[Notification]

Shorten Your Prototyping Time with Automatic Initial Board Configuration!

Smart Configurator Board Configuration Function for Evaluation Boards from Renesas and Our Partners (RX Family)

Outline

Board configuration function of Smart Configurator can reduce the initial configuration steps when setting up your evaluation board before use and can shorten the time it takes for prototyping.

Using this function, Smart Configurator can read the clocks configurations and pins assignment of the evaluation boards, and provide you an environment to start using the evaluation board immediately.

1. Features

1.1 Easy Initial Configuration Steps to Set Up Evaluation Boards and Shorten Your Prototyping Time

Evaluation boards are the key part of prototyping but there are some difficulties when setting up the evaluation boards before use such as below:

➤ Takes time to check the settings of clocks and peripherals by referring to the User's Manual of the evaluation board.

➤ Takes time to check the connection between pins of the MCU and the circuit of the evaluation board.

➤ Difficult for beginners and developers who are not used to embedded system development to start operating the evaluation board in a short time.

Board configuration function of the Smart Configurator can solve these issues and provide an environment to "start using the evaluation board immediately."

Board configuration function of the Smart Configurator can automatically configure the initial settings of the evaluation board simply by importing Board Description File (BDF). It automatically configures the settings of pins and clocks corresponding to the board connection, saving you time referring to the user's manual of the evaluation board.

Additionally, as connection information of MCU pins and evaluation board is included in the pins configuration, it helps to prevent mistakes in assigning pins of the peripheral functions you want to use. By using this function that can help with techniques for your development, even beginners and developers who are not used to embedded system development can feel comfortable about starting to use the evaluation boards.

1.2 Supported Evaluation Boards from Renesas Partners

One of the main features of the board configuration function is that not only on the Renesas evaluation boards, it is also available on evaluation boards from our partners.

Download the Board Description File (BDF) from our partner's website listed in section 2 Supported Evaluation Boards.

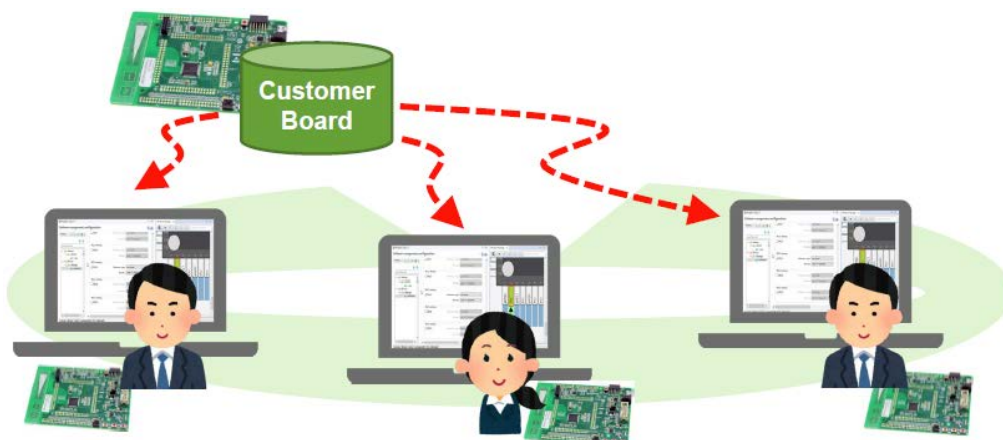 http://www.hokutodenshi.co.jp/

Renesas, together with our local and global partners strongly support our customers for their product development. If any of our partners are interested in supporting this function, please contact toolpartner@renesas.com.

1.3 Other Feature of Board Configuration Function

Besides importing of board information, the board configuration function can also export BDF. By exporting the BDF created for user's system and sharing it within the development team, it can prevent team members from setting different pin assignments by mistake.

Smart Configurator can also export the report file on the pin configuration, which can be used for designing information.

2. Supported Evaluation Boards

Board configuration function of the Smart Configurator supports the evaluation boards listed below (as of October 22, 2018.) Download Board Description File (BDF) from the web page.

➢ Renesas Starter Kits

Evaluation board name	URL
Renesas Starter Kit for RX111	http://www.renesas.com/rskrx111
Renesas Starter Kit for RX113	http://www.renesas.com/rskrx113
Renesas Starter Kit for RX130-128KB	http://www.renesas.com/rskrx130
Renesas Starter Kit for RX130-512KB	http://www.renesas.com/rskrx130-512kb
Renesas Starter Kit for RX231	http://www.renesas.com/rskrx231
Renesas Starter Kit+ for RX64M	http://www.renesas.com/rskrx64m
Renesas Starter Kit+ for RX65N-1MB	http://www.renesas.com/rskrx65n
Renesas Starter Kit+ for RX65N-2MB	http://www.renesas.com/rskrx65n-2mb
Renesas Starter Kit+ for RX71M	http://www.renesas.com/rskrx71m

➢ Evaluation Boards from Renesas Partners

Company name URL	Evaluation board name	
Hokuto Denshi Co., Ltd. http://www.hokutodenshi.co.jp/7/smart_configurator.htm	HSBRX111-64	HSBRX113F100
	HSBRX130F80	HSBRX130F100
	HSBRX230F100	HSBRX231F100
	SmartRX 学習キット	HSBRX64MC
	HSBRX651F100	HSBRX651F100A
	HSBRX651F144	HSBRX651F144A
	HSBRX651F176	HSBRX65N100
	HSBRX65N100A	HSBRX65N144
	HSBRX65N144A	HSBRX65N176
	HSBRX71M100	HSBRX71M176

3.   How to Use Smart Configurator

In addition to the board configuration function, Smart Configurator has a variety of other functionalities.

For example, to operate the MCU, you would have to write appropriate values in target registers by following certain steps, however, by using Smart Configurator you can also generate peripheral driver codes.

For details, refer to the following application note:

https://www.renesas.com/search/keyword-search.html#genre=document&q=r20an0451

4.   How to Obtain Smart Configurator

Installation methods vary depending on the integrated development environment you are using.

For details, refer to the following sections. The product is available free of charge in either method.

4.1   When Using e^2 studio Integrated Development Environment

Smart Configurator is included in e^2 studio as a plug-in. For how to install the e^2 studio, refer to the following.

➢   Installing e^2 studio integrated development environment

Download the e^2 studio installer from the URL below and start the installation.

https://www.renesas.com/e2studio#downloads

Notes 1: Read the notes on the download page before starting the installation.

2: There are two types of installers: online installer (web installer) and offline installer. Use the offline installer if you are not connected to the internet or need to download a specific version other than the latest version.

3: Do not open a workspace used with a different version of e^2 studio with the newly installed e^2 studio. Create a new folder, specify it as a workspace and import the project from the original workspace.

4.2   When Using Other Integrated Development Environment Than e^2 studio

Download the Smart Configurator for RX (Installer) from the URL and start the installation. If you are using CS+, also download CS+ Smart Configurator Communications Plug-in for RX, which is required to use RX Smart Configurator together with CS+.

https://www.renesas.com/smart-configurator#downloads

Revision History

Rev.	Date	Page	Summary
			Description
1.00	Nov. 01, 2018	-	First edition issued

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■Inquiry

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