[Notes]

e^2 studio Smart Configurator Plug-in,

Smart Configurator for RX

Outline

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

1. When importing existing C++ project and updating BSP component version to 7.00 onwards

2. When build or clean e^2 studio Smart Configurator project

3. When using AN107 in S12AD Continuous Scan Mode component

1. When importing existing C++ project and updating the BSP component version to 7.00 onwards

1.1 Applicable Products

➢ e^2 studio 2022-01 (Smart Configurator Plug-in V2.12.0)

➢ Smart Configurator for RX V2.12.0

1.2 Applicable Devices

➢ RX family:
RX110, RX111, RX113, RX130, RX13T, RX140, RX230, RX231, RX23E-A, RX23T, RX23W, RX24T, RX24U, RX651, RX65N, RX66N, RX66T, RX671, RX72M, RX72N, RX72T, RX64M, RX71M

1.3 Details

When open the existing C++ project created by Smart Configurator for RX V2.11.0 (equivalent to e^2 studio 2021-10) or earlier version into Smart Configurator for RX V2.12.0 (equivalent to e^2 studio 2022-01) and updating the BSP component version to 7.00 onwards, there will be a build error saying "*F0520035: #error directive: "This version of FIT needs C99 (or later)"*" in the output console when building the project with this new BSP version codes.

1.4 Condition

(1) The existing C++ project is created by Smart Configurator for RX V2.11.0 (equivalent to e^2 studio 2021-10) or earlier version

(2) The existing C++ project is open by Smart Configurator for RX V2.12.0 (equivalent to e^2 studio 2022-01)

(3) The BSP component version for this existing C++ project is updated to version 7.00 onwards

1.5 Workaround

(1) Close the project file (*. scfg) from Smart Configurator editor and open it by any text editor (e.g. Notepad)

(2) Add the C++ language option information "<option id="com.renesas.smc.toolchain.option.language" key="com.renesas.smc.toolchain.option.language.cpp"/>" within the tool chain tag; if the language option information exists but it is for C language, please just update the "*.c" to "*.cpp"

```
<general version="2.0.0.0">
    <configuration active="true" id="com.renesas.smc.toolchain.rxc.configuration.release">
        <property id="com.renesas.smc.service.project.buildArtefactType" values="com.renesas.smc.service.project.buildArtefactType.exe"/>
        <toolchain id="com.renesas.smc.toolchain.rxc.toolchain.rxc">
            <option id="com.renesas.smc.toolchain.option.buildArtefactType" key="com.renesas.smc.toolchain.option.buildArtefactType.exe"/>
            <option id="com.renesas.smc.toolchain.option.rtos" key="com.renesas.smc.toolchain.option.rtos.none"/>
        </toolchain>
    </configuration>
```

Figure 1.1: Before adding the C++ language option information into toolchain tag

```
<general version="2.0.0.0">
    <configuration active="true" id="com.renesas.smc.toolchain.rxc.configuration.release">
        <property id="com.renesas.smc.service.project.buildArtefactType" values="com.renesas.smc.service.project.buildArtefactType.exe"/>
        <toolchain id="com.renesas.smc.toolchain.rxc.toolchain.rxc">
            <option id="com.renesas.smc.toolchain.option.language" key="com.renesas.smc.toolchain.option.language.cpp"/>
            <option id="com.renesas.smc.toolchain.option.buildArtefactType" key="com.renesas.smc.toolchain.option.buildArtefactType.exe"/>
            <option id="com.renesas.smc.toolchain.option.rtos" key="com.renesas.smc.toolchain.option.rtos.none"/>
        </toolchain>
    </configuration>
```

Figure 1.2: After adding the C++ language option information into toolchain tag

(3) Save and close it, then open it again by Smart Configurator editor

(4) Click "Generate Code" button to generate BSP component codes again, then build, the issue should be solved, and the project should be built successfully.

1.6 Schedule for Fixing the Problem

This problem will be fixed in the following versions.

➢ e^2 studio 2022-04

➢ Smart Configurator for RX V2.13.0

2. When build or clean e² studio Smart Configurator project

2.1 Applicable Products

- ➢ e² studio 2021-10 (Smart Configurator Plug-in V2.11.0) or later

2.2 Applicable Devices

- ➢ RX family:
  RX110, RX111, RX113, RX130, RX13T, RX140, RX230, RX231, RX23E-A, RX23T, RX23W, RX24T, RX24U, RX651, RX65N, RX66N, RX66T, RX671, RX72M, RX72N, RX72T, RX64M, RX71M

2.3 Details

When build or clean e² studio Smart Configurator project, source files will be re-generated.

2.4 Condition

When build or clean e² studio Smart Configurator project in e² studio 2021-10 onwards, all source files will be re-generated when any of the following condition is met.

- "Build" the project (either manually or by automatic build setting) after "Clean" operation

- "Build" the project after modification of Smart Configurator configurations (if there is any unsaved configuration, Smart Configurator will save the project first)

2.5 Workaround

No good workaround, but code generation related to build and clean operation can be disabled by the following steps:

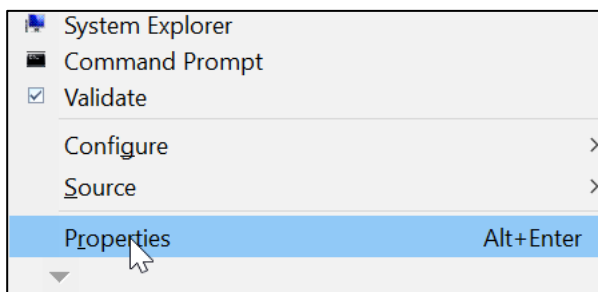(1) Right click the project on the project tree and click "Properties" from the popup menu.

Figure 2.1: Context menu of properties

(2) Choose the "Builders" item on the left of the property window, then select the "SC Code Generation Builder" on the right, click "Edit…" button
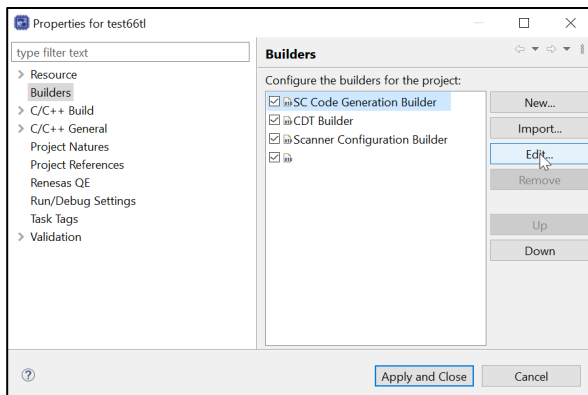

Figure 2.2: Properties dialog window

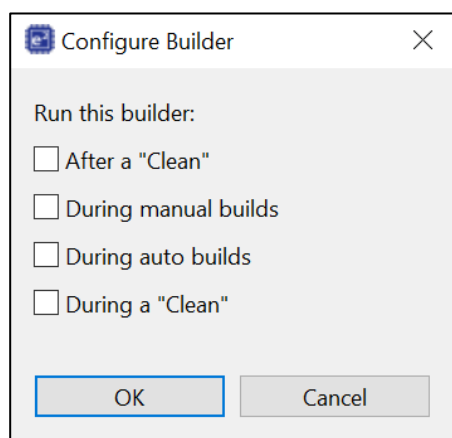(3) Deselect all the checkbox selections on the popup configure window and then click "OK"

Figure 2.3: Configure builder dialog window

2.6　Schedule for Fixing the Problem

This problem will be fixed in the following versions.

➢ e^2 studio 2022-04

➢ Smart Configurator for RX V2.13.0

3. When using AN107 in S12AD Continuous Scan Mode component

3.1 Applicable Products

- ➢ e^2 studio 2020-07 (Smart Configurator Plug-in V2.6.0) or later
- ➢ Smart Configurator for RX V2.6.0

3.2 Applicable Devices

- ➢ RX family: RX66T/RX72T

3.3 Details

When using AN107 in S12AD Continuous Scan Mode component, after generating codes and build, there will be a build error saying "*E0520136: Struct "<unnamed>" has no field "ANSA107"*" in the output console.

3.4 Condition

When using AN107 in S12AD Continuous Scan Mode component and then build the generated codes
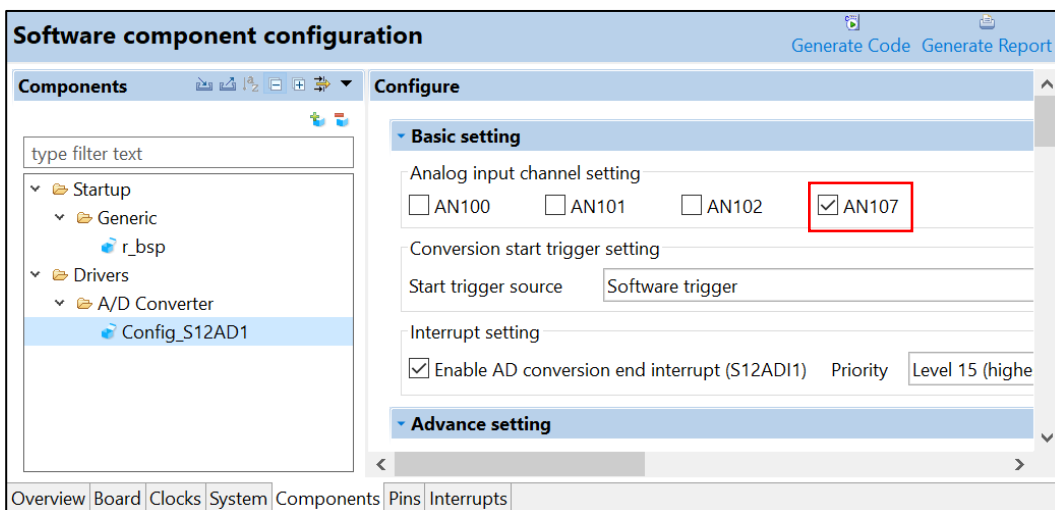

Figure 3.1: Using AN107 in the S12AD Continuous Scan Mode component

3.5 Workaround

Please manually correct the generated codes from "ANSA107" to "ANSA007" in the initialization API.

Note: When code is generated again, generated code returns to the state before correction. Therefore, correct the source file each time you generate code.

- · Source file: "*<S12AD-configuration-name>*.c"

- · Function: "void r_*<S12AD-configuration-name>*_Create (void)"

  The *<S12AD- configuration-name>* varies depending on the Continuous Scan Mode component of S12AD.

 Below is an example of modification when the *<S12AD-configuration-name>* is Config_S12AD1 (initial value) for RX66T.

Before modification:

```
/****************************************************************************
* Function Name: R_Config_S12AD1_Create
* Description  : This function initializes the S12AD1 channel
* Arguments    : None
* Return Value : None
****************************************************************************/

void R_Config_S12AD1_Create(void)
{
    /* Cancel S12AD1 module stop state */
    MSTP(S12AD1) = 0U;
     …
    /* Set channel AN107 as a target for conversion */
    S12AD1.ADPGADCR0.BIT.P100DEN = 0U;
    S12AD1.ADPGADCR0.BIT.P101DEN = 0U;
    S12AD1.ADPGADCR0.BIT.P102DEN = 0U;
    S12AD1.ADANSA0.BIT.ANSA107 = 1U;
    S12AD1.ADCER.WORD = _0000_AD_AUTO_CLEARING_DISABLE |
_0000_AD_SELFDIAGST_DISABLE | _0000_AD_RIGHT_ALIGNMENT;
    S12AD1.ADELCCR.BYTE = _02_ALL_SCAN_COMPLETION;
    S12AD1.ADCSR.WORD |= _1000_AD_SCAN_END_INTERRUPT_ENABLE;
    S12AD1.ADADC.BYTE = _00_AD_1_TIME_CONVERSION | _00_AD_ADDITION_MODE;

     …

}
```

After modification:

```
/****************************************************************************
* Function Name: R_Config_S12AD1_Create
* Description  : This function initializes the S12AD1 channel
* Arguments    : None
* Return Value : None
****************************************************************************/

void R_Config_S12AD1_Create(void)
{
    /* Cancel S12AD1 module stop state */
    MSTP(S12AD1) = 0U;
     …
    /* Set channel AN107 as a target for conversion */
    S12AD1.ADPGADCR0.BIT.P100DEN = 0U;
    S12AD1.ADPGADCR0.BIT.P101DEN = 0U;
    S12AD1.ADPGADCR0.BIT.P102DEN = 0U;
    S12AD1.ADANSA0.BIT.ANSA007 = 1U;
    S12AD1.ADCER.WORD = _0000_AD_AUTO_CLEARING_DISABLE |
_0000_AD_SELFDIAGST_DISABLE | _0000_AD_RIGHT_ALIGNMENT;
    S12AD1.ADELCCR.BYTE = _02_ALL_SCAN_COMPLETION;
    S12AD1.ADCSR.WORD |= _1000_AD_SCAN_END_INTERRUPT_ENABLE;
    S12AD1.ADADC.BYTE = _00_AD_1_TIME_CONVERSION | _00_AD_ADDITION_MODE;

     …

}
```

3.6   Schedule for Fixing the Problem

This problem will be fixed in the following versions.

➢   e^2 studio 2022-04

➢   Smart Configurator for RX V2.13.0

Revision History

		Description	
Rev.	Date	Page	Summary
1.00	Mar.01.22	8	First edition issued

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.

Contact information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit:
www.renesas.com/contact/

TS Colophon 4.3