

## Note on Using the CS+ Code Generator for RX

When using the CS+ Code\_Generator for RX, take note of the problems on the following points that are described in this note:

### 1. Multifunction Timer Pulse Unit 3

(Applicable products: RX64M group)

### 2. Serial Communications Interface

(Applicable products: RX111, RX113, RX64M and RX71M groups)

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#### 1. Multifunction Timer Pulse Unit 3 (MTU3)

##### 1.1 Products Concerned

V1.03.00 and later versions of the CS+ Code\_Generator for RX

##### 1.2 MCUs Involved

RX Family: RX64M Group

##### 1.3 Description

When the MTU3 is set with the following conditions, the code generated for port settings is not correct.

<Condition>

Setting "peripheral functions": Multifunction timer pulse unit 3

- Applicable channel: MTU3
- Function setting: Normal mode
- TGRD3: Output compare register
- Output of MTIOC3D pin: PC4

##### 1.4 Workaround

Modify the port setting code in the void R\_MTU3\_Create(void) function in the r\_cg\_mtu3.c file as described below.

This should be added every time code is generated.

Before modification:

```
-----  
void R_MTU3_Create(void)  
{  
    :  
    :  
    /* Set MTIOC3D pin */  
    MPC.PC4PFS.BYTE = 0x01U;  
    PORTB.PMR.BYTE != 0x10U;          <-- Wrong port setting code  
}  
-----
```

After modification:

```
-----  
void R_MTU3_Create(void)  
{  
    :  
    :  
    /* Set MTIOC3D pin */  
    MPC.PC4PFS.BYTE = 0x01U;  
    PORTC.PMR.BYTE != 0x10U;          <-- Modify the port setting code  
}  
-----
```

## 1.5 Schedule for Fixing the Problem

This problem will be fixed in the next version.

## 2. Serial Communications Interface (SCI)

### 2.1 Products Concerned

V1.03.00 and later versions of the CS+ Code\_Generator for RX

### 2.2 MCUs Involved

RX Family: RX111, RX113, RX64M, and RX71M groups

### 2.3 Description

(1) When the SCI is set with the following conditions, the generated handler code will not be correct. In master reception, the data reception clock is generated for an extra byte. The extra received data are not stored at the designated address.

< Condition >

Setting "peripheral function": Serial Communications Interface

- Applicable channel: All
- Function setting: Simple I2C bus
- I2C interrupt mode select: Use the reception and transmission interrupts.

(2) When a simple SPI bus is selected for the SCI, the generated code will not be correct. Reception does not proceed with the execution of the R\_SCIIn\_Start(void) function following executing of the R\_SCIIn\_Stop(void) function.

## 2.4 Workaround

(1) For 2.3 (1)

Modify the condition and the if statement in the static void r\_scin\_transmit\_interrupt(void) function of the r\_cg\_sci\_user.c file as described below.

This should be added every time code is generated.

Before modification:

```
-----  
if (g_scin_rx_length == g_scin_rx_count) <-- Wrong condition  
{  
    SCIn.SIMR2.BIT.IICACKT = 1U;  
    /* Write dummy */  
    SCIn.TDR = 0xFFU;  
  
    /* Generate stop condition */  
    g_scin_iic_cycle_clag = _00_SCI_IIC_STOP_CYCLE;  
    R_SCIIn_IIC_StopCondition();  
}  
-----
```

After modification:

```
-----  
if (( g_scin_rx_length - 1) == g_scin_rx_count) <-- Modify the condition  
{  
    SCIn.SIMR2.BIT.IICACKT = 1U;  
    /* Write dummy */  
    SCIn.TDR = 0xFFU;  
}  
else if (g_scin_rx_length == g_scin_rx_count) <-- Modify the condition  
{  
    /* Generate stop condition */  
    g_scin_iic_cycle_clag = _00_SCI_IIC_STOP_CYCLE;  
    R_SCIIn_IIC_StopCondition();  
}  
-----
```

(2) For 2.3(2)

Delete the incorrect code in the R\_SCIIn\_Stop(void)function\* of the

r\_cg\_sci.c file.

\* Note: n is the channel selected for code generation

This should be added every time code is generated.

Modification example:

```
-----  
void R_SCI0_Stop(void)  
{  
    /* Set SMOSI0 pin */  
    PORT2.PMR.BYTE &= 0xFEU;          <- Delete this line  
    :  
    :  
}-----
```

## 2.5 Schedule for Fixing the Problem

This problem will be fixed in the next version.

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