

[Notes]

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Rev.1.00

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e² studio Smart Configurator Plug-in,
Smart Configurator for RX

Outline

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

- 1. When using Stop API in Continuous Scan Mode DSAD and Single Scan Mode DSAD components

1. When Using Stop API in Continuous Scan Mode DSAD and Single Scan Mode DSAD Components

1.1 Applicable Products

- e² studio V7.6.0 (Smart Configurator Plug-in V2.3.0) or later
- Smart Configurator for RX V2.3.0 or later

1.2 Applicable Devices

- RX family:
RX23E-A group

1.3 Details

When the inter-unit synchronized start function is enabled in Continuous Scan Mode DSAD or Single Scan Mode DSAD component, auto scan may not be stopped correctly because the generated code for Stop API is wrong.

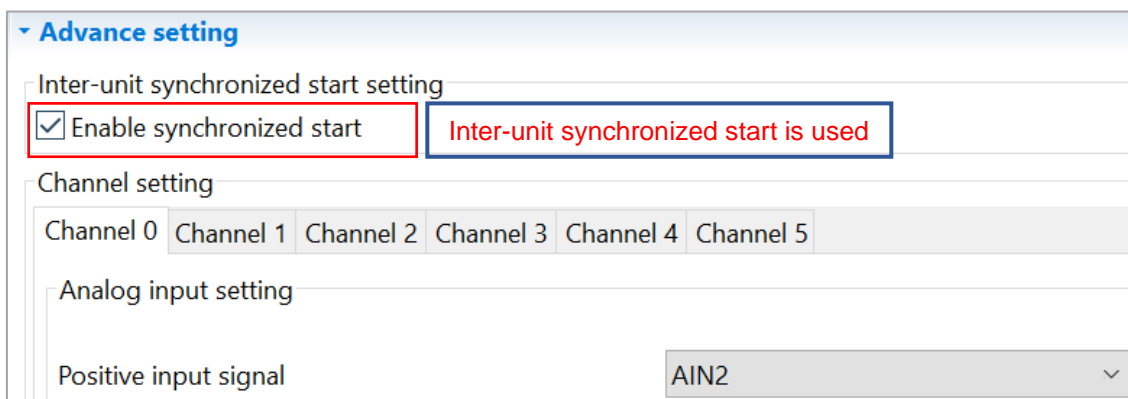


Figure 1.1 GUI configuration for enabling inter-unit synchronized start

```

/*****
* Function Name: R_Config_DSAD0_Stop
* Description  : This function stops the DSAD0 converter
* Arguments   : None
* Return Value : None
*****/

void R_Config_DSAD0_Stop(void)
{
    while (DSAD0.SR.BIT.ACT == 1U)
    {
        DSAD0.ADSTP.BIT.STOP = 1U;
        DSAD0.ADST.BIT.START = 0U;
    }

    IEN(DSAD0, ADI0) = 0U;
    IR(DSAD0, ADI0) = 0U;
    IEN(DSAD0, SCANEND0) = 0U;
    IR(DSAD0, SCANEND0) = 0U;
}

```

Code for disabling inter-unit synchronized start function was not generated out

Figure 1.2 Wrong code in Stop API when inter-unit synchronized start is enabled

1.4 Workaround

Manually add code 'DSADn.MR.BIT.SYNCST = 0U' into the generated file (n =0, 1).

- Source file: "<Configuration-name>.c"
- Function: "void R_<Configuration-name>_Stop(void)"

The <Configuration-name> varies depending on the selected component of Continuous Scan Mode DSAD and Single Scan Mode DSAD.

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

Below is the example of modification when the <Configuration-name> is Config_DSAD0 (initial value).

Modification example:

```

/*****
* Function Name: R_Config_DSAD0_Stop
* Description  : This function stops the DSAD0 converter
* Arguments   : None
* Return Value : None
*****/

void R_Config_DSAD0_Stop(void)
{
    DSAD0.MR.BIT.SYNCST = 0U;
    while (DSAD0.SR.BIT.ACT == 1U)
    {
        DSAD0.ADSTP.BIT.STOP = 1U;
        DSAD0.ADST.BIT.START = 0U;
    }

    IEN(DSAD0, ADI0) = 0U;
    IR(DSAD0, ADI0) = 0U;
    IEN(DSAD0, SCANEND0) = 0U;
    IR(DSAD0, SCANEND0) = 0U;
}

```

A new line code for disabling the inter-unit synchronized start function is added

1.5 Schedule for Fixing the Problem

This problem will be fixed in the following versions. (Scheduled to be released in July 2020)

- e² studio 2020-07
- Smart Configurator for RX V2.6.0

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	May.16.20	-	First edition issued

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Corporate Headquarters

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

Contact information

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