[Note]

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Rev.1.00
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RX Family
Board Support Package Module Firmware Integration Technology, RX Driver Package

Overview

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

1. Caution when using component configuration in RX23W

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1.1 Applicable products

(1) Board Support Package module Firmware Integration Technology (BSP FIT module)

The applicable revision numbers and document numbers are as follows.

Table 1.1 BSP FIT module applicable products

Revision number of the BSP FIT module	Document number
Rev.5.20	R01AN1685EJ0520
Rev.5.21	R01AN1685EJ0521
Rev.5.40	R01AN1685EJ0540
Rev.5.50	R01AN1685EJ0550

(2) RX Driver Package

The BSP FIT module in (1) is also included in the RX Driver Package.
The product names and revision numbers of the applicable RX Driver Package and the revision numbers of the included BSP FIT module are as follows.

Table 1.2 Products which include the BSP FIT module

RX Driver Package product name	RX Driver Package revision number	Document number	Revision number of the included BSP FIT module
RX Family RX Driver Package Ver.1.20	Rev.1.20	R01AN4794EJ0120	Rev.5.20
RX Family RX Driver Package Ver.1.22	Rev.1.22	R01AN4873EJ0122	Rev.5.20
RX Family RX Driver Package Ver.1.23	Rev.1.23	R01AN4976EJ0123	Rev.5.40
RX Family RX Driver Package Ver.1.24	Rev.1.24	R01AN5267EJ0124	Rev.5.50

1.2 Applicable Devices

- RX23W group

1.3 Details

There is an error in r_bsp_rx_generic_rx23w_extend.mdf included with the BSP FIT module for the applicable products in 1.1.

Therefore, even when you change the following parameter in Smart Configurator, the change is not reflected in the generated r_bsp_config.h.

- User stack size
- Interrupt stack size

1.4 Conditions

This problem arises if the following conditions are all met:

(1) The BSP FIT module version for the applicable products in 1.1 is used.

(2) RX23W is selected as the device.

(3) Components are configured in Smart Configurator, and User stack size or Interrupt stack size or both parameters are changed, and then a code is generated.

1.5 Workaround

You can avoid this phenomenon by one of the following methods:

(1) Correct r_bsp_rx_generic_rx23w_extend.mdf as follows so that new values are reflected in the code generation.

Before modification (L44 to L56)

```
        <property id="#pragma stacksize su" display="User stack size" default="0x1000" keyword="
#pragma stacksize su=%s" type="textbox">

            <constraint display="when Startup select is Use Enable (use BSP startup) only"
actionOnFail="disable">${BSP_CFG_STARTUP_DISABLE} ==
${BSP_CFG_STARTUP_DISABLE.0}</constraint>

            <constraint display="when User stack setting is 2 stacks only"
actionOnFail="disable">${BSP_CFG_USER_STACK_ENABLE} ==
${BSP_CFG_USER_STACK_ENABLE.1}</constraint>

            <constraint display="Value must be an hexadecimal value"
actionOnFail="error">testHexInteger("${#pragma stacksize su}")</constraint>

            <constraint display="Value must be in the range (0x1~RAM capacity)"
actionOnFail="error">("${#pragma stacksize su}" &gt;= 1) &amp;&amp; ("${#pragma stacksize su}"
&lt;= (${Device.ramSize} * 1024))</constraint>

            <description>User stack size</description>

        </property>

        <property id="#pragma stacksize si" display="interrupt stack size" default="0x400"
keyword="#pragma stacksize si=%s" type="textbox">

            <constraint display="when Startup select is Use Enable (use BSP startup) only"
actionOnFail="disable">${BSP_CFG_STARTUP_DISABLE} ==
${BSP_CFG_STARTUP_DISABLE.0}</constraint>

            <constraint display="Value must be an hexadecimal value"
actionOnFail="error">testHexInteger("${#pragma stacksize si}")</constraint>

            <constraint display="Value must be in the range (0x1~RAM capacity)"
actionOnFail="error">("${#pragma stacksize si}" &gt;= 1) &amp;&amp; ("${#pragma stacksize si}"
&lt;= (${Device.ramSize} * 1024))</constraint>

            <description>Interrupt stack  size</description>

        </property>
```

After modification

```
        <property id="BSP_CFG_USTACK_BYTES" display="User stack size" default="0x1000" type="textbox">
            <constraint display="when User stack setting is 2 stacks only" actionOnFail="disable">${BSP_CFG_USER_STACK_ENABLE} == ${BSP_CFG_USER_STACK_ENABLE.1}</constraint>
            <constraint display="Value must be an hexadecimal value" actionOnFail="error">testHexInteger("${BSP_CFG_USTACK_BYTES}")</constraint>
            <constraint display="Value must be in the range (0x1~RAM capacity)" actionOnFail="error">("${BSP_CFG_USTACK_BYTES}" &gt;= 1) &amp;&amp; ("${BSP_CFG_USTACK_BYTES}" &lt;= (${Device.ramSize} * 1024))</constraint>
            <description>User stack size
NOTE: This setting is available only when using CCRX and GNUC.</description>
        </property>
        <property id="BSP_CFG_ISTACK_BYTES" display="Interrupt stack size" default="0x400" type="textbox">
            <constraint display="Value must be an hexadecimal value">testHexInteger("${BSP_CFG_ISTACK_BYTES}")</constraint>
            <constraint display="Value must be in the range (0x1~RAM capacity)">("${BSP_CFG_ISTACK_BYTES}" &gt;= 1) &amp;&amp; ("${BSP_CFG_ISTACK_BYTES}" &lt;= (${Device.ramSize} * 1024))</constraint>
            <description>Interrupt stack  size
NOTE: This setting is available only when using CCRX and GNUC.</description>
        </property>
```

(2) In the generated r_bsp_config.h, directly change the following macro definition values (marked in red). In this method, however, note that the macro definition values are reset to initial values the next time you generate codes on Smart Configurator.

```
#if BSP_CFG_USER_STACK_ENABLE == 1
/* User Stack size in bytes.
 * NOTE: This setting is available only when using CCRX and GNUC.
 *       This is invalid when using Renesas RTOS with CCRX. */
#define BSP_CFG_USTACK_BYTES                (0x1000)
#endif

/* Interrupt Stack size in bytes.
   NOTE: This setting is available only when using CCRX and GNUC. */
#define BSP_CFG_ISTACK_BYTES                (0x400)
```

1.6 Schedule for fixing the problem

This problem will be fixed in BSP Rev.5.52 (Document No. R01AN1685EJ0552).
Update the version to BSP Rev.5.52.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Feb.01.21	-	First edition issued

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