

[Notes]

R20TS1052EJ0100

Rev.1.00

RX Family

Aug. 05, 2024

Board Support Package Module Using Firmware Integration Technology, RX Driver Package

Outline

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

1. Notes on using the RX Family Board Support Package Module Using Firmware Integration Technology (BSP FIT module) in combination with the real-time clock of the following tool (Smart Configurator)

- Smart Configurator for RX plug-in in e² studio
- Smart Configurator for RX

1. Notes on using the BSP FIT module in combination with the real-time clock of the Smart Configurator.

1.1 Applicable Products

(1) BSP FIT Module

All revisions fall under this precaution until permanent measures are implemented.

(2) RX Driver Package

All revisions fall under this precaution until permanent measures are implemented.

(3) The BSP FIT Module included with the Smart Configurator.

All revisions fall under this precaution until permanent measures are implemented.

1.2 Applicable Devices

RX64M, RX651, RX65N, RX66N, RX671, RX71M, RX72M and RX72N groups

1.3 Details

Infinite loops may occur in the 'R_Config_RTC_Create' function generated by Smart Configurator.

1.4 Conditions

When executing the 'R_Config_RTC_Create' function generated by the Smart Configurator, loops may occur if the clock source in the 'Realtime clock operation setting' of the Smart Configurator's 'Real Time Clock' component is set to 'Main clock oscillator'.

1.5 Workaround

Correct the processing in the 'clock_source_select' function of the 'mcu_clocks.c' file included with the applicable devices.

Before modification:

```

/* Cold start setting */
if (0 == SYSTEM.RSTSR1.BIT.CWSF)
{
    /* Stop the sub-clock oscillator */
    /* RCR4 - RTC Control Register 4
    b7:b1   Reserved - The write value should be 0.
    b0      RCKSEL   - Count Source Select - Sub-clock oscillator is
selected. */
    RTC.RCR4.BIT.RCKSEL = 0;

    /* WAIT_LOOP */
    for (i = 0; i < 4; i++)
    {
        /* dummy read four times */
        dummy = RTC.RCR4.BYTE;
    }
}

```

After modification:

```

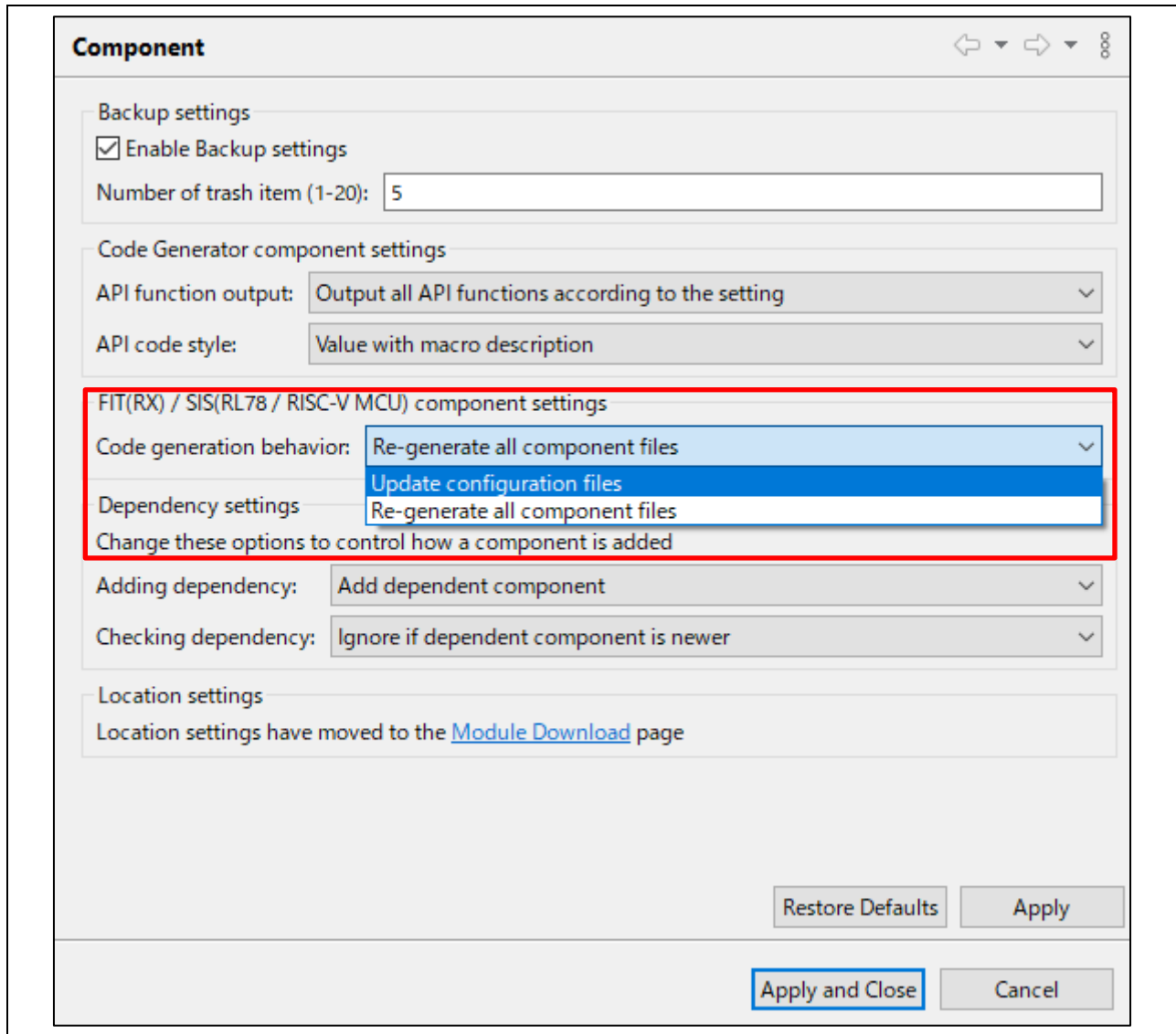
/* Cold start setting */
if (0 == SYSTEM.RSTSR1.BIT.CWSF)
{
    /* Stop the sub-clock oscillator */
    /* RCR4 - RTC Control Register 4
    b7:b1   Reserved - The write value should be 0.
    b0      RCKSEL   - Count Source Select - Sub-clock oscillator is
selected. */
    RTC.RCR4.BIT.RCKSEL = 1;

    /* WAIT_LOOP */
    for (i = 0; i < 4; i++)
    {
        /* dummy read four times */
        dummy = RTC.RCR4.BYTE;
    }
}

```

1.5.1 Note on Smart Configurator preferences setting

When 'Update configuration files' is selected and code is generated, Smart Configurator verifies the existence of these files within the user project. If a file already exists, it will not be overwritten. However, configuration files (e.g., 'xxx_config.h') will still be refreshed during the code generation process.



Note. If the revision of the FIT module is changed, all component files will be regenerated regardless of this setting.

Note. This screenshot utilizes RX Smart Configurator V2.21.0.

Figure 1 Component settings page layout

1.6 Schedule for Fixing the Problem

This problem will be fixed in a later version.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Aug.05.24	-	First edition issued

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