

Thank you for using the AP4 for RH850.
This document describes the restrictions and points for caution. Read this document before using the product.

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Chapter 1. Introduction

AP4 for RH850 is a software tool to generate control programs (device driver programs) for peripheral modules (timers, UART, A/D, etc.). It generates device driver codes using user settings through GUI. Initialize code and API (Application Programming Interface) functions are provided.

Chapter 2. Target Devices

Below is a list of devices supported by the AP4 for RH850 V1.05.00.

RH850/F1K group	
PIN	Device name
100pin	R7F701610, R7F701611, R7F701560, R7F701561 R7F701620, R7F701621, R7F701580, R7F701581
144pin	R7F701602, R7F701603, R7F701542, R7F701543 R7F701612, R7F701613, R7F701562, R7F701563 R7F701622, R7F701623, R7F701582, R7F701583
176pin	R7F701557, R7F701546, R7F701547 R7F701577, R7F701566, R7F701567 R7F701597, R7F701586, R7F701587
Following documents.	
Manual Name	Document Number
RH850/F1K User's Manual: Hardware	R01UH0562JJ0090
	R01UH0562EJ0090

Chapter 3. Operating Environment

▪ Host machine

- IBM PC/AT compatibles (Windows® 10, Windows® 8.1, Windows® 7, Windows Vista®)
- Processor: 1 GHz or higher (must support hyper-threading, multi-core CPUs)
- Memory capacity: 2 GB or more recommended. Minimum requirement is 1 GB or more (64-bit Windows requires 2 G or more)
- Hard disk capacity: 200 MB or more spare capacity
- Display: 1024 x 768 or higher resolution, 65,536 or more colors
- All other necessary software environments in addition to Windows OS
 - .NET Framework version4.5
 - Microsoft Visual C++ 2010 SP1 runtime library

▪ Development Environments

Product Name	Version
Renesas CC-RH	V1.07 or later
GHS Multi®	V6.1.6 or later

Chapter 4. Changes

This section describes change to AP4 for RH850 V1.05.00.

4.1 List of Changes

No.	Description	version *1
		RH850/F1K V1.01.02.02
1	Fix notes on Interrupt Priority Settings	○

○: Correspondence, -: Not correspondence (finish of correction), /: Outside of function

Note 1: Version is described in the generated code.

4.2 Detail of Changes

4.2.1 Fix notes on Interrupt Priority Settings

The following caution was fixed.

1. Interrupt Priority Settings

Applicable MCUs: RH850/F1K group

The code generated when the priority of the interrupt setting of each peripheral function is changed has an error and is always set to "lowest". Therefore, the peripheral functions cannot be executed with the correct interrupt priority

For details of the problem, refer to the URL below.

<https://www.renesas.com/doc/toolnews/eng/2018/r20ts0274ej0100-rhcqtn.pdf>

Chapter 5. Points for Cautions

This section describes cautions for using AP4 for RH850 V1.04.00.

5.1 Cautions List

No.	Description	version *1
		RH850/F1K V1.02.01.05
1	About online Help	○
2	The function which isn't supported	○

○: Correspondence, -: Not correspondence (finish of correction), /: Outside of function

Note 1: Version is described in the generated code.

5.2 Details of Cautions

5.2.1 About online Help

AP4 for RH850F1K is not supporting online help.

5.2.2 The function which isn't supported

AP4 for RH850F1K doesn't support following function.

- Supply Voltage Monitor
- Clock Monitor
- Low-Power Sampler
- LIN Master Interface
- LIN/UART Interface (UART is supported)
- I2C Bus Interface
- CAN Interface
- Encoder Timer
- Motor Control
- PWM Output/Diagnostic
- Functional Safety
- Security Function
- On-Chip Debug Unit
- Flash Memory
- RAM
- Boundary Scan
- FE Level Maskable Interrupt(OS Timer)
- VAC function(Window Watchdog Timer)
- Cyclic RUN/Stop, WakeUp function
- Self-test, EDL function, RCB, job concept, buffer memory (Clocked Serial Interface)
- External analog multiplexer, Self-Diagnostic Function, PWM Output/Diagnostic, Alignment Control Suspend, A/D conversion channel repeat function (A/D Converter)
- Expansion Bits(UART)
- Setting of option byte

Chapter 6. Correction History

This section describes correction history of RENESAS TOOL NEWS.

6.1 List of RENESAS TOOL NEWS

Issue Date	Document No.	Description	Device Concerned	Fixed version
Feb. 16, 2018	R20TS0274EJ 0100	1. Interrupt Priority Settings	RH850/F1K	V1.05.00

6.2 Details of RENESAS TOOL NEWS

6.2.1 RENESAS TOOL NEWS Document No. R20TS0274EJ0100

This issue has been corrected in AP4 for RH850 V1.05.00.

1. Interrupt Priority Settings

Applicable MCUs: RH850/F1K group

The code generated when the priority of the interrupt setting of each peripheral function is changed has an error and is always set to "lowest". Therefore, the peripheral functions cannot be executed with the correct interrupt priority

For details of the problem, refer to the URL below.

<https://www.renesas.com/doc/toolnews/eng/2018/r20ts0274ej0100-rhcgtm.pdf>

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