

[Notes]

R20TS0779ES0100

Rev.1.00

Dec. 01, 2021

RX Smart Configurator for FreeRTOS and Azure RTOS on e² studio (build error with custom user board)

Outline

When using RX Smart Configurator (SC) for FreeRTOS and Azure RTOS, note the following points.

1. Code generation issue with “Custom User Board”

Table 1 Quick reference of issue area

e ² studio version	2021-01, 2021-04 2021-07, 2021-10		2021-04 2021-07, 2021-10
RTOS package version	FreeRTOS (with IoT libraries) v202012.00-rx-1.0.0	FreeRTOS (kernel only) 10.4.3-rx-1.0.1	Azure RTOS v6.1.9_rel-rx-1.0.0
Devices	RX65N, RX671, RX72N		RX130, RX65N, RX651, RX66T, RX671, RX72N
Create a new RTOS project with “Custom User Board”	X	OK	OK
Import existing RTOS project with “Custom User Board”	X	OK	X

X: This mark describes to correspond issue

1. Code generation issue with “Custom User Board” project

1.1 Applicable Products

For FreeRTOS, from e² studio 2021-01 to e² studio 2021-10.

For Azure RTOS, from e² studio 2021-04 to e² studio 2021-10.

1.2 Applicable Devices

FreeRTOS with software package v202012.00-rx-1.0.0: RX65N, RX671, RX72N

Azure RTOS with software package v6.1.9_rel-rx-1.0.0: RX130, RX65N, RX651, RX66T, RX671, RX72N

1.3 Details

If you use a project as the following two cases, a build error happens.

Case1) For creating a new RTOS project with “Custom User Board”,

When using e² studio in Japanese language

- 1) Select “FreeRTOS (with IoT libraries)” and version “v202012.00-rx-1.0.0”
- 2) Select “Custom” for Target board
- 3) Click “Generate Code”

[Issue]

A build error happens after the code generation: for e.g. “F0520005: Could not open source file” or “No such file or directory”, because include paths are not set correctly (missing include paths) and source codes are not generated correctly (missing SC generated codes).

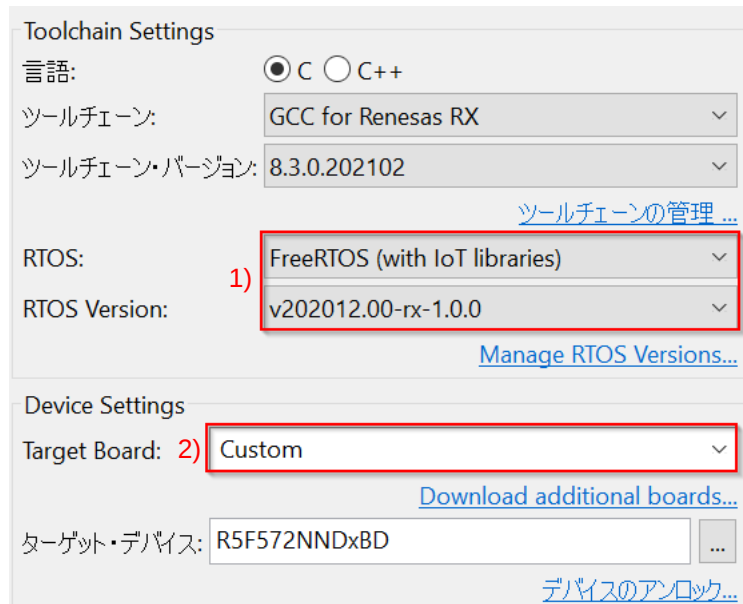


Figure 1. Project generation for FreeRTOS with Custom board (in Japanese language)

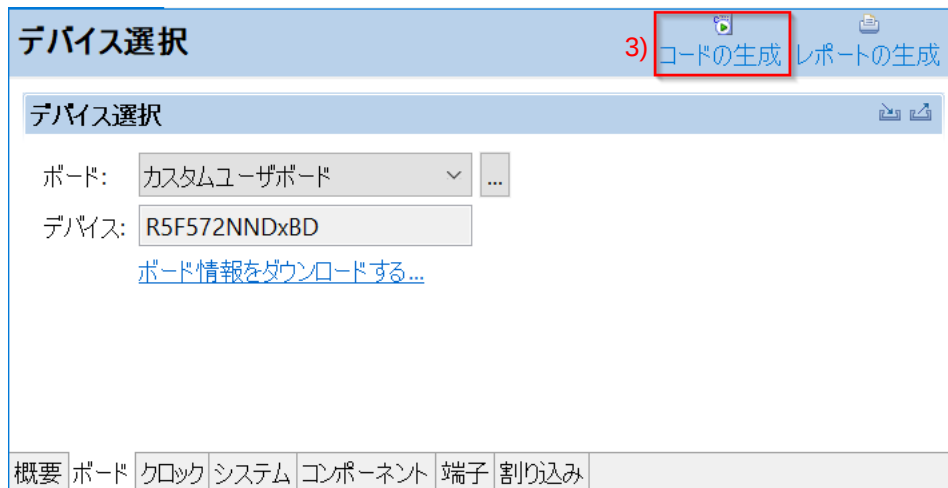


Figure 2. Code generation on SC

Case2) For importing an existing RTOS project with “Custom User Board”,

When importing a “Custom User Board” project (created by e² studio in English) to e² studio in Japanese language, or when importing “カスタムユーザボード” project (created by e² studio in Japanese) to e² studio in English language.

- 1) Import project
- 2) Open SC editor (by double-clicking scfg file)
- 3) Click “Generate Code”

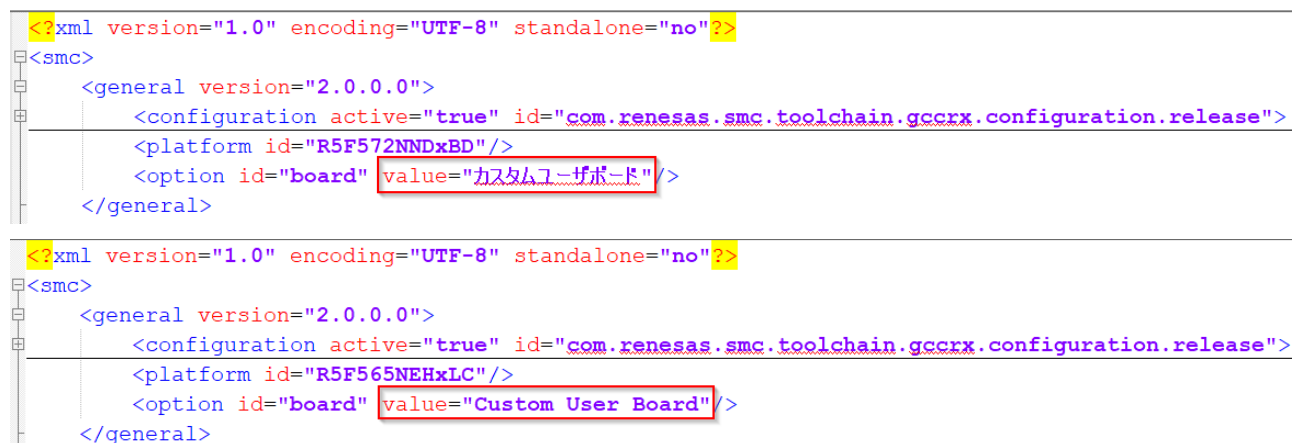
[Issue]

A build error happens after the code generation: for e.g. "F0520005: Could not open source file" or "No such file or directory", because include paths are not set correctly (missing include paths) and source codes are not generated correctly (missing SC generated codes).

[Note]

How to know the imported project is created by e² studio in English or Japanese?

- Open .scfg file inside the imported project with any text editor tool
- Search for id="board" and check the "value"
 - o If value="カスタムユーザボード", it is created by e² studio in Japanese
 - o If value="Custom User Board", it is created by e² studio in English



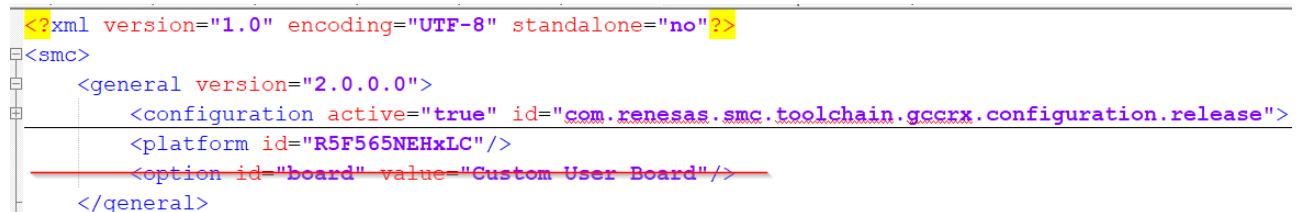
```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<smc>
  <general version="2.0.0.0">
    <configuration active="true" id="com.renesas.smc.toolchain.gccrx.configuration.release">
      <platform id="R5F572NNDxBD"/>
      <option id="board" value="カスタムユーザボード"/>
    </general>
  </smc>
</?xml version="1.0" encoding="UTF-8" standalone="no"?>
<smc>
  <general version="2.0.0.0">
    <configuration active="true" id="com.renesas.smc.toolchain.gccrx.configuration.release">
      <platform id="R5F565NEHxLC"/>
      <option id="board" value="Custom User Board"/>
    </general>
  </smc>
</?xml version="1.0" encoding="UTF-8" standalone="no"?>
```

Figure 3. scfg content with board information

1.4 Workaround

After the project is generated or after the project is imported,

- Close SC editor if it is open
- Open scfg file in the project folder with any text editor tool
- Delete the line <option id="board" value="..."/> and save the change
- Reopen SC editor (by double-clicking the scfg file)



```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<smc>
  <general version="2.0.0.0">
    <configuration active="true" id="com.renesas.smc.toolchain.gccrx.configuration.release">
      <platform id="R5F565NEHxLC"/>
      <option id="board" value="Custom User Board"/>
    </general>
  </smc>
</?xml version="1.0" encoding="UTF-8" standalone="no"?>
```

Figure 4. Remove board information in the scfg content

1.5 Schedule for Fixing the Problem

This problem will be fixed in the next version: e² studio 2022-01 (scheduled to be released in Jan. 2022.)

Revision History

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

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