CS+ Code Generator for RX V1.12.00

Release Note

R20UT3965EJ0100
Rev.1.00
Dec 20, 2016

Thank you for using the CS+ integrated development environment.
This document describes the restrictions and points for caution. Read this document before using the product.

Contents

Chapter 1. Target Devices

Below is a list of devices supported by the Code Generator for RX110 V1.05.05.01	
PIN	Device name
36pin	R5F5110HAxLM, R5F5110JAxLM, R5F51101AxLM, R5F51103AxLM
40pin	R5F5110HAxNF, R5F5110JAxNF, R5F51101AxNF, R5F51103AxNF
48pin	R5F5110JAxFL, R5F5110JAxNE, R5F51101AxFL, R5F51101AxNE R5F51103AxFL, R5F51103AxNE, R5F51104AxFL ,R5F51104AxNE R5F51105AxFL, R5F51105AxNE
64pin	R5F5110JAxFK, R5F5110JAxFM, R5F5110JAxLF R5F51101AxFK, R5F51101AxFM, R5F51101AxLF R5F51103AxFK, R5F51103AxFM, R5F51103AxLF R5F51104AxFK, R5F51104AxFM, R5F51104AxLF R5F51105AxFK, R5F51105AxFM, R5F51105AxLF
The Code Generator for RX110 is based on the following documents.	
Manual Name	Document Number
RX110 Group User's Manual: Hardware	R01UH0421EJ0110

Below is a list of devices supported by the Code Generator for RX111 V1.05.05.01	
PIN	Device name
36pin	R5F5111JAxLM, R5F51111AxLM, R5F51113AxLM
40pin	R5F5111JAxNF, R5F51111AxNF, R5F51113AxNF
48pin	R5F5111JAxFL, R5F5111JAxNE, R5F51111AxFL, R5F51111AxNE R5F51113AxFL, R5F51113AxNE, R5F51114AxFL ,R5F51114AxNE R5F51115AxFL, R5F51115AxNE, R5F51116AxFL, R5F51116AxNE R5F51117AxFL, R5F51117AxNE, R5F51118AxFL, R5F51118AxNE
64pin	R5F5111JAxFK, R5F5111JAxFM, R5F5111JAxLF R5F51111AxFK, R5F51111AxFM, R5F51111AxLF R5F51113AxFK, R5F51113AxFM, R5F51113AxLF R5F51114AxFK, R5F51114AxFM, R5F51114AxLF R5F51115AxFK, R5F51115AxFM, R5F51115AxLF R5F51116AxFK, R5F51116AxFM, R5F51116AxLF R5F51117AxFK, R5F51117AxFM, R5F51117AxLF R5F51118AxFK, R5F51118AxFM, R5F51118AxLF
The Code Generator for RX111 is based on the following documents.	
Manual Name	Document Number
RX111 Group User's Manual: Hardware	R01UH0365EJ0120

Below is a list of devices supported by the Code Generator for RX113 V1.02.05.01	
PIN	Device name
64pin	R5F51135AxLJ, R5F51136AxLJ, R5F51137AxLJ, R5F51138AxLJ
100pin	R5F51135AxFP, R5F51136AxFP, R5F51137AxFP, R5F51138AxFP R5F51135AxFM, R5F51136AxFM, R5F51137AxFM, R5F51138AxFM
The Code Generator for RX113 is based on the following documents.	
Manual Name	Document Number
RX113 Group User's Manual: Hardware	R01UH0448EJ0100

Below is a list of devices supported by the Code Generator for RX130 V1.00.03.02	
PIN	Device name
48pin	R5F51303AxFL, R5F51305AxFL, R5F51303AxNE, R5F51305AxNE
64pin	R5F51303AxFM, R5F51305AxFM, R5F51303AxFK, R5F51305AxFK
80pin	R5F51303AxFN, R5F51305AxFN
The Code Generator for RX130 is based on the following documents.	
Manual Name	Document Number
RX130 Group User's Manual: Hardware	R01UH0560EJ0100

Below is a list of devices supported by the Code Generator for RX230, RX231 V1.00.04.01	
RX230 Group	
PIN	Device name
48pin	R5F52305AxNE, R5F52306AxNE, R5F52305AxFL, R5F52306AxFL
64pin	R5F52305AxND, R5F52306AxND, R5F52305AxFM, R5F52306AxFM R5F52305AxLF , R5F52306AxLF
100pin	R5F52305AxLA, R5F52306AxLA, R5F52305AxFP, R5F52306AxFP
RX231 Group	
PIN	Device name
48pin	R5F52315AxNE, R5F52316AxNE, R5F52317AxNE, R5F52318AxNE R5F52315CxNE, R5F52316CxNE, R5F52317BxNE, R5F52318BxNE R5F52315AxFL, R5F52316AxFL, R5F52317AxFL, R5F52318AxFL R5F52315CxFL, R5F52316CxFL, R5F52317BxFL, R5F52318BxFL
64pin	R5F52315AxND, R5F52316AxND, R5F52317AxND, R5F52318AxND R5F52315CxND, R5F52316CxND, R5F52317BxND, R5F52318BxND R5F52315AxFM, R5F52316AxFM, R5F52317AxFM, R5F52318AxFM R5F52315CxFM, R5F52316CxFM, R5F52317BxFM, R5F52318BxFM R5F52315CxLF, R5F52316CxLF
100pin	R5F52315AxLA, R5F52316AxLA, R5F52317AxLA, R5F52318AxLA R5F52315CxLA, R5F52316CxLA, R5F52317BxLA, R5F52318BxLA R5F52315AxFP, R5F52316AxFP, R5F52317AxFP, R5F52318AxFP R5F52315CxFP, R5F52316CxFP, R5F52317BxFP, R5F52318BxFP

The Code Generator for RX230, RX231 is based on the following documents.	
Manual Name	Manual Name
RX230 Group, RX231 Group User's Manual: Hardware	R01UH0496EJ0110

Below is a list of devices supported by the Code Generator for RX23T V1.00.04.02	
PIN	Device name
48pin	R5F523T3AxFL, R5F523T5AxFL
52pin	R5F523T3AxFD, R5F523T5AxFD
64pin	R5F523T3AxFM, R5F523T5AxFM

The Code Generator for RX23T is based on the following documents.	
Manual Name	Document Number
RX23T Group User's Manual: Hardware	R01UH0520EJ0110

Below is a list of devices supported by the Code Generator for RX24T V1.01.00.02	
PIN	Device name
64pin	R5F524TAAxFM, R5F524T8AxFM
80pin	R5F524T8AxFF, R5F524T8AxFN, R5F524TAAxFF, R5F524TAAxFN
100pin	R5F524T8AxFP, R5F524TAAxFP

The Code Generator for RX24T is based on the following documents.	
Manual Name	Document Number
RX24T Group User's Manual: Hardware	R01UH0576EJ0100

Below is a list of devices supported by the Code Generator for RX64M V1.02.05.01	
PIN	Device name
100pin	R5F56MFCxFP, R5F56MFCxLJ, R5F56MFDxFP, R5F56MFDxLJ R5F56MGCxFP, R5F56MGCxLJ, R5F56MGDxFP, R5F56MGDxLJ R5F56MJCxFP, R5F56MJCxLJ, R5F56MJDxFP, R5F56MJDxLJ R5F56MLCxFP, R5F56MLCxLJ, R5F56MLDxFP, R5F56MLDxLJ
144/145pin	R5F56MFCxFB, R5F56MFCxLK, R5F56MFDxFB, R5F56MFDxLK R5F56MGCxFB, R5F56MGCxLK, R5F56MGDxFB, R5F56MGDxLK R5F56MJCxFB, R5F56MJCxLK, R5F56MJDxFB, R5F56MJDxLK R5F56MLCxFB, R5F56MLCxLK, R5F56MLDxFB, R5F56MLDxLK
176/177pin	R5F56MFDxFC, R5F56MFDxBG, R5F56MFDxLC, R5F56MFCxFC R5F56MFCxBG, R5F56MFCxLC, R5F56MGDxFC, R5F56MGDxBG R5F56MGDxLC, R5F56MGCxFC, R5F56MGCxBG, R5F56MGCxLC R5F56MJDxFC, R5F56MJDxBG, R5F56MJDxLC, R5F56MJCxFC R5F56MJCxBG, R5F56MJCxLC, R5F56MLDxFC, R5F56MLDxBG R5F56MLDxLC, R5F56MLCxFC, R5F56MLCxBG, R5F56MLCxLC

The Code Generator for RX64M is based on the following documents.	
Manual Name	Document Number
RX64M Group User's Manual: Hardware	R01UH0377EJ0100

Below is a list of devices supported by the Code Generator for RX65N, RX651 V1.00.01.01	
RX65N Group	
PIN	Device name
100pin	R5F565N9AxLJ, R5F565N9BxLJ, R5F565N9ExLJ, R5F565N9FxLJ R5F565N7AxLJ, R5F565N7BxLJ, R5F565N7ExLJ, R5F565N7FxLJ R5F565N4AxLJ, R5F565N4BxLJ, R5F565N4ExLJ, R5F565N4FxLJ R5F565N9AxFP, R5F565N9BxFP, R5F565N9ExFP, R5F565N9FxFP R5F565N7AxFP, R5F565N7BxFP, R5F565N7ExFP, R5F565N7FxFP R5F565N4AxFP, R5F565N4BxFP, R5F565N4ExFP, R5F565N4FxFP
144pin	R5F565N9AxFB, R5F565N9BxFB, R5F565N9ExFB, R5F565N9FxFB R5F565N7AxFB, R5F565N7BxFB, R5F565N7ExFB, R5F565N7FxFB R5F565N4AxFB, R5F565N4BxFB, R5F565N4ExFB, R5F565N4FxFB
145pin	R5F565N9AxLK, R5F565N9BxLK, R5F565N9ExLK, R5F565N9FxLK R5F565N7AxLK, R5F565N7BxLK, R5F565N7ExLK, R5F565N7FxLK R5F565N4AxLK, R5F565N4BxLK, R5F565N4ExLK, R5F565N4FxLK
RX651 Group	
PIN	Device name
100pin	R5F56519AxLJ, R5F56519BxLJ, R5F56519ExLJ, R5F56519FxLJ R5F56517AxLJ, R5F56517BxLJ, R5F56517ExLJ, R5F56517FxLJ R5F56514AxLJ, R5F56514BxLJ, R5F56514ExLJ, R5F56514FxLJ R5F56519AxFP, R5F56519BxFP, R5F56519ExFP, R5F56519FxFP R5F56517AxFP, R5F56517BxFP, R5F56517ExFP, R5F56517FxFP R5F56514AxFP, R5F56514BxFP, R5F56514ExFP, R5F56514FxFP
144pin	R5F56519AxFB, R5F56519BxFB, R5F56519ExFB, R5F56519FxFB R5F56517AxFB, R5F56517BxFB, R5F56517ExFB, R5F56517FxFB R5F56514AxFB, R5F56514BxFB, R5F56514ExFB, R5F56514FxFB
145pin	R5F56519AxLK, R5F56519BxLK, R5F56519ExLK, R5F56519FxLK R5F56517AxLK, R5F56517BxLK, R5F56517ExLK, R5F56517FxLK R5F56514AxLK, R5F56514BxLK, R5F56514ExLK, R5F56514FxLK
The Code Generator for RX65N, RX651 is based on the following documents.	

Manual Name	Document Number
RX65N Group, RX651 Group User's Manual: Hardware	R01UH0590EJ0100

Below is a list of devices supported by the Code Generator for RX71M V1.00.06.01	
PIN	Device name
100pin	R5F571MFDxFP, R5F571MFCxLJ, R5F571MFDxFP, R5F571MFDxLJ R5F571MGDxFP, R5F571MGDxLJ, R5F571MGCxFP, R5F571MGCxLJ R5F571MJDxFP, R5F571MJDxLJ, R5F571MJCxFP, R5F571MJCxLJ R5F571MLDxFP, R5F571MLDxLJ, R5F571MLCxFP, R5F571MLCxLJ
144/145pin	R5F571MFCxFB, R5F571MFCxLK, R5F571MFDxFB, R5F571MFDxLK R5F571MGCxFB, R5F571MGCxLK, R5F571MGDxFB, R5F571MGDxLK R5F571MJCxFB, R5F571MJCxLK, R5F571MJDxFB, R5F571MJDxLK R5F571MLCxFB, R5F571MLCxLK, R5F571MLDxFB, R5F571MLDxLK
176/177/178pin	R5F571MFDxFC, R5F571MFDxBG, R5F571MFDxLC, R5F571MFCxFC, R5F571MFCxBG, R5F571MFCxLC, R5F571MGDxFC, R5F571MGDxBG, R5F571MGDxLC, R5F571MGCxFC, R5F571MGCxBG, R5F571MGCxLC, R5F571MJDxFC, R5F571MJDxBG, R5F571MJDxLC, R5F571MJCxFC, R5F571MJCxBG, R5F571MJCxLC, R5F571MLDxFC, R5F571MLDxBG, R5F571MLDxLC, R5F571MLCxFC, R5F571MLCxBG, R5F571MLCxLC

The Code Generator for RX71M is based on the following documents.	
Manual Name	Document Number
RX71M Group User's Manual: Hardware	R01UH0493EJ0100

Chapter 2. Operation Confirmation Conditions

The sample code generated by this product has been run and confirmed under the conditions below,

Because of all the operation check is not done the combination of peripheral functions is enormous, all the operation check is not done.

When using this sample code with other Renesas MCUs, careful evaluation is recommended after making modifications to comply with the alternate MCU.

Item	Contents	Target devices
Integrated development environment	Renesas Electronics Corporation CS+ V5.00.00	RX110 group, RX111 group, RX113 group, RX130 group, RX230 group, RX231 group, RX23T group, RX24T group, RX64M group, RX65N group, RX651 group RX71M group
C compiler	Renesas Electronics Corporation RX Family C/C++ Compiler Package CC-RX V2.06.00	

Chapter 3. User's Manuals

Please read the following user's manuals together with this document.

Manual Name	Document Number
CS+ Code Generator Tool Integrated Development Environment User's Manual: RX API Reference [CS+ for CC]	R20UT3103EJ0130
CS+ Code Generator Tool Integrated Development Environment User's Manual: Peripheral Function Operation [CS+ for CC] [CS+ for CA,CX]	R20UT3104EJ0100
CS+ Code Generator Tool Integrated Development Environment User's Manual: Pin View [CS+ for CC] [CS+ for CA,CX]	R20UT3105EJ0100
CS+ V4.01.00 Integrated Development Environment User's Manual: Message [CS+ for CC]	R20UT3826EJ0100

Chapter 4. Uninstallation

There are two ways to uninstall this product.

- Use the integrated uninstaller from Renesas (uninstalls all CS+ components)
- Use the Windows uninstaller (only uninstalls this product only)

To use the Windows uninstaller, select "CS+ Code Generator for RX" from "Programs and Features" of the control panel.

Chapter 5. Changes

This chapter describes change to CS+ Code Generator for RX V1.12.00.

5.1 List of Changes

No	Description	Version *1									
		RX110 V1.05.05.01	RX111 V1.05.05.01	RX113 V1.02.05.01	RX130 V1.00.03.02	RX230, RX231 V1.00.04.01	RX23T V1.00.04.02	RX24T V1.01.00.02	RX64M V1.02.05.01	RX65N, RX651 V1.00.01.01	RX71M V1.00.06.01
1	Addition of supported devices	/	/	/	/	/	/	○	/	/	/
2	Removal of the note on Selection of the MTIOC3 pin for MTU3 in Multi-Function Timer Pulse Unit 3	/	/	/	/	/	/	/	○	/	○
3	Removal of the note on Low-speed on-chip oscillator (LOCO) when low power consumption (LPC) is specified	/	/	/	/	/	/	/	○	○	○
4	Removal of the note on Sub-projects of CS+ and operation of multiple projects in the e^2 studio	○	○	○	○	○	○	○	○	○	○
5	Fixing the Problem of stops A/D converter process	/	/	/	/	/	/	○	/	/	/

○: Applicable, /: Not Applicable

Note 1: Version is described in the generated code.

5.2 Details of Changes

5.2.1 Addition of Supported devices

Support for the group below has been newly added.

- RX family: RX24T group

  R5F524TAAxFM, R5F524T8AxFM

5.2.2 Removal of the note on Selection of the MTIOC3 pin for MTU3 in Multi-Function Timer Pulse Unit 3

The following caution was fixed.

- Initialization code has an error when the following functions are selected for MTU3 in Multi-Function Timer Pulse Unit 3, and the MTIOC3D pin function is specified for P23. The error results in the P23 pin not being set for output.
  - Reset-synchronized PWM mode
  - Complementary PWM mode 1
  - Complementary PWM mode 2
  - Complementary PWM mode 3

5.2.3 Removal of the note on Low-speed on-chip oscillator (LOCO) when low power consumption (LPC) is specified

The following caution was fixed.

- Generated code has an error when low-speed operating mode 1 is specified with low power consumption (LPC) as the initial power control setting for operation. LPC thus cannot be used in this case.

5.2.4 Removal of the note on Sub-projects of CS+ and operation of multiple projects in the e^2 studio

The following caution was fixed.

- When a sub-project has been added to a project, an error occurs if the sub-project is removed from the project and the project is then saved.

5.2.5 Fixing the Problem of stops 12bit A/D converter process

The problems regarding the points below have been fixed.

Since the generated code have an error, when the 12-bit A/D converter is used in unit1 or unit2, the 12-bit A/D Converter (S12AD) cannot be stopped A/D converter process.

Correct the setting of A/D Control Register (ADCSR) of unit in the following function.

The function is “void R_S12AD1_Stop(void)” or “void R_S12AD2_Stop(void)” in the source file “r_cg_s12ad.c”.

This modification is required every time code is generated.

Before modification:

```
void R_S12AD1_Stop(void)
{
    S12AD.ADCSR.BIT.ADST = 0U;

    IEN(S12AD1,S12ADI1) = 0U;
    IR(S12AD1,S12ADI1) = 0U;
}
```

After modification:

```
void R_S12AD1_Stop(void)
{
    S12AD1.ADCSR.BIT.ADST = 0U;

    IEN(S12AD1,S12ADI1) = 0U;
    IR(S12AD1,S12ADI1) = 0U;
}
```

Chapter 6. Points for Cautions

This chapter describes points for caution regarding the CS+ Code Generator for RX V1.12.00.

6.1 List of Caution

No.	Description	version *1									
		RX110 V1.05.05.01	RX111 V1.05.05.01	RX113 V1.02.05.01	RX130 V1.00.03.02	RX230, RX231 V1.00.04.01	RX23T V1.00.04.02	RX24T V1.01.00.02	RX64M V1.02.05.01	RX65N, RX651 V1.00.01.01	RX71M V1.00.06.01
1	USB functions	/	○	○	/	○	/	/	○	○	○
2	Low Power Consumption functions	○	○	○	○	○	○	○	○	○	○
3	SCI (Asynchronous Mode) functions	○	○	○	○	○	○	○	○	○	○
4	Processor mode	○	○	○	○	○	○	○	○	○	○
5	Extension code and multi-master of RIIC	/	/	○	○	○	○	○	○	○	○
6	Combination with the real-time OS for RX family	○	○	○	○	○	○	○	○	○	○

○: Applicable, /: Not Applicable

Note 1: Version is described in the generated code.

6.2 Details of Caution

6.2.1 USB functions

The code generator is not supporting the USB functions.

6.2.2 Low Power Consumption functions

The code generator is not supporting the Low Power Consumption functions.

6.2.3 SCI (Asynchronous Mode) functions

The code generator is not supporting transfer rate clock input from the MTU or TMR.

6.2.4 Processor mode

The RX CPU has two processor modes; supervisor and user. The API driver functions may be assumed the operation by the CPU in supervisor mode.
More information on the processor modes can be found in the RX Family software manual.

6.2.5 Extension code and multi-master of RIIC

The code generator is not supporting the extension code, multi-master function of RIIC.

6.2.6 Combination with the real-time OS for RX family

The code generator can not use with the project for the real-time OS for RX family (RI600PX, RI600V4).

Chapter 7. Correction History

This section describes correction history of RENESAS TOOL NEWS.

7.1 List of RENESAS TOOL NEWS

Issue Date	Document No.	Description	Device Concerned	Fixed version
Aug. 16, 2014	140816/tn2	With setting of the multi-function timer pulse unit (MTU) and 16-bit timer pulse unit (TPU)	RX111, RX64M	V1.06.00
Dec. 16, 2014	141216/tn2	1. Settings for clocks in the output code	RX64M	V1.06.00
		2. Bus settings	RX64M	
Mar 01, 2015	150301/tn2	1. Multifunction Timer Pulse Unit 3	RX64M	V1.07.00
		2. Serial Communications Interface	RX111, RX113, RX64M, RX71M	
May 16, 2015	150516/tn1	1. Code Generated for the Clock Generation Circuit(PLL Circuit Operation)	RX111, RX113	V1.07.00
		2. Bus Settings	RX64M, RX71M	
		3. 16-bit Timer Pulse Unit (TPUa) and Multifunction Timer Pulse Unit 3 (MTU3a)	RX64M, RX71M	
		4. 12-bit A/D Converter (S12ADC)	RX64M, RX71M	V1.09.00
		5. 12-bit D/A Converter (R12DA)	RX64M, RX71M	
Jul 16, 2015	150716/tn1	1. Bus Settings	RX64M, RX71M	V1.09.00
		2. Code Generated for the Clock Generation Circuit (HOCO Operation)	RX111, RX113	
Aug.07.2015	150807/tn3	Complementary PWM mode setting of the MTU	RX230, RX231	V1.09.00
2015/09/01	150901/tn2	Interrupts when the MTU is set for complementary PWM mode	RX110, RX111, RX113, RX23T, RX230, RX231	V1.09.00
Nov. 01, 2015	151101/tn4	1. Setting to permit or prohibit suspension of transfer in response to the reception of NACK over the I2C bus interface (RIIC)	RX110, RX111, RX113, RX23T, RX230, RX231, RX64M, RX71M	V1.10.00
		2. Settings for the output of RTCOUT from the real time clock (RTC)	RX110, RX111, RX113	
		3. Setting of the data transfer controller (DTC)	RX110, RX111, RX113, RX23T, RX230, RX231, RX64M, RX71M	V1.09.00

Issue Date	Document No.	Description	Device Concerned	Fixed version
Dec. 01, 2015	151201/tn3	Using the Multi-Function Pin Controller (MPC) to Select Functions of the PAn Pins	RX113	V1.09.00
Feb. 16, 2016	160216/tn4	FIFO embedded Serial Communications Interface SCIFA10	RX64M, RX71M	V1.10.00
Jun. 16, 2016	R20TS0039EJ0100	1. Serial communications interface SCI6	RX231, RX230	V1.11.00
Nov. 01, 2016	R20TS0087EJ0100	1. Selection of the MTIOC3 pin for MTU3 in Multi-Function Timer Pulse Unit 3	RX64M, RX71M	V1.12.00
		2. Low-speed on-chip oscillator (LOCO) when low power consumption (LPC) is specified	RX64M, RX65N, RX651, RX71M	V1.12.00
		3. Sub-projects of CS+ and operation of multiple projects in the e^2 studio	All groups	V1.12.00

7.2 Details of RENESAS TOOL NEWS

7.2.1 RENESAS TOOL NEWS Document No.140816/tn2

This issue has been corrected in CS+ Code Generator for RX V1.06.00.

・ With setting of the multi-function timer pulse unit (MTU) and 16-bit timer pulse unit (TPU)
(target: RX111 and RX64M groups)

In some cases, required code for setting the TGRC and TGRD registers is not output to the create function that is generated in response to setting up the multi-function timer pulse unit (MTU) or 16-bit timer pulse unit (TPU)

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2014/140816tn2_e.pdf

7.2.2 RENESAS TOOL NEWS Document No.141216/tn2

This issue has been corrected in CS+ Code Generator for RX V1.06.00.

1. Settings for clocks in the output code
(applicable products: RX64M group)

There is an error in the output code of the void R_CGC_Create(void) function, which is in the r_cg_cgc.c source file for clock settings.In writing a value to system clock control register 2 (SCKCR2), bit 0 is erroneously set to "0". The correct setting for bit 0 is "1".

2. Bus settings
(applicable products: RX64M group)

When setting a separate bus in the interface for bus area settings, the address latch signal (ALE) has to be enabled. The use of a separate bus was originally selectable regardless of the ALE setting.

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2014/141216tn2_e.pdf

7.2.3 RENESAS TOOL NEWS Document No.150301/tn2

This issue has been corrected in CS+ Code Generator for RX V1.07.00.

1. Multifunction Timer Pulse Unit 3
(Applicable products: RX64M group)

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

2. Serial Communications Interface
(Applicable products: RX111, RX113, RX64M and RX71M groups)

(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_SCIn_Start(void) function following executing of the R_SCIn_Stop(void) function.

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2015/150301tn2_e.pdf

7.2.4 RENESAS TOOL NEWS Document No.150516/tn1

This issue has been corrected in CS+ Code Generator for RX V1.07.00 (Numbers 1, 2 and 3) and V1.09.00 (Numbers 4 and 5).

1. Code Generated for the Clock Generation Circuit (PLL Circuit Operation)
(Applicable products: RX111 and RX113 groups)

When "Operation" is selected under "PLL circuit setting" on the "Clock Generator" page, the generated code has an error.

2. Bus Settings
(Applicable products: RX64M and RX71M groups)

An error is generated in the address output pins "A16-A23" when the following address output pin settings are made for the bus.
(1) "P71" is selected as the CS1#output pin after checking "Use CS1" with the bus operation setting "Used".
(2) After selecting "Normal mode" for TPU1 in the 16-bit timer pulse unit settings, "P14" is enabled and set as the TCLKA pin.
(3) General registers TGRA1 and TGRB1 of TPU1 are set as "Output compare register", after which pins TIOCA1 and TIOCB1 are set to "output disabled".
(4) The address output pin settings for the bus are made.

3. 16-bit Timer Pulse Unit (TPUa) and Multifunction Timer Pulse Unit 3 (MTU3a)
(Applicable products: RX64M and RX71M groups)

A selection error is generated for the TIOCA1 pin of TPU1 of the 16-bit timer pulse unit when the following settings for the unit are made.

(1) TPU1 of the 16-bit timer pulse unit is set to "Phase counting mode 1", a check mark is placed against "TCLKA pin", and "P14" is selected as the TCLKA pin.
(2) The TIOCA1 and TIOCB1 pins of TPU1 are set to "Input capture at TPU0.TGRn input capture/compare match".
(3) MTU0 of the Multifunction Timer Pulse Unit 3 is set to "Normal mode" and a check mark is placed against "MTCLKA pin".

4. 12-bit A/D Converter (S12ADC)
(Applicable products: RX64M and RX71M groups)

When the 12-bit A/D converter (S12ADC) is used in the group scan mode, an A/D conversion end interrupt or group B A/D conversion end interrupt will be generated immediately after the scan has started, if further scanning is started by calling the function void R_S12ADn_Start(void) after the function void R_S12ADn_Stop(void) has been executed.

5. 12-bit D/A Converter (R12DA)
(Applicable products: RX64M and RX71M groups)

The code output for the function void R_R12DAx_Start(void) has an error, so the output amplifier may not operate correctly in use with the 12-bit D/A converter (R12DA).

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2015/150516tn1_e.pdf

7.2.5 RENESAS TOOL NEWS Document No.150716/tn1

This issue has been corrected in CS+ Code Generator for RX V1.09.00.

1. Bus Settings
(Applicable MCUs: RX64M and RX71M groups)

An error will occur for A16, A17, A21, A22, A23 and code will not be generated after the external address bus signals A16 to A23 are set to PC0, PC1, P71, P72, P74, and PC5 to PC7 because PC2 to PC4 are used for peripheral functions other than address signals.

2. Code Generated for the Clock Generation Circuit (HOCO Operation)
(Applicable MCUs: RX111 and RX113 groups)

Generated code has an error when settings are for the high-speed on-chip oscillator (HOCO) to be used as the clock circuit. To set the high-speed on-chip oscillator for operation, set the high-speed on-chip oscillator control register (HOCOCR) after setting the high-speed on-chip oscillator wait control register (HOCOWTCR).

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2015/150716tn1_e.pdf

7.2.6 RENESAS TOOL NEWS Document No.150807/tn3

This issue has been corrected in CS+ Code Generator for RX V1.09.00.

・ Complementary PWM mode setting of the MTU
(Applicable products: RX230 and RX231 groups)

An error appears in the generated code when complementary PWM mode is selected for MTU3 of the multi-function timer pulse unit (MTU).
A build error occurs since an undefined symbol is used when the timer counter register (TCNT) of MTU3 is set in the function void R_MTU2_Create(void), which is in the r_cg_mtu2.c file.
The dead time is set in the timer counter register (TCNT) of MTU3.

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2015/150807tn3_e.pdf

7.2.7 RENESAS TOOL NEWS Document No.150901/tn2

This issue has been corrected in CS+ Code Generator for RX V1.09.00.

・ Interrupts when the MTU is set for complementary PWM mode
(Applicable products: RX23T, RX230, RX231, RX110, RX111, and RX113 groups)

The code output for the following functions is erroneous when the use of the multi-function timer pulse unit 3 of the RX23T group or the multi-function timer pulse unit 2 of other groups in complementary PWM mode is selected.

- RX23T group
  void R_MTU3_Create(void) function in the r_cg_mtu3.c source file
- Other than the RX23T group
  void R_MTU2_Create(void) function in the r_cg_mtu2.c source file

The code for setting the interrupt priority level of the following interrupts, which should be set up in the above functions, is not output, so they are not generated even if they are set as "enabled".

- Compare match interrupt (TGIA4)
- Compare match interrupt (TGIB4)
- Underflow interrupt (TCIV4)

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2015/150901tn2_e.pdf

7.2.8 RENESAS TOOL NEWS Document No.151101/tn4

This issue has been corrected in CS+ Code Generator for RX V1.09.00 (Numbers 3) and V1.10.00 (Numbers 1 and 2).

1. Setting to permit or prohibit suspension of transfer in response to the reception of NACK over the I2C bus interface (RIIC)
(Applicable products: RX71M, RX64M, RX23T, RX230, RX231, RX110, RX111, and RX113 groups)

When using the I2C bus interface (RIIC) in master or slave mode, permitting or prohibiting the suspension of transfer in response to negative-acknowledge (NACK) reception is not configured properly, due to errors in two symbol definitions in r_cg_riic.h.

2. Settings for the output of RTCOUT from the real time clock (RTC)
(Applicable products: RX110, RX111, and RX113 groups)

Generated code has an error when the real-time clock (RTC) is used in binary counting mode and it is set up with the output of RTCOUT (a 1-Hz or 64-Hz clock) enabled. Due to an error in the assignment operator for RTC control register 2 (RCR2), the value is not set correctly.

3. Setting of the data transfer controller (DTC)
(Applicable products: RX71M, RX64M, RX23T, RX230, RX231, and RX113 groups)

If you make settings for peripheral functions and handle projects with the following procedure, settings that have already been made for the data transfer controller (DTC) are returned to their initial states.
(1) Set the DTC and close the project after saving it.
(2) Open the project in (1) again, and set the peripheral function after opening the setting screen for the peripheral function other than DTC (e.g., an 8-bit timer).
(3) Close the project after saving it.
(4) Open the project which was set in steps (1) to (3) again.

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2015/151101tn4_e.pdf

7.2.9 RENESAS TOOL NEWS Document No.151201/tn3

This issue has been corrected in CS+ Code Generator for RX V1.09.00.

Using the Multi-Function Pin Controller (MPC) to Select Functions of the PAn Pins
(Applicable MCUs: RX113 group)

An error in handling of the pin function selection bits (PSEL [4:0]) of the PAn pin function control register (PAnPFS, n= 0 to 7) of the multi-function pin controller (MPC) means that the code for selecting the following peripheral functions does not select the correct functions.
- Multifunction Timer Pulse Unit 2 (MTU2)
  MTU1 MTIOC1B pin
  MTU2 MTIOC2A pin, MTIOC2B pin
- 8-bit timer (TMR)
  TMR0 external reset pin (TMRI0)
  TMR3 external reset pin (TMCI3)

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2015/151201tn3_e.pdf

7.2.10 RENESAS TOOL NEWS Document No.160216/tn4

This issue has been corrected in CS+ Code Generator for RX V1.10.00.

FIFO embedded Serial Communications Interface SCIFA10
(Applicable MCUs: RX71M group (144 or more pins) and RX64M group (144 or more pins))

Settings to select the following pins for the RXD10 and TXD10 pin functions of the FIFO embedded Serial

Communications Interface SCIFA10 are impossible.
- Setting the P86 pin as RXD10
- Setting the P87 pin as TXD10

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2016/160216tn4_e.pdf

7.2.11 RENESAS TOOL NEWS Document No.R20TS0039EJ0100

This issue has been corrected in CS+ Code Generator for RX V1.11.00.

FIFO embedded Serial Communications Interface SCIFA10
(Applicable MCUs: RX231 group (100-pin products) and RX230 group (100-pin products))

Since the generated code have an error when the clock input/output pin function for the SC16 serial communications interface is assigned to P34, communications will not proceed.

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2016/r20ts0039ej0100_cstnno.pdf

7.2.12 RENESAS TOOL NEWS Document No. R20TS0087EJ0100

This issue has been corrected in CS+ Code Generator for RX V1.12.00.

1. Selection of the MTIOC3 pin for MTU3 in Multi-Function Timer Pulse Unit 3
(Applicable MCUs: RX64M and RX71M groups)

Initialization code has an error when the following functions are selected for MTU3 in Multi-Function Timer Pulse Unit 3, and the MTIOC3D pin function is specified for P23. The error results in the P23 pin not being set for output.
- Reset-synchronized PWM mode
- Complementary PWM mode 1
- Complementary PWM mode 2
- Complementary PWM mode 3

2. Low-speed on-chip oscillator (LOCO) when low power consumption (LPC) is specified
(Applicable MCUs: RX64M, RX65N, RX651, and RX71M groups)

Generated code has an error when low-speed operating mode 1 is specified with low power consumption (LPC) as the initial power control setting for operation. LPC thus cannot be used in this case.

3. Sub-projects of CS+ and operation of multiple projects in the e2 studio
(Applicable MCUs: All groups)

When a sub-project has been added to a project, an error occurs if the sub-project is removed from the project and the project is then saved.

For details of the problem, refer to the URL below.
https://www.renesas.com/doc/toolnews/eng/2016/r20ts0087ej0100-cstnno.pdf

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