInit function.

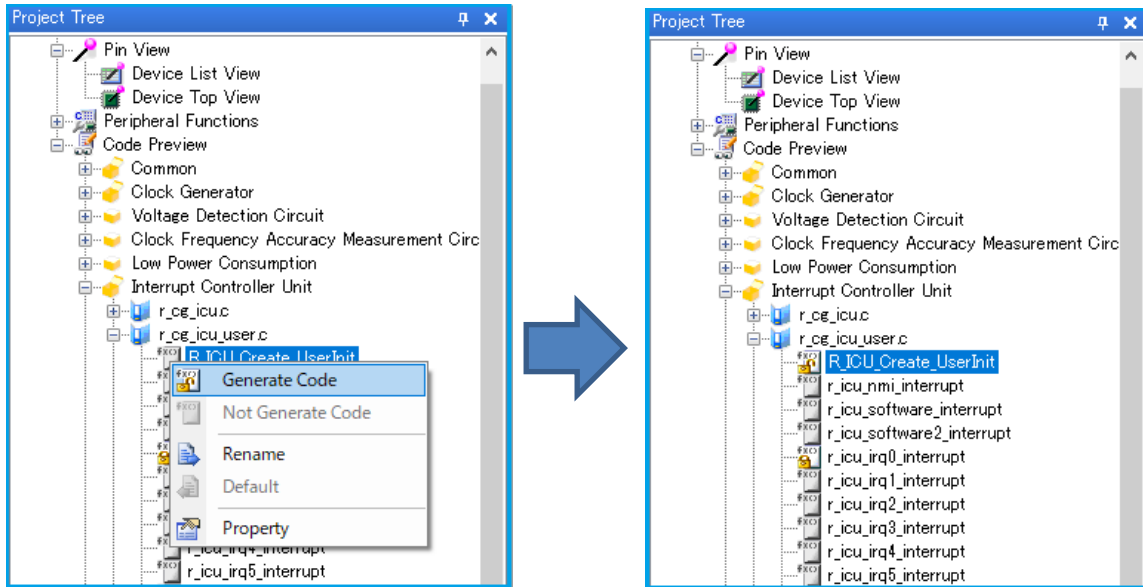


Figure 1-1 Adding a generated code (R\_ICU\_Create\_UserInit)

Add the code in **red** to clear the interrupt request flag for the external pin interrupt used for the R\_ICU\_Create\_UserInit function generated by code generation.

- Source file: r\_cg\_icu\_user.c
- Function: void R\_ICU\_Create\_UserInit(void)

```

/*****
* Function Name: R_ICU_Create_UserInit
* Description  : This function adds user code after initializing ICU.
* Arguments    : None
* Return Value : None
*****/
void R_ICU_Create_UserInit(void)
{
    /* Start user code. Do not edit comment generated here */
    IR(ICU,IRQ0) = 0U;
    /* End user code. Do not edit comment generated here */
}
    
```

### 1.6 Permanent Measure

There is no schedule for fixing this problem.

**Revision History**

Rev.	Date	Description	
		Page	Summary
1.00	Feb.16.21	-	First edition issued

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**Corporate Headquarters**

TOYOSU FORESIA, 3- 2- 24 Toyosu,  
Koto-ku, Tokyo 135- 0061, Japan

[www.renesas.com](http://www.renesas.com)

**Contact information**

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