

# Software for Floating License Management V2.10.00 (for Linux/macOS)

User's Manual

Target Device

RL78 Family

RX Family

RH850 Family

All information contained in these materials, including products and product specifications, represents information on the product at the time of publication and is subject to change by Renesas Electronics Corp. without notice. Please review the latest information published by Renesas Electronics Corp. through various means, including the Renesas Electronics Corp. website (<http://www.renesas.com>).

## Notice

1. Descriptions of circuits, software and other related information in this document are provided only to illustrate the operation of semiconductor products and application examples. You are fully responsible for the incorporation or any other use of the circuits, software, and information in the design of your product or system. Renesas Electronics disclaims any and all liability for any losses and damages incurred by you or third parties arising from the use of these circuits, software, or information.
2. Renesas Electronics hereby expressly disclaims any warranties against and liability for infringement or any other claims involving patents, copyrights, or other intellectual property rights of third parties, by or arising from the use of Renesas Electronics products or technical information described in this document, including but not limited to, the product data, drawings, charts, programs, algorithms, and application examples.
3. No license, express, implied or otherwise, is granted hereby under any patents, copyrights or other intellectual property rights of Renesas Electronics or others.
4. You shall be responsible for determining what licenses are required from any third parties, and obtaining such licenses for the lawful import, export, manufacture, sales, utilization, distribution or other disposal of any products incorporating Renesas Electronics products, if required.
5. You shall not alter, modify, copy, or reverse engineer any Renesas Electronics product, whether in whole or in part. Renesas Electronics disclaims any and all liability for any losses or damages incurred by you or third parties arising from such alteration, modification, copying or reverse engineering.
6. Renesas Electronics products are classified according to the following two quality grades: "Standard" and "High Quality". The intended applications for each Renesas Electronics product depends on the product's quality grade, as indicated below.
  - "Standard": Computers; office equipment; communications equipment; test and measurement equipment; audio and visual equipment; home electronic appliances; machine tools; personal electronic equipment; industrial robots; etc.
  - "High Quality": Transportation equipment (automobiles, trains, ships, etc.); traffic control (traffic lights); large-scale communication equipment; key financial terminal systems; safety control equipment; etc.

Unless expressly designated as a high reliability product or a product for harsh environments in a Renesas Electronics data sheet or other Renesas Electronics document, Renesas Electronics products are not intended or authorized for use in products or systems that may pose a direct threat to human life or bodily injury (artificial life support devices or systems; surgical implantations; etc.), or may cause serious property damage (space system; undersea repeaters; nuclear power control systems; aircraft control systems; key plant systems; military equipment; etc.). Renesas Electronics disclaims any and all liability for any damages or losses incurred by you or any third parties arising from the use of any Renesas Electronics product that is inconsistent with any Renesas Electronics data sheet, user's manual or other Renesas Electronics document.

7. No semiconductor product is absolutely secure. Notwithstanding any security measures or features that may be implemented in Renesas Electronics hardware or software products, Renesas Electronics shall have absolutely no liability arising out of any vulnerability or security breach, including but not limited to any unauthorized access to or use of a Renesas Electronics product or a system that uses a Renesas Electronics product. **RENESAS ELECTRONICS DOES NOT WARRANT OR GUARANTEE THAT RENESAS ELECTRONICS PRODUCTS, OR ANY SYSTEMS CREATED USING RENESAS ELECTRONICS PRODUCTS WILL BE INVULNERABLE OR FREE FROM CORRUPTION, ATTACK, VIRUSES, INTERFERENCE, HACKING, DATA LOSS OR THEFT, OR OTHER SECURITY INTRUSION ("Vulnerability Issues"). RENESAS ELECTRONICS DISCLAIMS ANY AND ALL RESPONSIBILITY OR LIABILITY ARISING FROM OR RELATED TO ANY VULNERABILITY ISSUES. FURTHERMORE, TO THE EXTENT PERMITTED BY APPLICABLE LAW, RENESAS ELECTRONICS DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THIS DOCUMENT AND ANY RELATED OR ACCOMPANYING SOFTWARE OR HARDWARE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.**
8. When using Renesas Electronics products, refer to the latest product information (data sheets, user's manuals, application notes, "General Notes for Handling and Using Semiconductor Devices" in the reliability handbook, etc.), and ensure that usage conditions are within the ranges specified by Renesas Electronics with respect to maximum ratings, operating power supply voltage range, heat dissipation characteristics, installation, etc. Renesas Electronics disclaims any and all liability for any malfunctions, failure or accident arising out of the use of Renesas Electronics products outside of such specified ranges.
9. Although Renesas Electronics endeavors to improve the quality and reliability of Renesas Electronics products, semiconductor products have specific characteristics, such as the occurrence of failure at a certain rate and malfunctions under certain use conditions. Unless designated as a high reliability product or a product for harsh environments in a Renesas Electronics data sheet or other Renesas Electronics document, Renesas Electronics products are not subject to radiation resistance design. You are responsible for implementing safety measures to guard against the possibility of bodily injury, injury or damage caused by fire, and/or danger to the public in the event of a failure or malfunction of Renesas Electronics products, such as safety design for hardware and software, including but not limited to redundancy, fire control and malfunction prevention, appropriate treatment for aging degradation or any other appropriate measures. Because the evaluation of microcomputer software alone is very difficult and impractical, you are responsible for evaluating the safety of the final products or systems manufactured by you.
10. Please contact a Renesas Electronics sales office for details as to environmental matters such as the environmental compatibility of each Renesas Electronics product. You are responsible for carefully and sufficiently investigating applicable laws and regulations that regulate the inclusion or use of controlled substances, including without limitation, the EU RoHS Directive, and using Renesas Electronics products in compliance with all these applicable laws and regulations. Renesas Electronics disclaims any and all liability for damages or losses occurring as a result of your noncompliance with applicable laws and regulations.
11. Renesas Electronics products and technologies shall not be used for or incorporated into any products or systems whose manufacture, use, or sale is prohibited under any applicable domestic or foreign laws or regulations. You shall comply with any applicable export control laws and regulations promulgated and administered by the governments of any countries asserting jurisdiction over the parties or transactions.
12. It is the responsibility of the buyer or distributor of Renesas Electronics products, or any other party who distributes, disposes of, or otherwise sells or transfers the product to a third party, to notify such third party in advance of the contents and conditions set forth in this document.
13. This document shall not be reprinted, reproduced or duplicated in any form, in whole or in part, without prior written consent of Renesas Electronics.
14. Please contact a Renesas Electronics sales office if you have any questions regarding the information contained in this document or Renesas Electronics products.

(Note1) "Renesas Electronics" as used in this document means Renesas Electronics Corporation and also includes its directly or indirectly controlled subsidiaries.

(Note2) "Renesas Electronics product(s)" means any product developed or manufactured by or for Renesas Electronics.

(Rev.5.0-1 October 2020)

## Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,  
Koto-ku, Tokyo 135-0061, Japan

[www.renesas.com](http://www.renesas.com)

## Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.

## Contact information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit: [www.renesas.com/contact/](http://www.renesas.com/contact/).

# How to Use This Manual

This manual describes the license management for developing applications and systems for RL78 family, RX family, and RH850 family, and provides an outline of its features.

Readers	This manual is intended for users who develop application systems using the Renesas Electronics development environment.												
Purpose	This manual is intended to help users understand the license management functions and to serve as a reference for software development using the Renesas Electronics development environment.												
Organization	This manual can be broadly divided into the following units. <ol style="list-style-type: none"><li>1. GENERAL</li><li>2. FUNCTIONS</li><li>3. MESSAGE</li></ol>												
How to Read This Manual	It is assumed that the readers of this manual have general knowledge of electricity, logic circuits, and microcontrollers.												
Conventions	<table><tr><td>Data significance:</td><td>Higher digits on the left and lower digits on the right</td></tr><tr><td>Active low representation:</td><td>XXX (overscore over pin or signal name)</td></tr><tr><td>Note:</td><td>Footnote for item marked with Note in the text</td></tr><tr><td>Caution:</td><td>Information requiring particular attention</td></tr><tr><td>Remarks:</td><td>Supplementary information</td></tr><tr><td>Numeric representation:</td><td>Decimal ... XXXX Hexadecimal ... 0xXXXX</td></tr></table>	Data significance:	Higher digits on the left and lower digits on the right	Active low representation:	XXX (overscore over pin or signal name)	Note:	Footnote for item marked with Note in the text	Caution:	Information requiring particular attention	Remarks:	Supplementary information	Numeric representation:	Decimal ... XXXX Hexadecimal ... 0xXXXX
Data significance:	Higher digits on the left and lower digits on the right												
Active low representation:	XXX (overscore over pin or signal name)												
Note:	Footnote for item marked with Note in the text												
Caution:	Information requiring particular attention												
Remarks:	Supplementary information												
Numeric representation:	Decimal ... XXXX Hexadecimal ... 0xXXXX												

# Table of Contents

<b>1. GENERAL .....</b>	<b>5</b>
1.1  Introduction .....	5
1.2  Operating Environment.....	7
1.2.1    Supported Licenses .....	7
1.2.2    Upgrade (version) License .....	8
<b>2. FUNCTIONS.....</b>	<b>9</b>
2.1  Installing Floating License Server.....	9
2.2  Uninstalling Floating License Server .....	9
2.3  Using a Floating License Server.....	9
2.3.1    Option.....	9
2.3.2    Exit Status .....	12
2.3.3    Setting up the server .....	12
2.3.4    Setting up the firewall [Linux] .....	13
2.3.5    Adding a license.....	14
2.3.6    Assigning a floating license to the client .....	14
2.3.7    Confirming the states of the floating licenses .....	14
2.3.8    Deleting a floating license .....	15
2.3.9    Forcibly leaving offline mode.....	16
2.3.10   Confirming the states of the floating licenses .....	16
2.3.11   Allowing the use of an upper-level floating license when no lower-level floating licenses are available	18
2.3.12   Disclosing the states of usage of the licenses when the license manager displays candidates for use as floating licenses (offline mode) .....	19
2.3.13   Recording the states of usage of the licenses in a log file.....	19
2.3.14   Interactive mode.....	20
2.4  Restoring the Server Following Replacement or Failure .....	21
<b>3. MESSAGES .....</b>	<b>22</b>
3.1  Message Types.....	22
3.2  Internal Errors .....	22
3.3  Fatal Errors .....	23
3.4  Information .....	24
3.5  Choices .....	24
3.6  Warning.....	24

# 1.GENERAL

This chapter describes the outline of the license in the form of a floating license for managing the license of development environment for developing applications and systems for microcontrollers (RH850, RX and RL78).

For client-side management instructions, please refer to the License Manager User's Manual for your operating system.

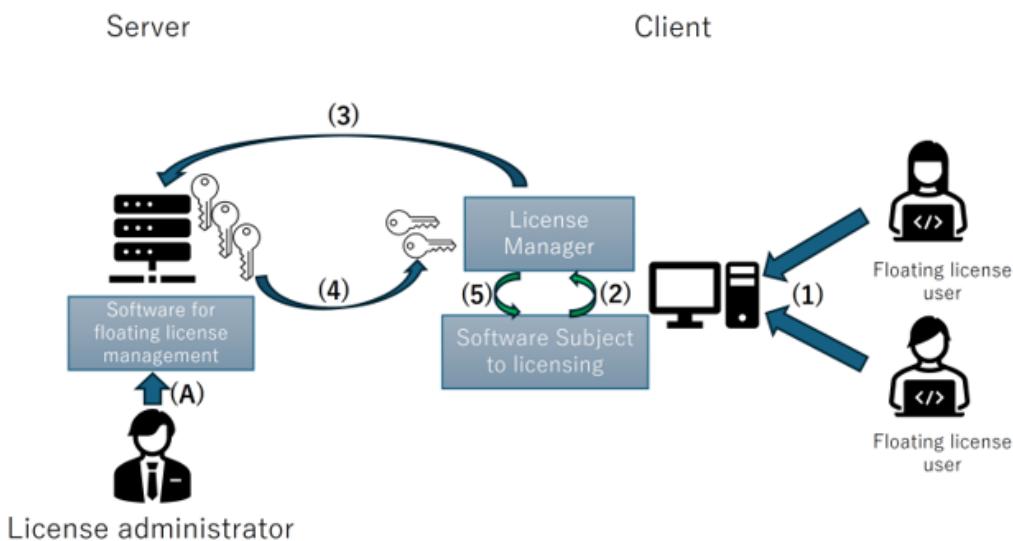
Notes:

1. When 'sudo' is attached to the file name, you must enter the password for the current user.
2. When 'sudo' is attached to the file name, you must specify the full path to the command because the PATH environment variable is fixed by default.

## 1.1 Introduction

Floating licensing is a licensing approach in which a limited number of licenses for software used by multiple users are managed by a single computer (server) and the users of any computers (clients) connected to the network can use the software within the limit of the number of licenses. Floating licenses support multi-user environments and can be assigned to individual users of Linux/macOS or Windows.

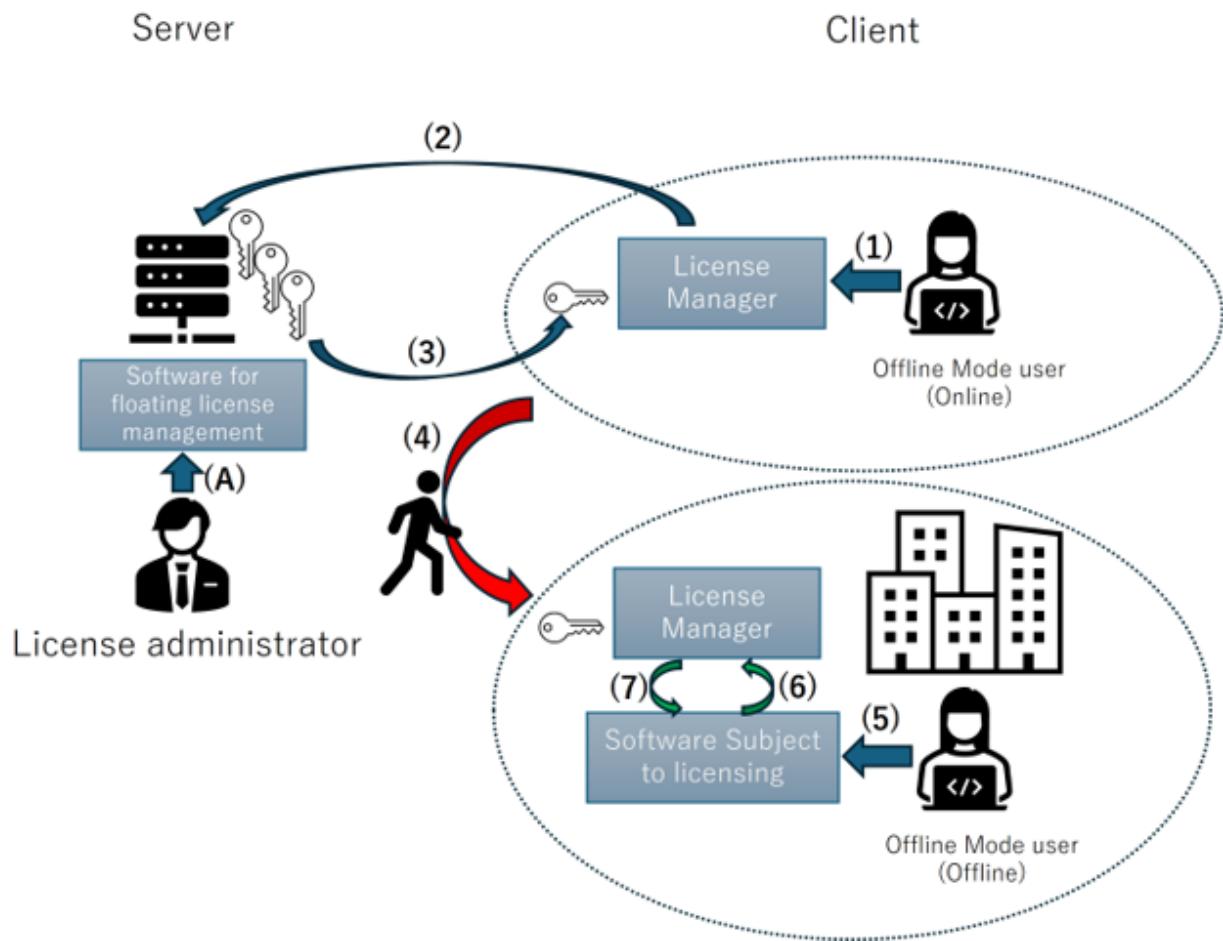
**Figure 1.1 System Structure for Floating Licenses**



- (A)A license key is added.
- (1)Launch the development tool covered by the license.
- (2)Confirm the license.
- (3)Request for the floating license.
- (4)The floating license is granted.
- (5)A license is available.

A floating license cannot be used unless the computer is connected to the server. Offline mode is a mechanism that occupies the license for a certain period in order to use the license in a state disconnected from the network environment.

**Figure 1.2 System Structure for Floating Licenses (Offline Mode)**



- (A) A license key is added.
- (1) The floating license (offline mode) is acquired.
- (2) Request for the floating license (offline mode).
- (3) The floating license (offline mode) is granted.
- (4) Take out the license.
- (5) Launch the development tool covered by the license.
- (6) Confirm the license.
- (7) A license is available.

Floating licenses are available as permanent licenses which place no limit on the period of validity, and as annual licenses which are valid for one year. The valid period is one year from initial registration with MyRenesas on the Renesas Web site of the license acquisition code which accompanies the compiler product. Once the period of an annual license has expired, the development tool covered by the license cannot be used.

## 1.2 Operating Environment

Software for floating license management operates in the following environment.

- OS
  - Ubuntu 22.04 LTS
  - Ubuntu 24.04 LTS
  - macOS 14 Sonoma
  - macOS 15 Sequoia
- Hardware
  - [Linux] Conforming to the specifications required for the OS
  - [macOS]
    - System: 1.8 GHz or faster 64-bit processor. Dual-core or better recommended. Apple Silicon (arm64) processors are only supported.
    - Memory capacity: 4 GB of RAM; 8 GB of RAM recommended.
    - Capacity of hard disk: At least 2 GB of free space
- Development environment
  - Floating License (permanent and annual)
    - CC-RL V1.01.00 (Windows) or later
    - CC-RL V1.13.01 (Linux) or later
    - CC-RL V1.16.00 (macOS) or later
    - CC-RX V2.03.00 (Windows) or later
    - CC-RX V3.06.01 (Linux) or later
    - CC-RH V1.02.00 (Windows) or later
    - CC-RH V2.06.01 (Linux) or later
- License Manager
  - You can also use the license manager for the OS (Linux, macOS, or Windows), which differs from the floating license server.
    - V2.08.00 (Linux) or later
    - V2.10.00 (macOS) or later
    - V2.08.00 (Windows) or later

### 1.2.1 Supported Licenses

The following licenses are supported.

**Table 1-1 Supported License**

License	Compiler V1 for RL78 (CC-RL)	Compiler V3 for RX (CC-RX)	Compiler V2 for RH850 (CC-RH)
Standard edition Floating License (permanent)	•	•	•
Standard edition Floating License (annual)	•	•	•

Professional edition Floating License (permanent)	•	•	•
Professional edition Floating License (annual)	•	•	•
Upgrade (version) Standard edition Floating License (permanent)		V2→V3	V1→V2
Upgrade (version) Professional edition Floating License (permanent)		V2→V3	V1→V2

Remarks:

1. Licenses for compiler V2 for RX (CC-RX) and compiler V1 for RH850 (CC-RH) can also be registered.
2. There is no Upgrade (edition) license for floating licenses.

### 1.2.2 Upgrade (version) License

The version of the floating license can be upgraded to version+1.

Caution:

1. Node-locked licenses are only available as permanent licenses; they are not available as annual licenses.
2. Upgrading node-locked licenses differs between standard and professional editions.

Example: CC-RX V2 standard + V3 Upgrade (version) standard ⇒ CC-RX V3 standard

CC-RH V1 professional + V2 Upgrade (version) professional ⇒ CC-RH V2 professional

3. Applying an Upgrade (version) license is only usable for upgrading the version; upgrading the edition at the same time is not possible.

Accordingly, a standard edition cannot be upgraded to an Upgrade (version) professional edition.

Example: CC-RX V2 standard + V3 Upgrade (version) professional ⇒ Not applicable (the upgrade from CC-RX V2 standard does not proceed.)

However, a professional edition can be upgraded to the version+1 standard edition by applying the Upgrade (version) standard edition.

Example: CC-RX V2 professional + V3 Upgrade (version) standard ⇒ CC-RX V3 standard

## 2.FUNCTIONS

This chapter describes functions of a floating license server.

### 2.1 Installing Floating License Server

Specify the installer file name and enter the following in the terminal.

```
[Linux] $ sudo dpkg -i renesas-floating-license-server_2.09.00_amd64.deb
```

```
[macOS] % sudo installer -pkg floating-license-server-2.10.00_osx-arm64.pkg -target /
```

The installation location is as follows.

```
/usr/local/renesas-mcutools-license-server/bin/
```

### 2.2 Uninstalling Floating License Server

Enter the following in the terminal.

```
[Linux] $ sudo dpkg -r renesas-floating-license-server
```

```
[macOS] Please enter the following two items.
```

```
% sudo pkutil --forget com.renesas.floating-license-server
```

```
% sudo /usr/local/renesas-mcutools-license-server/bin/uninstall.sh
```

If you uninstall, the following warning will be displayed because the configuration file of the Software for Floating License Management exists in the installation directory.

```
[Linux] "directory '<path>' not empty so not removed"
```

```
[macOS] "not empty: /usr/local/share/renesas-mcutools-license-server"
```

If you reinstall it, you will be able to use it with the same settings, so there is no need to delete it. If you want to delete all directories and files, delete the following directories after uninstallation.

```
/var/local/renesas-mcutools-license-server/
```

```
/usr/local/share/renesas-mcutools-license-server/
```

### 2.3 Using a Floating License Server

This section explains how to use an installed floating license.

Enter the following in the terminal.

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator [OPTION]..
```

#### 2.3.1 Option

Multiple options other than conflicting ones (e.g. --enable-\* at the same time as --disable-\*) can be simultaneously specified. The same options are handled in the order in which they are specified.

Category	Short Option	Long Option	Arguments	Description
Display floating licenses	-l	--list		Display a list of valid registered licenses.
		--detail <license key>		Displays information of specify license key.
Floating license		--add <license key>		Add the floating license of specify license key.
		--delete <license key>		Delete the floating license of specify license key.
Offline mode		--release-offline-mode <license key>		Ending use of the floating license in offline mode. This is used when the client is unable to return the license from the client due to a failure of the client PC.  Normally, release them from the client.
Floating license server settings		--enable-server-setting [<port> [<allow-upper-level-license>[<disclose-usage-to-clients>]]]		Enable floating license server settings.
			<port>	Specify port number of server. If omitted, the value set is used. The initial value is 6723.
			<allow-upper-level-license>	Specify whether to allow the use of a higher-level license when there are no available lower-level licenses by specifying true/false. If omitted, the configured value will be used. The default value is true. See 2.3.11.

Category	Short Option	Long Option	Arguments	Description
			<disclose-usage-to-client s>	Specifies whether the license manager displays the usage status when acquiring offline use mode with true/ false. If omitted, the configured value will be used. The default value is false.
		--disable-server-setting		Disable the floating license server settings.
	-s	--server-info		Display floating license server settings information.
Logging status of use		--logging-setting <size> [<detail> [<directory>]]		The status of usage of the licenses are recorded in a log file.
			<size>	Specifies the maximum size 10-9999 (unit: MB).
			<detail>	Details of the program's internal operation are also recorded if true and not if false.  If omitted, the configured value will be used. The default value is false.
			<directory>	Specifies the path for the directory in which the log files are to be saved.  The initial values are as follows.  /var/local/renesas-mcutools-license-server/LicenseServerInfo/Log
	-g	--logging-info		Display logging setting information.
		--report [<start> [<end>]]		Display license usage.

Category	Short Option	Long Option	Arguments	Description
			<start>	Specify the start date and time. If omitted, the log will be recorded from the beginning.
			>	format: "yyyyMMdd H:mm" example) "20250101 0:00"
			<end>	Specify the end date and time. If omitted, the log will continue to the end.
				format: "yyyyMMdd H:mm" example) "20251231 23:59"
Other	-h	--help		Display usage information.
	-v	--version		Display version.
		--lang <culture>		Display in the specified culture.
			<culture>	Specify ja-JP for Japanese and en-US for English.
		--interactive		Make the transition to the interactive mode.

### 2.3.2 Exit Status

Normal exit is 0, and abnormal exit is 1.

### 2.3.3 Setting up the server

The following option validates the settings of the floating license server.

--enable-server-setting [<port> [<allow-upper-level-license>[<disclose-usage-to-clients>]]]

#### Server Activation Example

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --enable-server-setting
$
```

Specify the port number to be used by the floating license server. If there is a problem with the initial value (6723), specify the port number to be used for the <port> argument.

You can check the settings with the --server-info option.

#### Example of checking the settings

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --server-info
Status: Enabled Server Port: 6723
Offer the upper-level license if lower-level license is empty: True
Publish usage to the license manager: False
$
```

You can invalidate the settings with the --disable-server-setting option.

#### Server Disablement Example

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --disable-server-setting
$
```

### 2.3.4 Setting up the firewall [Linux]

Check whether the firewall is enabled or disabled with the following command.

sudo ufw status

#### Example of checking whether the firewall is enabled or disabled

```
$ sudo ufw status Status: inactive
$
```

When the firewall is inactive:

You need not open the port because a firewall has not been set.

When the firewall is active:

Open the port specified for the floating license server by using the following command.

sudo ufw allow <port number>

#### Example of opening a port

```
$ sudo ufw allow 6723
```

You can check whether or not the port is open with the following command.

sudo ufw status

## Example of checking port open status

```
$ sudo ufw status
Status: active
To      Action  From
--      ----  --
6723   ALLOW   Anywhere
...
6723 (v6) ALLOW  Anywhere (v6)
...
$
```

**2.3.5 Adding a license**

You can add a floating license by using the --add option and then confirm addition of the license with the --list option.

## Adding a floating license example

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-
administrator --add XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
$
```

## Cautions:

1. Enter the license key compliant with the floating license. The Add License dialog box show the invalid key error if the non-compliant license key is entered.
2. To register the license key for an Upgrade (version) license, a license key for a floating license (permanent) must have been registered as the source of the upgrade. Start by adding the license key as the source of the upgrade to the license server or add the license keys of the Upgrade (version) license and the license for the source of the upgrade at the same time.

**2.3.6 Assigning a floating license to the client**

When the floating license server receives a license request from a client, the server assigns an unused license to the client.

Client	Term of validity of a floating license
Software Subject to licensing	30 minutes from the time that the license is acquired
Acquiring a license in offline mode with the license manager	Number of days (up to 99) specified by the license manager

For acquiring a license in offline mode with the license manager, refer to the License Manager User's Manual for Windows or Linux/macOS.

**2.3.7 Confirming the states of the floating licenses**

You can confirm the state of registration of a license by using the --list option.

## License registration status example

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --list
- Compiler Standard V1 for RL78 (CC-RL)
  XXXXX-XXXXX-XXXXX-XXXXX-XXXXX (status)
  YYYYY-YYYYY-YYYYY-YYYYY-YYYYY (status)
$
```

The following status will be displayed.

Status	Meaning
(in use)	The floating license is in use.
(using offline mode)	The floating license is in use in offline mode.
(annual: expired)	The annual license has expired.
(annual: soon to be expired)	The annual license is soon to expire.
(annual)	Annual license

You can confirm the state of usage of a floating license by specifying the license key displayed with the --list option as the --detail option.

## License Usage Example

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --detail XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
Client IP Address:
Client User Name:
  Serial Number: 00000000
  License Key: XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
  License Type: Floating License (annual) License Status: Unused
  License Name: Compiler Standard V1 for RL78 (CC-RL)
  License Expiration Date: YYYY/MM/DD hh:mm:ss (Utc)

$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --detail ZZZZZ-ZZZZZ-ZZZZZ-ZZZZZ
Client IP Address: NNN.NNN.NNN.NNN Client User Name: UUUU
  Serial Number: SSSSSSS
  License Key: ZZZZZ-ZZZZZ-ZZZZZ-ZZZZZ-ZZZZZ
  License Type: Floating License (annual) License Status: Using
  License Name: Compiler Standard V1 for RL78 (CC-RL)

  Client Beginning Date: YYYY/MM/DD hh:mm:ss Client Expiration Date: YYYY/MM/DD hh:mm:ss License Expiration Date: YYYY/MM/DD hh:mm:ss

$
```

### 2.3.8 Deleting a floating license

You can delete a floating license by using the --delete option.

**Deletion example**

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-
administrator --delete XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
$
```

After deletion, you can confirm that a license has been deregistered by using the --list option.

**License registration status example**

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-
administrator --list
- Compiler Standard V1 for RL78 (CC-RL)
  YYYY-YYYY-YYYY-YYYY (status)
$
```

**Caution:** While a license key for an Upgrade (version) license is registered, a license key for a floating license (permanent) as the source of the upgrade cannot be deleted. Start by deleting the license key for the Upgrade (version) license.

**2.3.9 Forcibly leaving offline mode**

You can forcibly terminate a floating license (offline mode) acquired by the license manager of the client by using the --release-offline-mode option.

For terminating offline mode of the license manager, refer to the License Manager User's Manual for Windows or Linux/macOS.

**2.3.10 Confirming the states of the floating licenses**

The state of usage of a license can be displayed by the --report [<start> [<end>]] option in the format below.

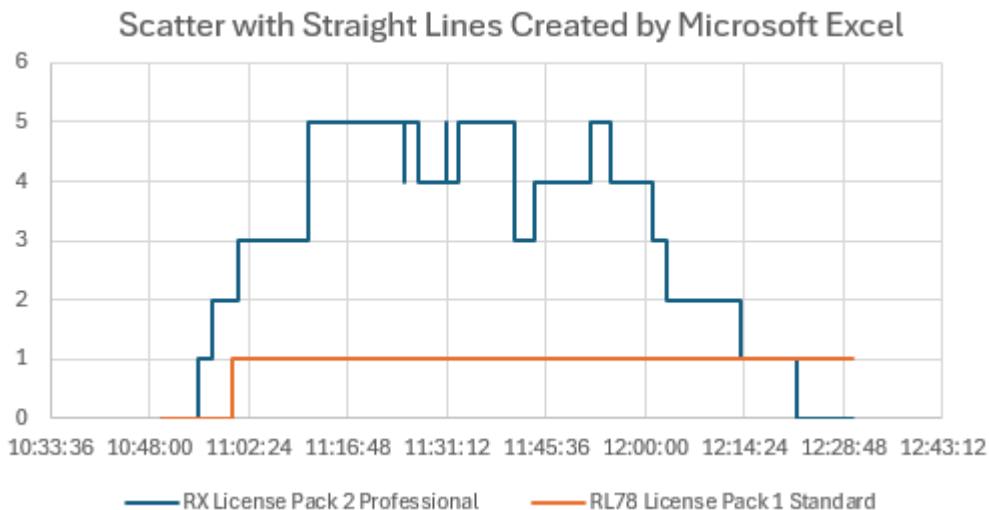
```
, name of license 1, name of license 2, ...
date and time specified in [Start date], the number of machines holding licenses under
license 1 at the start of logging,
the number of machines holding licenses under license 2 at the start of logging, ...
...
date and time when the number of licenses held changed, the number of machines holding
licenses under license 1
before the change, the number of machines holding licenses under license 2 before the
change,
...
date and time when the number of licenses held changed, the number of machines holding
licenses under license 1
after the change, the number of machines holding licenses under license 2 after the
change, ...
...
date and time specified in [End date], the number of machines holding licenses under
```

Two lines indicating date and time are output when the number of instances of usage of a license changes; the first line indicates the number of licenses in use before the change, and the second line indicates the number after the change.

## License usage sample output

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --report
,RX License Pack 2 Professional,RL78 License Pack 1 Standard
2016/9/12      10:50:00,0,0
2016/9/12      10:55:11,0,0
2016/9/12      10:55:11,1,0
2016/9/12      10:57:23,1,0
2016/9/12      10:57:23,2,0
2016/9/12      11:00:34,2,0
2016/9/12      11:00:34,2,1
2016/9/12      11:01:13,2,1
2016/9/12      11:01:13,3,1
2016/9/12      11:11:23,3,1
2016/9/12      11:11:23,4,1
2016/9/12      11:11:50,4,1
2016/9/12      11:11:50,5,1
2016/9/12      11:25:12,5,1
2016/9/12      11:25:12,4,1
2016/9/12      11:25:53,4,1
2016/9/12      11:25:53,5,1
2016/9/12      11:27:25,5,1
2016/9/12      11:27:25,4,1
2016/9/12      11:31:00,4,1
2016/9/12      11:31:00,5,1
2016/9/12      11:31:13,5,1
2016/9/12      11:31:13,4,1
2016/9/12      11:33:09,4,1
2016/9/12      11:33:09,5,1
2016/9/12      11:41:24,5,1
2016/9/12      11:41:24,4,1
2016/9/12      11:41:51,4,1
2016/9/12      11:41:51,3,1
2016/9/12      11:44:02,3,1
2016/9/12      11:44:02,4,1
2016/9/12      11:52:29,4,1
2016/9/12      11:52:29,5,1
2016/9/12      11:55:53,5,1
2016/9/12      11:55:53,4,1
2016/9/12      12:01:00,4,1
2016/9/12      12:01:00,3,1
2016/9/12      12:03:09,3,1
2016/9/12      12:03:09,2,1
2016/9/12      12:14:02,2,1
2016/9/12      12:14:02,1,1
2016/9/12      12:22:29,1,1
2016/9/12      12:22:29,0,1
2016/9/12      12:30:00,0,1
$
```

When those outputs are saved into a CSV file or copied and pasted to a text editor to be saved as a CSV file and then opened in Microsoft Excel, the latter can convert this CSV file into a scatter diagram with straight lines to form a graph of usage as shown below.



### 2.3.11 Allowing the use of an upper-level floating license when no lower-level floating licenses are available

Specifying the <allow-upper-level-license(true/false)> argument of the --enable-server-setting option below specifies whether or not the server is to allow the use of an upper-level floating license when the server has no available lower-level floating license.

--enable-server-setting [<port> [<allow-upper-level-license(true/false)>[<disclose-usage-to-clients>]]]

This can be used to specify that the server is to allow the client to use an upper-level floating license (e.g. Professional) when the client requests a lower-level floating license (e.g. Standard) and the server has no available lower-level floating licenses, but has an available upper-level floating license.

If true is specified, the server responds to a request from the client with an upper-level floating license. If false is specified, the server responds with an error message to notify the client that the server has no available floating licenses.

#### Example of specifying argument

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --enable-server-setting 6723 true
$
```

#### Example of specifying argument

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --server-info
Status: Enabled Server Port: 6723
Offer the upper-level license if lower-level license is empty: True
Publish usage to the license manager: False
$
```

**Caution:** This setting must be specified as true in cases where only a higher-level floating license (e.g. Professional) is registered on the server but the client is requesting a lower-level floating license (e.g. Standard). This applies in cases such as where some compiler options which require the Professional edition floating license are not enabled. The default setting is true.

### 2.3.12 Disclosing the states of usage of the licenses when the license manager displays candidates for use as floating licenses (offline mode)

Specifying the <disclose-usage-to-clients> argument of the --enable-server-setting option as shown below specifies whether or not the license manager of the client discloses the states of usage of the licenses when it displays candidates for use as floating licenses (offline mode).

--enable-server-setting [<port> [<allow-upper-level-license> [<disclose-usage-to-clients>]]]

#### Example of specifying the argument

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --enable-server-setting 6723 true true
$
```

#### Example of checking settings

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --server-info
Status: Enabled Server Port: 6723
Offer the upper-level license if lower-level license is empty: True
Publish usage to the license manager: True
$
```

### 2.3.13 Recording the states of usage of the licenses in a log file

The following option enables setting of the maximum size to be recorded in a log file, recording of details, and the directory for saving the log file.

--logging-setting <size> [<detail(true/false)> [<directory>]]

Logs are recorded with the numerical part of the file name of the form “FloatingLicense.xxx.log” (where xxx is a 3-digit numerical value) changed every 3 Mbytes.

When a log is recorded immediately after the maximum size of the log file has been reached, the oldest log file is deleted to keep the file size within the size specified by this setting.

If the recording of details is specified, the internal operations of the program are also recorded. If the recording of details is not specified, only requests for the acquisition and releasing of licenses by clients and the results for the requests are recorded.

You can confirm the settings by using the --logging-info option.

#### Example

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --logging-setting 10 false
```

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --logging-info
Folder for saving log file: /var/local/renesas-mcutools-license-server/
LicenseServerInfo/Log4
Max log file size(MB): 10
Save detailed status: False
$
```

### 2.3.14 Interactive mode

The --interactive option is used to make the transition to interactive mode. In interactive mode, you can display the details of a license, delete a license, and forcibly terminate the offline mode by specifying serial numbers in a list of commands instead of with the use of the license key.

Example when the list, detail, and help commands are entered in interactive mode by specifying the --interactive option

```
$ sudo /usr/local/renesas-mcutools-license-server/bin/floating-license-server-administrator --interactive
FLS> list
- Compiler Standard V1 for RL78 (CC-RL)
  1 XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
- Compiler Standard V2 for RH850 (CC-RH)
  2 XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
  3 YYYYYY-YYYYYY-YYYYYY-YYYYYY-YYYYYY (annual)
- Compiler Standard V3 for RX (CC-RX)
  4 XXXXX-XXXXX-XXXXX-XXXXX-XXXXX

FLS> detail 3
  Client IP Address:
  Client User Name:
    Serial Number: 00000000
    License Key: YYYYYY-YYYYYY-YYYYYY-YYYYYY-YYYYYY
    License Type: Floating License (annual)
    License Status: Unused
    License Name: Compiler Standard V2 for RH850 (CC-RH)
    License Expiration Date: YYYY/MM/DD hh:mm:ss (Utc)

FLS> help
Usage: <command>
command:
  list
    Displays a list of valid registered licenses. The serial number that serves as the license key is displayed to the left of the license key.
  detail <serial number>...
    Displays the details of the license with the specified serial number.
  add <license-key>...
    Registers the specified license key.
  delete <serial number>...
    Deletes the license with the specified serial number.
  release <serial number>...""
    Forces termination of offline usage mode for the specified serial number's floating license.
  help
    Displays how to use the interactive mode.
  exit
```

```
    Exits interactive mode.  
quit  
    Exits interactive mode.  
FLS>
```

## 2.4 Restoring the Server Following Replacement or Failure

When the server is to be changed due to a failure or replacement, follow the procedure shown in this document again to start up the new server and register the license keys.

All of the licenses that a client has acquired from the old server become invalid the moment the client is connected to the new server.

## 3.MESSAGES

This chapter describes internal error messages, fatal error messages, information messages, choice messages and warning messages that Floating License outputs.

The messages are output to the standard output of the terminal or a log file, etc.

### 3.1 Message Types

The message types (1 alphabetic character) when Floating License is operated are as follows. Message Types

Message Type		Description
C	Internal error	Processing was terminated (suspended) due to an internal error.
E	Fatal error	Processing was terminated (suspended) due to a fatal error.
M	Information	Informational message. Check the message and continue processing.
Q	Choice	This type of message is displayed when a choice is necessary to carry on with the next operation and run the selected action.
W	Warning	Warning message. Check the message and continue processing.

### 3.2 Internal Errors

C0171004	[Message]	Failed to load file. xxx
C0171005	[Message]	Failed to save file. xxx
C0190002	[Message]	xxx is too large.
C0190003	[Message]	xxx is too small.

### 3.3 Fatal Errors

E0172012	[Message]	Failed to save CSV file.  xxx
E0172013	[Message]	No log file in log folder.
E0172014	[Message]	Failed to write log file.
E0174010	[Message]	Failed to load option file.  xxx
E0174011	[Message]	Failed to save option file.  xxx
E0174012	[Message]	Failed to load license information.  xxx
E0174013	[Message]	Failed to save license information.  xxx
E0174014	[Message]	Failed to start license service.  xxx
E0195400	[Message]	<i>option</i> option requires arguments.
E0195401	[Message]	<i>option1</i> and <i>option2</i> options cannot be specified at the same time.
E0195402	[Message]	Unknown option: <i>option</i>
E0195403	[Message]	The < <i>argument</i> > argument of the <i>option</i> option is invalid.:  <i>size</i> : Please specify <i>min</i> to <i>max</i> .
E0195404	[Message]	The < <i>argument</i> > argument of the <i>option</i> option is invalid.:  <i>value</i> : Please specify <i>spec</i> .
E0195405	[Message]	Floating license is disabled. Please enable it with <i>option</i> .
E0195406	[Message]	Invalid License Key: <i>key</i>
E0195407	[Message]	Unknown command: <i>command</i>

### 3.4 Information

M0191707	[Message]	Assigned license <i>xxx/yyy : zzz</i>
M0191709	[Message]	Released license: <i>xxx/yyy : zzz</i>
M0195000	[Message]	Please run <i>command --help</i> for more information.

### 3.5 Choices

Q0174110	[Message]	<p>This function should be used when a client cannot release a license because there was trouble in the client's PC. Normally, a license should be released from the client.</p> <p>Do you still want to continue?</p>
----------	-----------	--

### 3.6 Warning

W0195200	[Message]	The value of the <i>argument</i> argument for the <i>option</i> option is too large. : <i>value</i> : set to <i>max</i>
W0195201	[Message]	The value of the <i>argument</i> argument for the <i>option</i> option is too small. : <i>value</i> : set to <i>min</i>

<b>Revision History</b>		Software for Floating License Management V2.10.00 (for Linux/macOS) User's Manual
-------------------------	--	--

<b>Rev.</b>	<b>Date</b>	<b>Description</b>	
		<b>Page</b>	<b>Summary</b>
1.00	Dec.01.25	—	First Edition issued

---

Software for Floating License Management V2.10.00  
(for Linux/macOS)  
User's Manual

---

Publication Date: Rev.1.00 Dec.01.25  
Published by: Renesas Electronics Corporation

---

Software for Floating License Management V2.10.00  
(for Linux/macOS)



Renesas Electronics Corporation

R20UT5767EJ0100