

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

LUCIO DEVELOPMENT LLC,

Plaintiff,

vs.

RENESAS ELECTRONICS
AMERICA, INC.,

Defendant.

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Case No: 1:19-cv-663

PATENT CASE

COMPLAINT

Plaintiff Lucio Development LLC (“Plaintiff” or “Lucio”) files this Complaint against Renesas Electronics America, Inc. (“Defendant” or “Renesas”) for infringement of United States Patent No. 7,069,546 (hereinafter “the ‘546 Patent”).

PARTIES AND JURISDICTION

1. This is an action for patent infringement under Title 35 of the United States Code. Plaintiff is seeking injunctive relief as well as damages.

2. Jurisdiction is proper in this Court pursuant to 28 U.S.C. §§ 1331 (Federal Question) and 1338(a) (Patents) because this is a civil action for patent infringement arising under the United States patent statutes.

3. Plaintiff is a Texas limited liability company with its office address at 555 Republic Dr., Suite 200, Plano, Texas 75074.

4. On information and belief, Defendant is a California corporation with its principal place of business at 1001 Murphy Ranch Rd., Milpitas, CA 95035. On information and belief, Defendant may be served with process through its registered agent CT Corporation

System, 818 West Seventh St., Suite 930, Los Angeles, CA 90017.

5. This Court has personal jurisdiction over Defendant because Defendant has committed, and continues to commit, acts of infringement in this District, has conducted business in this District, and/or has engaged in continuous and systematic activities in this District.

6. On information and belief, Defendant's instrumentalities that are alleged herein to infringe were and continue to be used, imported, offered for sale, and/or sold in this District.

VENUE

7. Venue is proper in this District pursuant to 28 U.S.C. §1400(b) because acts of infringement are occurring in this District and Defendant has a regular and established place of business in this District at 900 S. Capital of Texas Hwy., West Lake Hills, TX 78746.

COUNT I **(INFRINGEMENT OF UNITED STATES PATENT NO. 7,069,546)**

8. Plaintiff incorporates paragraphs 1 through 7 herein by reference.

9. This cause of action arises under the patent laws of the United States and, in particular, under 35 U.S.C. §§ 271, *et seq.*

10. Plaintiff is the owner by assignment of the '546 Patent with sole rights to enforce the '546 Patent and sue infringers.

11. A copy of the '546 Patent, titled "Generic Framework for Embedded Software Development," is attached hereto as Exhibit A.

12. The '546 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

13. On information and belief, Defendant has infringed and continues to infringe one or more claims, including at least Claim 1, of the '546 Patent by making, using, importing,

selling, and/or offering for sale a software platform for embedded software development, which is covered by at least Claim 1 of the '546 Patent. Defendant has infringed and continues to infringe the '546 Patent directly in violation of 35 U.S.C. § 271.

14. Defendant, sells, offers to sell, and/or uses embedded software development packages including, without limitation, an eclipse embedded studio (e² studio), an Integrated Development Environment (IDE), and any similar products ("Product"), which infringe at least Claim 1 of the '546 Patent. The Product practices a method for producing embedded software. For example, Defendant provides an eclipse embedded studio (e² studio), an Integrated Development Environment (IDE), based on Eclipse CDT (C/C++ Development Tooling), which comprises an interface for editing, compiling and debugging of a source code. Renesas and/or its customers specifically use Evaluation/Development kit (such as RX Family, RL78 Family, RH850 Family, RZ Family, Renesas Synergy Microcontrollers and SuperH Family (SH-2 and SH-2A)) which integrates with e² studio IDE to produce embedded software. Certain elements of this limitation are illustrated in the screenshots below and in the screenshots referenced in connection with other elements herein.

Renesas Electronics > All Products > Software and Tools > Development Tools

e² studio

Product Info Design Support Documents Downloads

Overview

[Integrated Development Environment based on the "Eclipse" supporting the Renesas MCU]

Renesas e² studio is a development environment based on the popular Eclipse CDT (C/C++ Development Tooling), covers build (editor, compiler and linker control) as well as debug interface.

A wide range of compilers including Renesas' compilers can be integrated into e² studio. Combined with the extremely powerful editor functionality and project management tools of Eclipse CDT, e² studio offers a state-of-the-art coding environment for Renesas embedded controllers.

Topics

New release: V7.3.0 e² studio

Support has been added for C/C++ Compiler Package for RX Family (CC-RX) V3.01.00.

[Learn More \(Tool News\) >>](#)

Source: <https://www.renesas.com/us/en/products/software-tools/tools/ide/e2studio.html>

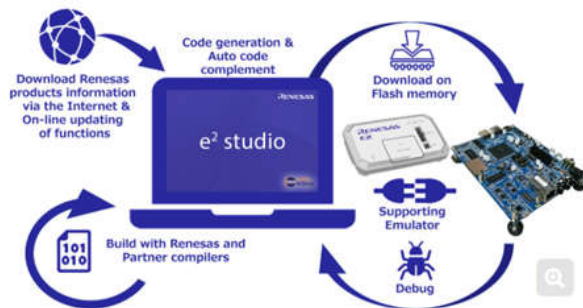
e² studio: The Integrated Development Environment for Renesas MCU

With the e² studio, developer can use

Renesas/Partner compilers and emulators for building and debugging.
Code editor with handy functions of eclipse CDT such as auto code complement, code navigation or code refactoring.

Perspective, the efficient placement of windows and proper contents for each development phase.

Various additional functions that can be updated via the Internet.



Source: <https://www.renesas.com/us/en/products/software-tools/tools/ide/e2studio.html>

Project Generator and Code Generator

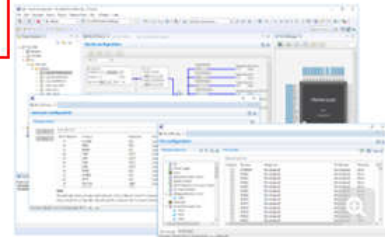
Verified Renesas MCU source codes are readily available

e² studio includes a project generator to speed up the initial project set up. The development engineer can select device, initial compiler options and debuggers. e² studio will then prepare a preconfigured project with all the necessary support files such as device specific headers etc. The project is now ready to build and debug.

Moreover, Renesas supports code generation tools: 'Smart Configurator' and 'Code generator'.

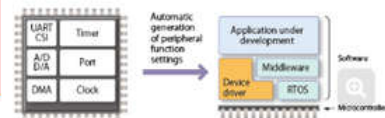
Smart Configurator generates ready-to-use codes for Renesas microcontrollers with some GUIs such as pins, clocks and interrupts.

For information of supporting devices, please refer to Smart Configurator web page. >>



Code generator is automatic driver generation tool for internal peripheral I/O modules of Renesas microcontrollers. Developer can generate drivers for peripheral I/O modules through simple settings by GUI interface. (Some Renesas devices are not supported.)

For more details, please refer to Code generator Plug-in. >>



Source: <https://www.renesas.com/us/en/products/software-tools/tools/ide/e2studio.html>

Target Devices

e² studio has been developed to support the key promotion families of Renesas controllers:

- RX Family
- RL78 Family
- RH850 Family ^(Note1)
- RZ Family
- Renesas Synergy™ Microcontrollers
- SuperH Family (SH-2 and SH-2A) ^(Note2)

For details, see the e² studio Release Note.

Notes

1. Supports debugging function only.
2. Supports SH Family device projects in V5.4.0 or earlier versions only.

Source: <https://www.renesas.com/us/en/products/software-tools/tools/ide/e2studio.html>

Table 1.1 e² studio Features Comparison

Feature	Renesas Synergy	RX/RL78/RZ/RH/SH Family
ISDE framework and C/C++ support	Eclipse + CDT	Eclipse + CDT
Code-generating tools	Synergy Project Generator Synergy Configuration Editor	Code Generator
Toolchain	GCC ARM Embedded	<ul style="list-style-type: none"> • RX family (GNURX-ELF, Renesas RXC and IAR build plug-ins) • RL family (GNURL78-ELF, Renesas CCRL and IAR build plug-ins) • SH family (GNUSH-ELF and Renesas SHC) • RZ family (GNUARM-NONE-EABI)
HEW / CS+ project import	Not Supported	Supported
Target Debuggers	SEGGER J-Link®	E1/E20, IECUBE, E10A-USB, SEGGER J-Link
Smart Manual tooltips	Supported (for SSP API)	Supported
Code Analysis (CODAN)	Supported	Supported
Simulator	Not Supported	Supported for selected RX and RL family devices
Debugger	GDB with trace and real-time memory access	GDB with trace and real-time memory access
RTOS	Express Logic, Inc. ThreadX®	Multiple operating systems
ThreadX Configuration	Supported	Not Supported
ThreadX Debug	Supported	Not Supported
Memory Usage view	Supported	Supported
Visual Expressions view	Supported	Supported
Target Devices	Renesas Synergy Series S7, S5, S3, S1	RL78 family, RX family, RZ family, RH850 family

Source: <https://www.renesas.com/ve/en/doc/products/renesas-synergy/doc/r20ut4204eu0100-synergy-e2-studio-getting-started-guide.pdf>, page 4

15. The Product practices providing one or more generic application handler programs. Each program has code for performing generic functions common to multiple hardware modules used in a communication system. For example, the e² studio comprises Synergy Software Package (SSP), including frameworks, Hardware Abstraction Layer (HAL) drivers, and Board Support Package (BSP) drivers. The SSP provides complete driver libraries (“generic application handler programs”) for developing applications in the e² studio. Further, the SSP driver library comprises of code files which accesses Evaluation/Development kit such as Renesas Synergy Microcontrollers, RX Family, RL78 Family, RH850 Family, RZ Family (“hardware modules”). Certain elements of this limitation are illustrated in the screenshots below and in the screenshots referenced in connection with other elements herein.

1. Overview

Renesas Synergy e² studio is the Integrated Development Environment for Synergy Microcontrollers (MCU). The e² studio is based on the industry-standard open-source Eclipse IDE framework and the C/C++ Development Tooling (CDT) project, covering build (editor, compiler, and linker control) and debug phases with an extended GNU Debug (GDB) interface support.

The e² studio ISDE provides support for the Synergy Software Package (SSP), including frameworks, Hardware Abstraction Layer (HAL) drivers, and Board Support Package (BSP) drivers for Synergy projects. The SSP provides a complete driver library for developing Synergy applications in e² studio.

The e² studio ISDE includes multiple Graphical User Interface (GUI) wizards for auto-generating code, including and configuring existing drivers, configuring build and debug options, and running the applications, you create. Driver documentation is integrated in the form of tooltips, which are available in the code editor view.

The Renesas Synergy support is included in release 4.1 and higher of the Synergy e² studio. Multiple views and editors are available to support specifically Synergy Arm® Cortex®-M-based microcontrollers and the open-source GNU ARM tool chain.

The Synergy specific add-ons provide easy-to-navigate wizards for configuring hardware and for managing the extensive Renesas Synergy software library.

Source: <https://www.renesas.com/eu/en/doc/products/renesas-synergy/doc/r20ut4204eu0100-synergy-e2-studio-getting-started-guide.pdf>, page 3.

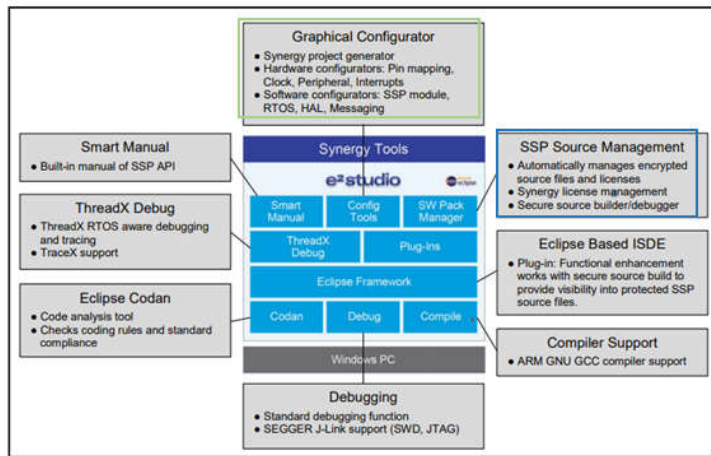


Figure 1-1 e² studio for Renesas Synergy

Most e² studio features are common to all supported Renesas Synergy Platform product lines. Specific to Synergy products are the GCC ARM Embedded toolchain support, the Synergy Project Generator, and the Synergy Configuration Editor.

Source: <https://www.renesas.com/eu/en/doc/products/renesas-synergy/doc/r20ut4204eu0100-synergy-e2-studio-getting-started-guide.pdf>, page 3.

- (4) Check the “Use Peripheral code Generator” or “Use FIT modules” options if available (depends on target device, FIT is available for RX family), otherwise ignore this setting. Click [Finish] to complete it. FIT modules can be downloaded at this dialog, or you can also add modules later.

Note: Please refer to “Renesas device support” tab in “Installation details” dialog.

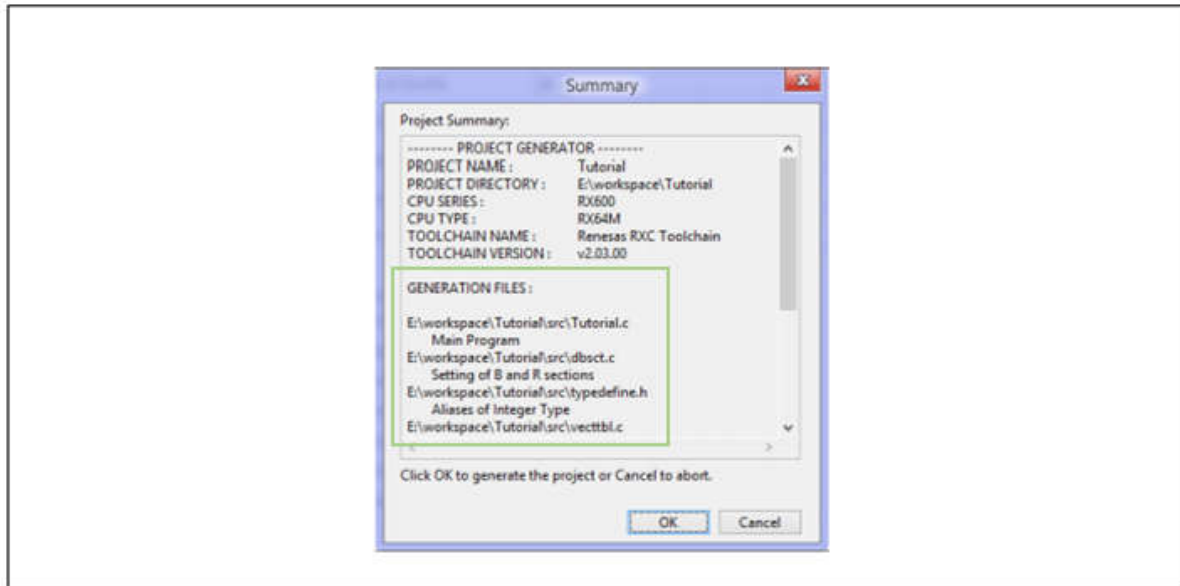


Figure 3-4 New Project Creation Wizard (4/4)

Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 13.

(5) A project summary is displayed. Click [Ok] to generate the project.

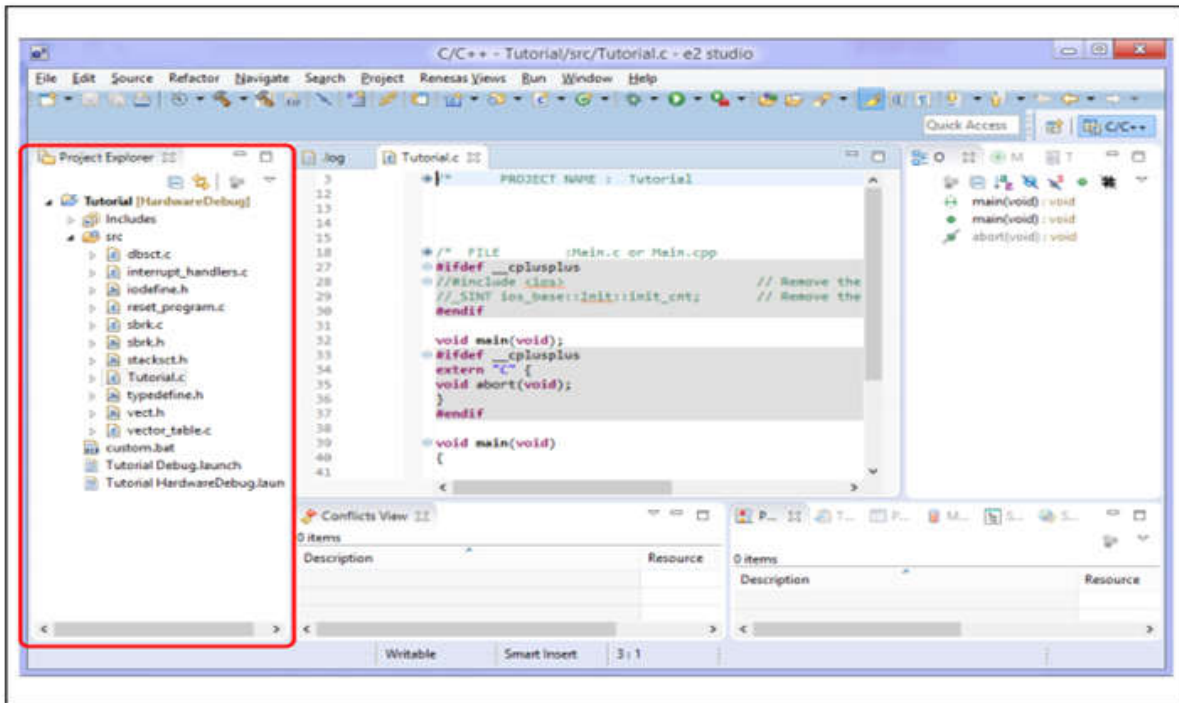


Figure 3-5 New C Project Created

Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 14

(6) A brand new C project named "Tutorial" is created as shown above.

This project consists of an application file "Tutorial.c" and standard start-up files (e.g. "dbstct.c", "interrupt_handlers.c", "sbrk.c" etc.). All these project and source files listed in the [Project Explorer] panel reflects the folder structure of the project, just as seen on the standard file explorer.

Notes for backing up projects:

- Project properties are stored in files or folders which filenames or folder names are prefixed with a '.' (dot), for example ".project". It is necessary to include these files or folders when archiving the project for back-up purpose.
- In order to restore properties shared among projects, for instance when one project make reference to another project's files, please backup the whole workspace folder.

Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 14.

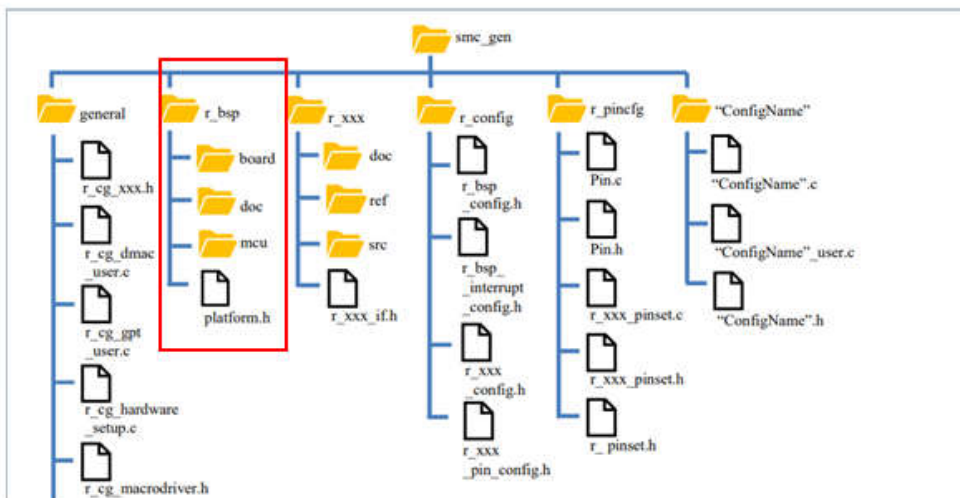
16. The Product practices generating specific application handler code to associate the generic application functions with specific functions of a device driver for at least one of the types of the hardware modules. For example, the e² studio Smart Configurator generates

code files (“specific application handler”) on the basis of Board Support Package (BSP) drivers used in Evaluation/Development kit such as Renesas Synergy Microcontrollers, RX Family, RL78 Family, RH850 Family, RZ Family (“hardware modules”). Further, e² studio is integrated with the Hardware Abstraction Layer (HAL) and the Synergy Software Package (SSP), including libraries (“generic application functions”) for drivers used in the Evaluation/Development kit. Certain elements of this limitation are illustrated in the screenshots below and in the screenshots referenced in connection with other elements herein.

6.2 Configuration of Generated Files and File Names

Figure 5-3, Configuration of Generated Files and File Names, shows the folders and files output by the Smart Configurator. Function *main()* is included in *[Project name].c*, which is generated when the project is created by the e² studio.

r_XXX indicates the names of FIT modules, “ConfigName” indicates the name of the configuration formed by the component settings, and “Project name” indicates a project name set in the e² studio.



Source: <https://www.renesas.com/in/en/doc/products/tool/doc/016/r20an0451es0130-e2studio-sc.pdf>, page 60.

(6) A brand new C project named "Tutorial" is created as shown above.

This project consists of an application file "Tutorial.c" and standard start-up files (e.g. "dbstc.c", "interrupt_handlers.c", "sbrk.c" etc.). All these project and source files listed in the [Project Explorer] panel reflects the folder structure of the project, just as seen on the standard file explorer.

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- In order to restore properties shared among projects, for instance when one project make reference to another project's files, please backup the whole workspace folder.

Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 14.

RX Smart Configurator User's Guide: e² studio

6. Generating Source Code

6.1 Outputting Generated Source Code

Output a source file for the configured details by clicking on the  (Generate Code) button in the Smart Configurator view.

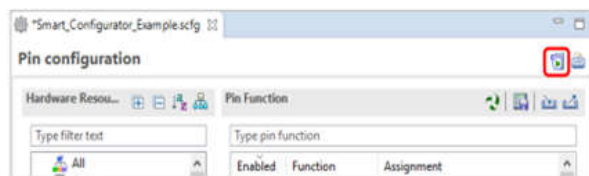


Figure 6-1 Generating a Source File

The Smart Configurator generates a source file in <ProjectDir>\src\smc_gen and updates the source file list in the Project Explorer. If the Smart Configurator has already generated a file, a backup copy of that file is also generated (refer to chapter 8, Backing up Generated Source Code).

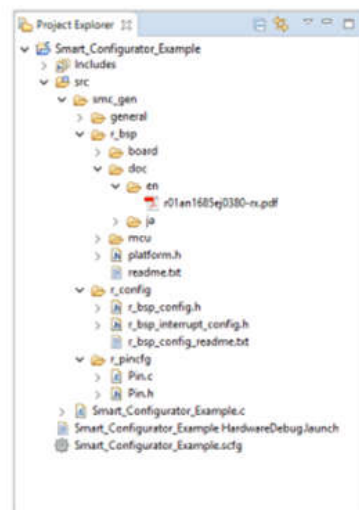


Figure 6-2 Source Files in the Project Explorer

Source: <https://www.renesas.com/in/en/doc/products/tool/doc/016/r20an0451es0130-e2studio-sc.pdf>, page 59.

- (2) Enter the project name and select toolchain: "Renesas RXC Toolchain". Click [Next] to continue. If "Renesas RXC Toolchain" is not available, please follow the steps in Section 2.5 to install 'RX Compiler Package'.

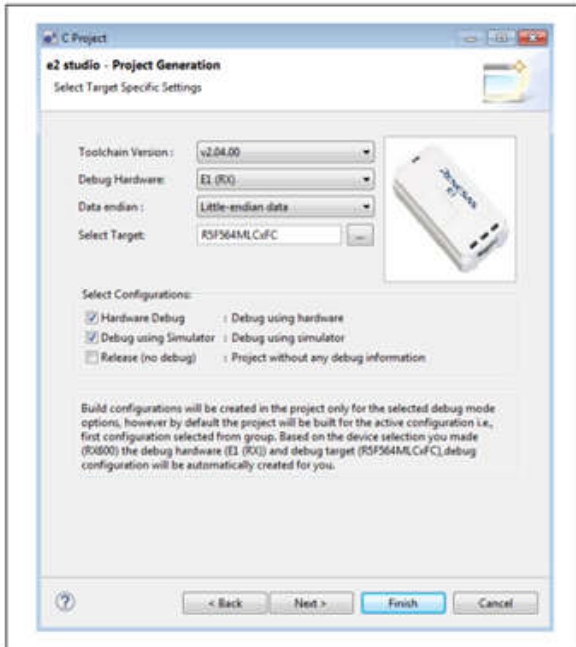
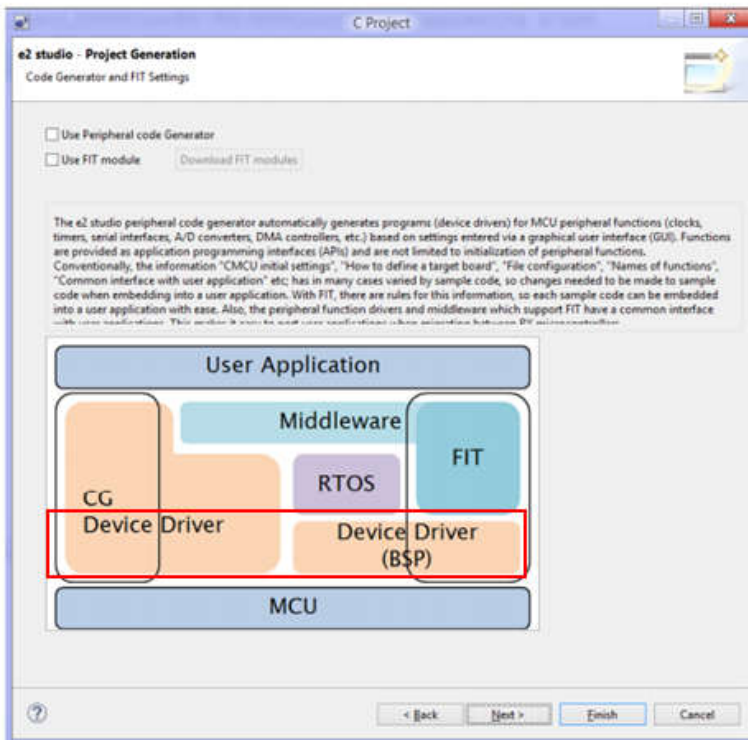


Figure 3-2 New Project Creation Wizard (2/4)

Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 12.



Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 13.

The Synergy specific add-ons provide easy-to-navigate wizards for configuring hardware and for managing the extensive Renesas Synergy software library.

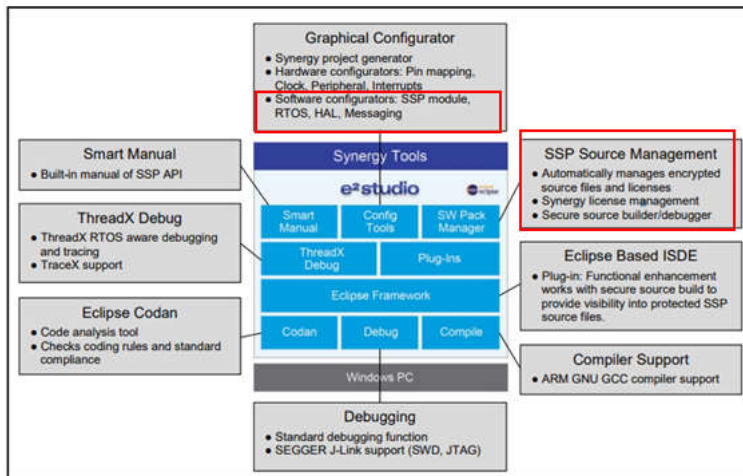


Figure 1-1 e² studio for Renesas Synergy

Most e² studio features are common to all supported Renesas Synergy Platform product lines. Specific to Synergy products are the GCC ARM Embedded toolchain support, the Synergy Project Generator, and the Synergy Configuration Editor.

Source: <https://www.renesas.com/eu/en/doc/products/renesas-synergy/doc/r20ut4204eu0100-synergy-e2-studio-getting-started-guide.pdf>, page

17. The Product practices defining a specific element in the specific application handler code to be handled by one of the generic application functions for the at least one of the types of the hardware modules, and registering one of the specific functions of the device driver for use in handling the defined specific element. For example, the e² studio generates a code file defining a data structure (“specific element”) in a user generated code (“specific application handler”) on the basis of the Board Support Package (BSP) driver in the Evaluation/Development kit such as Renesas Synergy Microcontrollers, RX Family, RL78 Family, RH850 Family, RZ Family (“hardware modules”). Certain elements of this limitation are illustrated in the screenshots below and in the screenshots referenced in connection with other elements herein.

(5) A project summary is displayed. Click [Ok] to generate the project.

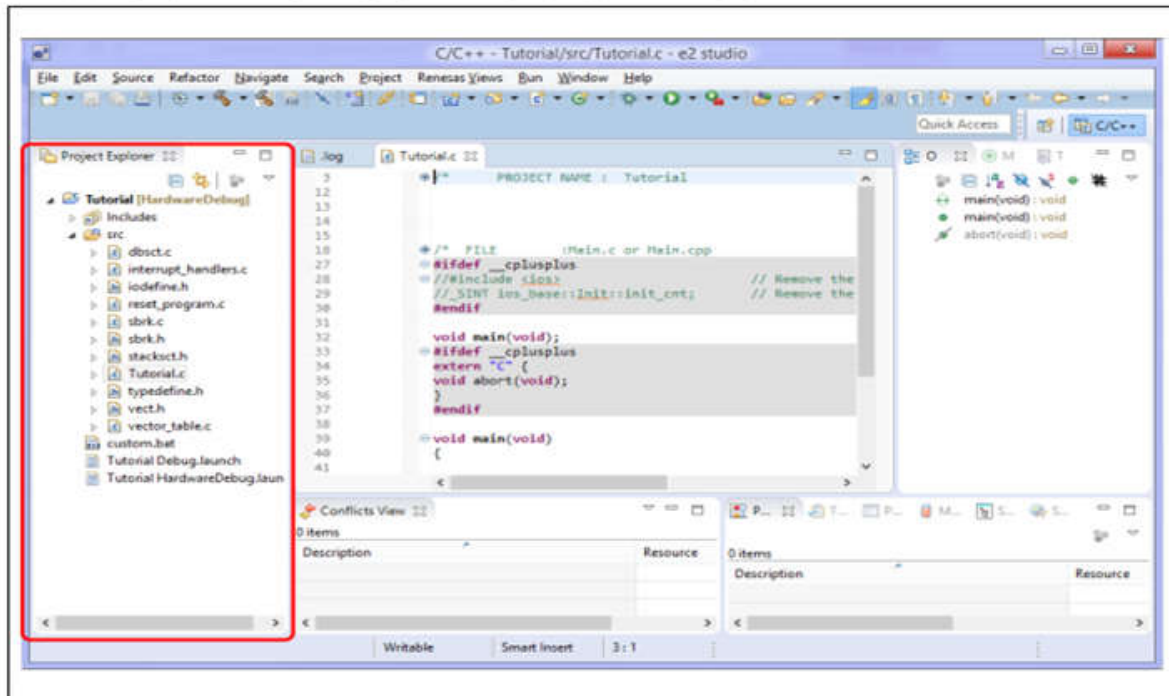


Figure 3-5 New C Project Created

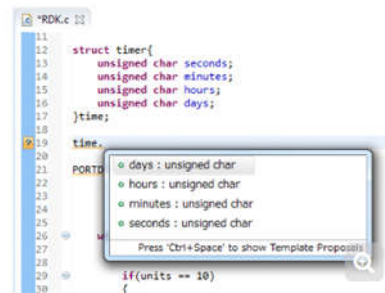
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Eclipse CDT Editor

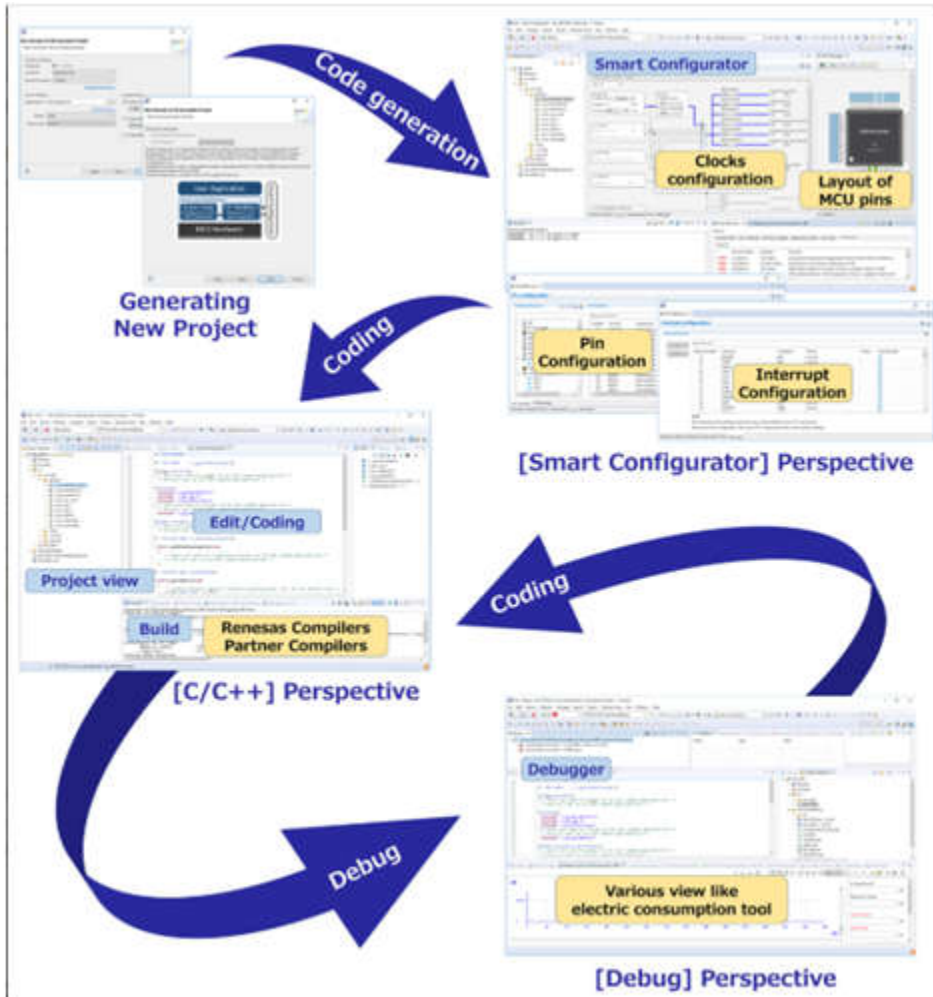
Easy-to-use editor available with various functions

The Eclipse CDT (C/C++ Development Tooling) editor built into e² studio offers extremely powerful functionality specifically designed for C/C++ developers. These features include:

- Automatic code complement (variable names, function names, struct/union members, #define symbols, correction codes in code format standard, spelling check, etc.)
- Keyword color coding of source code for easy recognition of special strings, syntax, condition statements
- Powerful code navigation (Project browser, functions or variables by including #include, functions, hierarchical types, Jump to definition of functions or macros)
- Comment and code folding options
- Automated code constructs (if, while, do..while etc.)
- Pre-processor checking in edit (#ifdef code low-lighted if not true)
- Code refactoring (Changing name of variable at once, Simplifying function codes)



Source: <https://www.renesas.com/in/en/products/software-tools/tools/ide/e2studio.html>



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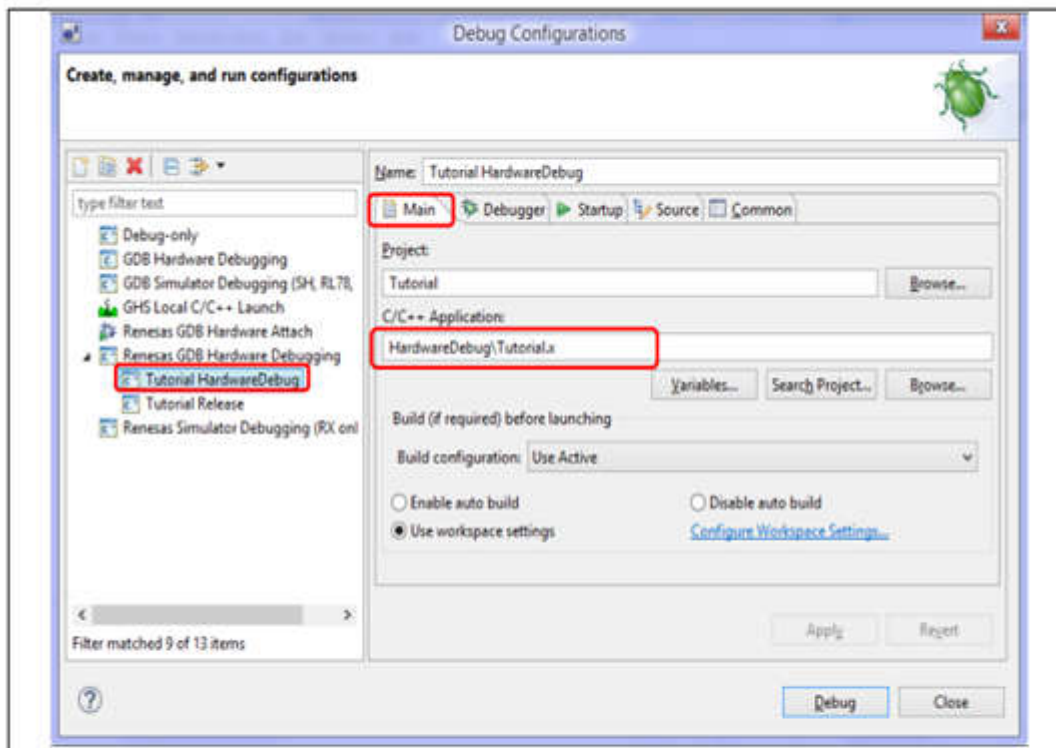


Figure 5-3 Select Load Module

- (2) In "Debug Configurations" windows, expand the "Renesas GDB Hardware Debugging" debug configuration and click on existed debug configuration (e.g. "Tutorial HardwareDebug").

Source: <https://www.renesas.com/in/en/products/software-tools/tools/ide/e2studio.html>

3.2. Synergy Project Configuration Editor

The Synergy Project Configuration editor view displays the current project configuration settings. The settings are saved in the file `configuration.xml`. The project configuration settings are grouped into multiple pages that allow you to set several configurable aspects of the project such as how pins and clocks are set up and which drivers are included. Drivers can range from simple hardware-level drivers to RTOS aware applications. Multi-thread specific components like mutexes, semaphores, and events can be configured.

To edit the project configuration, make sure that:

- Synergy Configuration perspective is selected in the upper right-hand corner of the e² studio window or click **Window** → **Perspective** → **Open Perspective** → **Other...** → **Synergy Configuration** and the `configuration.xml` file is opened.
- The `configuration.xml` file is opened.

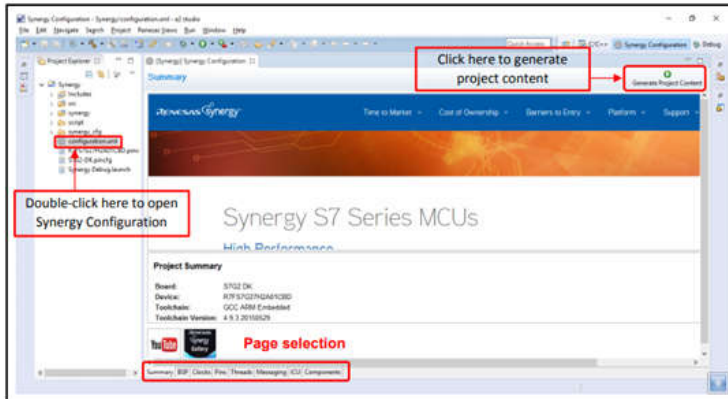


Figure 3-6 Synergy Project Configuration – Synergy Project Configuration View

Source: <https://www.renesas.com/eu/en/doc/products/renesas-synergy/doc/r20ut4204eu0100-synergy-e2-studio-getting-started-guide.pdf>, page 17.

3.2.6. Components Configuration page

The Components Configuration page enables the individual modules required by the application to be included or excluded. Modules common to all Synergy projects are preselected. For example: **HAL Drivers** → **all** → **r_ege**. All modules that are necessary for the drivers selected in the Threads page are included automatically. You can include or exclude additional modules by checking the box next to the required component.

Note: The primary way of adding modules to an application is by using the **Threads** page. The **Components** page is primarily used as a list of components available in the installed SSP.

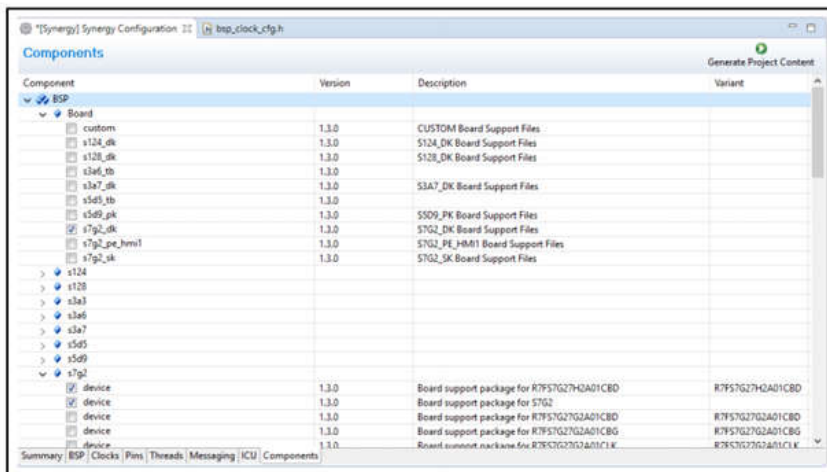


Figure 3-22 Synergy Project Configuration – Components configuration

Source: <https://www.renesas.com/eu/en/doc/products/renesas-synergy/doc/r20ut4204eu0100-synergy-e2-studio-getting-started-guide.pdf>, page 30.

18. The Product practices compiling the generic application handler programs together with the specific application handler code to produce machine-readable code to be

executed by an embedded processor in the at least one of the types of the hardware modules. For example, when a specific application is needed for a particular hardware, the generic functions and the specific functions are compiled together to yield a machine readable code. Renesas and/or its customers compile the generic functions and the specific functions using e² studio or any other IDE (such as ARM GNU GCC compiler) supported by Renesas. The compilation of an e² studio generated code produces a machine readable format for Evaluation/Development kit such as Renesas Synergy DK-S128, RX Family, RL78 Family, RH850 Family, RZ Family (“hardware modules”). Certain elements of this limitation are illustrated in the screenshots below and in the screenshots referenced in connection with other elements herein.

Eclipse Integrated Development Environment Framework: Easy to Expand Functions

e² studio consists of eclipse integrated development environment framework, CDT plug-in and various additional plug-ins. This structure enables to add and support various compilers and plug-ins easily.

Therefore, after installation of e² studio, additional Renesas plug-ins such as QE(Quick and Effective tool solution) and Partner plug-ins can be installed separately.



Renesas provides e² studio installer including all packages of Eclipse SDK(Software Development Kit) and eclipse plug-ins. Please refer to the documents about Eclipse platform^(Note4) and CDT plug-in^(Note5) published from www.eclipse.org.

e² studio has functions such as building, coding, debugging by Renesas or Partners plug-ins and can expand open functions by installing new plug-ins.

Notes

1. e² studio can be downloaded and used for free.
2. For Renesas Compiler, separate purchase is required.
3. e² studio supports Renesas' simulator and emulator E1, E2, E2Lite, E20. For details, please refer to table >>
4. Eclipse version of last e² studio is V4.7.3(Oxygen). For details, please refer to release web page. >>
5. CDT version of last e² studio is V9.4.3. For details, please refer to release web page. >>

Source: <https://www.renesas.com/in/en/products/software-tools/tools/ide/e2studio.html>

The Synergy specific add-ons provide easy-to-navigate wizards for configuring hardware and for managing the extensive Renesas Synergy software library.

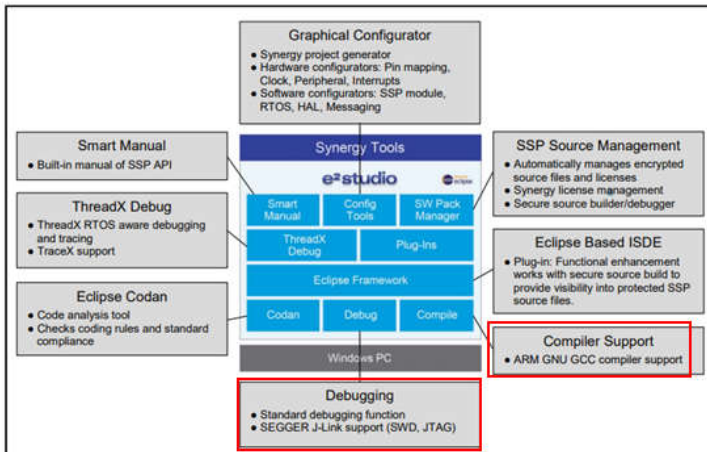


Figure 1-1 e² studio for Renesas Synergy

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Source: <https://www.renesas.com/eu/en/doc/products/renesas-synergy/doc/r20ut4204eu0100-synergy-e2-studio-getting-started-guide.pdf>, page 3.

CHAPTER 5. DEBUG

This chapter describes the usage of debug configuration and key debugging features for e² studio IDE. The following illustration refers to "Tutorial" project built (in Chapter 4.2) and based on hardware configuration: E1 emulator or E2 emulator Lite and RSK RX64M board.

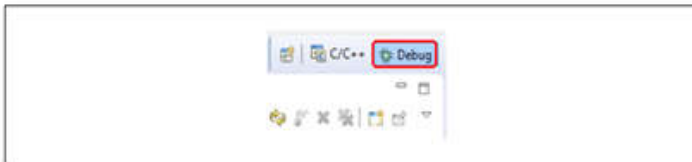


Figure 5-1 Switch to [Debug] Perspective

(1) Open "Tutorial" project workspace in e² studio IDE and click [Debug] perspective.

Perspective defines purpose-specific window layout of Workbench. Each perspective consists of a combination of views, menus, and toolbars. By switching perspective, views are laid out optimized for each purposes.

For instance, [C/C++] perspective has views that help user to develop C/C++ programs and [Debug] perspective has views that enable user to debug the program. If user attempts to connect the debugger in the [C/C++] perspective, IDE will then prompt users to switch to the [Debug] perspective.

Workbench can have multiple perspectives and user can customize them, or add even more perspectives.

Note: For more information on debug, please refer to "e² studio Debug Help" as described in chapter 6.

Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 29.

5.1. Change existing debug configuration

For the first time of launch debugger of the project, Debug Configuration should be adjusted. Default configuration can be changed as following operations:

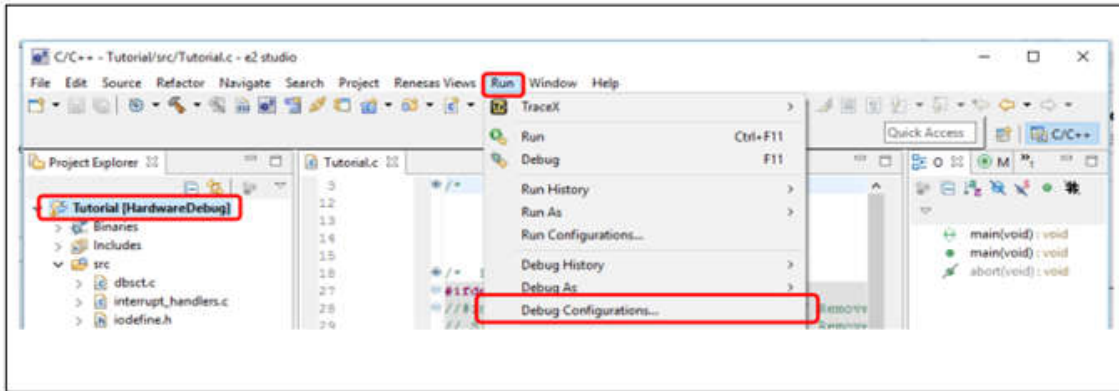


Figure 5-2 Open Debug Configurations Window

- (1) Click "Tutorial" Project in [Project Explorer] pane to set focus.

Click [Run] → [Debug Configurations...] or  icon (downward arrow) → [Debug Configurations...] to open the "Debug Configurations" window.

Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 29.

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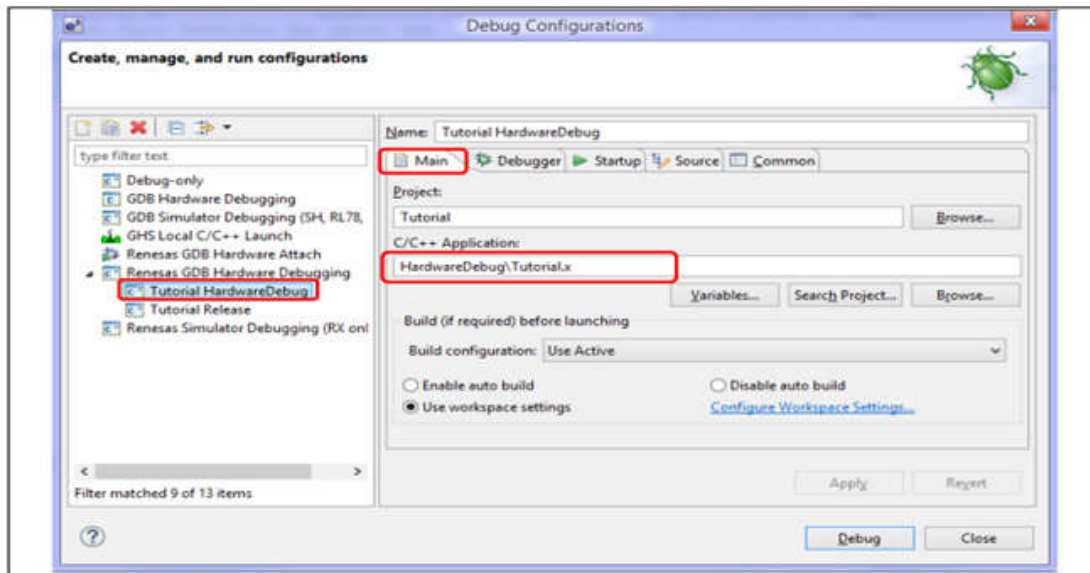


Figure 5-3 Select Load Module

Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 30.

- (2) In “Debug Configurations” windows, expand the “Renesas GDB Hardware Debugging” debug configuration and click on existed debug configuration (e.g. “Tutorial HardwareDebug”).
- (3) Go to the [Main] tab and browse to add the load module “Tutorial.x” located in the project build folder.

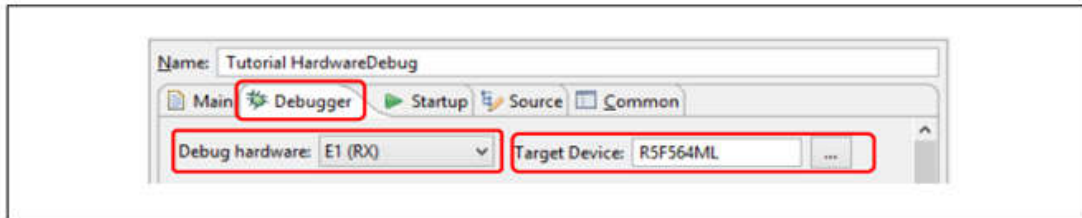


Figure 5-4 Select Target Device

Source: https://www.renesas.com/eu/en/doc/products/tool/doc/006/r20ut2771ej0400_e2_start_s.pdf, page 30.

19. Defendant’s actions complained of herein will continue unless Defendant is enjoined by this court.

20. Defendant’s actions complained of herein are causing irreparable harm and monetary damage to Plaintiff and will continue to do so unless and until Defendant is enjoined and restrained by this Court.

21. Plaintiff is in compliance with 35 U.S.C. § 287.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff asks the Court to:

(a) Enter judgment for Plaintiff on this Complaint on all causes of action asserted herein;

(b) Enter an Order enjoining Defendant, its agents, officers, servants, employees, attorneys, and all persons in active concert or participation with Defendant who receive notice of the order from further infringement of United States Patent No. 7,069,546 (or, in the alternative, awarding Plaintiff a running royalty from the time of judgment going forward);

(c) Award Plaintiff damages resulting from Defendant’s infringement in accordance with 35 U.S.C. § 284;

(d) Award Plaintiff pre-judgment and post-judgment interest and costs; and

(e) Award Plaintiff such further relief to which the Court finds Plaintiff entitled under law or equity.

Dated: June 27, 2019

Respectfully submitted,

/s/ Jay Johnson

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EXHIBIT A