

e² studio 2026-07 (2026-07.R20260717-1302)

R20UT5859EG0100

Rev.1.00

Release Note

24th July 2026

Introduction

This document outlines the device support, new features added in 2026-07, fixed issues and open issues in e² studio 2026-07.

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1. Product Information

1.1 Supported Operating Systems

These operating systems are officially supported by e² studio:

- Windows 10 64-bit
- Windows 11 64-bit

In addition, another official product build is available for Linux. This version supports:

- Ubuntu 22.04 LTS
- Ubuntu 24.04 LTS

Note: No other Linux distributions are officially supported by e² studio.

In addition, another official product build is available for Mac OS. This version supports:

- Mac OS 15 (Sequoia)
- Mac OS 26 (Tahoe)

Supported Device Family:

Device Family	Windows Product Support	Linux Product Support	Mac OS Product Support
EC-1	Yes	No	No
RA	Yes	Yes	Yes
RH850	Yes	Yes	No
RL78	Yes	Yes	Yes
RX	Yes	Yes	Yes
RZ	Yes (No RZ/G Linux Platform Tools)	Yes	No
Synergy	Yes	No	No
DA	Yes	Yes	Yes
RISC-V MCU	Yes	Yes	No

1.2 System requirements

For Windows 64-bit version

- System: x64 based processor, 2 GHz or faster, CPU has dual cores or more
 - Windows® 11 (64-bit version)
- Memory capacity: We recommend 8 GB or more. At least 4 GB.
- Capacity of hard disk: At least 2 GB of free space.
- Display: Graphics resolution should be at least 1024 x 768, and the mode should display at least 65,536 colors.
- Interface: USB 2.0
- Microsoft Visual C++ 2010 SP1 runtime library ^{*1}
- Microsoft Visual C++ 2015-2019 runtime library ^{*1}

*1. This software will be installed at the same time as the e² studio.

For Linux

- System: x64 based processor, 2 GHz or faster, CPU has dual cores or more
 - Ubuntu 22.04 LTS Desktop (64-bit version)
 - Ubuntu 24.04 LTS Desktop (64-bit version)
- Memory capacity: We recommend 2 GB or more.
- Capacity of hard disk: At least 2 GB of free space.

For Mac OS

- System: 1.8 GHz or faster 64-bit processor. Dual-core or better recommended. Apple Silicon (arm64) processors are only supported.
 - Mac OS 15 (Sequoia)
 - Mac OS 26 (Tahoe)
- Memory capacity: 4 GB of RAM; 8 GB of RAM recommended.
- Capacity of hard disk: At least 2 GB of free space.
- A screen resolution of 1280 x 800 or higher.

e² studio now runs on Java 21 & does not support older Java versions.

1.2.1 Windows version

The Windows product supports RA, DA RX, RL78, RH850, RZ, RISC-V and Synergy.

Device Family	Toolchain	Emulator
RA	GCC, LLVM	E2 Emulator, E2 Emulator Lite, Segger J-link
DA	GCC, LLVM	Segger J-link
RX	CC-RX, GCC	E2 Emulator, E2 Emulator Lite, Segger J-link
RL78	CC-RL, LLVM	E2 Emulator, E2 Emulator Lite, COM port debugging
RH850	CC-RH	E2 Emulator, E2 Emulator Lite, IE850A(only U2A/B/C)
RZ	GCC	Segger J-link
RISC-V	LLVM	E2 Emulator, E2 Emulator Lite, Segger J-link
Synergy	GCC	E2 Emulator, E2 Emulator Lite, Segger J-link
EC-1	GCC	Segger J-link

For information on how to install the Windows product please refer to FAQ in the below URL.

English: <https://ja-support.renesas.com/knowledgeBase/21018828>

Japanese: <https://en-support.renesas.com/knowledgeBase/21018832>

1.2.2 Linux version

The Linux product version of e² studio is based on the same content as the Windows release.

Therefore, documents of e² studio will be helpful for common usages. There are some differences, the Linux version only supports some different levels of tooling.

The Linux product supports RA, DA RX, RL78, RH850, RZ and RISC-V.

Device Family	Toolchain	Emulator
RA	GCC, LLVM	E2 Emulator, E2 Emulator Lite, Segger J-link
DA	GCC, LLVM	Segger J-link
RX	CC-RX, GCC	E2 Emulator, E2 Emulator Lite, Segger J-link
RL78	CC-RL, LLVM	E2 Emulator, E2 Emulator Lite, COM port debugging
RH850	CC-RH	E2 Emulator, E2 Emulator Lite, IE850A(only U2A/B/C)
RZ	GCC	Segger J-link
RISC-V	LLVM	Segger J-link
Synergy	Unsupported	Unsupported

For information on how to install the Linux product please refer to the following documents.

English: <https://en-support.renesas.com/knowledgeBase/19934358>

<https://www.renesas.com/document/mat/quick-start-guide-linux-hosted-version-e-studio?language=en>

Japanese: <https://ja-support.renesas.com/knowledgeBase/19934356>

<https://www.renesas.com/document/mat/quick-start-guide-linux-hosted-version-e-studio?language=ja>

1.2.3 Mac OS version

The Mac OS product version of e² studio is based on the same content as the Windows release.

The MacOS product version only supports the ARM architecture of Apple devices (Apple Silicon).

Therefore, documents of e² studio will be helpful for common usages. There are some differences, the Mac OS version only supports some different levels of tooling.

The Mac OS product supports RA, DA RX and RL78.

Device Family	Toolchain	Emulator
RA	GCC, LLVM	E2 Emulator, E2 Emulator Lite, Segger J-link
DA	GCC, LLVM	Segger J-link
RX	GCC	E2 Emulator, E2 Emulator Lite, Segger J-link
RL78	CC-RL, LLVM	E2 Emulator, E2 Emulator Lite, COM port debugging
RH850	Unsupported	Unsupported
RZ	Unsupported	Unsupported
RISC-V	Unsupported	Unsupported
Synergy	Unsupported	Unsupported

For information on how to install the Mac OS product please refer to the document below.

English: <https://www.renesas.com/document/qsg/quick-start-guide-e-studio-macos?language=en>

Japanese: <https://www.renesas.com/document/qsg/quick-start-guide-e-studio-macos?language=ja>

FSP setup steps

You may also like to install the FSP packs for RA in the e² studio.

If developing for RA MCUs, it is now necessary to download and install FSP.

Open a browser on:

- <https://github.com/renesas/fsp>

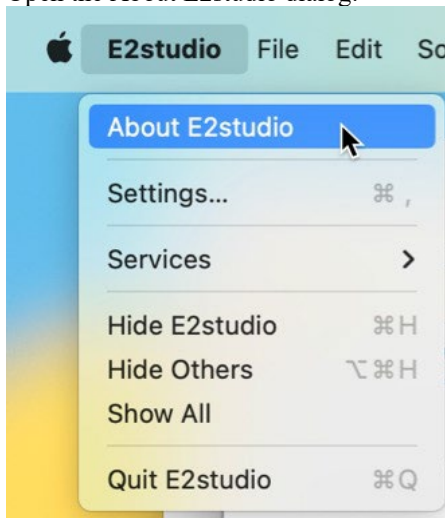
and download the ZIP file containing the packs for the current release – this must be FSP 4.6.0 or later to contain appropriate support for debugging on macOS.

Next steps mean these packs need to be installed to the e² studio internal support files directory.

This can be manually forced by running the e² studio application and opening the project generator and working through the project generator wizard pages. The project generator can be accessed via the New->Renesas C/C++ project menu entry for the device you are using.

The support files directory is generated for the local machine you are running on. To get this location we can retrieve this from the “About E2studio” dialog. Please see the steps below:

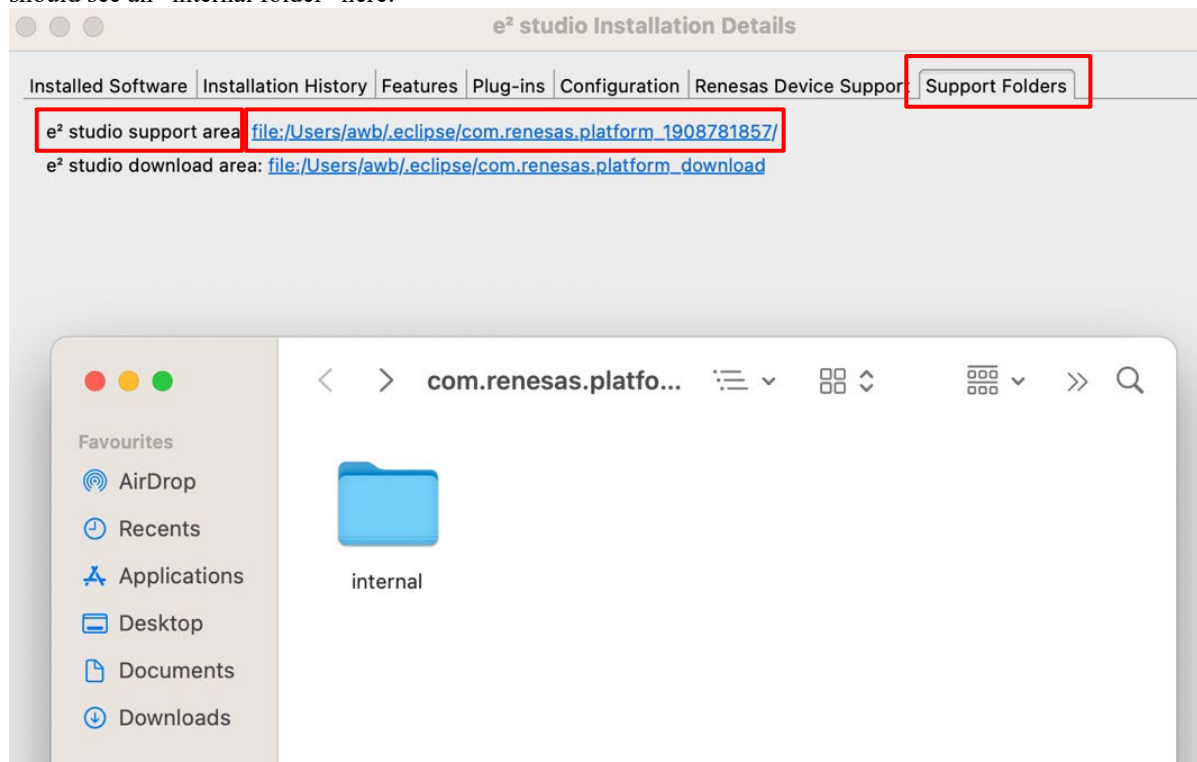
Open the About E2studio dialog:



And click on “Installation Details”:

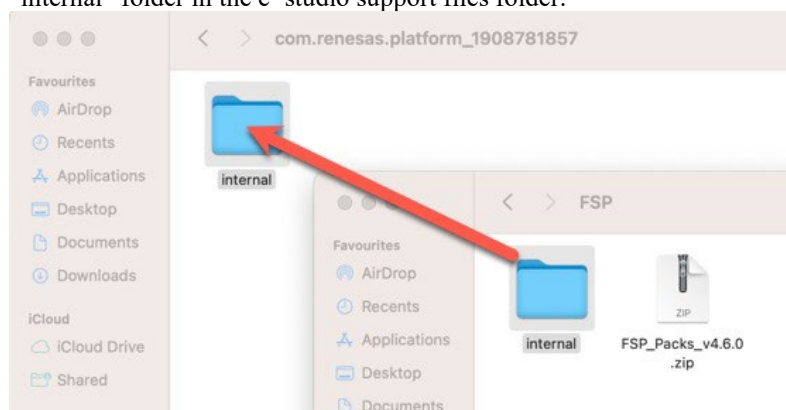


Then select the “Support Folders” tab, and then click on the “e² studio support area:” link to open a Filer window. You should see an “internal folder” here:



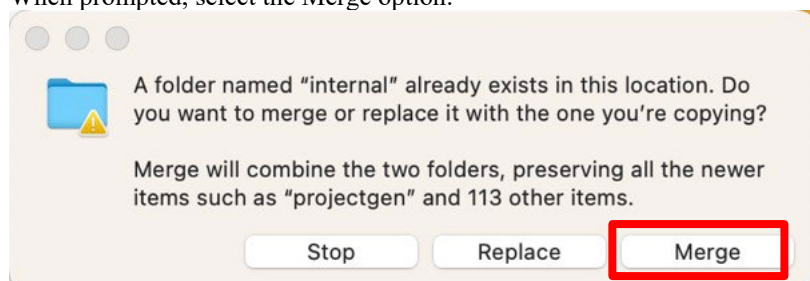
At this point, close the e² studio application.

Now copy the “internal” folder from the temporary directory that you previously extracted the contents of to the “internal” folder in the e² studio support files folder:



[Note that you can copy rather than moving in Filer by drag and dropping with Option key pressed.]

When prompted, select the Merge option:



Pack installation should then be completed, and you can restart the e² studio application.

1.3 Supported Toolchains – Windows Hosted

The following toolchains are supported in e² studio.

	Renesas	GNU Arm Embedded (*2)	Renesas GCC/ GNURZ/ARM (*3)	IAR (*4)	Green Hills (*5)	LLVM (*6)
RL78	Yes (CC-RL)	No	Yes (*7)	Yes	No	Yes
RX	Yes (CC-RX)	No	Yes	Yes	No	No
RH850	Yes (CC-RH)	No	No	Yes	Yes	No
RZ/ARM	No	No (*1)	Yes	Yes	No	No
EC-1/ARM	No	No	Yes	No	No	No
Synergy/ARM	No	Yes	No	Yes	No	No
RA/ARM	No	Yes	No	Yes	No	Yes
DA/ARM	No	Yes	No	No	No	No
RISC-V MCU	No	No	No	No	No	Yes

Note:

*1: Project converter is available to convert from GNUARM RZ/none to GNU ARM Embedded toolchain.

*2: The GCC toolchains for RZ Family and Renesas Synergy™ are distributed via Arm Developer at <https://developer.arm.com/downloads/-/arm-gnu-toolchain-downloads> (GCC 11.2 and later), <https://developer.arm.com/downloads/-/gnu-rm> (GCC 5.3 to 10.3) or Launchpad.net at: <https://launchpad.net/gcc-arm-embedded> (GCC 5.2 and older). They are also available using the “Additional components” page in the e² studio installer. Supported ARM GCC versions vary from device family to device family. Please see the following table for more information:

*3: Legacy GNUARM toolchains are available from <https://llvm-gcc-renesas.com/>. In addition, the latest RX and RL78 Renesas GCC toolchains are available from this website. Also LLVM for RL78 is available from <https://llvm-gcc-renesas.com/>.

*4: The IAR toolchain plugins are available via the “Help”->” IAR Embedded Workbench plugin manager” menu in e² studio. These Eclipse plugins are provided by IAR and are not supported by Renesas.

*5: The Green Hills toolchain plugins are available within the e² studio product. These plugins are provided by Green Hills and are not supported by Renesas.

*6: The LLVM for Arm toolchain is available from <https://github.com/ARM-software/LLVM-embedded-toolchain-for-Arm/releases>. The RISC-V LLVM toolchain is available from <https://llvm-gcc-renesas.com/riscv/riscv-download-toolchains/>.

*7: GCC for RL78 is obsolete and project generation feature have been removed. Still supported importing and build project with the toolchain.

Device Family	GCC distribution and version
RZ/A1, A2	12.2.Rel1
RZ/A3UL, A3M	FSP 1.0.0: AArch64 bare-metal 10.3.2021.07 FSP 1.1.0: AArch64 bare-metal 10.3.2021.07 FSP 1.2.0: AArch64 bare-metal 10.3.2021.07 FSP 1.2.1: AArch64 bare-metal 10.3.2021.07 FSP 2.0.0: AArch64 bare-metal 10.3.2021.07 FSP 2.0.1: AArch64 bare-metal 10.3.2021.07 FSP 2.0.2: AArch64 bare-metal 13.2.Rel1 FSP 3.0.0: AArch64 bare-metal 13.2.Rel1 FSP 3.1.0: AArch64 bare-metal 13.2.Rel1 FSP 3.2.0: AArch64 bare-metal 13.2.Rel1 FSP 3.3.0: AArch64 bare-metal 13.2.Rel1 FSP 3.4.0: AArch64 bare-metal 13.2.Rel1 FSP 3.5.0: AArch64 bare-metal 13.2.Rel1 FSP 3.6.0: AArch64 bare-metal 13.2.Rel1 FSP 4.0.0: AArch64 bare-metal 13.2.Rel1 FSP 4.1.0: AArch64 bare-metal 13.2.Rel1
RZ/G1, G2 (Cortex-A)	Linaro 7.4.1
RZ/G2L, G2LC, G2UL, G3E, G3S (Cortex-M33)	FSP 1.0.0: 9.2.1(2019q4) FSP 1.1.0: 9.2.1(2019q4) FSP 1.2.0: 9.2.1(2019q4) FSP 1.2.0: 9.2.1(2019q4) FSP 2.0.0: 10.3-2021.10 FSP 2.0.1: 10.3-2021.10 FSP 2.1.0: 10.3-2021.10 FSP 3.0.0: 13.3.Rel1 FSP 3.1.0: 13.3.Rel1 FSP 4.0.0: 13.3.Rel1 FSP 4.1.0: 13.3.Rel1
RZ/N2L, N2H	FSP 1.0.0: 9.3.1(2020q2) FSP 1.1.0: 9.3.1(2020q2) FSP 1.2.0: 9.3.1(2020q2) FSP 1.3.0: 12.2.Rel1 FSP 2.0.0: 12.2.Rel1 FSP 2.1.0: CR52: 12.2.Rel1, CA55: 10.3.2021.07 FSP 2.2.0: CR52: 12.2.Rel1, CA55: 10.3.2021.07 FSP 3.0.0: CR52: 13.2.Rel1, CA55: 10.3.2021.07 FSP 3.1.0: CR52: 13.2.Rel1, CA55: 10.3.2021.07 FSP 4.0.0: CR52: 13.3.Rel1, CA55: 13.2.Rel1 FSP 4.1.0: CR52: 13.3.Rel1, CA55: 13.2.Rel1
RZ/T2M, T2ME, T2L, T2H	FSP 1.0.0: 9.3.1(2020q2) FSP 1.1.0: 9.3.1(2020q2) FSP 1.2.0: 9.3.1(2020q2) FSP 1.3.0: 12.2.Rel1 FSP 2.0.0: 12.2.Rel1 FSP 2.1.0: 12.2.Rel1 FSP 2.2.0: CR52: 12.2.Rel1, CA55: 10.3-2021.07 FSP 2.3.0: CR52: 13.3.Rel1, CA55: 10.3-2021.07 FSP 3.0.0: CR52: 13.3.Rel1, CA55: 10.3-2021.07 FSP 3.1.0: CR52: 13.3.Rel1, CA55: 10.3-2021.07 FSP 4.0.0: CR52: 13.3.Rel1, CA55: 13.2.Rel1

	FSP 4.1.0: CR52: 13.3.Rel1, CA55: 13.2.Rel1
RZ/V2L, V2H, V2N	FSP 1.0.0: 9.2.1(2019q4) FSP 1.1.0: 9.2.1(2019q4) FSP 2.0.0: 12.2.Rel1 FSP 2.0.1: 12.2.Rel1 FSP 2.0.2: 12.2.Rel1 FSP 3.0.0: 13.3.Rel1 FSP 3.1.0: 13.3 Rel1 FSP 4.0.0: CR52: 13.3.Rel1, CA55: 13.2.Rel1 FSP 4.1.0: CR52: 13.3.Rel1, CA55: 13.2.Rel1
Synergy	SSP 1.6.x: 7.2.1 SSP 1.7.x: 7.2.1 SSP 2.0, 2.1, 2.2 <-> 2.2: 9.2.1 and 7.2.1 SSP 2.3, 2.4, 2.5, 2.6, 2.7: 10.3-2021.10
RA	FSP 3.5.0: 10.3-2021.10 FSP 3.6.0: 10.3-2021.10 FSP 3.7.0: 10.3-2021.10 FSP 3.8.0: 10.3-2021.10 FSP 3.9.0: 10.3-2021.10 FSP 4.0.0: 10.3-2021.10 FSP 4.1.0: 10.3-2021.10 FSP 4.2.0: 10.3-2021.10 FSP 4.3.0: 10.3-2021.10 FSP 4.4.0: 10.3-2021.10 FSP 4.5.0: 10.3-2021.10 FSP 4.6.0: 10.3-2021.10 FSP 5.0.0: GCC: 12.2.Rel1, LLVM: 17.0.1 FSP 5.0.1: GCC: 12.2.Rel1, LLVM: 17.0.1 FSP 5.1.0: GCC: 13.2.Rel1, LLVM: 17.0.1 FSP 5.2.0: GCC: 13.2.Rel1, LLVM: 17.0.1 FSP 5.3.0: GCC: 13.2.Rel1, LLVM: 17.0.1 FSP 5.4.0: GCC: 13.2.Rel1, LLVM: 18.1.3 FSP 5.5.0: GCC: 13.2.Rel1, LLVM: 18.1.3 FSP 5.6.0: GCC: 13.2.Rel1, LLVM: 18.1.3 FSP 5.7.0: GCC: 13.2.Rel1, LLVM: 18.1.3 FSP 5.8.0: GCC: 13.2.Rel1, LLVM: 18.1.3 FSP 5.9.0: GCC: 13.2.Rel1, LLVM: 18.1.3 FSP 6.0.0: GCC: 13.2.Rel1, LLVM: 18.1.3 FSP 6.1.0: GCC: 13.2.Rel1, LLVM: 18.1.3 FSP 6.2.0: GCC: 13.2.Rel1, LLVM: 18.1.3 FSP 6.3.0: GCC: 13.2.Rel1, LLVM: 21.1.1, FSP 6.4.0: GCC: 13.2.Rel1, LLVM: 21.1.1, FSP 6.5.0: GCC: 13.2.Rel1, LLVM: 21.1.1, FSP 6.5.1: GCC: 13.2.Rel1, LLVM: 21.1.1,

1.4 Supported Toolchains – Linux Hosted

The following toolchains are supported in e² studio:

- Linaro GCC – tested version 7.3.1-201805
- GNU ARM Embedded 13.3-Rel1
- GNU ARM Embedded 13.2-Rel1
- GNU ARM Embedded 12.2-Rel1
- GNU ARM Embedded 10.3 2021.10
- GCC ARM A-Profile (AArch64 bare-metal) 13.2.Rel1
- GCC ARM A-Profile (AArch64 bare-metal) 10.3.2021.10
- GCC for Renesas 14.2.0.202511-GNURX
- GCC for Renesas 8.3.0.202411-GNURX
- GCC for Renesas 4.9.2.202201-GNURL78 (*)
*: GCC for RL78 is obsolete and project generation feature have been removed. Still supported importing and build project with the toolchain.
- LLVM Embedded Toolchain for Arm 22.1.0
- LLVM Embedded Toolchain for Arm 21.1.1
- LLVM for Renesas RL78 17.0.1.202606
- LLVM for Renesas RISC-V 19.1.7.202501
- CC-RX V3.08.00
- CC-RL V1.16.00
- CC-RH V2.08.00
- FAA Assembler V1.06.00
- SMS Assembler V1.01.00

1.5 Supported Toolchains – Mac OS Hosted

The following toolchains are supported in e² studio:

- CC-RL V1.16.01
- FAA Assembler V1.06.00
- SMS Assembler V1.01.00
- ARM GNU Toolchains for Mac OS
<https://developer.arm.com/downloads/-/arm-gnu-toolchain-downloads>
- GCC for Renesas 8.3.0.202411-GNURX MacOS (ARM, experimental)
- GCC for Renesas 14.2.0.202511-GNURX MacOS (ARM, experimental)
- LLVM for Renesas RL78 10.0.0.202312 MacOS (ARM)
- LLVM for Renesas RL78 17.0.1.202512 MacOS (ARM)

2. Device Support

2.1 Project Generator Support

Note1: The Renesas SH device family is no longer supported in e² studio.

Note2: SDK import feature is available for DA, instead of new project generation.

Family	Group	Devices
DA	DA1453x	DA14531(DA14531-00), DA14531-01, DA14533, DA14535
	DA1458x	DA14585, DA14586
	DA1459x	DA14592, DA14594
	DA1469x	DA14691, DA14695, DA14697, DA14699
	DA1470x	DA14701, DA14705, DA14706, DA14708
	DA148xx	DA14850, DA14870
	DA16200	DA16200
	DA16600	DA16600
EC-1	EC-1	R9A06G043
RA	RA0	R7FA0E105, R7FA0E107, R7FA0E207, R7FA0E209, R7FA0E303 R7FA0L105, R7FA0L107
	RA2	R7FA2A1AB, R7FA2A2AD, R7FA2A2BD, R7FA2E1A5, R7FA2E1A7, R7FA2E1A8, R7FA2E1A9, R7FA2E2A3, R7FA2E2A5, R7FA2E2A7, R7FA2E305, R7FA2E307, R7FA2L1A9, R7FA2L1AB, R7FA2L207, R7FA2L209, R7FA2T107
	RA4	R7FA4C1BB, R7FA4C1BD, R7FA4E10B, R7FA4E10D, R7FA4E2B9, R7FA4L1BB, R7FA4L1BD, R7FA4M1AB, R7FA4M2AB, R7FA4M2AC, R7FA4M2AD, R7FA4M3AD, R7FA4M3AE, R7FA4M3AF, R7FA4T1B9, R7FA4T1BB, R7FA4W1AD
	RA6	R7FA6E10D, R7FA6E10F, R7FA6E2B9, R7FA6E2BB, R7FA6M1AD, R7FA6M2AD, R7FA6M2AF, R7FA6M3AF, R7FA6M3AH, R7FA6M4AD, R7FA6M4AE, R7FA6M4AF, R7FA6M5AG, R7FA6M5AH, R7FA6M5BF, R7FA6M5BG, R7FA6M5BH, R7FA6T1AB, R7FA6T1AD, R7FA6T2AB, R7FA6T2AD, R7FA6T2BB, R7FA6T2BD, R7FA6T3BB, R7SA6W1AE, R7SA6W1BE, R7SA6W1CE, R7SA6W2AE, R7SA6W2BE, R7SA6W2CE
	RA8	R7FA8D1AF, R7FA8D1AH, R7FA8D1BF, R7FA8D1BH, R7FA8E1AF, R7FA8E2AF, R7FA8M1AF, R7FA8M1AH, R7FA8T1AF, R7FA8T1AH, R7JA8D2JR, R7JA8D2JS, R7JA8D2KR, R7JA8D2KS, R7JA8M2LR, R7JA8M2LS, R7JA8P1JR, R7JA8P1JS, R7JA8P1KR, R7JA8P1KS, R7JA8T2LR, R7JA8T2LS, R7KA8D2AD, R7KA8D2AF, R7KA8D2BD, R7KA8D2BF, R7KA8D2JF, R7KA8D2KF, R7KA8M2AD, R7KA8M2AF, R7KA8M2JF, R7KA8P1AD, R7KA8P1AF, R7KA8P1BD, R7KA8P1BF, R7KA8P1JF, R7KA8P1KF, R7KA8T2AD, R7KA8T2AF, R7KA8T2CD, R7KA8T2CF, R7KA8T2JF, R7KA8T2LF, R7JA8D2JR_CPU0, R7JA8D2JR_CPU1, R7JA8D2JS_CPU0, R7JA8D2JS_CPU1, R7JA8D2KR_CPU0, R7JA8D2KR_CPU1, R7JA8D2KS_CPU0, R7JA8D2KS_CPU1, R7JA8M2LR_CPU0, R7JA8M2LR_CPU1, R7JA8M2LS_CPU0, R7JA8M2LS_CPU1, R7JA8P1JR_CPU0, R7JA8P1JR_CPU1, R7JA8P1JS_CPU0, R7JA8P1JS_CPU1, R7JA8P1KR_CPU0, R7JA8P1KR_CPU1, R7JA8P1KS_CPU0, R7JA8P1KS_CPU1, R7JA8T2LR_CPU0, R7JA8T2LR_CPU1, R7JA8T2LS_CPU0, R7JA8T2LS_CPU1, R7KA8D2JF_CPU0, R7KA8D2JF_CPU1, R7KA8D2KF_CPU0, R7KA8D2KF_CPU1, R7KA8M2JF_CPU0, R7KA8M2JF_CPU1, R7KA8P1JF_CPU0, R7KA8P1JF_CPU1, R7KA8P1KF_CPU0, R7KA8P1KF_CPU1, R7KA8T2JF_CPU0, R7KA8T2JF_CPU1, R7KA8T2LF_CPU0, R7KA8T2LF_CPU1

RH850	C1H	R7F701260, R7F701270
	C1M	R7F701263, R7F701271
	C1M-A1	R7F701278
	C1M-A2	R7F701275
	D1L1	R7F701401, R7F701421
	D1L2	R7F701402, R7F701422
	D1M1	R7F701404, R7F701405
	D1M1-V2	R7F701442, R7F701462
	D1M2	R7F701408, R7F701410, R7F701428, R7F701430
	E1L	R7F701201, R7F701205
	E1M-S	R7F701202, R7F701204
	E1M-S2	R7F701215, R7F701216
	-	R7F701Z05, R7F701Z06, R7F701Z07
	F1H	R7F701501, R7F701502, R7F701503, R7F701506, R7F701507, R7F701508, R7F701511, R7F701512, R7F701513, R7F701526, R7F701527, R7F701528, R7F701529, R7F701530, R7F701531, R7F701534
	-	R7F701521, R7F701522, R7F701524, R7F701525
	F1K	R7F701542, R7F701543, R7F701546, R7F701547, R7F701557, R7F701560, R7F701561, R7F701562, R7F701563, R7F701566, R7F701567, R7F701577, R7F701580, R7F701581, R7F701582, R7F701583, R7F701586, R7F701587, R7F701597, R7F701602, R7F701603, R7F701610, R7F701611, R7F701612, R7F701613, R7F701620, R7F701621, R7F701622, R7F701623
	F1KH	R7F701708, R7F701709, R7F701710, R7F701711, R7F701714, R7F701715
	F1KM	R7F701644, R7F701645, R7F701646, R7F701647, R7F701648, R7F701649, R7F701650, R7F701651, R7F701652, R7F701653, R7F701684, R7F701685, R7F701686, R7F701687, R7F701688, R7F701689, R7F701690, R7F701691, R7F701692, R7F701693, R7F701694, R7F701695, R7F701760, R7F701762, R7F701764, R7F701A55, R7F701A56, R7F701A57, R7F701A58, R7F701A59, R7F701A60, R7F701A61, R7F701A62, R7F701A63, R7F701A64, R7F701A65, R7F701A66, R7F701A67, R7F701A68, R7F701A69, R7F701A70, R7F701A71, R7F701A72, R7F701A73, R7F701A74, R7F701A75, R7F701A76, R7F701A77, R7F701A78, R7F701A79, R7F701A80, R7F701A81, R7F701A82, R7F701A83, R7F701A84
	F1L	R7F701002xAFP, R7F701003xAFP, R7F701006xAFP, R7F701007xAFP, R7F701008xAFP, R7F701009xAFP, R7F701010xAFP, R7F701011xAFP, R7F701012xAFP, R7F701013xAFP, R7F701014xAFP, R7F701015xAFP, R7F701016xAFP, R7F701017xAFP, R7F701018xAFP, R7F701019xAFP, R7F701020xAFP, R7F701021xAFP, R7F701022xAFP, R7F701023xAFP, R7F701024xAFP, R7F701025xAFP, R7F701026xAFP, R7F701027xAFP, R7F701028xAFP, R7F701029xAFP, R7F701030xAFP, R7F701032xAFP, R7F701033xAFP, R7F701034xAFP, R7F701040, R7F701041, R7F701042, R7F701043, R7F701044, R7F701045, R7F701046, R7F701047, R7F701048, R7F701049, R7F701050, R7F701051, R7F701052, R7F701053, R7F701054, R7F701055, R7F701056, R7F701057
	F1M	R7F701544, R7F701545, R7F701548, R7F701549, R7F701552, R7F701553, R7F701564, R7F701565, R7F701568, R7F701569, R7F701572, R7F701573
	P1H-C	R7F701370AEEBG, R7F701371EABG, R7F701372EABG, R7F701396EABG

	P1L-C	R7F701388, R7F701389, R7F701390, R7F701391
	P1M	R7F701304, R7F701305, R7F701310, R7F701311, R7F701312, R7F701313, R7F701314, R7F701315, R7F701318, R7F701319, R7F701320, R7F701321, R7F701322, R7F701323
	P1M-C	R7F701373xABG, R7F701374xAFF, R7F701397xABG
	P1M-E	R7F701375, R7F701376, R7F701377, R7F701378, R7F701379, R7F701380, R7F701381, R7F701382, R7F701383, R7F701384, R7F701385, R7F701386
	-	R7F701060xAFF, R7F701062xAFF, R7F701064xAFF, R7F701065xAFF, R7F701067xAFF, R7F701069xAFF, R7F701071xAFF
	U2A-EVA	R7F702Z19A, R7F702Z19B
	U2A16	R7F702300, R7F702300A, R7F702300B
	U2A6	R7F702302
	U2A8	R7F702301, R7F702301A, R7F702301B
	U2B10	R7F70254x_Fusa, R7F70254x_Performance, R7F702Z21, R7F702Z26
	U2B24	R7F702Z23, R7F702Z28
	U2B6	R7F70255x, R7F702Z22
	U2B6-E	R7F7025Dx
	U2B12-E	R7F7025Cx_Fusa, R7F7025Cx_Performance
	U2B16-E	R7F7025Fx_Fusa, R7F7025Fx_Performance
	U2B24-E	R7F70259x_Fusa, R7F70259x_Performance, R7F7025Bx_Fusa, R7F7025Bx_Performance
	U2C2	R7F702608A, R7F702615A
	U2C4	R7F702606A, R7F702613A, R7F702614A, R7F702616A
	U2C8	R7F702600A
	U2C8-EVA	R7F702Z32A
RISC-V MCU	G021	R9A02G021
RL78	D1A	R5F10CGB, R5F10CGC, R5F10CGD, R5F10CLD, R5F10CMD, R5F10CME, R5F10DGC, R5F10DGD, R5F10DGE, R5F10DLD, R5F10DLE, R5F10DMD, R5F10DME, R5F10DMF, R5F10DMG, R5F10DMJ, R5F10DPE, R5F10DPF, R5F10DPG, R5F10DPJ, R5F10DPK, R5F10DPL, R5F10DSJ, R5F10DSK, R5F10DSL, R5F10TPJ
	F12	R5F10968, R5F1096A, R5F1096B, R5F1096C, R5F1096D, R5F1096E, R5F109AA, R5F109AB, R5F109AC, R5F109AD, R5F109AE, R5F109BA, R5F109BB, R5F109BC, R5F109BD, R5F109BE, R5F109GA, R5F109GB, R5F109GC, R5F109GD, R5F109GE, R5F109LA, R5F109LB, R5F109LC, R5F109LD, R5F109LE
	F13	R5F10A6A, R5F10A6C, R5F10A6D, R5F10A6E, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10ABA, R5F10ABC, R5F10ABD, R5F10ABE, R5F10AGA, R5F10AGC, R5F10AGD, R5F10AGE, R5F10AGF, R5F10AGG, R5F10ALC, R5F10ALD, R5F10ALE, R5F10ALF, R5F10ALG, R5F10AME, R5F10AMF, R5F10AMG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BBB, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BGC, R5F10BGD, R5F10BGE, R5F10BGF, R5F10BGG, R5F10BLC, R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF, R5F10BMG
	F14	R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE, R5F10PPF, R5F10PPG, R5F10PPH, R5F10PPJ

F15	R5F113GK, R5F113GL, R5F113LK, R5F113LL, R5F113MK, R5F113ML, R5F113PG, R5F113PH, R5F113PJ, R5F113PK, R5F113PL, R5F113TG, R5F113TH, R5F113TJ, R5F113TK, R5F113TL
F1A	R5F114GC, R5F114GD, R5F114GE, R5F114GF, R5F114GG
F1E	R5F11KLE, R5F11KLF, R5F11KLG, R5F11LLE, R5F11LLF, R5F11LLG
F22	R7F122F7G, R7F122FBG, R7F122FGG
F23	R7F123FBG, R7F123FGG, R7F123FLG, R7F123FMG
F24	R7F124FBJ, R7F124FGJ, R7F124FLJ, R7F124FMJ, R7F124FPJ
-	R7F125FGL, R7F125FLL, R7F125FML, R7F125FPL
FGIC	RAJ240055, RAJ240057, RAJ240090, RAJ240100, RAJ240310
G10	R5F10Y14, R5F10Y16, R5F10Y17, R5F10Y44, R5F10Y46, R5F10Y47
G11	R5F1051A, R5F1054A, R5F1056A, R5F1057A, R5F1058A
G12	R5F10266, R5F10267, R5F10268, R5F10269, R5F1026A, R5F10277, R5F10278, R5F10279, R5F1027A, R5F102A7, R5F102A8, R5F102A9, R5F102AA, R5F10366, R5F10367, R5F10368, R5F10369, R5F1036A, R5F10377, R5F10378, R5F10379, R5F1037A, R5F103A7, R5F103A8, R5F103A9, R5F103AA
G13	R5F1006A, R5F1006C, R5F1006D, R5F1006E, R5F1007A, R5F1007C, R5F1007D, R5F1007E, R5F1008A, R5F1008C, R5F1008D, R5F1008E, R5F100AA, R5F100AC, R5F100AD, R5F100AE, R5F100AF, R5F100AG, R5F100BA, R5F100BC, R5F100BD, R5F100BE, R5F100BF, R5F100BG, R5F100CA, R5F100CC, R5F100CD, R5F100CE, R5F100CF, R5F100CG, R5F100EA, R5F100EC, R5F100ED, R5F100EE, R5F100EF, R5F100EG, R5F100EH, R5F100FA, R5F100FC, R5F100FD, R5F100FE, R5F100FF, R5F100FG, R5F100FH, R5F100FJ, R5F100FK, R5F100FL, R5F100GA, R5F100GC, R5F100GD, R5F100GE, R5F100GF, R5F100GG, R5F100GH, R5F100GJ, R5F100GK, R5F100GL, R5F100JC, R5F100JD, R5F100JE, R5F100JF, R5F100JG, R5F100JH, R5F100JJ, R5F100JK, R5F100JL, R5F100LC, R5F100LD, R5F100LE, R5F100LF, R5F100LG, R5F100LH, R5F100LJ, R5F100LK, R5F100LL, R5F100MF, R5F100MG, R5F100MH, R5F100MJ, R5F100MK, R5F100ML, R5F100PF, R5F100PG, R5F100PH, R5F100PJ, R5F100PK, R5F100PL, R5F100SH, R5F100SJ, R5F100SK, R5F100SL, R5F1016A, R5F1016C, R5F1016D, R5F1016E, R5F1017A, R5F1017C, R5F1017D, R5F1017E, R5F1018A, R5F1018C, R5F1018D, R5F1018E, R5F101AA, R5F101AC, R5F101AD, R5F101AE, R5F101AF, R5F101AG, R5F101BA, R5F101BC, R5F101BD, R5F101BE, R5F101BF, R5F101BG, R5F101CA, R5F101CC, R5F101CD, R5F101CE, R5F101CF, R5F101CG, R5F101EA, R5F101EC, R5F101ED, R5F101EE, R5F101EF, R5F101EG, R5F101EH, R5F101FA, R5F101FC, R5F101FD, R5F101FE, R5F101FF, R5F101FG, R5F101FH, R5F101FJ, R5F101FK, R5F101FL, R5F101GA, R5F101GC, R5F101GD, R5F101GE, R5F101GF, R5F101GG, R5F101GH, R5F101GJ, R5F101GK, R5F101GL, R5F101JC, R5F101JD, R5F101JE, R5F101JF, R5F101JG, R5F101JH, R5F101JJ, R5F101JK, R5F101JL, R5F101LC, R5F101LD, R5F101LE, R5F101LF, R5F101LG, R5F101LH, R5F101LJ, R5F101LK, R5F101LL, R5F101MF, R5F101MG, R5F101MH, R5F101MJ, R5F101MK, R5F101ML, R5F101PF, R5F101PG, R5F101PH, R5F101PJ, R5F101PK, R5F101PL, R5F101SH, R5F101SJ, R5F101SK, R5F101SL

G13A	R5F140FK, R5F140FL, R5F140GK, R5F140GL, R5F140LK, R5F140LL, R5F140PK, R5F140PL
G14	R5F104AA, R5F104AC, R5F104AD, R5F104AE, R5F104AF, R5F104AG, R5F104BA, R5F104BC, R5F104BD, R5F104BE, R5F104BF, R5F104BG, R5F104CA, R5F104CC, R5F104CD, R5F104CE, R5F104CF, R5F104CG, R5F104EA, R5F104EC, R5F104ED, R5F104EE, R5F104EF, R5F104EG, R5F104EH, R5F104FA, R5F104FC, R5F104FD, R5F104FE, R5F104FF, R5F104FG, R5F104FH, R5F104FJ, R5F104GA, R5F104GC, R5F104GD, R5F104GE, R5F104GF, R5F104GG, R5F104GH, R5F104GJ, R5F104GK, R5F104GL, R5F104JC, R5F104JD, R5F104JE, R5F104JF, R5F104JG, R5F104JH, R5F104JJ, R5F104LC, R5F104LD, R5F104LE, R5F104LF, R5F104LG, R5F104LH, R5F104LJ, R5F104LK, R5F104LL, R5F104MF, R5F104MG, R5F104MH, R5F104MJ, R5F104MK, R5F104ML, R5F104PF, R5F104PG, R5F104PH, R5F104PJ, R5F104PK, R5F104PL
G15	R5F12007, R5F12008, R5F12017, R5F12018, R5F12047, R5F12048, R5F12067, R5F12068
G16	R5F1211A, R5F1211C, R5F1214A, R5F1214C, R5F1216A, R5F1216C, R5F1217A, R5F1217C, R5F121BA, R5F121BC
G1A	R5F10E8A, R5F10E8C, R5F10E8D, R5F10E8E, R5F10E8A, R5F10EBC, R5F10EBD, R5F10EBE, R5F10EGA, R5F10EGC, R5F10EGD, R5F10EGE, R5F10ELC, R5F10ELD, R5F10ELE
G1C	R5F10JBC, R5F10JGC, R5F10KBC, R5F10KGC
G1D	R5F11AGG, R5F11AGH, R5F11AGJ
G1E	R5F10FLC, R5F10FLD, R5F10FLE, R5F10FMC, R5F10FMD, R5F10FME
G1F	R5F11B7C, R5F11B7E, R5F11BBC, R5F11BBE, R5F11BCC, R5F11BCE, R5F11BGC, R5F11BGE, R5F11BLC, R5F11BLE
G1G	R5F11EA8, R5F11EAA, R5F11EB8, R5F11EBA, R5F11EF8, R5F11EFA
G1H	R5F11FLJ, R5F11FLK, R5F11FLL
G1K	R5F11VBG, R5F11VLG
G1M	R5F11W67, R5F11W68
G1N	R5F11Y67, R5F11Y68
G1P	R5F11Z7A, R5F11ZBA
G21	R7F103G6G, R7F103G6J, R7F103GBG, R7F103GBJ, R7F103GFG, R7F103GFJ, R7F103GGG, R7F103GGJ, R7F103GLG, R7F103GLJ
G22	R7F102G4C, R7F102G4E, R7F102G6C, R7F102G6E, R7F102G7C, R7F102G7E, R7F102G8C, R7F102G8E, R7F102GAC, R7F102GAE, R7F102GBC, R7F102GBE, R7F102GCC, R7F102GCE, R7F102GEC, R7F102GEE, R7F102GFC, R7F102GFE, R7F102GGC, R7F102GGE

	G23	R7F100GAF, R7F100GAG, R7F100GAH, R7F100GAJ, R7F100GBF, R7F100GBG, R7F100GBH, R7F100GBJ, R7F100GCF, R7F100GCG, R7F100GCH, R7F100GCJ, R7F100GEF, R7F100GEG, R7F100GEH, R7F100GEJ, R7F100GFF, R7F100GFG, R7F100GFH, R7F100GFJ, R7F100GFK, R7F100GFL, R7F100GFN, R7F100GGF, R7F100GGG, R7F100GGH, R7F100GGJ, R7F100GGK, R7F100GGL, R7F100GGN, R7F100GJF, R7F100GJG, R7F100GJH, R7F100GJJ, R7F100GJK, R7F100GJL, R7F100GJN, R7F100GLF, R7F100GLG, R7F100GLH, R7F100GLJ, R7F100GLK, R7F100GLL, R7F100GLN, R7F100GMG, R7F100GMH, R7F100GMJ, R7F100GMK, R7F100GML, R7F100GMN, R7F100GPG, R7F100GPH, R7F100GPJ, R7F100GPK, R7F100GPL, R7F100GPN, R7F100GSJ, R7F100GSK, R7F100GSL, R7F100GSN, R7F104GBG, R7F104GFJ, R7F104GGJ
	G24	R7F101G6E, R7F101G6G, R7F101G7E, R7F101G7G, R7F101G8E, R7F101G8G, R7F101GAE, R7F101GAG, R7F101GBE, R7F101GBG, R7F101GEE, R7F101GEG, R7F101GFE, R7F101GFG, R7F101GGE, R7F101GGG, R7F101GJE, R7F101GJG, R7F101GLE, R7F101GLG
	H1D	R5F11NGF, R5F11NGG, R5F11NLF, R5F11NLG, R5F11NME, R5F11NMF, R5F11NMG, R5F11PLF, R5F11PLG, R5F11RMG
	I1A	R5F1076C, R5F107AC, R5F107AE, R5F107DE
	I1B	R5F10MME, R5F10MMG, R5F10MPE, R5F10MPG
	I1C	R5F10NLE, R5F10NLG, R5F10NME, R5F10NMG, R5F10NMJ, R5F10NML, R5F10NML_DUAL, R5F10NPG, R5F10NPJ, R5F10NPL, R5F10NPL_DUAL
	I1C-2	R5F11TLE, R5F11TLG
	I1D	R5F11768, R5F1176A, R5F11778, R5F1177A, R5F117A8, R5F117AA, R5F117AC, R5F117BA, R5F117BC, R5F117GA, R5F117GC
	I1E	R5F11CBC, R5F11CCC
	L12	R5F10RB8, R5F10RBA, R5F10RBC, R5F10RF8, R5F10RFA, R5F10RFC, R5F10RG8, R5F10RGA, R5F10RGC, R5F10RJ8, R5F10RJA, R5F10RJC, R5F10RLA, R5F10RLC
	L13	R5F10WLA, R5F10WLC, R5F10WLD, R5F10WLE, R5F10WLF, R5F10WLG, R5F10WMA, R5F10WMC, R5F10WMD, R5F10WME, R5F10WMF, R5F10WMG
	L1A	R5F11MMD, R5F11MME, R5F11MMF, R5F11MPE, R5F11MPF, R5F11MPG
	L1C	R5F110ME, R5F110MF, R5F110MG, R5F110MH, R5F110MJ, R5F110NE, R5F110NF, R5F110NG, R5F110NH, R5F110NJ, R5F110PE, R5F110PF, R5F110PG, R5F110PH, R5F110PJ, R5F111ME, R5F111MF, R5F111MG, R5F111MH, R5F111MJ, R5F111NE, R5F111NF, R5F111NG, R5F111NH, R5F111NJ, R5F111PE, R5F111PF, R5F111PG, R5F111PH, R5F111PJ
	L23	R7F100LFE, R7F100LFG, R7F100LFJ, R7F100LFL, R7F100LGE, R7F100LGG, R7F100LGJ, R7F100LGL, R7F100LJE, R7F100LJG, R7F100LJJ, R7F100LJL, R7F100LLE, R7F100LLG, R7F100LLJ, R7F100LLL, R7F100LMG, R7F100LMJ, R7F100LML, R7F100LPG, R7F100LPJ, R7F100LPL
	110	R5F51101, R5F51103, R5F51104, R5F51105, R5F5110H, R5F5110J
	111	R5F51111, R5F51113, R5F51114, R5F51115, R5F51116, R5F51117, R5F51118, R5F5111J
	113	R5F51135, R5F51136, R5F51137, R5F51138
	130	R5F51303, R5F51305, R5F51305B, R5F51306, R5F51306B, R5F51307, R5F51308
	13T	R5F513T3, R5F513T5
	140	R5F51403, R5F51405, R5F51406
	14T	R5F514T5

RX

210	R5F52103, R5F52104, R5F52105, R5F52106, R5F52107, R5F52108, R5F5210A, R5F5210B
21A	R5F521A6, R5F521A7, R5F521A8
220	R5F52201, R5F52203, R5F52205, R5F52206
230	R5F52305, R5F52306
231	R5F52315, R5F52316, R5F52317, R5F52318
23E-A	R5F523E5A, R5F523E5S, R5F523E6A, R5F523E6S
23E-B	R5F523E5B, R5F523E6B
23T	R5F523T3, R5F523T5
23W	R5F523W7, R5F523W8
24T	R5F524T8, R5F524TA, R5F524TB, R5F524TC, R5F524TE
24U	R5F524UB, R5F524UC, R5F524UE
260	R5F52606, R5F52607, R5F52608
261	R5F52616, R5F52617, R5F52618
26T	R5F526T8, R5F526T9, R5F526TA, R5F526TB, R5F526TF, R5F526TF_DUAL
610	R5F56104, R5F56106, R5F56107, R5F56108
621	R5F56216, R5F56217, R5F56218
62G	R5F562G7, R5F562GA
62N	R5F562N7, R5F562N8
62T	R5F562T6, R5F562T7, R5F562TA
630	R5F56307, R5F56308, R5F5630A, R5F5630B, R5F5630D, R5F5630E
631	R5F56316, R5F56317, R5F56318, R5F5631A, R5F5631B, R5F5631D, R5F5631E, R5F5631F, R5F5631G, R5F5631J, R5F5631K, R5F5631M, R5F5631MF, R5F5631N, R5F5631P, R5F5631PF, R5F5631W, R5F5631Y, R5S56310
634	R5F5634B, R5F5634B_5V, R5F5634D, R5F5634D_5V, R5F5634E, R5F5634E_5V
63N	R5F563NA, R5F563NB, R5F563ND, R5F563NE, R5F563NF, R5F563NK, R5F563NW, R5F563NY
63T	R5F563T4, R5F563T5, R5F563T6, R5F563TB, R5F563TB_5V, R5F563TC, R5F563TC_5V, R5F563TE, R5F563TE_5V
64M	R5F564MF, R5F564MG, R5F564MJ, R5F564ML
651	R5F56514, R5F56517, R5F56519, R5F5651C, R5F5651C_DUAL, R5F5651E, R5F5651E_DUAL R5F56519DMB, R5F5651EDMB, R5F5651EDMB_DUAL,(Debug Support Only)
65N	R5F565N4, R5F565N7, R5F565N9, R5F565NC, R5F565NC_DUAL, R5F565NE, R5F565NE_DUAL R5F565N9DMB, R5F565NEDMB, R5F565NEDMB_DUAL,(Debug Support Only)
65W-A	R5F565WE, R5F565WE_DUAL
660	R5F56604A, R5F56604B, R5F56604C, R5F56604D, R5F56604E, R5F56604F, R5F56604G, R5F56604H, R5F56609A, R5F56609B, R5F56609C, R5F56609D, R5F56609E, R5F56609F, R5F56609G, R5F56609H
66N	R5F566ND, R5F566ND_DUAL, R5F566NN, R5F566NN_DUAL
66T	R5F566TA, R5F566TAXXFL, R5F566TE, R5F566TEXXFL, R5F566TF, R5F566TK
671	R5F56719, R5F56719_DUAL, R5F5671C, R5F5671C_DUAL, R5F5671E, R5F5671E_DUAL

	71M	R5F571MF, R5F571MG, R5F571MJ, R5F571ML
	72M	R5F572MD, R5F572MD_DUAL, R5F572MN, R5F572MN_DUAL
	72N	R5F572ND, R5F572ND_DUAL, R5F572NN, R5F572NN_DUAL
	72T	R5F572TF, R5F572TK
	-	R0E5571MLDMBXX (Debug Support Only)
RZ	A1	R7S721000, R7S721000_DualSPI, R7S721001, R7S721001_DualSPI, R7S721010, R7S721010_DualSPI, R7S721011, R7S721011_DualSPI, R7S721020, R7S721020_DualSPI, R7S721021, R7S721021_DualSPI, R7S721030, R7S721030_DualSPI, R7S721031, R7S721031_DualSPI, R7S721034, R7S721034_DualSPI
	A2	R7S921040, R7S921041, R7S921042, R7S921043, R7S921045, R7S921046, R7S921047, R7S921048, R7S921051, R7S921052, R7S921053, R7S921056, R7S921057, R7S921058
	A3M	R9A07G066M04GBG
	A3UL	R9A07G063U01GBG, R9A07G063U02GBG
	G1E	R8A77450, R8A77450_Core1,(Debug Support Only)
	G1M	R8A77430, R8A77430_Core1,(Debug Support Only)
	G2L	R9A07G044C12GBG_CM33, R9A07G044C22GBG_CM33, R9A07G044L13GBG_CM33, R9A07G044L14GBG_CM33, R9A07G044L23GBG_CM33, R9A07G044L24GBG_CM33, R9A07G044LC_M33, R9A07G044L_M33
	G2LC	R9A07G044C12GBG, R9A07G044C12GBG_CM33, R9A07G044C22GBG, R9A07G044C22GBG_CM33
	G2UL	R9A07G043U11GBG_CM33, R9A07G043U12GBG_CM33
	G3E	R9A09G047E27GBG, R9A09G047E37GBG, R9A09G047E47GBG, R9A09G047E57GBG, R9A09G047E28GBG, R9A09G047E38GBG, R9A09G047E48GBG, R9A09G047E58GBG
	G3S	R9A08G045S33GBG, R9A08G045S33GBG_CM33, R9A08G045S37GBG, R9A08G045S37GBG_CM33, R9A08G045S31GBG, R9A08G045S31GBG_CM33, R9A08G045S35GBG, R9A08G045S35GBG_CM33
	N2L	R9A07G084M04GBA, R9A07G084M08GBA, R9A07G084M04GBG, R9A07G084M08GBG
	N2H	R9A09G087M04GBG, R9A09G087M08GBG, R9A09G087M24GBG, R9A09G087M28GBG, R9A09G087M44GBG, R9A09G087M48GBG
	T1	R7S910001, R7S910002, R7S910006, R7S910007, R7S910011, R7S910013, R7S910015, R7S910015_M3, R7S910016, R7S910016_M3, R7S910017, R7S910017_M3, R7S910018, R7S910018_M3, R7S910025, R7S910026, R7S910027, R7S910028, R7S910035, R7S910036, R7S910101, R7S910102, R7S910106, R7S910107, R7S910111, R7S910113, R7S910115, R7S910115_M3, R7S910116, R7S910116_M3, R7S910117, R7S910117_M3, R7S910118, R7S910118_M3, R7S910125, R7S910126, R7S910127, R7S910128, R7S910135, R7S910136
	T1-M	R7S910020, R7S910021, R7S910022, R7S910023, R7S910120, R7S910121, R7S910122, R7S910123
	T2H	R9A09G077M04GBG, R9A09G077M08GBG, R9A09G077M24GBG, R9A09G077M28GBG, R9A09G077M44GBG, R9A09G077M48GBG
	T2L	R9A07G074M01GBG, R9A07G074M04GBG, R9A07G074M05GBG, R9A07G074M08GBG

Synergy	T2M	R9A07G075M01GFA, R9A07G075M05GFA, R9A07G075M01GFP, R9A07G075M05GFP, R9A07G075M21GBA, R9A07G075M22GBA, R9A07G075M24GBA, R9A07G075M26GBA, R9A07G075M27GBA, R9A07G075M28GBA, R9A07G075M22GBG, R9A07G075M24GBG, R9A07G075M26GBG, R9A07G075M28GBG
	T2ME	R9A07G075M29GBA, R9A07G075M29GBG
	V2H	R9A09G057H41GBG, R9A09G057H42GBG, R9A09G057H44GBG, R9A09G057H45GBG, R9A09G057H46GBG, R9A09G057H48GBG
	V2L	R9A07G054L13GBG, R9A07G054L13GBG_CM33, R9A07G054L17GBG_CM33, R9A07G054L23GBG, R9A07G054L23GBG_CM33, R9A07G054L27GBG_CM33, R9A07G054L14GBG, R9A07G054L14GBG_CM33, R9A07G054L17GBG_CM33, R9A07G054L24GBG, R9A07G054L24GBG_CM33, R9A07G054L28GBG_CM33
	V2N	R9A09G056N41GBG, R9A09G056N42GBG, R9A09G056N45GBG, R9A09G056N46GBG R9A09G056N44GBG, R9A09G056N48GBG
	S1JA	R7FS1JA783A01CFM, R7FS1JA783A01CNE, R7FS1JA783A01CNF, R7FS1JA782A01CBT, R7FS1JA783A01CFJ
	S124	R7FS124762A01CLM, R7FS124763A01CFL, R7FS124763A01CFM, R7FS124772A01CLM, R7FS124773A01CFL, R7FS124773A01CFM, R7FS124773A01CNB, R7FS124773A01CNE, R7FS124773A01CNF
	S128	R7FS128782A01CLM, R7FS128783A01CFJ, R7FS128783A01CFL, R7FS128783A01CFM, R7FS128783A01CNE, R7FS128783A01CNG
	S3A1	R7FS3A17C2A01CLK, R7FS3A17C3A01CFB, R7FS3A17C2A01CBJ, R7FS3A17C2A01CLJ, R7FS3A17C3A01CFM, R7FS3A17C3A01CFP, R7FS3A17C3A01CNB
	S3A3	R7FS3A37A2A01CLK, R7FS3A37A3A01CFB, R7FS3A37A2A01CBJ, R7FS3A37A2A01CLJ, R7FS3A37A3A01CFP, R7FS3A37A3A01CFM, R7FS3A37A3A01CNB
Synergy	S3A6	R7FS3A6782A01CLJ, R7FS3A6783A01CFL, R7FS3A6783A01CFM, R7FS3A6783A01CFP, R7FS3A6783A01CNB, R7FS3A6783A01CNE, R7FS3A6783A01CNF
	S3A7	R7FS3A77C2A01CLK, R7FS3A77C3A01CFB, R7FS3A77C2A01CBJ, R7FS3A77C3A01CFP, R7FS3A77C2A01CLJ, R7FS3A77C3A01CFM, R7FS3A77C2A01CNB, R7FS3A77C3A01CNB
	S5D3	R7FS5D37A2A01CLJ, R7FS5D37A3A01CFP, R7FS5D37A3A01CFM, R7FS5D37A3A01CNB
	S5D5	R7FS5D57A2A01CLK, R7FS5D57A3A01CFB, R7FS5D57A3A01CFP, R7FS5D57C2A01CLK, R7FS5D57C3A01CFB, R7FS5D57C3A01CFP
	S5D9	R7FS5D97C2A01CBG, R7FS5D97C3A01CFC, R7FS5D97C2A01CLK, R7FS5D97C3A01CFB, R7FS5D97C3A01CFP, R7FS5D97E2A01CBG, R7FS5D97E3A01CFC, R7FS5D97E2A01CLK, R7FS5D97E3A01CFB, R7FS5D97E3A01CFP
	S7G2	R7FS7G27H2A01CBD, R7FS7G27G2A01CBD, R7FS7G27H2A01CBG, R7FS7G27G2A01CBG, R7FS7G27H2A01CFC, R7FS7G27H3A01CFC, R7FS7G27G2A01CFC, R7FS7G27G3A01CFC, R7FS7G27H2A01CLK, R7FS7G27G2A01CLK, R7FS7G27H3A01CFB, R7FS7G27G3A01CFB, R7FS7G27G3A01CFP

2.2 Smart Configurator Support

Note: Code Generator and Smart Configurator are the features to generate code. Code Generator supports old device. New devices are supported by Smart Configurator

Code Generator : <https://www.renesas.com/software-tool/code-generator-plugin>

Smart Configurator : <https://www.renesas.com/software-tool/smart-configurator>

Note: Smart Configurator is supported in Windows, Linux and Mac OS versions.

RZ and RH850 are supported only in Windows and Linux.

Synergy is supported only in Windows.

Family	Group	Devices
RH850	C1M-A2	R7F701275
	F1KH	R7F701708, R7F701709, R7F701710, R7F701711, R7F701714, R7F701715
	F1KM	R7F701644, R7F701645, R7F701646, R7F701647, R7F701648, R7F701649, R7F701650, R7F701651, R7F701652, R7F701653, R7F701684, R7F701685, R7F701686, R7F701687, R7F701688, R7F701689, R7F701690, R7F701691, R7F701692, R7F701693, R7F701694, R7F701695, R7F701760, R7F701762, R7F701764
	U2A16	R7F702300, R7F702300A, R7F702300B
	U2A6	R7F702302
	U2A8	R7F702301, R7F702301A, R7F702301B
	U2B6	R7F70255x
	U2B6-E	R7F7025Dx
	U2C2	R7F702608A, R7F702615A
	U2C4	R7F702606A, R7F702613A, R7F702614A, R7F702616A
	U2C8	R7F702600A
RISC-V MCU	G021	R9A02G021
	F22	R7F122F7G, R7F122FBG, R7F122FGG
	F23	R7F123FBG, R7F123FGG, R7F123FLG, R7F123FMG
	F24	R7F124FBJ, R7F124FGJ, R7F124FLJ, R7F124FMJ, R7F124FPJ
	-	R7F125FGL, R7F125FLL, R7F125FML, R7F125FPL
	G15	R5F12007, R5F12008, R5F12017, R5F12018, R5F12047, R5F12048, R5F12067, R5F12068
RL78	G16	R5F1211A, R5F1211C, R5F1214A, R5F1214C, R5F1216A, R5F1216C, R5F1217A, R5F1217C, R5F121BA, R5F121BC
	G21	R7F103G6G, R7F103G6J, R7F103GBG, R7F103GBJ, R7F103GFG, R7F103GFJ, R7F103GGG, R7F103GGJ, R7F103GLG, R7F103GLJ
	G22	R7F102G4C, R7F102G4E, R7F102G6C, R7F102G6E, R7F102G7C, R7F102G7E, R7F102G8C, R7F102G8E, R7F102GAC, R7F102GAE, R7F102GBC, R7F102GBE, R7F102GCC, R7F102GCE, R7F102GEC, R7F102GEE, R7F102GFC, R7F102GFE, R7F102GGC, R7F102GGE
	G23	R7F100GAF, R7F100GAG, R7F100GAH, R7F100GAJ, R7F100GBF, R7F100GBG, R7F100GBH, R7F100GBJ, R7F100GCF, R7F100GCG, R7F100GCH, R7F100GCJ, R7F100GEF, R7F100GEG, R7F100GEH, R7F100GEJ, R7F100GFF, R7F100GFG, R7F100GFH, R7F100GFJ, R7F100GFK, R7F100GFL, R7F100GFN, R7F100GGF, R7F100GGG, R7F100GGH, R7F100GGJ, R7F100GGK, R7F100GGL, R7F100GGN, R7F100GJF, R7F100GJG, R7F100GJH, R7F100GJJ, R7F100GJK, R7F100GJL, R7F100GJN, R7F100GLF, R7F100GLG, R7F100GLH, R7F100GLJ, R7F100GLK, R7F100GLL, R7F100GLN, R7F100GMG, R7F100GMH, R7F100GMJ, R7F100GMK, R7F100GML, R7F100GMN, R7F100GPG, R7F100GPH, R7F100GPJ, R7F100GPK, R7F100GPL, R7F100GPN, R7F100GSJ, R7F100GSK, R7F100GSL, R7F100GSN, R7F104GBG, R7F104GFJ, R7F104GGJ

G24	R7F101G6E, R7F101G6G, R7F101G7E, R7F101G7G, R7F101G8E, R7F101G8G, R7F101GAE, R7F101GAG, R7F101GBE, R7F101GBG, R7F101GEE, R7F101GEG, R7F101GFE, R7F101GFG, R7F101GGE, R7F101GGG, R7F101GJE, R7F101GJG, R7F101GLE, R7F101GLG
	R7F100LFE, R7F100LFG, R7F100LFJ, R7F100LFL, R7F100LGE, R7F100LGG, R7F100LGJ, R7F100LGL, R7F100LJE, R7F100LJG, R7F100LJJ, R7F100LJL, R7F100LLE, R7F100LLG, R7F100LLJ, R7F100LLL, R7F100LMG, R7F100LMJ, R7F100LML, R7F100LPG, R7F100LPJ, R7F100LPL
110	R5F51101, R5F51103, R5F51104, R5F51105, R5F5110H, R5F5110J
111	R5F51111, R5F51113, R5F51114, R5F51115, R5F51116, R5F51117, R5F51118, R5F5111J
113	R5F51135, R5F51136, R5F51137, R5F51138
130	R5F51303, R5F51305, R5F51305B, R5F51306, R5F51306B, R5F51307, R5F51308
13T	R5F513T3, R5F513T5
140	R5F51403, R5F51405, R5F51406
14T	R5F514T5
230	R5F52305, R5F52306
231	R5F52315, R5F52316, R5F52317, R5F52318
23E-A	R5F523E5A, R5F523E5S, R5F523E6A, R5F523E6S
23E-B	R5F523E5B, R5F523E6B
23T	R5F523T3, R5F523T5
23W	R5F523W7, R5F523W8
24T	R5F524T8, R5F524TA, R5F524TB, R5F524TC, R5F524TE
24U	R5F524UB, R5F524UC, R5F524UE
260	R5F52606, R5F52607, R5F52608
261	R5F52616, R5F52617, R5F52618
26T	R5F526T8, R5F526T9, R5F526TA, R5F526TB, R5F526TF, R5F526TF_DUAL
64M	R5F564MF, R5F564MG, R5F564MJ, R5F564ML
651	R5F56514, R5F56517, R5F56519, R5F5651C, R5F5651C_DUAL, R5F5651E, R5F5651E_DUAL
65N	R5F565N4, R5F565N7, R5F565N9, R5F565NC, R5F565NC_DUAL, R5F565NE, R5F565NE_DUAL
660	R5F56604A, R5F56604B, R5F56604C, R5F56604D, R5F56604E, R5F56604F, R5F56604G, R5F56604H, R5F56609A, R5F56609B, R5F56609C, R5F56609D, R5F56609E, R5F56609F, R5F56609G, R5F56609H
66N	R5F566ND, R5F566ND_DUAL, R5F566NN, R5F566NN_DUAL
66T	R5F566TA, R5F566TE, R5F566TF, R5F566TK
671	R5F56719, R5F56719_DUAL, R5F5671C, R5F5671C_DUAL, R5F5671E, R5F5671E_DUAL
71M	R5F571MF, R5F571MG, R5F571MJ, R5F571ML
72M	R5F572MD, R5F572MD_DUAL, R5F572MN, R5F572MN_DUAL
72N	R5F572ND, R5F572ND_DUAL, R5F572NN, R5F572NN_DUAL
72T	R5F572TF, R5F572TK

RX

RZ	A2	R7S921040, R7S921041, R7S921042, R7S921043, R7S921045, R7S921046, R7S921047, R7S921048, R7S921051, R7S921052, R7S921053, R7S921056, R7S921057, R7S921058
	A3M	R9A07G066M04GBG
	A3UL	R9A07G063U01GBG, R9A07G063U02GBG
	N2L	R9A07G084M04GBA, R9A07G084M08GBA, R9A07G084M04GBG, R9A07G084M08GBG
	N2H	R9A09G087M04GBG, R9A09G087M08GBG, R9A09G087M24GBG, R9A09G087M28GBG, R9A09G087M44GBG, R9A09G087M48GBG
	T2H	R9A09G077M04GBG, R9A09G077M08GBG, R9A09G077M24GBG, R9A09G077M28GBG, R9A09G077M44GBG, R9A09G077M48GBG
	T2L	R9A07G074M01, R9A07G074M04, R9A07G074M05, R9A07G074M08
	T2M	R9A07G075M01GFA, R9A07G075M05GFA, R9A07G075M01GFP, R9A07G075M05GFP, R9A07G075M21GBA, R9A07G075M22GBA, R9A07G075M24GBA, R9A07G075M26GBA, R9A07G075M27GBA, R9A07G075M28GBA, R9A07G075M22GBG, R9A07G075M24GBG, R9A07G075M26GBG, R9A07G075M28GBG
	T2ME	R9A07G075M29GBA, R9A07G075M29GBG
	G2L	R9A07G044C12GBG_CM33, R9A07G044C22GBG_CM33, R9A07G044L13GBG_CM33, R9A07G044L14GBG_CM33, R9A07G044L23GBG_CM33, R9A07G044L24GBG_CM33, R9A07G044LC_M33, R9A07G044L_M33
	G2LC	R9A07G044C12GBG, R9A07G044C12GBG_CM33, R9A07G044C22GBG, R9A07G044C22GBG_CM33
	G2UL	R9A07G043U11GBG_CM33, R9A07G043U12GBG_CM33
	G3E	R9A09G047E27GBG, R9A09G047E37GBG, R9A09G047E47GBG, R9A09G047E57GBG, R9A09G047E28GBG, R9A09G047E38GBG, R9A09G047E48GBG, R9A09G047E58GBG
	G3S	R9A08G045S33GBG_CM33, R9A08G045S37GBG_CM33, R9A08G045S31GBG_CM33, R9A08G045S35GBG_CM33
	V2H	R9A09G057H41GBG, R9A09G057H42GBG, R9A09G057H44GBG, R9A09G057H45GBG, R9A09G057H46GBG, R9A09G057H48GBG
	V2L	R9A07G054L13GBG, R9A07G054L13GBG_CM33, R9A07G054L17GBG_CM33, R9A07G054L23GBG, R9A07G054L23GBG_CM33, R9A07G054L27GBG_CM33, R9A07G054L14GBG, R9A07G054L14GBG_CM33, R9A07G054L17GBG_CM33, R9A07G054L24GBG, R9A07G054L24GBG_CM33, R9A07G054L28GBG_CM33
	V2N	R9A09G056N41GBG, R9A09G056N42GBG, R9A09G056N45GBG, R9A09G056N46GBG, R9A09G056N44GBG, R9A09G056N48GBG
	S1JA	R7FS1JA783A01CFM, R7FS1JA783A01CNE, R7FS1JA783A01CNF, R7FS1JA782A01CBT, R7FS1JA783A01CFJ
Synergy	S124	R7FS124762A01CLM, R7FS124763A01CFL, R7FS124763A01CFM, R7FS124772A01CLM, R7FS124773A01CFL, R7FS124773A01CFM, R7FS124773A01CNB, R7FS124773A01CNE, R7FS124773A01CNF
	S128	R7FS128782A01CLM, R7FS128783A01CFJ, R7FS128783A01CFL, R7FS128783A01CFM, R7FS128783A01CNE, R7FS128783A01CNG
	S3A1	R7FS3A17C2A01CLK, R7FS3A17C3A01CFB, R7FS3A17C2A01CBJ, R7FS3A17C2A01CLJ, R7FS3A17C3A01CFM, R7FS3A17C3A01CFP, R7FS3A17C3A01CNB

RA	S3A3	R7FS3A37A2A01CLK, R7FS3A37A3A01CFB, R7FS3A37A2A01CBJ, R7FS3A37A2A01CLJ, R7FS3A37A3A01CFP, R7FS3A37A3A01CFM, R7FS3A37A3A01CNB
	S3A6	R7FS3A6782A01CLJ, R7FS3A6783A01CFL, R7FS3A6783A01CFM, R7FS3A6783A01CFP, R7FS3A6783A01CNB, R7FS3A6783A01CNE, R7FS3A6783A01CNF
	S3A7	R7FS3A77C2A01CLK, R7FS3A77C3A01CFB, R7FS3A77C2A01CBJ, R7FS3A77C3A01CFP, R7FS3A77C2A01CLJ, R7FS3A77C3A01CFM, R7FS3A77C2A01CNB, R7FS3A77C3A01CNB
	S5D3	R7FS5D37A2A01CLJ, R7FS5D37A3A01CFP, R7FS5D37A3A01CFM, R7FS5D37A3A01CNB
	S5D5	R7FS5D57A2A01CLK, R7FS5D57A3A01CFB, R7FS5D57A3A01CFP, R7FS5D57C2A01CLK, R7FS5D57C3A01CFB, R7FS5D57C3A01CFP
	S5D9	R7FS5D97C2A01CBG, R7FS5D97C3A01CFC, R7FS5D97C2A01CLK, R7FS5D97C3A01CFB, R7FS5D97C3A01CFP, R7FS5D97E2A01CBG, R7FS5D97E3A01CFC, R7FS5D97E2A01CLK, R7FS5D97E3A01CFB, R7FS5D97E3A01CFP
	S7G2	R7FS7G27H2A01CBD, R7FS7G27G2A01CBD, R7FS7G27H2A01CBG, R7FS7G27G2A01CBG, R7FS7G27H2A01CFC, R7FS7G27H3A01CFC, R7FS7G27G2A01CFC, R7FS7G27G3A01CFC, R7FS7G27H2A01CLK, R7FS7G27G2A01CLK, R7FS7G27H3A01CFB, R7FS7G27G3A01CFB, R7FS7G27G3A01CFP
	RA0	R7FA0E105, R7FA0E107, R7FA0E207, R7FA0E209, R7FA0L105, R7FA0L107
	RA2	R7FA2A1AB, R7FA2A2AD, R7FA2A2BD, R7FA2E1A5, R7FA2E1A7, R7FA2E1A8, R7FA2E1A9, R7FA2E2A3, R7FA2E2A5, R7FA2E2A7, R7FA2E305, R7FA2E307, R7FA2L1A9, R7FA2L1AB, R7FA2L207, R7FA2L209, R7FA2T107
	RA4	R7FA4C1BB, R7FA4C1BD, R7FA4E10B, R7FA4E10D, R7FA4E2B9, R7FA4L1BB, R7FA4L1BD, R7FA4M1AB, R7FA4M2AB, R7FA4M2AC, R7FA4M2AD, R7FA4M3AD, R7FA4M3AE, R7FA4M3AF, R7FA4T1B9, R7FA4T1BB, R7FA4W1AD
RA	RA6	R7FA6E10D, R7FA6E10F, R7FA6E2B9, R7FA6E2BB, R7FA6M1AD, R7FA6M2AD, R7FA6M2AF, R7FA6M3AF, R7FA6M3AH, R7FA6M4AD, R7FA6M4AE, R7FA6M4AF, R7FA6M5AG, R7FA6M5AH, R7FA6M5BF, R7FA6M5BG, R7FA6M5BH, R7FA6T1AB, R7FA6T1AD, R7FA6T2AB, R7FA6T2AD, R7FA6T2BB, R7FA6T2BD, R7FA6T3BB, R7SA6W1AE, R7SA6W1BE, R7SA6W1CE, R7SA6W2AE, R7SA6W2BE, R7SA6W2CE
	RA8	R7FA8D1AF, R7FA8D1AH, R7FA8D1BF, R7FA8D1BH, R7FA8E1AF, R7FA8E2AF, R7FA8M1AF, R7FA8M1AH, R7FA8T1AF, R7FA8T1AH, R7JA8D2JR, R7JA8D2JS, R7JA8D2KR, R7JA8D2KS, R7JA8M2LR, R7JA8M2LS, R7JA8P1JR, R7JA8P1JS, R7JA8P1KR, R7JA8P1KS, R7JA8T2LR, R7JA8T2LS, R7KA8D2AD, R7KA8D2AF, R7KA8D2BD, R7KA8D2BF, R7KA8D2JF, R7KA8D2KF, R7KA8M2AD, R7KA8M2AF, R7KA8M2JF, R7KA8P1AD, R7KA8P1AF, R7KA8P1BD, R7KA8P1BF, R7KA8P1JF, R7KA8P1KF, R7KA8T2AD, R7KA8T2AF, R7KA8T2CD, R7KA8T2CF, R7KA8T2JF, R7KA8T2LF

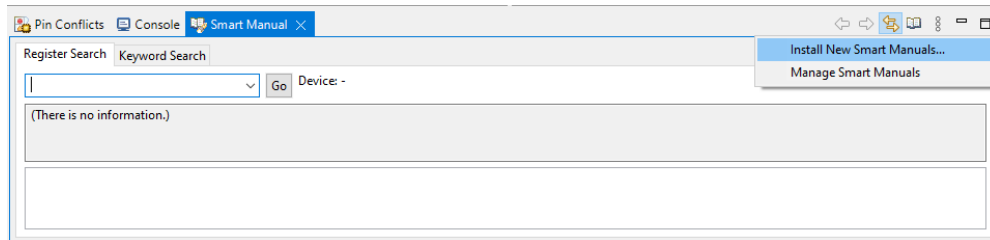
3. Smart Manual Support

Smart manual support is delivered independently of e² studio releases when available. The following devices are available as of July 2026:

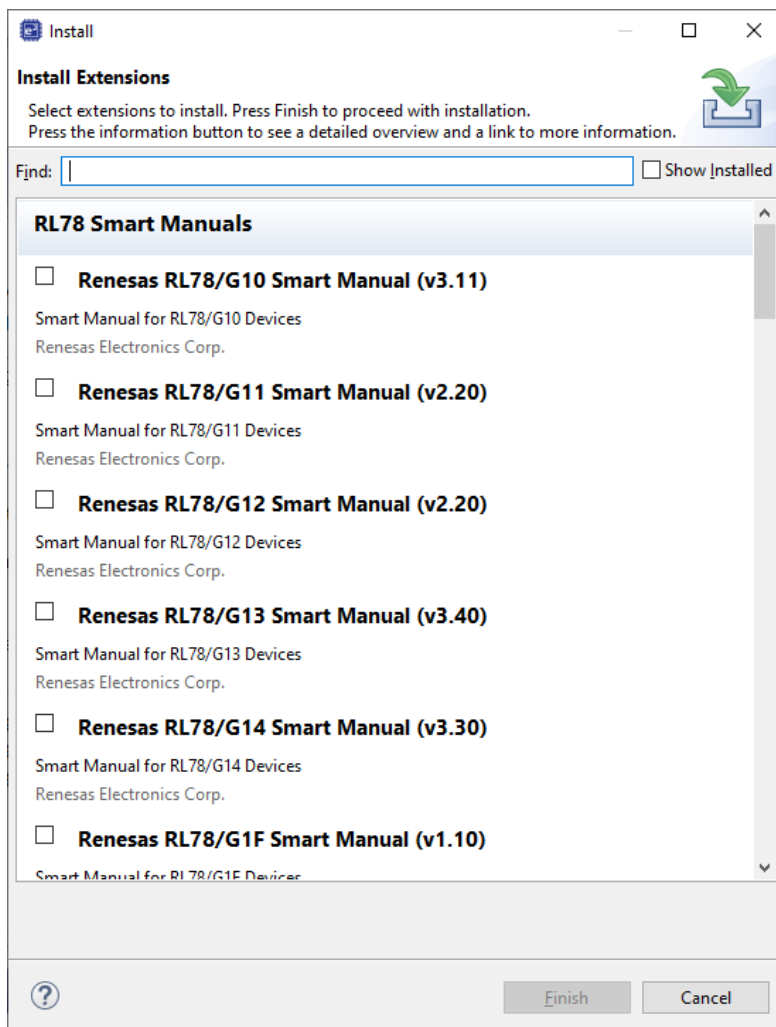
- | | | |
|-----------|--------------|---------|
| • RX110 | • RX72T | • RA0E1 |
| • RX111 | | • RA0E2 |
| • RX113 | • RL78/G10 | • RA0E3 |
| • RX130 | • RL78/G11 | • RA0L1 |
| • RX13T | • RL78/G12 | • RA2A2 |
| • RX140 | • RL78/G13 | • RA2E1 |
| • RX14T | • RL78/G14 | • RA2E2 |
| • RX210 | • RL78/G15 | • RA2E3 |
| • RX220 | • RL78/G16 | • RA2L1 |
| • RX230 | • RL78/G1F | • RA2L2 |
| • RX231 | • RL78/G22 | • RA2T1 |
| • RX23E-A | • RL78/G23 | • RA4C1 |
| • RX23E-B | • RL78/G24 | • RA4E1 |
| • RX23W | • RL78/L12 | • RA4E2 |
| • RX24T | • RL78/L13 | • RA4L1 |
| • RX24U | • RL78/L23 | • RA4M2 |
| • RX260 | | • RA4M3 |
| • RX261 | • RZ/A1H | • RA4T1 |
| • RX26T | • RZ/A1L | • RA6E1 |
| • RX62G | • RZ/A2M | • RA6E2 |
| • RX62T | • RZ/N2H | • RA6M4 |
| • RX631 | • RZ/N2L | • RA6M5 |
| • RX63N | • RZ/T1 | • RA6T2 |
| • RX63T | • RZ/T2H | • RA6T3 |
| • RX64M | • RZ/T2L | • RA8D1 |
| • RX651 | • RZ/T2M | • RA8D2 |
| • RX65N | • RZ/T2ME | • RA8E1 |
| • RX660 | | • RA8E2 |
| • RX66N | • DA1453x | • RA8M1 |
| • RX66T | • DA1459x | • RA8M2 |
| • RX671 | • DA1469x | • RA8P1 |
| • RX71M | • DA1470x | • RA8T1 |
| • RX72M | | • RA8T2 |
| • RX72N | • RISC-VG021 | |

To view the Smart Manual support in e² studio please use the following method:

- Please open the Smart Manual view. Available on the Renesas Views->Solution Toolkit->Smart Manual menu from the Menu bar.
- Then use the “Install new Smart Manual...” option seen in the figure below:

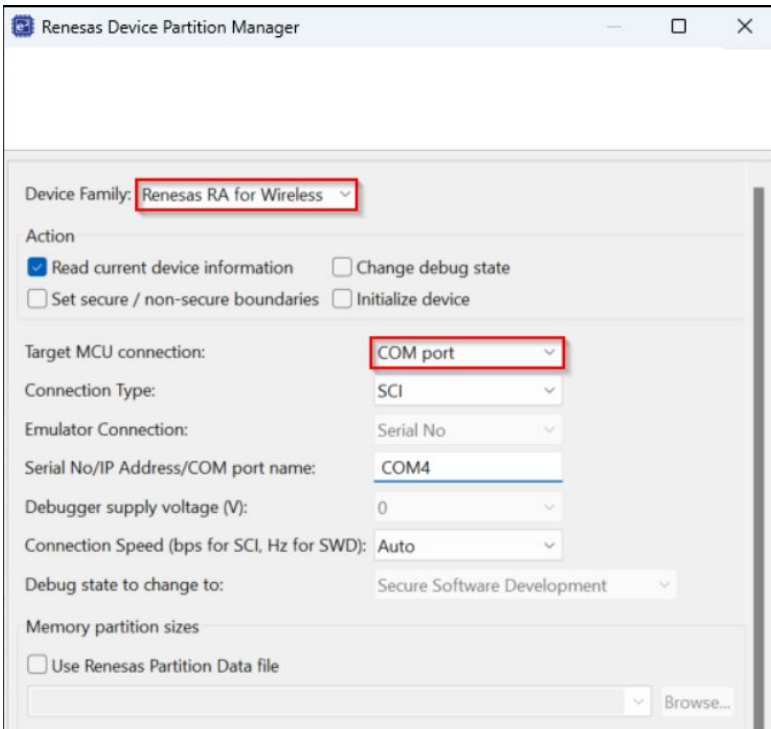


- A dialog is then displayed which shows all available Smart Manuals.

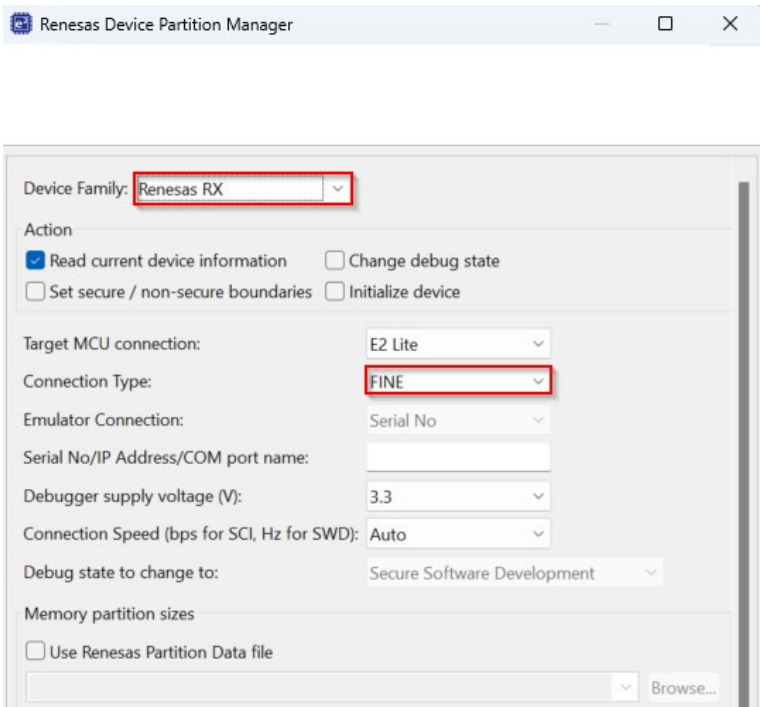


4. What is new in the 2026-07 release?

Component	Device	Description
CDT	All	The base Eclipse Platform for e2 studio has been updated to 2026-03. You can find a full list of improvements here: https://eclipse.dev/eclipse/markdown/?f=news/4.39/platform.md CDT has been updated to CDT 12.4. CDT LSP support is not enabled by default but can be configured if you are using the latest C++ standards. You can find a full list of improvements here: https://github.com/eclipse-cdt/cdt/blob/main/NewAndNoteworthy/CDT-12.4.md
E2 Lite Emulator	RH850	Add E2 Emulator Lite connection support to the following RH850 device group. RH850/U2A, RH850/U2B, RH850/U2C, RH850/U2Bx-E, and RH850/F1Kx
Smart Configurator	RX	There are some improvements of SC RX: - Fix MPC value of the COMPn pin code from 0x16 to 0x1E in RX24U 100pin package. - Update default setting of SSDA output delay from "No output delay" to "0 to 1 cycle" in RX devices supporting Simple I2C mode. - Update default setting of Count direction from Down-counting to Up-counting in General PWM Timer component.
Smart Configurator	RL78	There are some improvements of SC RL78: - BSP rev2.00 is supported and added as default BSP when creating new SC project - Support new device RL78/G21 - Support new chip for RL78/G23 (R7F104GGJ, R7F104GFJ, R7F104GBG), RL78/G15 (R5F12068xSM) and RL78/G16 (R5F1216CxSM)
RDPM	RA for Wireless	Renesas Device Partition Manager is updated to support "Renesas RA for Wireless". "COM port" option at connection selection is also available for all device family now.



Renesas Device Partition Manager is updated to support "Renesas RX".
"FINE" option is available for E2 / E2 Lite connection now.



PDPM

RX

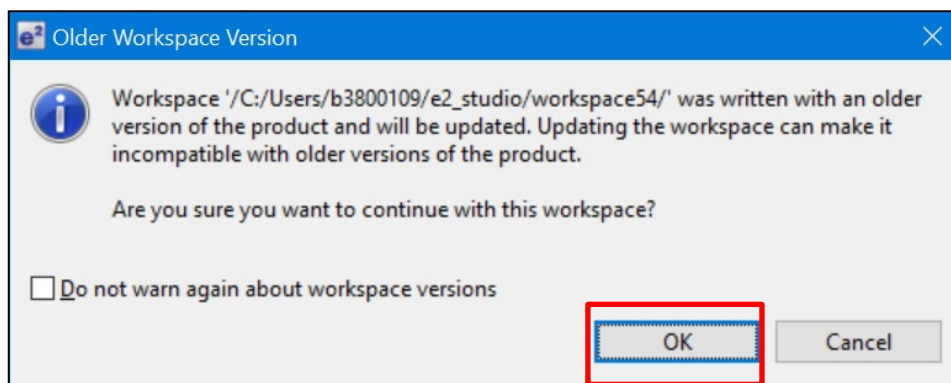
5. Useful workarounds and information for this e² studio release

Please visit the Renesas FAQ for e² studio for the latest up to date information:

[Online FAQ link.](#)

ID	Component	Workaround or information
	Application	When using the check for updates feature within e ² studio and updating from 7.0.x to 7.1.x the initial restart after the update fails. An error message is displayed. Subsequent launches of e ² studio work without issue. This is caused by the update to Java.
	SH support	The Renesas SH device family is no longer supported in e ² studio. If you need to use the SH device support, please use e ² studio 5.4 or earlier.
	Importing old projects into 6.x	All projects being migrated into the latest e ² studio from e ² studio 5.4 and earlier versions will need to be migrated to the new builder plugins. The new builder plugins have different user interface pages and different option IDs.

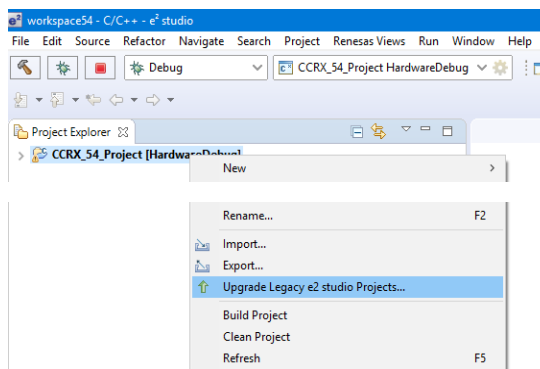
Upon opening an older workspace, the following dialog would be displayed:



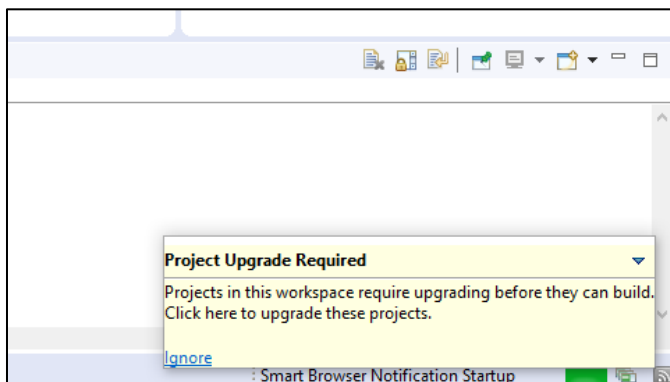
Clicking OK will update the workspace to the newer e² studio.

Importing an existing project to the workspace or opening a workspace with old projects will automatically start the legacy project upgrade procedure.

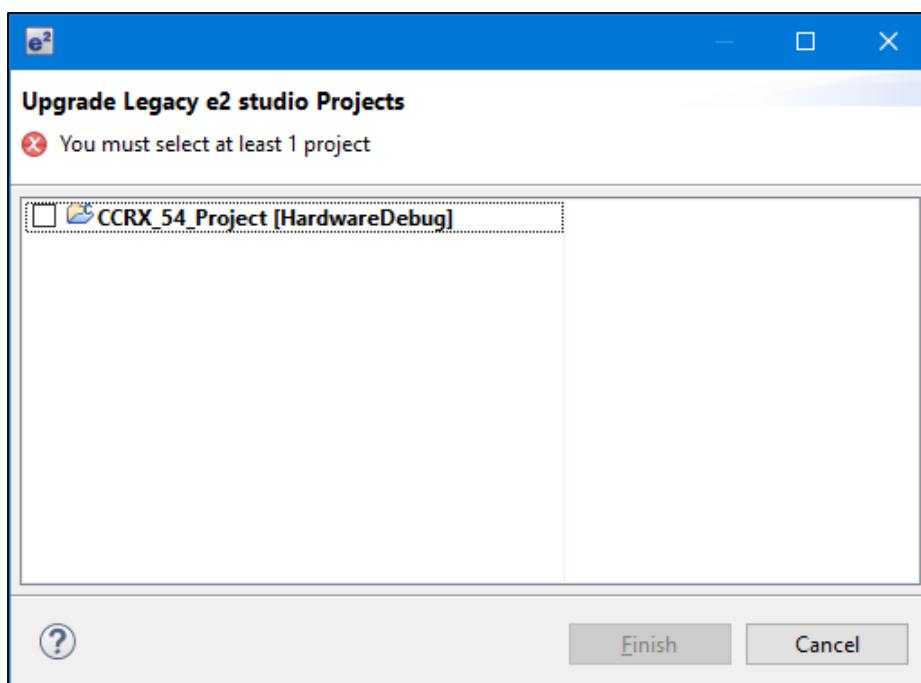
If for some reason this process does not start it is also possible to launch the "Upgrade Legacy of e2 studio Projects..." from the project context menu.



The automatic system pops up a message bubble in the bottom left of the e² studio application window.



After selecting the menu item or clicking the bubble the following dialog will be shown:

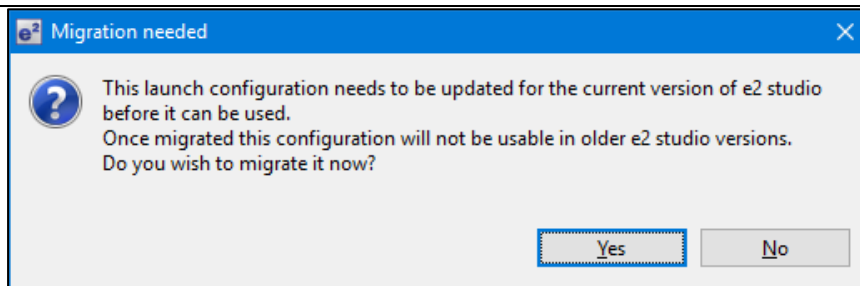


To upgrade the project, click the corresponding check box and then click Finish. Note, this will update the project to the latest build plugins and options. Before doing this, you should ensure your project is backed up as this operation is not reversible.

It is possible to upgrade multiple projects in a single operation.

For the GCC toolchains for RX, RL78 and GNUARM-NONE have been made to the build options which mean we cannot guarantee the same binary output after upgrade. Please consider this before upgrading.

Another consideration for migration is that debug configurations when opened in 6.0 will also need to be migrated. The following message will be displayed.



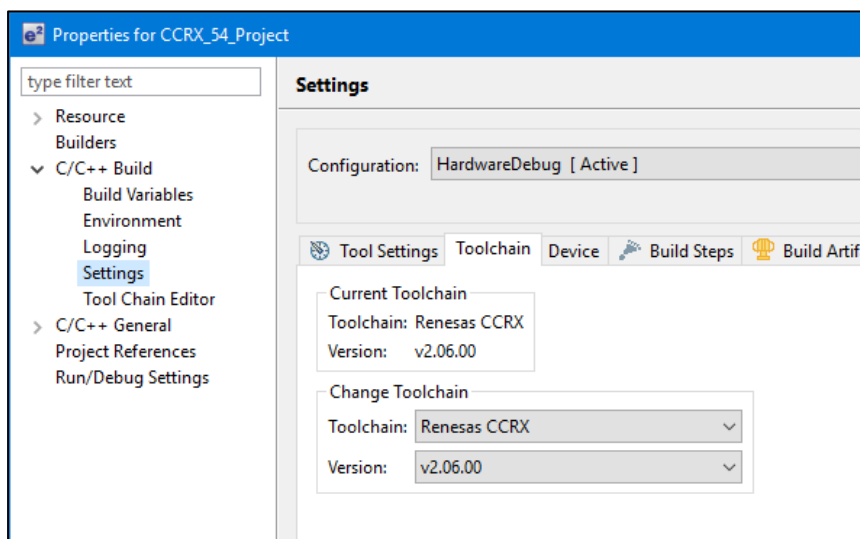
Please ensure that your projects are backed up or in revision control before migration allowing you to return to older versions if required.

Toolchain Management

Before e² studio 6.0 the toolchain management facility automatically upgraded or downgraded the imported project to the latest tools installed on the host machine.

This no longer happens in the latest e² studio. Instead the toolchain remains the same and user operation is the only way to change the toolchain version.

This operation is now available within the build settings on the toolchain tab. An example of CCRX is shown below:



If the particular toolchain version does not exist and build is performed, then an error message is displayed, and the build will fail.

RZ Toolchain

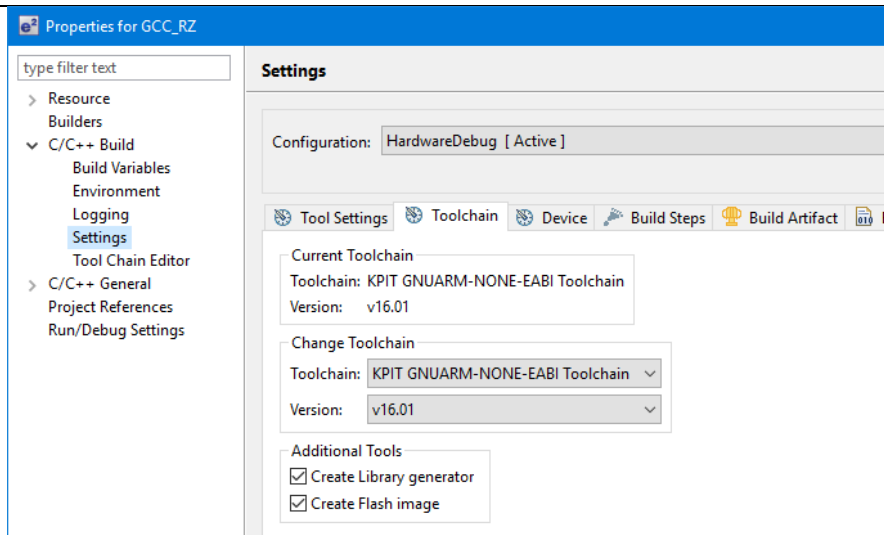
The now legacy KPIT GNU ARM-NONE toolchain is still supported within the e² studio product but now using the gnuarmeclipse plugins.

In addition RZ within e² studio now supports the GNU ARM Launchpad toolchain. Available from <https://launchpad.net/gcc-arm-embedded>.

One drawback of this toolchain is that it does not have a standard library builder provided in the same manner as the legacy KPIT ARM-NONE toolchain. To use this feature for ARM Launchpad and gain access to the more efficient optlib libraries a further download is required.

This can be downloaded within the e² studio installer or directly from here: <https://lvm-gcc-renesas.com/rz/rz-download-toolchains/>

Once integrated it is possible to integrate the library generator from the toolchain tab of the build settings page.



See “Create Library generator” option. Once checked the library generator (libgen) is added to the available tool settings.

QE compatibility	If QE for TCP/IP V1.0.0 is used, please update it to V1.0.1. Other QE series can be used with e² studio 6.0. What is QE? https://www.renesas.com/qe Details of QE for TCP/IP https://www.renesas.com/qe-tcpip
NA Application	If you are experiencing slow building of projects within e² studio there are some possibilities to improve. The system environment will attempt to find the make.exe tool via the system environment. If you ensure the directory, make resides in is at the start of the path variable it will find it more quickly. Especially important if there are network drives in the path. In the project properties, C/C++ Build tab, behavior tab you can switch on parallel build. This will take advantage of the multi-cores on your host machine if it has them.
NA RZ GCC	In 3.0 the KPIT GCC RZ toolchain was supported at version 14.01. This version is no longer supported within e² studio. KPIT modified the name of their ARM toolchain to be ARM-none-eabi to follow standard ARM naming convention like other GCC toolchain vendors. The ARM-none toolchain is available at versions 14.01, 14.02 and 16.01 from the www.gcc-renesas.com website. The binaries in the 14.01 version are identical to those used in the 14.01 RZ toolchain. Once the toolchain is installed your projects will be imported and ported to ensure there is as little disruption as possible due to this change.
NA KPIT GCC	The KPIT toolchains are now no longer supported by the www.kpitgnu tools.com website. Support is now available from the llvm-gcc-renesas.com website.

In addition, there are two new releases for the GNU toolchains for RX and RL78. These are now named Renesas GCC for RX and Renesas GCC for RL78.

Both integrate into e² studio and can be selected from the project wizard.

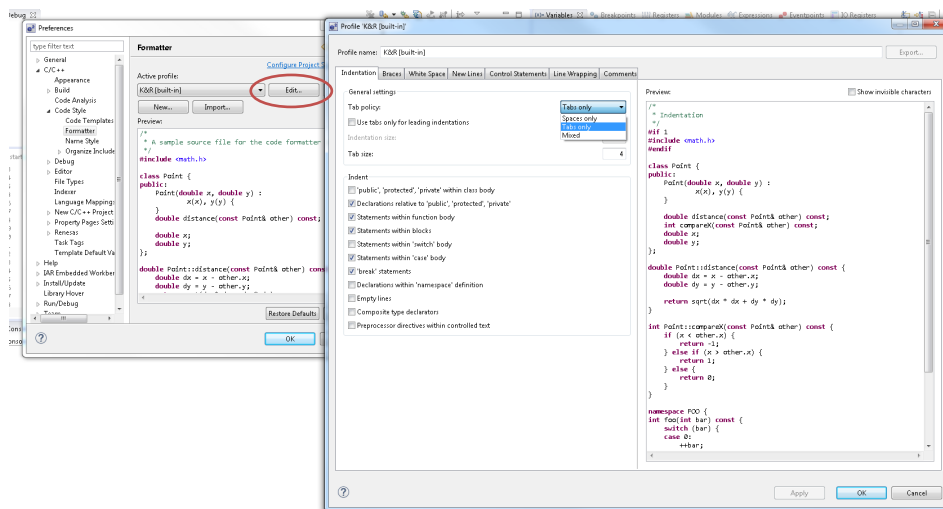
- | | | |
|------|-----------------|---|
| 7524 | RZ/T1 Debugging | In a RZ/T1 RAM-based project, the "Reload" function does not work.
Reloading or re-downloading during debugging resets the device and the RAM content is erased. |
|------|-----------------|---|

To continue the debugging, disconnect and connect the debugger again.

Use spaces as tabs

Eclipse and CDT both have settings for use spaces as tabs. The option on the Editor preferences page conflicts with the CDT formatter settings.

To change the use spaces as tabs option in e² studio please use this page:



Installer problems

In some situations, the AVG virus checker appears to interfere with the e² studio installation process. If you experience such a problem, please temporarily disable the AVG tool and try the installation again.

Antivirus

In some situations, the Norton anti-virus tool can interfere with the building of Renesas Synergy projects. If possible, please disable the antivirus program when building Renesas Synergy projects on systems with Norton Antivirus installed.

Green Hills RH850 Projects

When debugging the RH850 object built with the Green Hills compiler in e² studio, specify the following option for the compiler option:
-gtws

The GUI setting menu is as follows.

[GHS C Compiler for V800 Standalone]-[Debugging Option]

"Generate Target-Walkable Stack" -> On

If this option is not specified, Step Over and Step Return may not work properly.

- | | | |
|-------|-----------|--|
| 17052 | Debugging | When debugging using a project with duplicate filenames that are in different source folders problems can be seen with breakpoint setting.

When a breakpoint is set at a source line in this file it will also stop at the same source line in the other same named file when execution passes through. |
|-------|-----------|--|

RZ GCC Build	In the latest e² studio, the RZ import functionality has been improved. However, there are still possibilities of older projects causing problems when imported into e² studio. In older versions of the RZ build plugins the FPU option was not being handled correctly. When setting the "Soft" Floating point ABI the command line was still receiving <code>-mfpu=vfpv3</code> incorrectly. This can now cause problems with older start-up code in older RZ projects. After import if you see an error relating to this please add <code>-mfpu=vfpv3</code> to the "Other Assembler Flags" page of the Assembler tool. In addition, when migrating some RZ/A1 projects you may experience import problems unless you build the project in 5.4 first.
RZ DS-5 Project Import	When a DS-5 project is imported into e² studio the environment variables for Path and TCInstall are copied from the DS-5 environment. This is not correct. The way to correct this problem is to delete both paths and replace them with correct values to your toolchain. If you are unsure how to correct this, please create a new project and copy the values from this to the converted project.
RX & RL78 GCC Project Import	When importing a KPIT RL78/RX Library C/C++ project from e² studio 5.4 or before the build artifact settings are not correct. The output prefix should be set to "lib" but is in fact empty.
RZ/G debug	In the case of debugging Linux application for RZ/G, the following error messages are shown in GDB server console when pushing [Step in] button or [Step Over] button. These messages can be ignored because the Step debugging should work properly even with these messages. Examples of error messages: <pre>PassthroughTargetCommunication::sendResponse error 42 46 PassthroughTargetCommunication::sendResponse error 10 15 PassthroughTargetCommunication::sendResponse error 42 46</pre>
Code Generator registration	When using multiple installations of e² studio on your machine you may find that subsequent installations do not work correctly with the code generator. The effect is that the code generator cannot be created or added to projects. Existing projects can be used by the code generator views appear empty. If this is the case, then the code generator must be manually registered. To do this execute the following tool: e.g. <pre>C:\Renesas\e2_studip\eclipse\plugins\com.renesas.cg_2.11.0.v20180601-1047\CodeGenerator\Tools\register COM.bat</pre>
25278 Synergy debugging	When loading Symbols from multiple .elf files compiled using the IAR toolchain, the user will need to add ".text" before place in FLASH_region command inside the .icf Script. e.g. <pre>".text": place in FLASH_region { block LOCK_LOOKUP, ro, ro section .rodata, block QSPI_NON_RETENTIVE_INIT_BLOCK,</pre>

		<code>block RAM_INIT_CODE, block USB_DEV_DESC_BLK };</code>
25273	RZ Device Migration	When changing the device from a RZ/A1 and attempting to swap to a RZ/T1 the device migration is not successful. The source code is not migrated successfully, and the build fails. This is due to the different start-up code structure between these devices. In this case please create a new project and copy the required source to the newly created project.
24883	R2/A2M	RZ / A2M project generated by e ² studio does not support GCC ARM 7.x or later. Please use GCC ARM 6.3.
27913	GDB server RL78	When debugging with an EZ cube, real-time refresh significantly slows down debugging features and it makes e ² studio look like suspended.
12123	Linker Script Editor	The Linker Script Editor may report errors when using some Wild Identifiers such as <code>1file.o</code> and <code>*filename.o</code>. Although these are valid file names and valid identifiers according to the Linker Script syntax, they need to be quoted when using the Linker Script Editor. (e.g. <code>"1file.o"</code> and <code>"*filename.o"</code>).
	RZ/G Linux Platform Tools	When using RZ/G Linux Platform Tools, gnu.io.rtx plug-ins should be installed same as Nebula plug-ins. Please follow the below steps to install gnu.io.rtx plug-ins. Start the e² studio and select [Help] -> [Install New Software] from the menu bar to open the [Install] dialog box. Click on the [Add] button, enter "GNU RXTX Plugin Update Site" as a name and "http://rtx.qbang.org/eclipse/" as a location, and click on the [OK] button. Select [RXTX 2.1-7r4] -> [RXTX End-User Runtime] from the list, click on the [Next] button, confirm the license, and install the plug-ins.
32564	MyRenesas	Due to differences in the login data between 7.8 and the 2020-04 e² studio (or later) version the FreeRTOS download feature does not work in 7.7/8 if the user has logged into MyRenesas or changed their login data details using 2020-04. If you previously used 7.7/8 prior to using 2020-04 and have not changed your login details, then both versions will work correctly. If you need to use MyRenesas in older versions of e² studio after logging in using 2020-04 then you will need to close all e² studio instances and delete the file <code>"%USERPROFILE%\eclipse\org.eclipse.equinox.security\secure_storage"</code>. Be aware that doing this will remove stored passwords for any Eclipse-based application.
32543	QE	When updating e ² studio versions using an installer any installed QE tools are removed and then must be reinstalled. To preserve QE tools during an update use the "Check for Updates" function in the "Help" menu to perform an in-place online update.
30613	RH850	When viewing flash memory in the Memory View, it can be confusing as the values for this memory type can be random for unwritten blank flash memory regions.

		This can then result in many false positives for memory changes, resulting in more memory changes than expected. (red text) To fix this the debugger supports detection and filling of blank addresses areas with a user specified hex byte value. There is currently no user interface support for this feature. So, you need to add the following command parameters to the additional commands section of the debug configuration. The GDB command line option is: - uBlankFlaskFill=BB with the blank fill value being 0xBB. Specifying this value enables the feature, by default it is off.
37443	RA (Linux)	CMSIS Pack Import feature does not work for RA on Linux
36999	RA	Deleting the Debug folder from an NS project causes build failure when reference NSC guard functions.
	RA	When migrating from FSP versions before 3.0 the way pin configuration files are handled has changed. Previously the projects maintained “.pincfg” files within the project directory which contained the pin data. When migrating to FSP 3.0 and the subsequently saving the migrated configuration.xml the pin data is migrated from these files to the configuration.xml file. The “.pincfg” files will still appear in the pin tab until they are subsequently removed.
IDE-46896	GCC Plugins	Projects imported from Windows fail when being built in Linux. If copying a project with its build output directory between Windows & Linux, or moving it to a new location, you need to do a clean and rebuild to avoid build errors. If storing a project under version control avoid including the build output directories. At a minimum exclude the *.d files which may contain system specific paths.
	FSP Smart Configurator	When using the FSP Smart Configurator the linker script is now generated in the build configuration folder rather than the script folder. This change should be automatically picked up when the project content is generated from the FSP Smart Configurator tool. This should ensure that existing projects continue to work as expected. When using the IAR toolchain for your project this new behavior can cause issues. In this case the IAR linker uses the “memory_regions.icf” file available in the script folder rather than the script file generated in the build configurations folder. To work around this please delete the file present in the script folder, then the tool will use the file in the build configuration folder.
	Synergy Configurator	Renesas Synergy no longer supports Synergy Software Platform (SSP) version 1.x. Only Synergy Software Platform (SSP) version 2.0 and later will be available for new Synergy projects. Existing Synergy 1.x projects will prompt to upgrade upon opening them in the Synergy Configurator, if a later version (2.0 or later) is available. This means that it is no longer possible to build SSP 1.x projects in e² studio 2023-01.

	Synergy Configurator	The Pin Editor component for Renesas Synergy projects has been modified to use the same pin configurator as the RA device family. Any existing projects that were using the Synergy Pin Editor will have their projects automatically upgraded upon opening them in the Renesas Synergy Configurator. This will allow Synergy users to access the more advanced feature set of the RA pin configurator and enjoy an updated user experience.
IDE-59440	Debugging RA	Disconnect an RA board with the "Continue" option (allowing the user code to execute after disconnecting from JLink) does not work when using semihosting. To work around this, make sure you have conditional code for when the debugger is not connected, e.g. <pre>semihosting_printf(...) { if (CoreDebug->DHCSR & CoreDebug_DHCSR_C_DEBUGEN_Msk) { printf(...); } } #ifdef semihosting #SAFE_PRINTF(...) semihosting_printf(...) #else #SAFE_PRINTF(...) printf(...) #endif</pre> Additionally, the use of an updated hard-fault handler to catch this situation would also help.
IDE-68935	Installer	Installation for all users and running e² studio from the installer can cause problems with access to support files and workspace locations. This issue occurs when a local administration user installs e² studio and runs for the first time. If this user also creates a workspace, subsequent different users with lower privileges may experience problems when trying to open that workspace. Depending on installation configuration you may see an error like "Error extracting synergy support files". To avoid this issue subsequent users should create a new workspace.
IDE-69167	Installer	When installing the platform installer for RA on Windows you may experience issues with GCC toolchain compilation if e² studio is installed in a long path. Examples problems include not being able to find system include header files. The workaround for this issue is to install e² studio in a shorter directory structure. e.g., c:\users\username\appdata\local\programs\renesas\e2_studio\toolchains\gcc_arm\arm-gnu-toolchain-12.2.mpacbti-rel1-mingw-w64-i686-arm-none-eabi to c:\renesas\e2_studio\toolchains\gcc_arm\arm-gnu-toolchain-12.2.mpacbti-rel1-mingw-w64-i686-arm-none-eabi

IDE-78715	Installation	Installation of e2 studio 2024-07 on Windows 11 Enterprise 23H2. If you experience issues installing e2 studio on a very newly installed Windows image. You will see an error "Unable to connect to Renesas website. Installation may continue but some functions may not be available." Items such as toolchain download during installation cannot be accessed. Please try this: Run this command as admin resolve the issue: CertUtil -VerifyCTL AuthRoot
IDE-81939	RA Standalone Configurator	Specifically, to the FSP standalone configurator on Linux OS, FSP projects for use with the EWARM IDE will not be buildable due to an issue with the pre-build and post-build steps when building the project.
IDE-89966	Application	Some users may see issues with browser-based content, e.g. Help. If closing & reopening the view does not fix the issue then the line "chromium.integration.eclipse.disable=true" should be added to the end of "configuration/config.ini" in the install directory of e2 studio
IDE-93684	RL Debugging	The default projects generated using Smart Configurator for RL78/F2x devices have the default value for Flash serial programming security ID 0xFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF not same as default security ID (0xFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF) of the device. This mismatch causes failing to authenticate when flashing to device. As a result, we cannot debug with it. To able to debug with it: - Please change the option on Debug Configuration, "Permit rewrite the serial programming security ID" to Yes. Please note that after debugging with above option changed, the flash serial programming security ID on the device will change to FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF.
IDE-93871	RZ Debugging	When debugging CR52_1 on RZ/T2H, the debug connection may fail with the default launch settings. In this case, please specify "Prevent Releasing the Reset of the CM3 core" to 'Yes'.
IDE-97906	RL78 Build with CCRL	Projects for CCRL RL78 FAA may fail to build when the project name contains an underscore between the device family and 'FAA'/'G24' part (for example, RL78_G24 or RL78_FAA). Workaround: Create the project using a name without the single underscore, such as RL78G24 or RL78FAA, RL78_G24.

6. Linux version

6.1 How to install

For information on how to install the Linux product please refer to FAQ below.

English : <https://en-support.renesas.com/knowledgeBase/19934358>

Japanese : <https://ja-support.renesas.com/knowledgeBase/19934356>

6.2 How to run

- A. Run 'terminal' application of Linux.
- B. Move installed directory and Run 'e² studio' binary file.

6.3 Register toolchain to e² studio

6.3.1 Renesas C Compiler (CC-RX / CC-RL / CC-RH)

If you want to use the Renesas C Compiler (CC-RX / CC-RL / CC-RH), you will need to obtain an installer for the toolchain and install and register it with the e² studio.

1. Downloading Renesas C Compiler and Renesas License Manager

The Renesas C Compiler installer is available from Renesas product page below.

- CC-RX
<https://www.renesas.com/software-tool/cc-compiler-package-rx-family>
- CC-RL
<https://www.renesas.com/software-tool/c-compiler-package-rl78-family>
- CC-RH
<https://www.renesas.com/software-tool/c-compiler-package-rh850-family>

In addition, the Renesas License Manager is necessary to use Renesas C Compiler as licensed edition. Also, Renesas C Compiler can be used without the Renesas License Manager. In this case, the Renesas C Compiler will work as an evaluation edition. The Renesas License Manager for Linux is available from the product page above. If you would like to know more about license, please see the following page.

<https://www.renesas.com/software-tool/compiler-licenses>

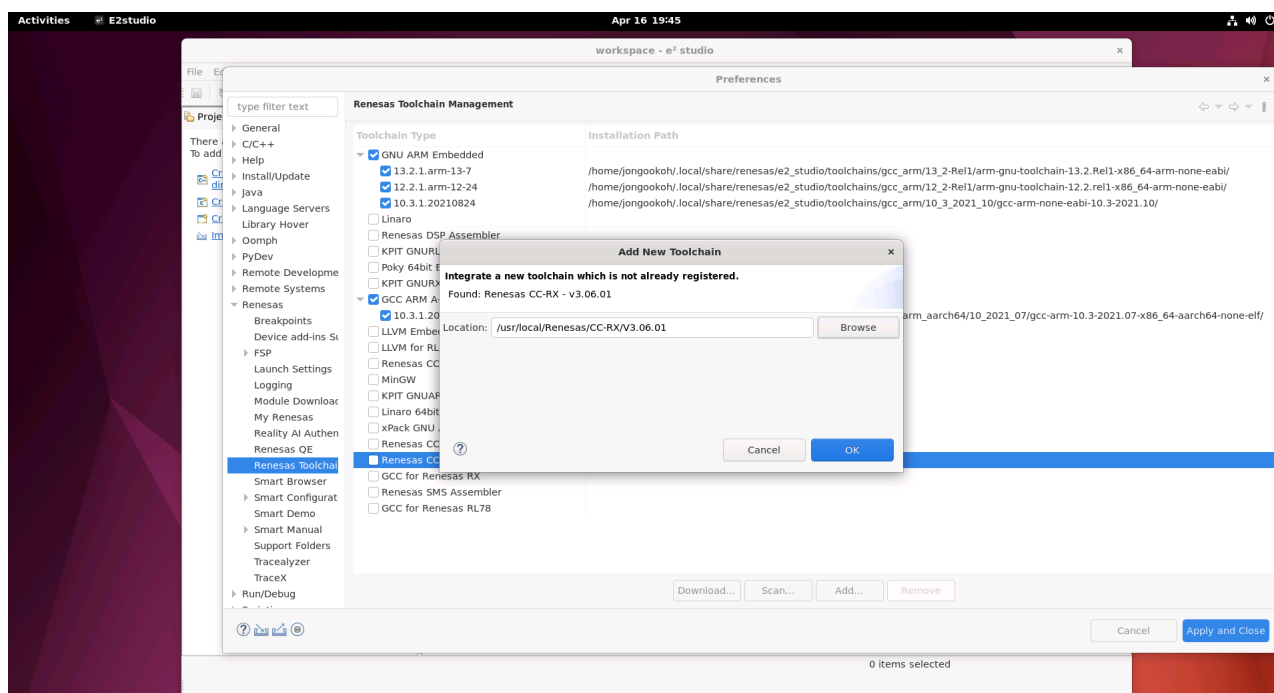
2. Installing Renesas C Compiler and Renesas License Manager

Please refer to the text file enclosed in the Renesas C Compiler and the Renesas License Manager for the Renesas C Compiler and the Renesas License Manager installation.

And license registration is described in the Release Note of the Renesas License Manager. Please refer it.

3. Registering Renesas C Compiler

After the Renesas C Compiler installation is complete, start e² studio, execute the [Help – Add Renesas Toolchains] menu, and select "Add..." Press the button and enter the path where the Renesas C Compiler is installed to register.



6.3.2 GNU ARM Embedded

Install the GNU ARM Embedded toolchain to a shared folder as follows:

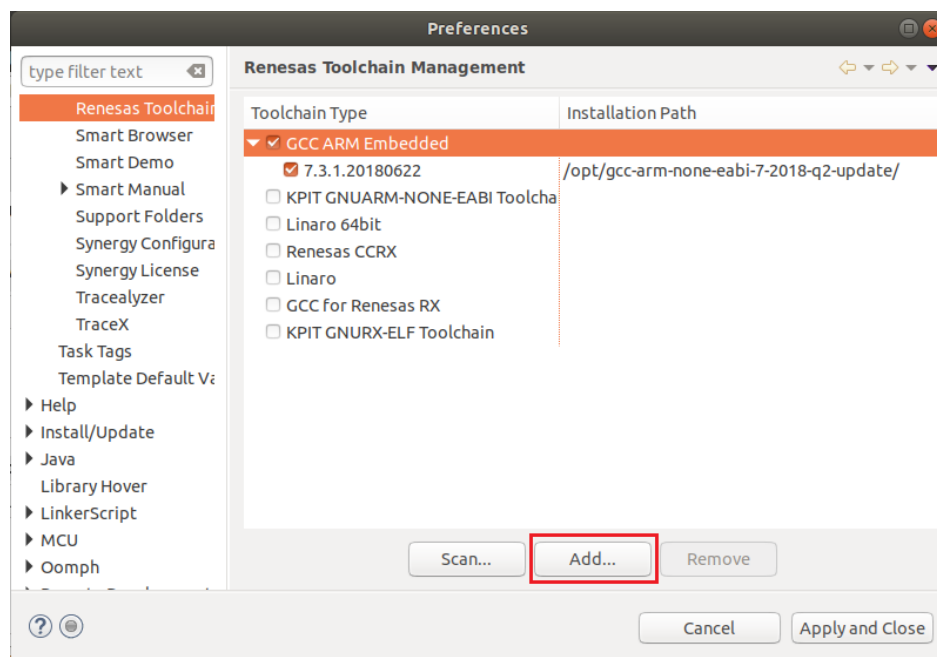
```
sudo mkdir -p /opt
```

```
cd /opt
```

```
sudo tar jxf ~/Downloads/gcc-arm-none-eabi-7-2018-q2-update-linux.tar.bz2
```

(assuming the toolchain has been downloaded to your Downloads folder)

On first invocation you will be prompted to specify a workspace location, you will also be advised that there are no new toolchains available for integration. Open the Renesas Toolchain Management preference page using the Help → Add Renesas Toolchains menu item, then click on the Add... button and navigate to the root folder of the GNU ARM Embedded toolchain installation at /opt/gcc-arm-none-eabi-7-2018-q2-update in order to register the toolchain with e² studio:



6.3.3 Linaro

- A. Download and extract a toolchain package file to arbitrary directory.
- B. Run ‘e² studio’ and select ‘Help – Add Renesas Toolchains’
- C. Select ‘Toolchain Type’ and ‘Add’ Location of toolchain.

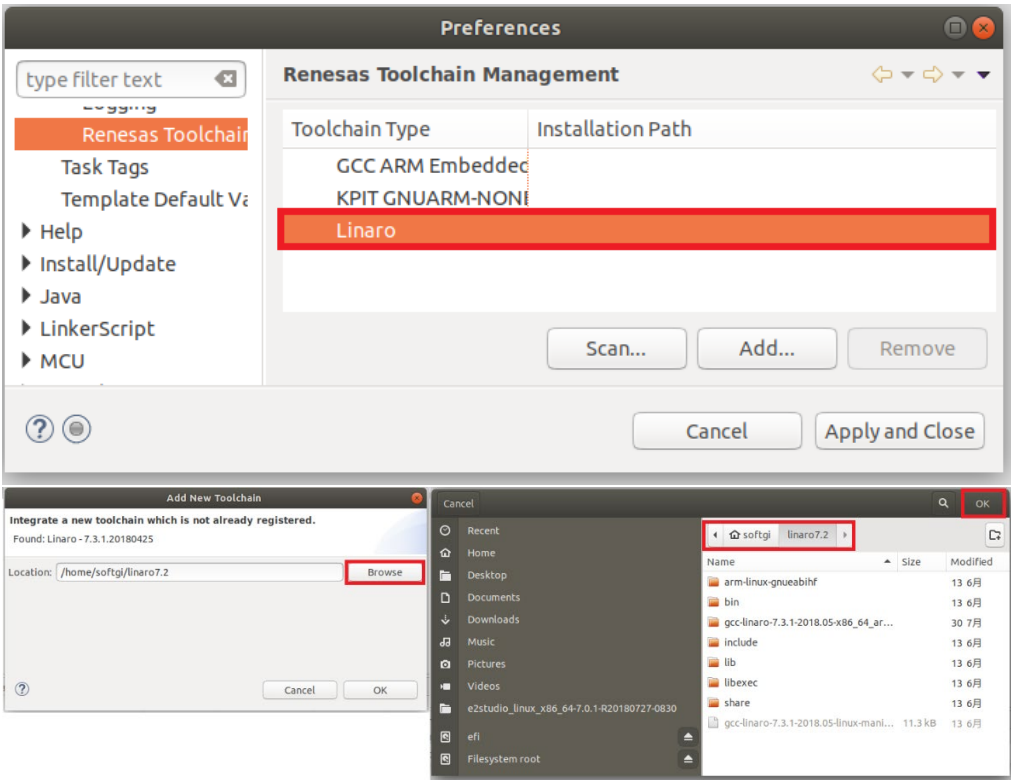


Figure 2. Register Toolchain: Browse toolchain location

- D. Click checkbox of added toolchain and restart e² studio.

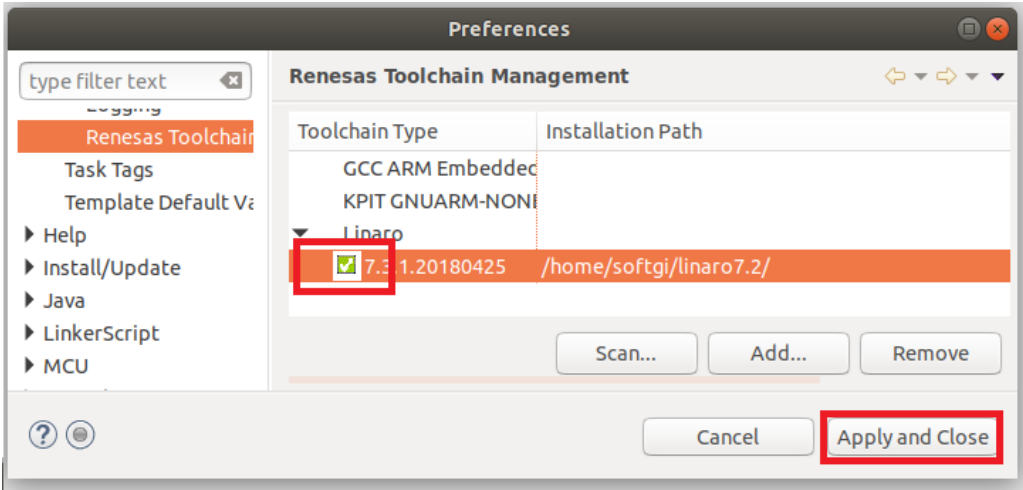


Figure 3. Register Toolchain: ex) Linaro

6.4 How to build and debug RA applications Overview

6.4.1 Build

Open the New project wizard and choose an RA project.

If this is unavailable it is likely the FSP has not been installed correctly. In this case, quit e² studio, reinstall the pack(s) and restart e² studio again.

Once the wizard completes a sample project will have been created, as well as a debug configuration for connecting the debugger.

6.4.2 Debug

Once the project has successfully built and produced a build artefact for debug, open the Debug Configurations dialog and browse to the Renesas Hardware Debug section.

The debug configuration will match the project name – check that the settings are correct and hit Debug to connect to the device.

Checks if connection fails.

If the debug connection fails, it is often for one of two reasons:

1. If using a virtual machine, make sure that the device is tied into the VM rather than the host machine.
2. If the Segger library has not installed as part of the FSP correctly open the “/home/user/.eclipse/com.renesas.platform_XXXXXXX/DebugComp/RA/ARM/Segger” folder and copy and paste the 'libjlinkarm.so' into the other Segger folders - e.g. 'Segger_v6.50.1'. Alternatively, take the latest file from the Segger Tools installation folder and install it in the same place.

6.5 How to build and debug RZ Linux application Overview

e² studio for Linux supports building and debugging Linux applications for devices of RZ/A Group and RZ/G Group. For debugging by GDB (the GNU Project Debugger), please add Linux programs gdb-server program to Linux file system of devices and run as background process automatically. (ssh-server, tcf-agent will be needed for connection between host system and target device.) For detail about building Linux image for RZ family devices, refer to embedded Linux wiki pages (<https://elinux.org>) or Renesas Rulz web pages about RZ family (<https://community.renesas.com/>). Descriptions in below is based on RZ/A1H case.

6.5.1 How to add gdb-server to RZ/A Linux root file system

- A. Build root file system of RZ/A1 Linux-4.9 BSP.
(path example: ~/rza_linux-4.9_bsp/, command example: ./build.sh buildroot)
- B. Move to 'buildroot-***' directory in 'output'.
(path example: ~/rza_linux-4.9_bsp/output/buildroot-2017.02)
- C. Run menuconfig (make menuconfig) and add gdb-server.
(Select 'Toolchain—Copy gdb server to the Target' menu)

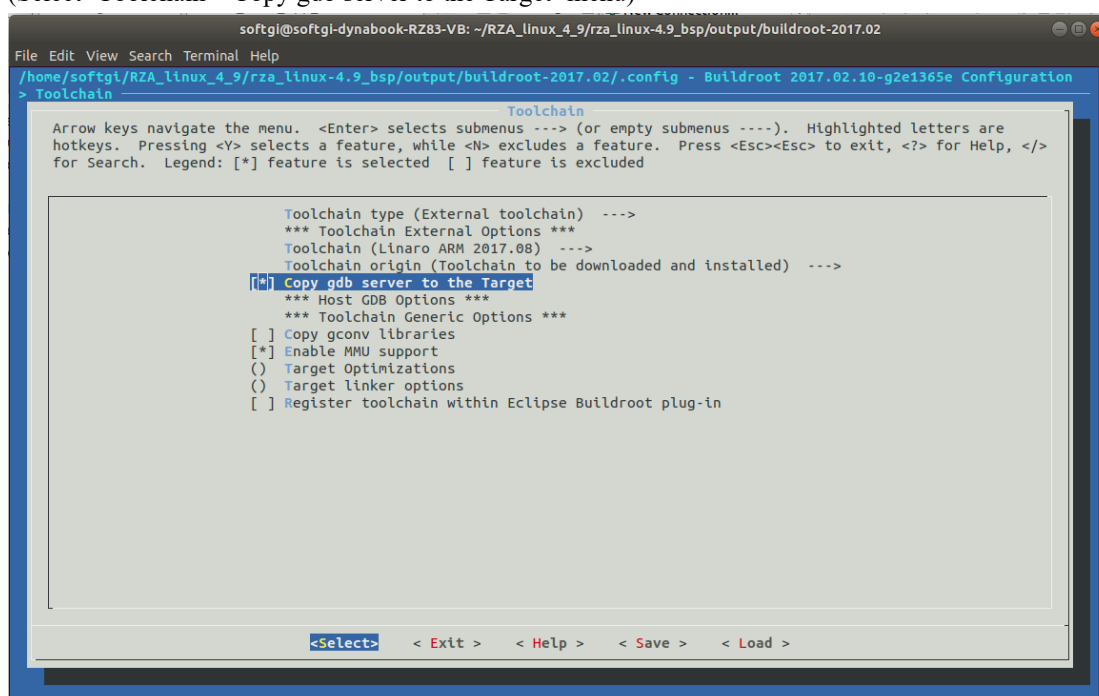


Figure 4. Menuconfig: set 'copy gdb server to the target'

- D. Move to 'target' directory in 'output' of 'buildroot-****'.
(path example: ~/rza_linux-4.9_bsp/output/buildroot-2017.02/output/target)
- E. Add new file with a line as command at '/etc/init.d' directory

<pre>File name: S51gdbserver Command: /usr/bin/gdbserver --multi --remote-debug /dev/ttySC0</pre>

- F. Delete or disable below contents from etc/inittab.

<pre># Put a getty on the serial port # ttySC0::respawn:/sbin/getty -L ttySC0 115200 vt100 # GENERIC_SERIAL</pre>

- G. Move 'Linux-4.9 BSP root' (path example: ~/rza_linux-4.9_bsp/) and build root file system again. Download root file system at target device.

6.5.2 Linux C/C++ Project generation and build

- A. Connect target device which is run as Linux, via Serial port.
- B. Select 'File – New - RZ Linux C/C++ project' menu and make new RZ/A1H Linux C/C++ project. In phase of 'RZ Linux connection settings', the serial port which is used for connecting target device, will be selected automatically.

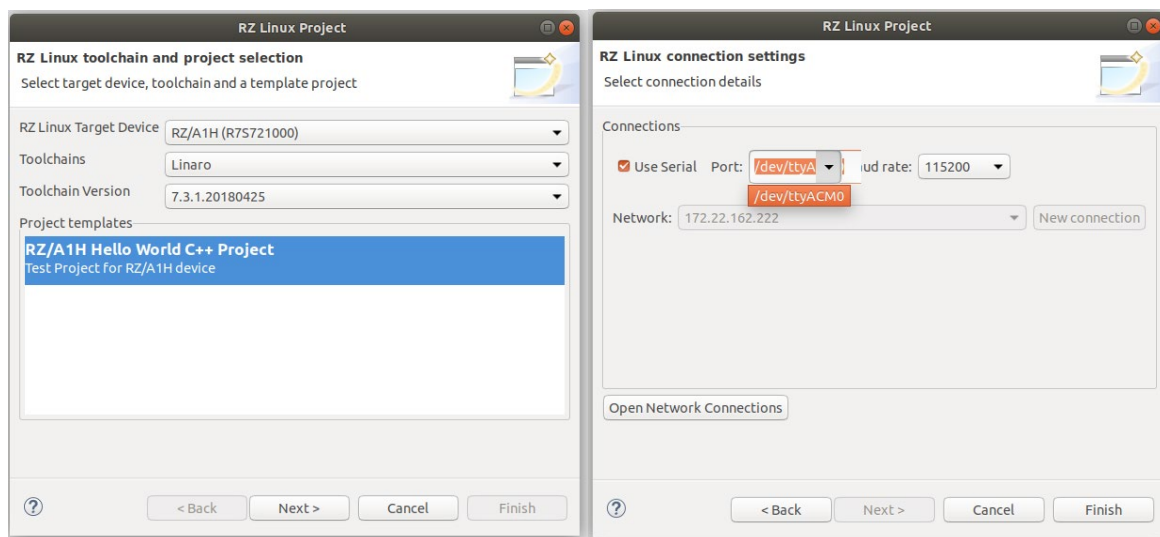


Figure 5. New RZ Linux project & connection setting: Serial port

- C. After editing codes, build by selecting 'Build Project' in right-click menu or push  button.

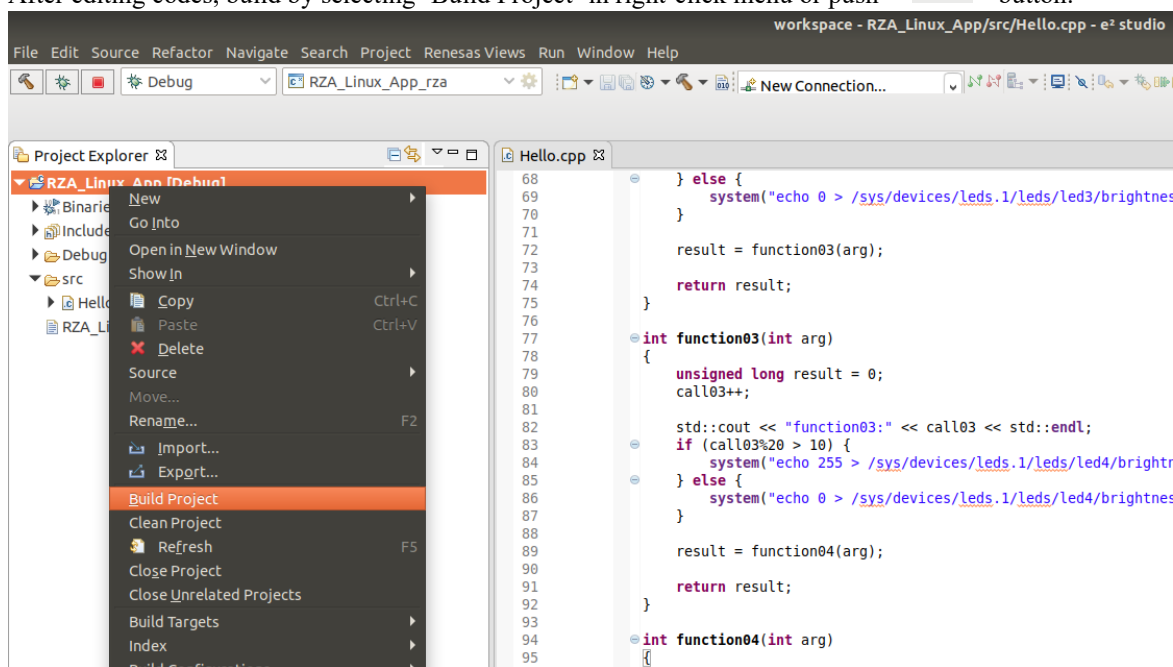


Figure 6. Build Project

6.5.3 GDB debug by using serial port communication

- A. Terminate all processes use serial port communication such as Minicom.
- B. Open 'Configuration' and check 'Serial' is selected as 'Connection'.

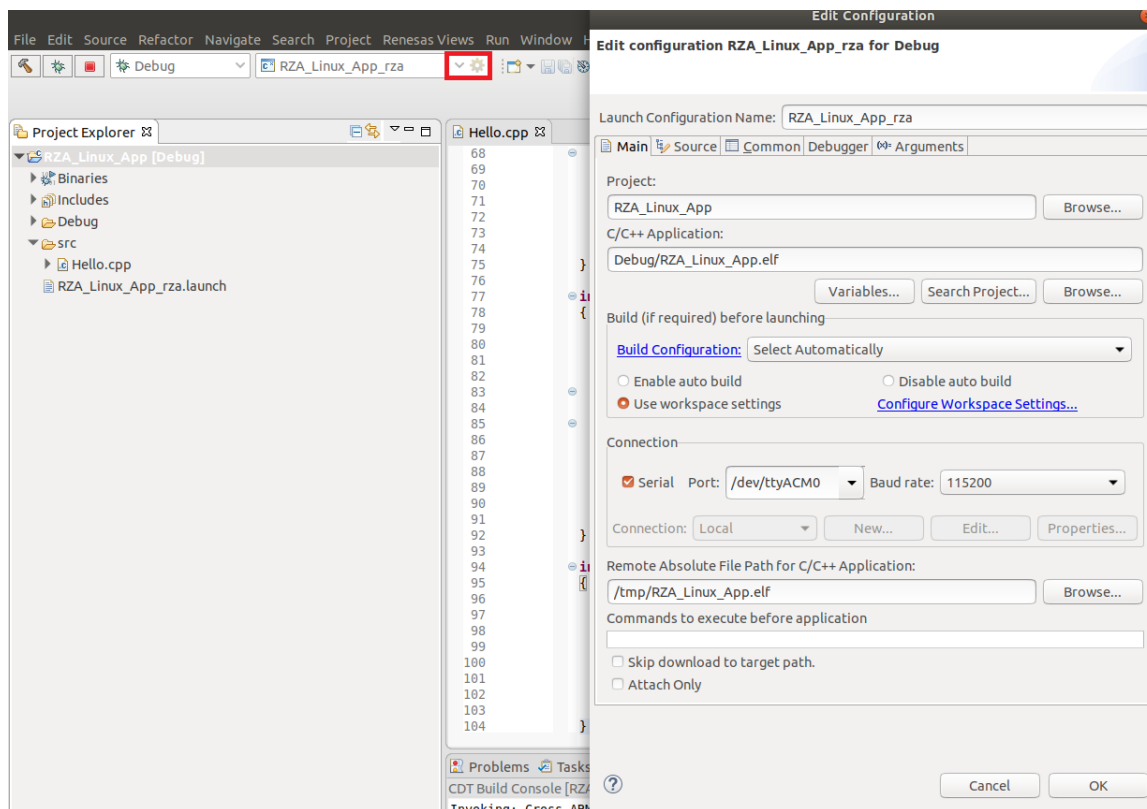


Figure 7. Connection configuration: Serial

- C. Run debug by push button . It takes 10 or more seconds for transferring binary files to target device. Pop up message for switching to debug perspective will be shown after transferring binary files.

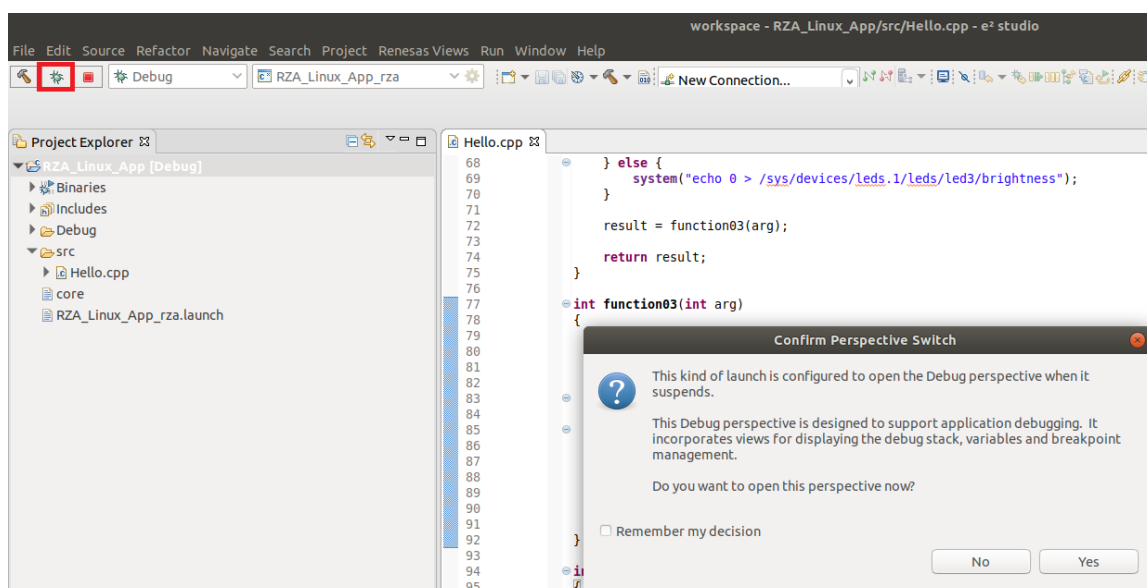


Figure 8. Debug: Perspective Switch

D. ‘Debug Perspective’ provides ways for flow control and configurations.

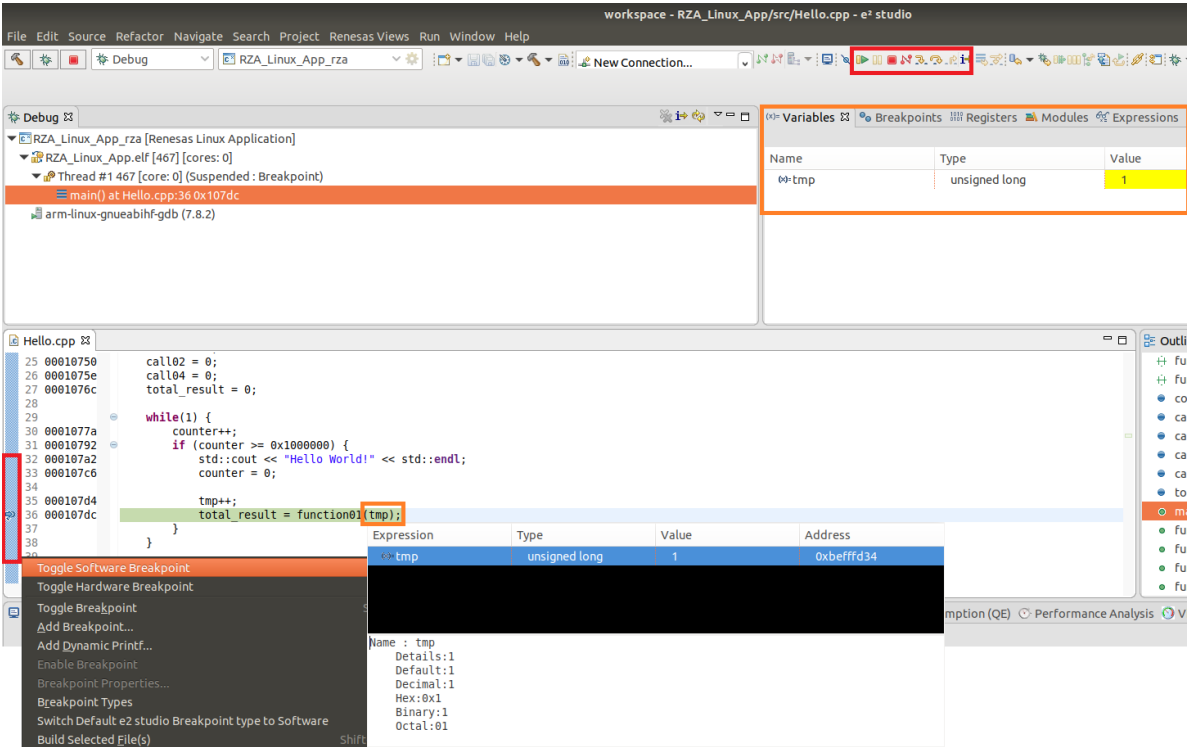


Figure 9. Debug: Control buttons, views, setting break point

7. Open Issues

[Open issues in the e² studio product will be kept up to date here:](#)

Please visit to see the latest open issue list.

8. Appendix

8.1 Website and Support

Renesas Electronics Website

<http://www.renesas.com/>

Inquiries

<http://www.renesas.com/contact/>

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- The unique identification number linked to cookies for the Web browser (for cookies, refer to the privacy policy page stated below).

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Refer to our privacy policy on the following Web page.

Privacy Policy:

<https://www.renesas.com/privacy.html>

9. Revision History

Rev.	Date	Description	
		Page	Summary
1.00	24 th July 2026	-	First Edition.

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