

# Continuously evolving programmer

# **Renesas Flash Programmer**

https://www.renesas.com/rfp

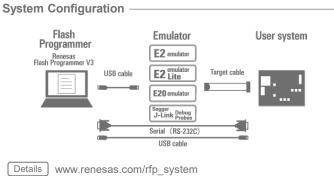
# Programmer supporting flash programming in all phases from development up to mass production

A programmer is software that supports programming in the development and mass-production phases. The Renesas Flash Programmer (RFP) has a simple GUI that even beginners can use to program software in flash memory.

Supported operating systems: Windows, Linux, and macOS

#### **Main Functions**

- Supported file formats for programming: Intel HEX for HEX and HCUHEX files, Motorola S for HEX and HCUHEX files, binary, and RPI for RPI files
- Supported communications interfaces: USB, CSI, UART, FINE, and SWD
- Checksum calculation
- Blank checking, erasure, writing, verification, reading out, checksum, setup and acquisition of flash options
- Sequential execution of multiple commands (for erasure, programming, verification, etc.)
- Multiple files for programming are simultaneously selectable.



	Operation Se	ttings	Block Setting	s Flash Options	Connect Settings	Unique Code		
Projec	t Information							
Cun	ent Project:	RX6:	2Trpj					
Micr	ocontroller:	RX6	00 Series					
Progr	am Files							
C#	sample¥sample	e.mot						
CRC-32: 23C9297F Ad						<u>A</u> dd/Remove	Files	
Comm	nand							
Era	se >> Program	>> Ver	ify					
	<u>S</u> tart				0	K		
Data Ela	ch 1] 0×00100	100 - 0	-00107EEE	nine : 92 K		_		•
	sh 1] 0x001001 ish 1] 0xFFFC							^
Code Fla	ish 1] 0xFFFC					-		^
Code Fla erifying d [Data Fla	ish 1] 0xFFFC ata sh 1] 0x001001	0000 - 100 - 0:	0×FFFFFFFF ×00107FFF	size : 256 K size : 32 K				^
Code Fla erifying d [Data Fla	ish 1] 0xFFFC ata	0000 - 100 - 0:	0×FFFFFFFF ×00107FFF	size : 256 K size : 32 K				^
Code Fla erifying d [Data Fla [Code Fla isconnect	nsh 1] 0xFFFC ata sh 1] 0x001001 nsh 1] 0xFFFC ing the tool	0000 - 100 - 0:	0×FFFFFFFF ×00107FFF	size : 256 K size : 32 K				^
Code Fla erifying d [Data Fla [Code Fla isconnect	ash 1] 0xFFFC ata sh 1] 0x001001 sh 1] 0xFFFC	0000 - 100 - 0:	0×FFFFFFFF ×00107FFF	size : 256 K size : 32 K				^
Code Fla erifying d [Data Fla [Code Fla isconnect	nsh 1] 0xFFFC ata sh 1] 0x001001 nsh 1] 0xFFFC ing the tool	0000 - 100 - 0:	0×FFFFFFFF ×00107FFF	size : 256 K size : 32 K				~

# Features and supported functions

The ever-evolving Renesas Flash Programmer provides strong support for customers developing applications.

## Simple GUI\*

A simple GUI makes operations easy, even for first-time developers.

## PC-controlled programming

PC-controlled programming via an emulator (E2, E2 Lite, E20, or J-Link debug probe from SEGGER), serial cable, or USB cable

#### Enhanced security

Enhanced security against theft through the encryption of program files

### Programming unique codes

The RFP is configurable for the programming of unique codes in a specified area of flash memory.

### $(\mathsf{Auto} extsf{-programming}$ from the command line )

In the mass-production phase, programming instructions can easily be run repeatedly from the command line (rather than using the GUI) for efficiency in mass production.

#### Aids for project creation\*

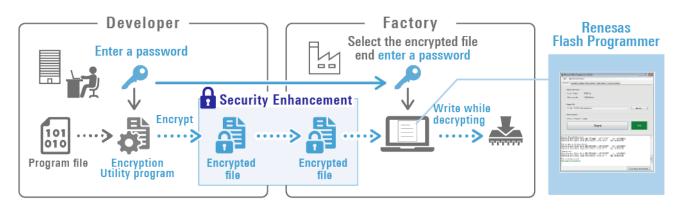
Simplifying selection of type name and setting of mode pins eases the creation of projects.

\* Only supported under Windows

## Enhanced security against theft through the encryption of program files

The function for encrypting program files enhances security against theft.

You can run this function by using the encryption utility program (RPE.exe) from the command line. The file is among those installed by the Renesas Flash Programmer installer.



## Aids for project creation

Eliminating the need to select a detailed type name eases the creation of projects.

Project Information	
Microcontroller:	RL78 ~
Project <u>N</u> ame:	
Project <u>F</u> older:	Browse
Communication	
Tool: E2 emulat	or  v Interface: 1 wire UART  Wide Voltage
Tool Details	Num: AutoSelect Power: None
TOUT Details	Numi Hutobelect Tower Nume

When the recommended connection examples are in use, setting of mode pins is not required.

📕 Tool Details (E2 em	ulator)	-		×	
Select Tool Reset Sett	tings Mode Pir	Setting			
Mode Pins at Connec	tion				
Boot Mode Entry by	y RFP	/		)	
Pin Output:	io <u>5</u> io <u>4</u> io <u>3</u>	io <u>2</u> io <u>1</u>	io <u>0</u> = 0×00		
Pin Setting (High):			= 0×00		
	_			_	
		<u>O</u> K	<u>C</u> ancel		

# Download

## www.renesas.com/rfp\_download

The Renesas Flash Programmer is available for download as free evaluation software.

We do not provide technical support for the free version, so will not be able to answer any questions you may have regarding the evaluation software and send to our technical support center via the Renesas web site. If you require technical support, we recommend that you purchase a software license through one of our sales offices or distributors.

The evaluation version of Renesas Flash Programmer can be used not only for evaluation, but also for product development and programming of final products.

## Supported MCUs

renesas.com

Trademarks

RA Family RL78 Family RX Family RISC-V MCUs RH850 Family Renesas Synergy™ DA1459x DA1469x DA1470x Some ICs for exclusive use

## Videos

Tutorial videos for microcontrollers are available:

For RA Family	www.renesas.com/ra-how-to-video
For RL78 Family	www.renesas.com/rl78-how-to-video
For RX Family	www.renesas.com/rx-how-to-video



en-support.renesas.com/knowledgeBase

Community community.renesas.com

## Operating environments-

Windows<sup>®</sup> 11 Windows<sup>®</sup> 10 (32- and 64-bit versions) Linux (Ubuntu 24.04 LTS, x64/ARM64/ Ubuntu 22.04 LTS, x64/ARM32/ARM64/ Ubuntu 20.04 LTS, x64/ARM32/ARM64) macOS (macOS 14 Sonoma/macOS 13 Ventura): Only supported on machines with Apple Silicon.

## Details www.renesas.com/system-requirements

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#### **Contact information**

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For further information on a product technology, to most up-to-date version of a document, or your nearest office, please visit www.renesas.com/contact/