

[Featured Tool]

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Introducing Renesas Flash Programmer

Supporting TrustZone® in RA Family

Overview

RA4M3 and RA6M4 groups of the RA family feature an advanced security mechanism called Arm® TrustZone®. This news introduces our flash programmers which are part of the development tools that you can use to leverage this functionality.

1. Overview of PG-FP6 and Renesas Flash Programmer

A flash programmer is a tool for programming a flash-memory-equipped microcontroller. We provide two types of flash programmers. One is PG-FP6, which supports standalone programming of flash memory without using a computer. The other is Renesas Flash Programmer software, which supports programming of flash memory via an emulator, serial port, and USB. Either of these products can be applied to a wide range of situations from development, mass production, to maintenance. Choose the one that best suits your needs.

2. What You Can Do with Our Flash Programmer Regarding Arm® TrustZone®

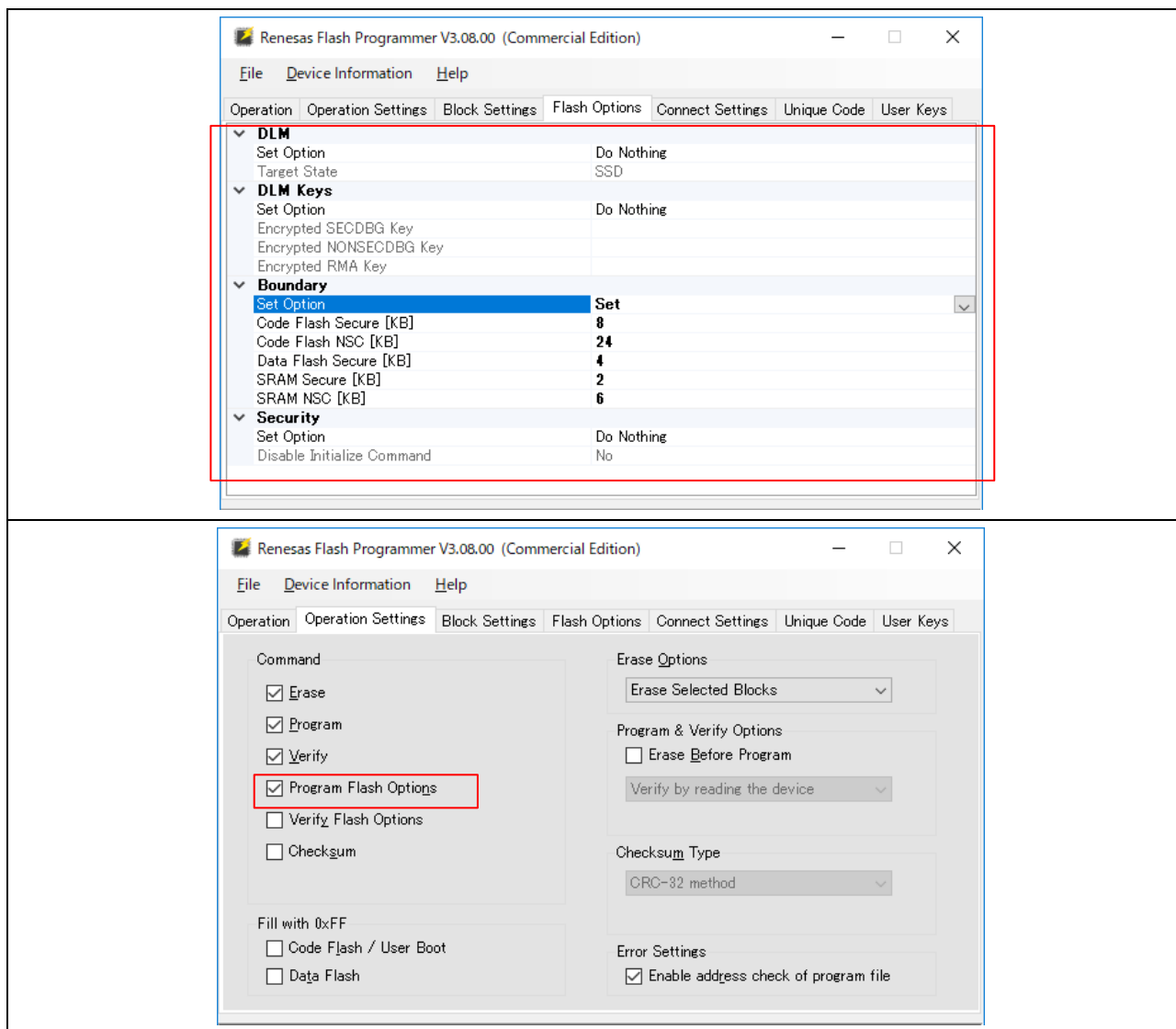
Using our flash programmer on a device with Arm® TrustZone® functionality, you can:

- Directly change the state of Device Lifecycle Management (DLM).
- Program a security key into a device or authenticate the key to unlock the device.
- Initialize a security-protected device (you can also disable initialization).
- Specify the range of secure area for each memory.

3. Arm® TrustZone® Related Setting Windows

The following shows how to configure our flash programmer for Arm® TrustZone® and example windows. This example is from the Renesas Flash Programmer, but it also applies to PG-FP6.

Make necessary settings in the [Flash Options] tabbed page. Then, in the [Operation Settings] tabbed page, select [Program Flash Options]. Finally, in the [Operation] tabbed page, click [Start] to program the Arm® TrustZone® settings.



4. Product Descriptions

- RA4M3 Group
<https://www.renesas.com/products/microcontrollers-microprocessors/ra-cortex-m-mcus/ra4m3-100mhz-arm-cortex-m33-trustzone-high-integration-rich-connectivity>
- RA6M4 Group
<https://www.renesas.com/products/microcontrollers-microprocessors/ra-cortex-m-mcus/ra6m4-200mhz-arm-cortex-m33-trustzone-high-integration-ethernet-and-octaspi>
- RA Family
<https://www.renesas.com/products/microcontrollers-microprocessors/ra-cortex-m-mcus>
- Renesas RA Family RA Arm® TrustZone® Tooling Primer
<https://www.renesas.com/document/apn/ra-arm-trustzone-tooling-primer>
- Arm® TrustZone®
<https://www.arm.com/why-arm/technologies/trustzone-for-cortex-m>
- PG-FP6
<https://www.renesas.com/pg-fp6>
- Renesas Flash Programmer
<https://www.renesas.com/rfp>

5. Earliest Supported Version

- PG-FP6: Programming GUI "FP6 Terminal" V1.05.00
- Renesas Flash Programmer : V3.08.00

6. How to Update Your Copy

6.1 PG-FP6

For FP6 Terminal, online updating is available free of charge. Download the installer from the URL below to install the program.

<https://www.renesas.com/software-tool/pg-fp6#documents>

6.2 Renesas Flash Programmer

Online updating of the Renesas Flash Programmer is possible. Download the installer from the URL below to install the program.

<https://www.renesas.com/software-tool/renesas-flash-programmer-programming-gui#documents>

7. Obtaining the Evaluation Edition of the Renesas Flash Programmer

The free-of-charge edition allows for evaluation of product performance and functionality prior to purchasing Renesas Flash Programmer. The free-of-charge edition can be downloaded from the web page at the following URL.

https://www.renesas.com/tool_evaluation

8. Purchasing the Product

To order the product, contact your local Renesas Electronics sales office or distributor with the following information.

For product pricing, make inquiries in the same manner.

Product name: PG-FP6 flash memory programmer	
Destination region	Orderable part name
Japan	RTE0T00001FWRJP000R
Europe and U.S.A.	RTE0T00001FWREA000R
China, Hong Kong, Taiwan, South Korea, and Singapore	RTE0T00001FWRAS000R

Remarks: Products are shipped according to the destination region from where the order is made. For information about regions other than the above, contact your local Renesas Electronics sales office or distributor.

Product name: Renesas Flash Programmer V3, a software tool for programing flash memory	
Number of licenses	Orderable part name
1	RTCZZZZZFD0AWRJ
5	RTCZZZZZFD0AWRJ#L5
10	RTCZZZZZFD0AWRJ#LA
20	RTCZZZZZFD0AWRJ#LT

Remarks: The license is a shrink-wrap contract, and one license is for use on one PC.

Note that the orderable part name has been changed from V3.08.00 in response to support of encryption technology.

Revision History

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

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