MITSUBISHI ELECTRIC

MELSOFT

Engineering Software

License Server User Guide

SAFETY PRECAUTIONS

(Read these precautions before using this product.)

Before using this product, please read this guide carefully, and pay full attention to safety to handle the product correctly. If devices are used in a different way from that specified by manufacturers, the protection function of the devices may not work properly.

In this guide, the safety precautions are classified into two levels: "⚠ WARNING" and "⚠ CAUTION".

⚠ **WARNING**	Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
⚠ **CAUTION**	Indicates that incorrect handling may cause hazardous conditions, resulting in minor or moderate injury or property damage.

Under some circumstances, failure to observe the precautions given under "⚠CAUTION" may lead to serious consequences.

Observe the precautions of both levels because they are important for personal and system safety.

Make sure that the end users read this guide and then keep the manual in a safe place for future reference.

[Security Precautions]

⚠WARNING

● To maintain the security (confidentiality, integrity, and availability) of the system against unauthorized access, denial-of-service (DoS) attacks, computer viruses, and other cyberattacks from external devices via the network, take appropriate measures such as installing firewalls, virtual private networks (VPNs), and antivirus software on computers.

INTRODUCTION

This guide describes the installation procedure and startup method of the network license server of MELSOFT Gemini. The network license server is manufactured by Visual Components. Before using this product, please read this guide carefully and develop familiarity with the functions and specifications to handle the product correctly. Note that the menu names and operation procedures differ from actual ones depending on the operating system used and its version. They can be replaced with your operating system and its version. Please make sure that the end users read this guide.

CONTENTS

1 Installation & Setup

1.1 Requirements

Before you install the license server, verify that you have local administrator rights to install the license server on a computer. The supported operating systems are as follows.
- Windows 10 Pro 64-bit
- Windows Server 2016
- Windows Server 2019

1.2 Installation Notes

- The network license server is manufactured by Visual Components. By agreeing to the license agreement when installing the network license server, you shall be deemed to have agreed to the license agreement with Visual Components. If you do not agree, you cannot use the network license server.
- If your computer is using an old version of the license server, the installer can uninstall that version, and then transfer its product keys to the new server.
- If the license server has no Internet connection, manually activate the product keys. (☞ Page 20 Manual Activation)
- After a product key has been activated on a computer using a newer version of the license server, that computer can no longer use an older version.

1.3 Security

Product key activation and deactivation use the HTTPS encrypted communication to contact a global Visual Components license server.

| For Visual Components 4.0 or higher product keys:	https://license.visualcomponents.net

Point

Firewalls and web proxies should not block nor prevent connections of your license server and global Visual Components license server(s).

1.4 Instructions

1. The installer of the network license server is provided with the 3D simulator MELSOFT Gemini. ("Support\NLS\")

2. Exit any other running applications and double-click SetupVcLicenseServer_*.*.*.exe. When the following window appears, click the "Next" button.
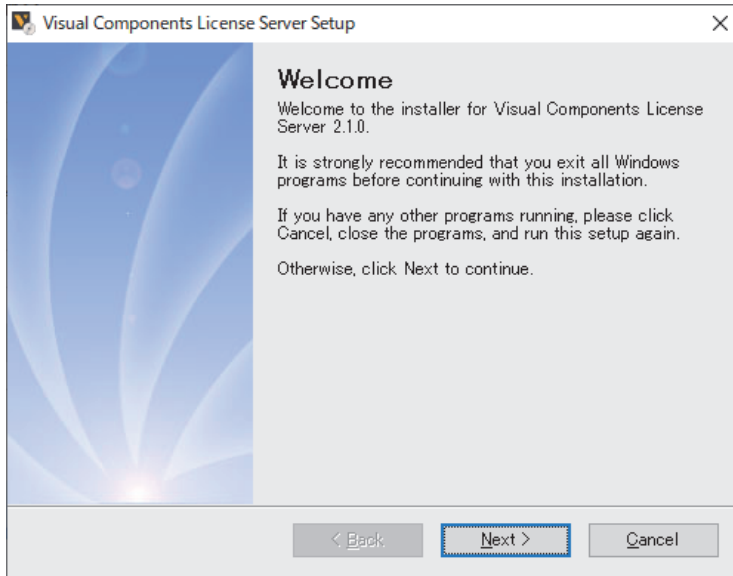
3. The license agreement is displayed. Confirm the contents, and if there is no problem, select the radio button on the bottom of the window to agree and click the "Next" button.
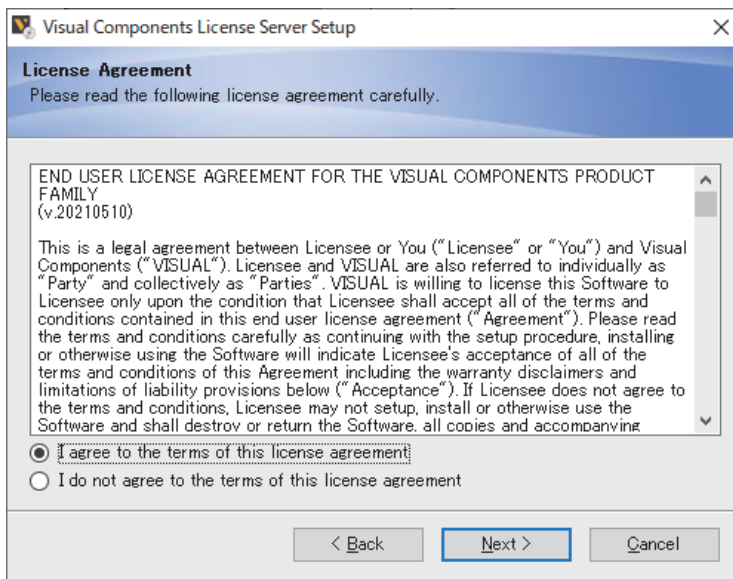
4. The installation folder for the network license server is displayed. To select a different installation folder, click the "Change" button and change the installation folder.

• Specify the path to the installation destination in 100 characters or less.
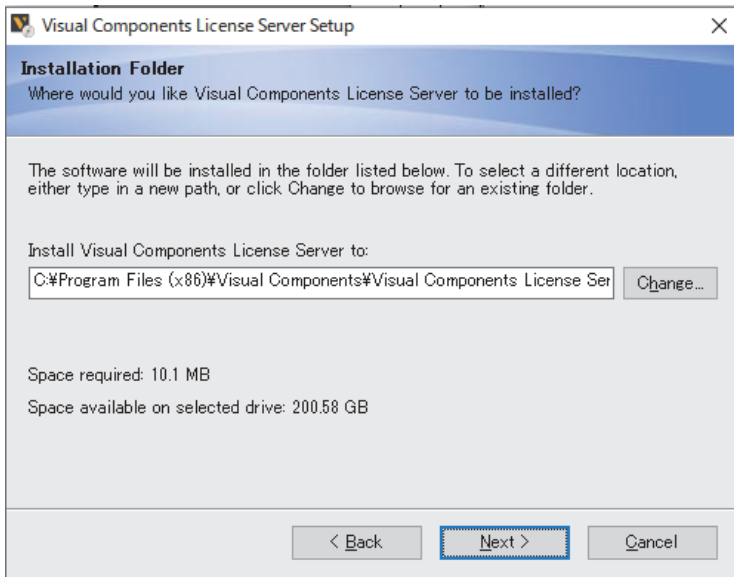
5. Select a folder to register the shortcuts for the network license server in the start menu. Select an option to allow user(s) to register shortcuts with the radio buttons on the bottom of the window. (Current user only or all users)
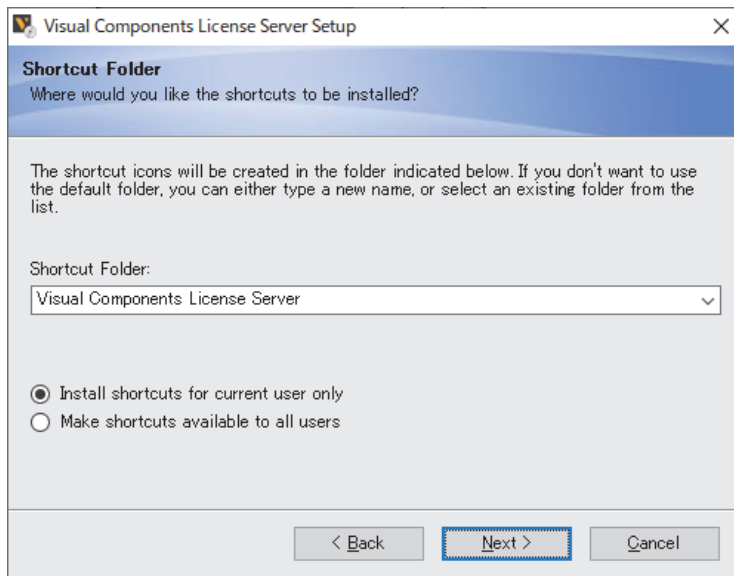
6. Confirm the installation details. If there is no problem, click the "Next" button. To change the installation details, click the "Back" button to go back to the previous step.
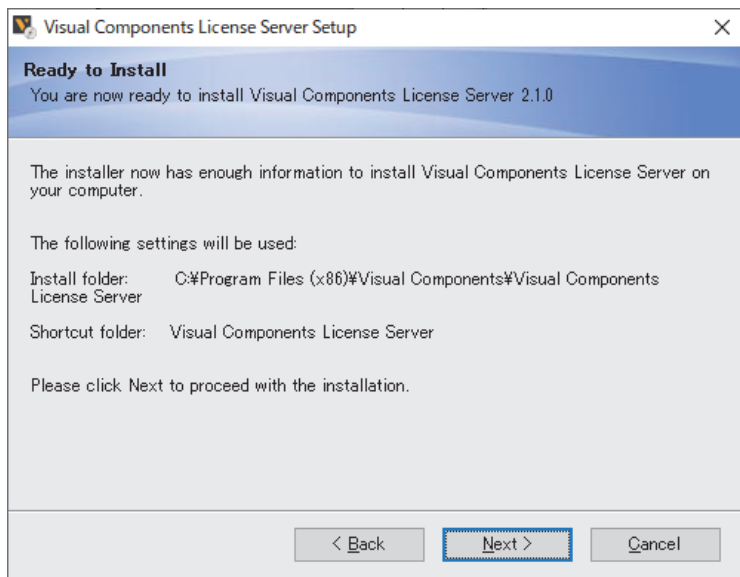
7. When the following window appears, the installation is complete. Click the "Finish" button.
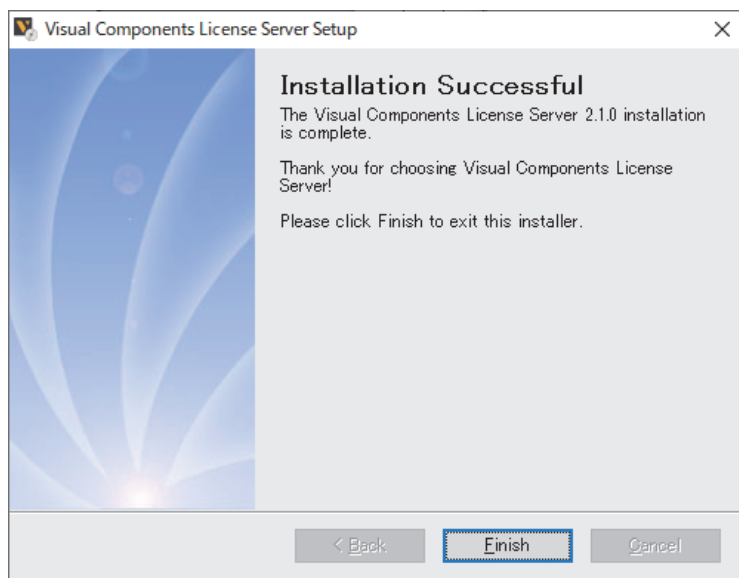
8. After the installation, run the Visual Components license server manager from the start menu.

2 User Interface

The workspace of the license server is used for license management.
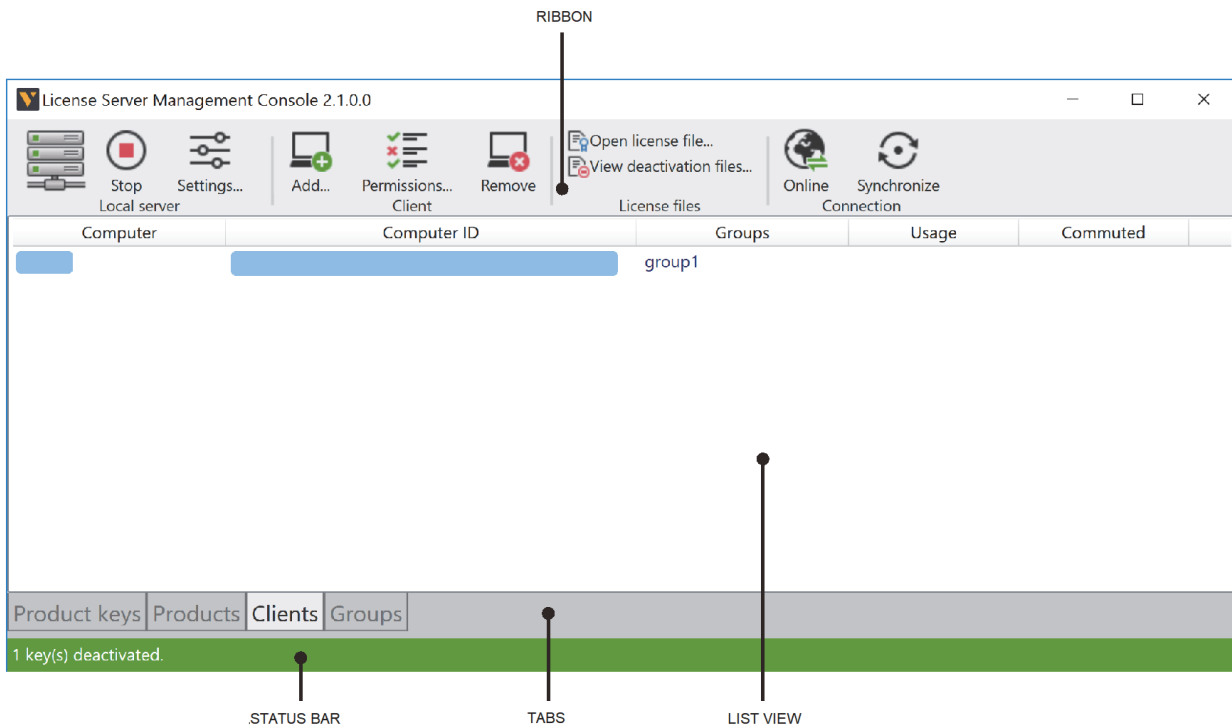
Ribbon	Displays the operation buttons and the status of a license server.
Status Bar	Indicates the status of a license server.
Tabs	Navigates between views of a license server.
List View	Displays the status of a license.

2.1 Product keys

The Product keys tab displays the information on the product keys.

Columns

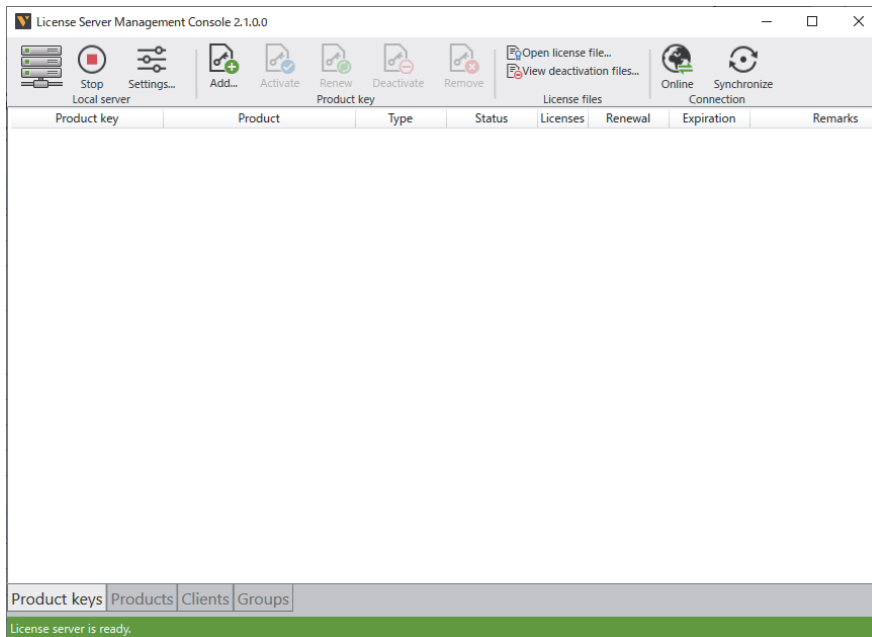| Product key	The product key.
Product	The name of a product that can be used with a key.
Type	The type of key. Full is a complete license. Evaluation is a trial license.
Status	The status of a key. When the status is Activated, MELSOFT Gemini can be used. When the status is Not activated or Activation expired, MELSOFT Gemini cannot be used.
Licenses	The number of seats (licenses) associated with a key.
Renewal	The renewal date of a key, for example every 360 days.
Expiration	The expiration date of a key.
Remarks	Information on the status of a key.

Commands

Start/Stop	Turns on/off the license server.
Settings	Displays the license server settings.
Add	Allows you to add a product key to a server.
Activate	Activates a selected key.
Renew	Renews a selected key, for example another 360 days.
Deactivate	Deactivates a selected key.
Remove	Removes a selected key from the license server. Do not remove activated keys. Deactivate the activated keys before removing them.
Open license file	Allows you to open an activation file containing license information. This command is used for manual activation.
View deactivation files	Shows the Deactivations folder in File Explorer.
Online/Offline	Indicates if the license server is connected to the global Visual Components license server.
Synchronize	Syncs the license server with the global Visual Components license server and refreshes its database.

2.2 Products

The Products tab displays the product information including the number of available licenses and usage by clients.
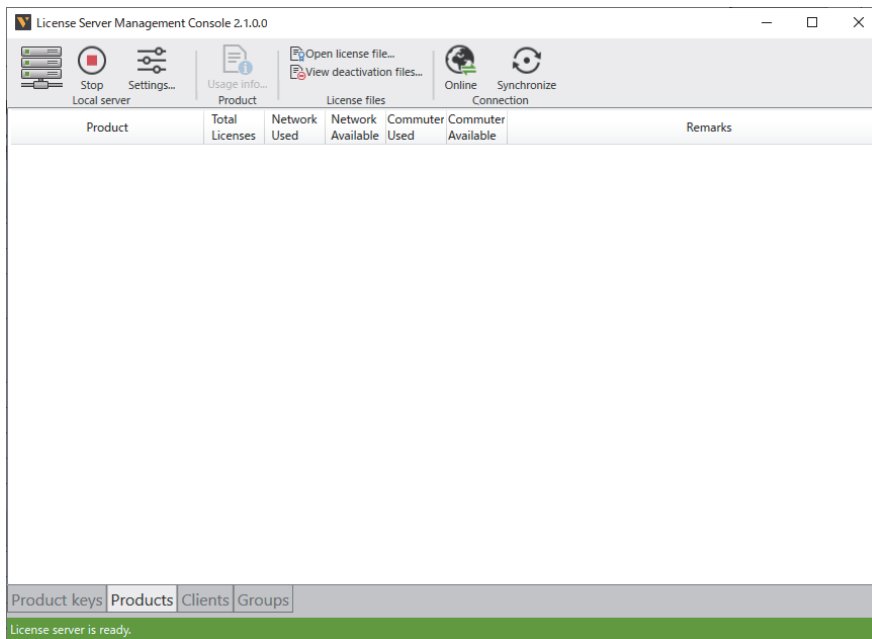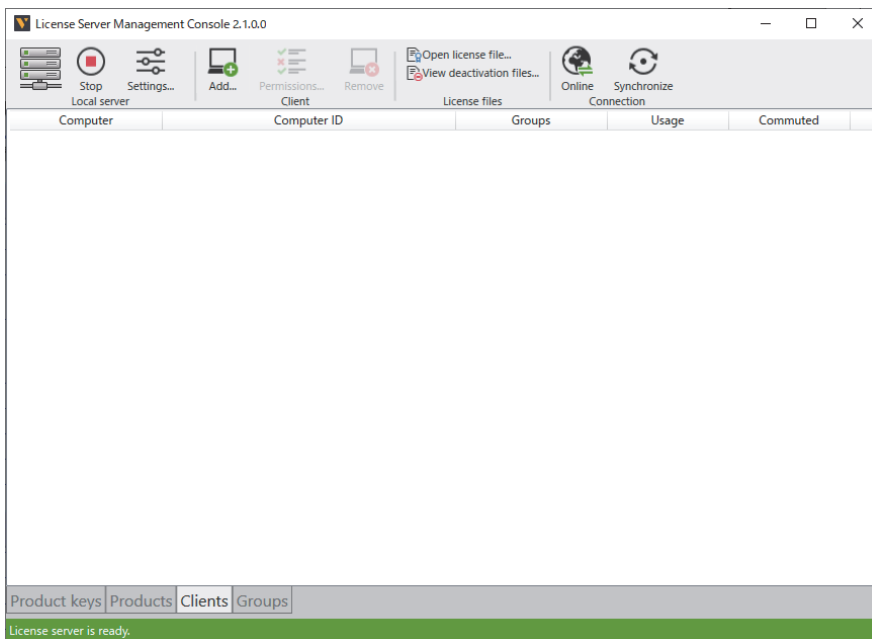

Columns

Product	The name of a product that has one or more keys on the server.
Total Licenses	The total number of licenses for a product on the server.
Network Used	The number of licenses for a product that are being used by clients.
Network Available	The number of licenses for a product that can be used by clients.
Commuter Used	The number of licenses for a product that are being borrowed by clients.
Commuter Available	The number of licenses for a product that can be borrowed by clients.
Remarks	Information on the status of a product and its usage.

Commands

Start/Stop	Turns on/off the license server.
Settings	Displays the license server settings.
Usage info	Shows the usage of a selected product by clients including borrowed licenses and their return dates.
Open license file	Allows you to open a .dat file containing license information.
View deactivation files	Shows the Deactivations folder in File Explorer.
Online/Offline	Indicates if the license server is connected to the global Visual Components license server.
Synchronize	Syncs the license server with the global Visual Components license server and refreshes its database.

2.3　Clients

The Clients tab displays the information on client computers of the license server.

Columns

Computer	The name of a client computer.
Computer ID	The ID of a client computer.
Groups	The groups that the client belongs to.
Usage	If a client is using a license, it indicates the product of that license.
Commuted	If a client borrows a license, it indicates the product of that license.

Commands

Start/Stop	Turns on/off the license server.
Settings	Displays the license server settings.
Add	Allows you to add a new client computer to a server. Generally, this is done before a client connects to the server for the first time.
Permissions	Allows you to define the rights of a selected client to use licenses for products supported by the server.
Remove	Removes a selected client from the server. You cannot remove a client that is using a license nor should you remove a client that is borrowing a license.
Open license file	Allows you to open a .dat file containing license information.
View deactivation files	Shows the Deactivations folder in File Explorer.
Online/Offline	Indicates if the license server is connected to the global Visual Components license server.
Synchronize	Syncs the license server with the global Visual Components license server and refreshes its database.

2.4 Groups

The Groups tab displays the information on client groups of the license server.
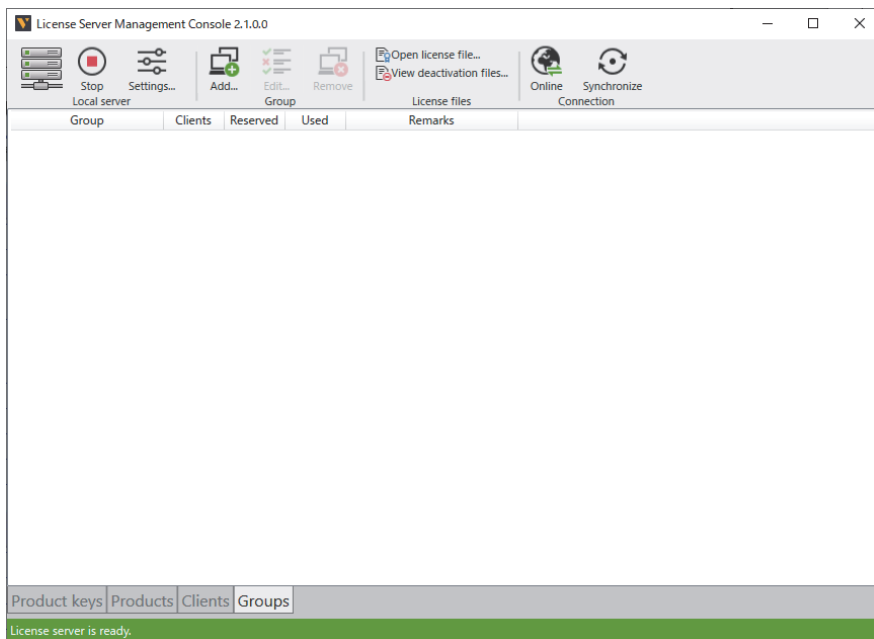
Columns

Group	The name of a client group.
Clients	The number of clients in the group.
Reserved	The number of reserved seats for the clients in the group.
Used	The number of seats taken by clients.
Remarks	Information on the status of a client group.

Commands

Start/Stop	Turns on/off the license server.
Settings	Displays the license server settings.
Add	Allows you to add a new client group to a server, set the clients into this group, and define the products that can be accessed by the clients in this group.
Edit	Allows you to edit the selected client group.
Remove	Removes a selected client group from the server.
Open license file	Allows you to open a .dat file containing license information.
View deactivation files	Shows the Deactivations folder in File Explorer.
Online/Offline	Indicates if a license server is connected to the global Visual Components license server.
Synchronize	Syncs the license server with the global Visual Components license server and refreshes its database.

3 Product Keys

The license server supports product keys. A product key allows you to use MELSOFT Gemini.

A product key contains one or more network licenses that can be shared online or borrowed by users for offline use.

A network license is known as a seat, so a product key with 10 seats means that up to 10 users can use that product key at a given time.
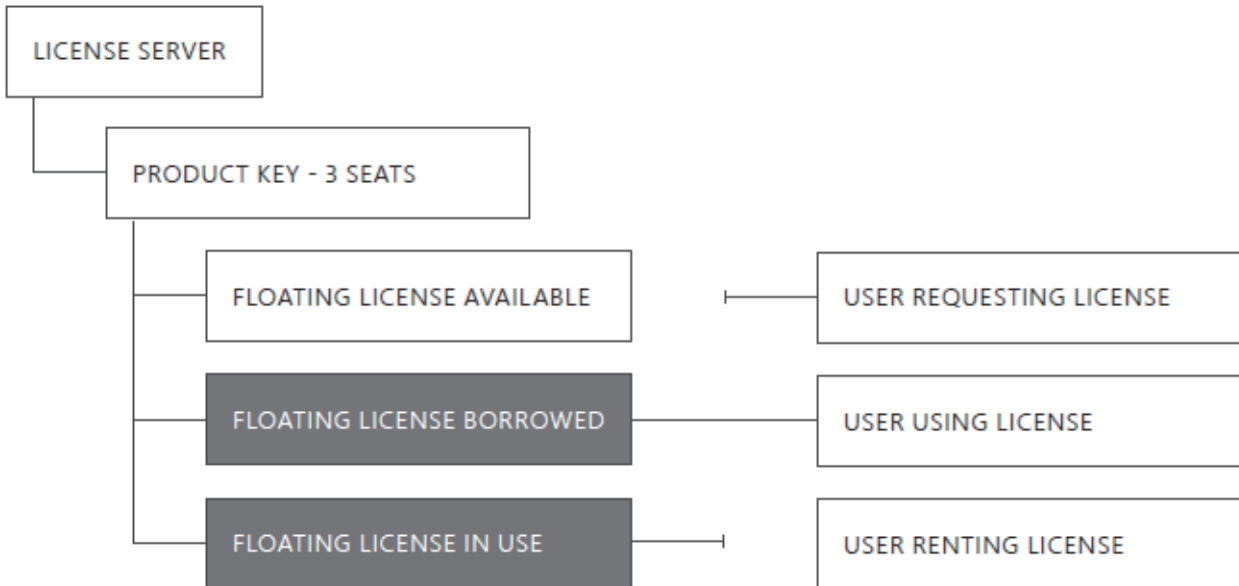
3.1 Sharing

Sharing a license occurs when MELSOFT Gemini is connected to a license server and licensed online from the network license server. Once MELSOFT Gemini is terminated, the license is returned and MELSOFT Gemini becomes available for other users connected to the same license server.

3.2 Borrowing

Borrowing a license occurs when a user holds a license temporarily from a license server to use MELSOFT Gemini offline without connecting to a license server.

A license can be borrowed through operations on MELSOFT Gemini.

☞ MELSOFT Gemini ⇨[FILE]⇨[Info]⇨[License]⇨[Application License]⇨"Borrowing options"

The license is not returned even when MELSOFT Gemini is terminated. You can return the license by either of the following means.

 • Return the license from "Borrowing options" in MELSOFT Gemini.
 • The borrowing period set at the time of license borrowing has expired.

You can check the remaining borrow period by doing the following:

☞ MELSOFT Gemini ⇨[FILE]⇨[Info]⇨[License]⇨[Application License]⇨"Remaining day"

MEMO

4 Add a Product Key

The license server allows you to add product keys containing network licenses. The number of licenses in a product key is equal to the number of clients who can use the product key at any given time.

1. On the Product keys tab, in the Product key group, click Add.

2. In the Add product key dialog, in the Enter product key box, type the 16-digit product key you want to add to the server and then click Add.
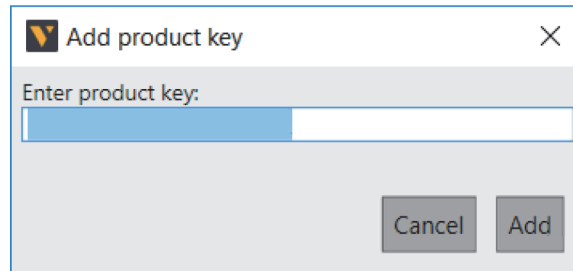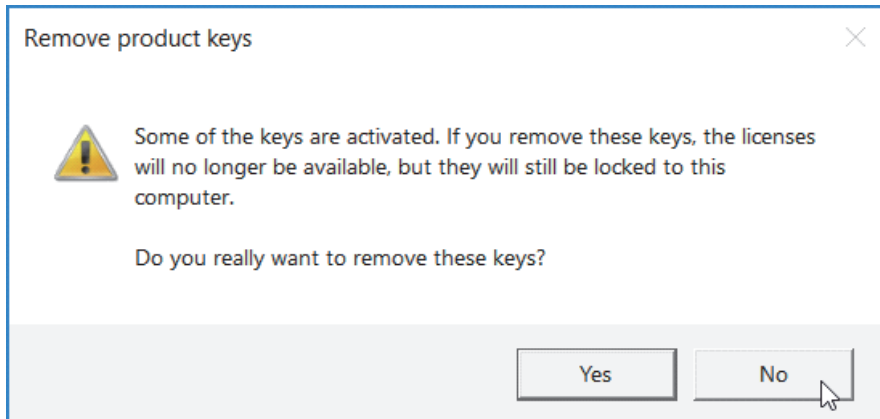

3. Verify that the product key you added is listed in the license server.

MEMO

5 Remove a Product Key

The license server allows you to remove product keys. We recommend that you deactivate a product key before removing it from a license server. That allows the deleted key to be added to and used with a license server on another computer.

1. Click the Product keys tab, and then select the product key you want to remove from the server from the list.

2. On the Product keys tab, in the Product key group, click Remove.

3. If you are prompted to deactivate a selected license, do one of the following:
   • To remove the license without deactivating it, click Yes.
   • To deactivate the license before removing it, click No, and then deactivate the product key before repeating step 1.

4. In the Remove product keys dialog, click Yes.
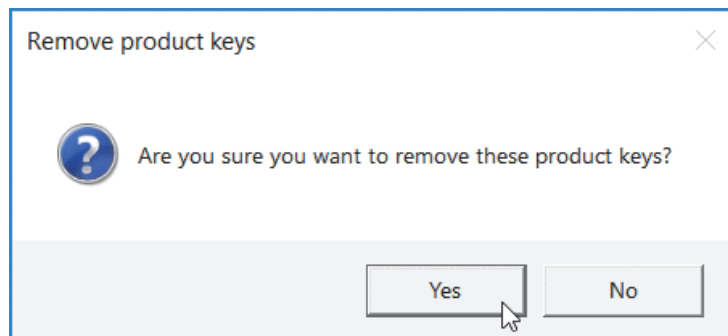
5. Verify that the product key is not listed on the license server.

MEMO

6 Activate a Product Key

The license server allows you to activate a product key.

6.1 Automatic Activation

Product key activation requires a license server be connected to the Internet.

1. Click the Product keys tab, and then select the product key you want to activate on the server from the list.

2. On the Product keys tab, in the Connection group, verify that the license server is online, and then in the Product key group, click Activate.

> *Restriction*
>
> If a selected product key is not activated, verify that the product key has not expired or has been connected to the Internet.

6.2 Manual Activation

Manual product key activation requires you to make an inquiry to the contact point stated in the maintenance contract.

1. Click the Product keys tab, and then select the product key you want to activate on the server from the list.

2. On the Product keys tab, in the Product key group, click Activate, and then save the activation request file but DO NOT rename it.

3. Send an activation request file to the contact point stated in the maintenance contract.

4. Obtain a license file from the contact point stated in the maintenance contract.

5. On your license server, click the Product keys tab, and then in the License files group, click Open license file, and then open the license file for your product key.

MEMO

7 Deactivate a Product Key

The license server allows you to deactivate a product key. Before you deactivate a product key, ensure that all network and borrowed (commuter) licenses for that product key are not being used by clients of the server.

7.1 Automatic Deactivation

Product key deactivation requires a license server be connected to the Internet.

1. Click the Product keys tab, and then select the product key you want to deactivate on the server from the list.

2. On the Product keys tab, in the Connection group, verify that the license server is online, and then in the Product key group, click Deactivate.

Restriction🖐

If a selected product key is not deactivated, verify that the product key has not expired or has been connected to the Internet.

7.2　Manual Deactivation

1. Click the Product keys tab, and then select the product key you want to deactivate on the server from the list.

2. On the Product keys tab, in the Product key group, click Deactivate, and then save the deactivation request file but DO NOT rename it.

3. Send a deactivation request file to the contact point stated in the maintenance contract.

4. Obtain a deactivation permission file from the contact point stated in the maintenance contract.

5. On your license server, click the Product keys tab, and then in the License files group, click Open license file, and then open the deactivation permission file for your product key.

6. On the Product keys tab, in the Product key group, click Deactivate, and then click Yes to deactivate the product key locally and generate a deactivated license file.
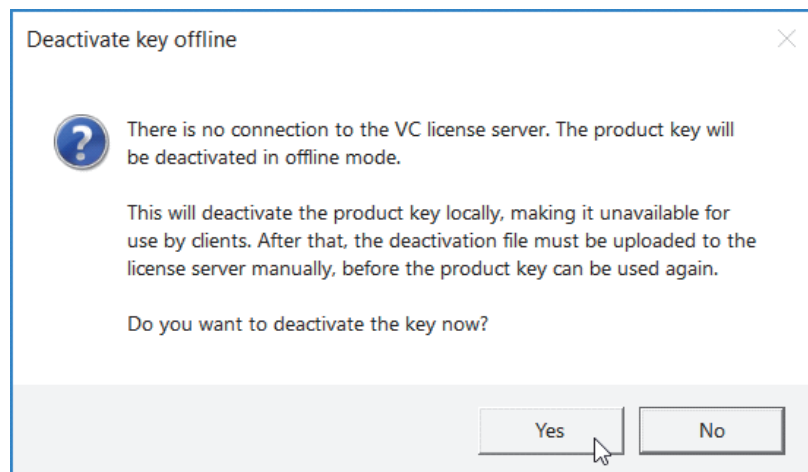
7. Send the deactivated license file to the contact point stated in the maintenance contract.

8 Renew a Product Key

The license server allows you to renew product keys. Renewal involves deactivating and reactivating product keys on a yearly basis.

8.1 Automatic Renewal

The license server can be configured to renew a product key automatically if the renewal date of the key is coming.

1. On the Ribbon, in the Local server group, click Settings.

2. In the License server settings dialog, in the Basic settings tab, in the Renewal field, select the Automatically renew licenses online check box, and then click OK.
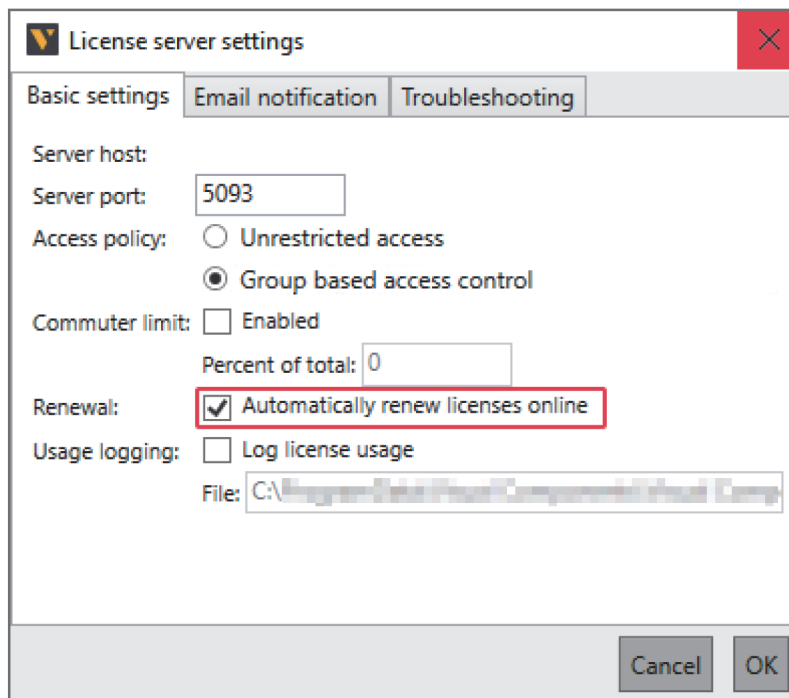
8.2   Adjust Renewal Period

The default renewal period for a license server is 14 days. You can configure a renewal period within 14 days. This can be accomplished by editing the config file of the computer hosting your license server.

1.   Edit at least one setting on the license server.

2.   In the file system of the computer, find and open the machine.config file in a text editor.

Restriction 🖐

    Try to find the file at C:\Windows\Microsoft.NET\Framework\v4.0.30319\Config.

3.   In your text editor, find <visualcomponents.licensor.localserver.2.0> and its child element <licenseServerSetting>, and add an autoRenewLicensePeriod attribute to which the number of days the server attempts to renew that license before a license expires was assigned.

```
<visualcomponents.licensor.localserver.2.0>
<licenseServerSettings
fileUpdateInterval="15"
defaultFeatureClientGrantLicense="true"
maximumCommuterLicensePercentage="-1"
licenseFilePath="C:\ProgramData\Visual Components\Visual Components License Server 2.0\lservrc.dat"
autoRenewLicensePeriod="5" />
</visualcomponents.licensor.localserver.2.0>
```

4.   Save the modified file to another location. Overwrite machine.config with the saved file, and then restart your license server.

8.3   Manual Renew

If you have turned off the automatic product key renewal service, you can manually renew a product key.

1.   Click the Product keys tab, and then select the product key you want to renew on the server from the list.

2.   On the Product keys tab, in the Product key group, click Renew.

3.   If the selected product key was not renewed, manually deactivate and reactivate the key.

Restriction 🖐

    Renewing a product key earlier than the renewal date will not have any effect on the key.

9 Verify Product Key Usage

The license server allows you to track and monitor the usage of licenses in a product key.

1. Click the Products tab, and then select the product you want to review on the server from the list.

2. On the Products tab, in the Product group, click Usage info.

MEMO
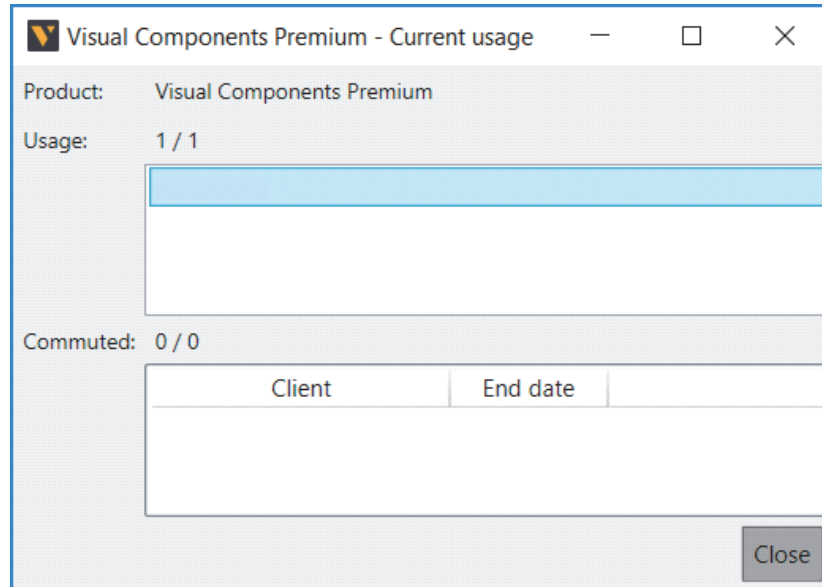
10 Add a Client Computer

The license server allows you to add client computers that request licenses.

1. On the Clients tab, in the Client group, click Add.

2. In the Add client computer dialog, set the Computer name and Permissions fields, and then click OK.

3. If Grant licenses to client is not selected, all the client's permissions are overridden to block the access for the client.

MEMO

11 Edit Client Permissions

The license server allows you to review the history of an added client computer and manage the usage of product keys by that client.

1. Click the Clients tab, and then select the client you want to review on the server from the list.

2. On the Clients tab, in the Client group, click Permissions.

3. Set the Permissions and Groups fields. If Grant licenses to client is not selected, all the client's permissions are overridden to block the access for the client.

4. Then click OK.

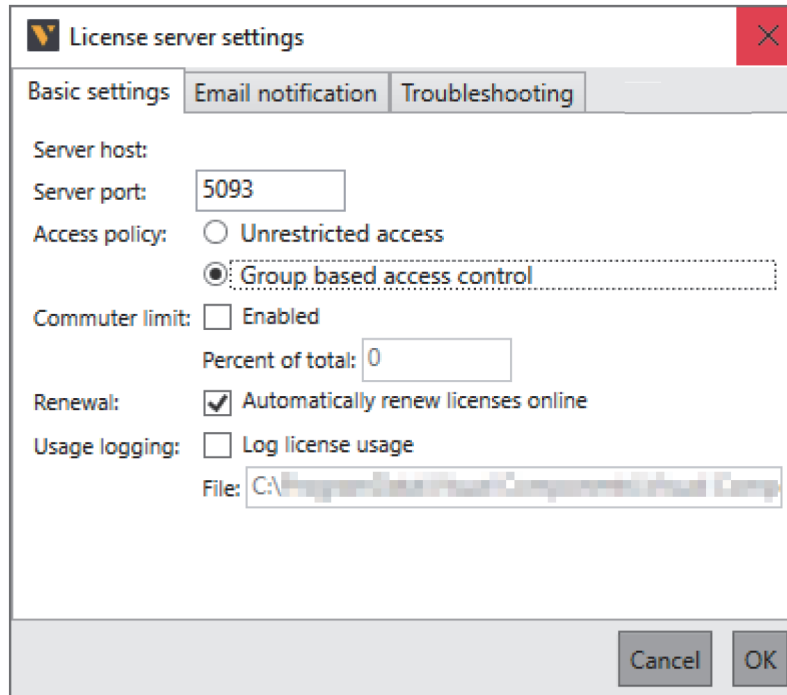5. Verify that the permissions of the selected client are updated in the server.
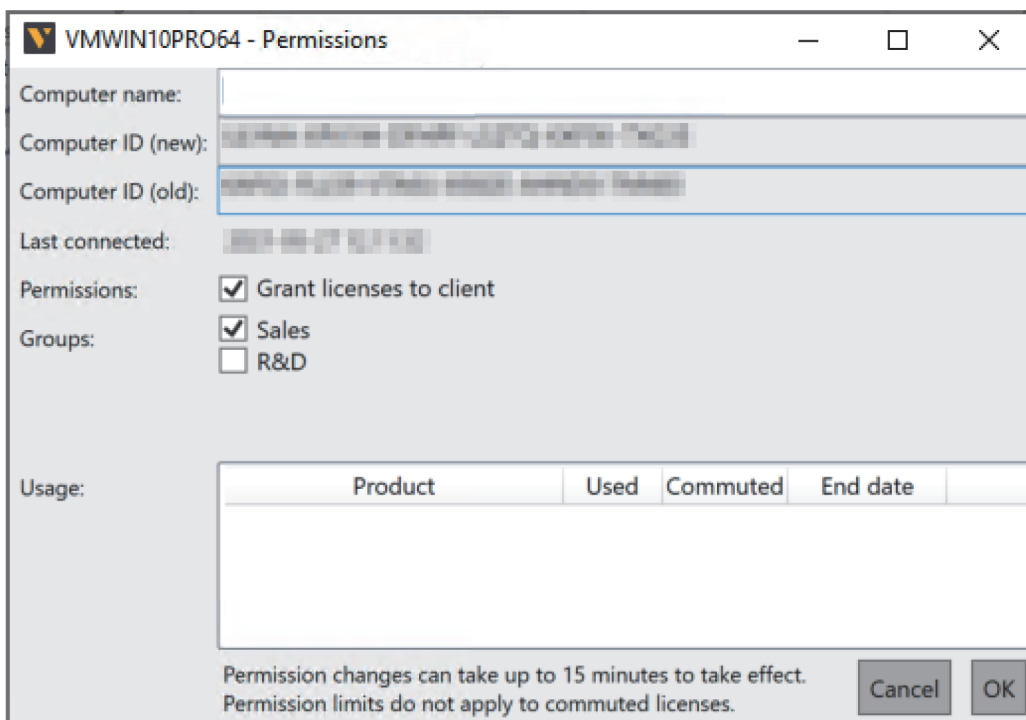
MEMO

12 Client Groups

12.1 Group-based access control

The license server allows you to manage access to available licenses on the server by client group. To enable the group-based access management, the License server settings must have Access policy as Group based access control.

If Access policy is defined as Unrestricted access, all clients in the network could have access to the licenses on the network license server, regardless of the settings defined by the grouping.

12.2 Add a new group

You can add a new client group and define the products that the clients in that group can access. You can also define the maximum number of seats for each product.

1. On the Groups tab, in the Group group, click Add.

2. In the Add group dialog, set Name for the client group.

3. Select product(s) from the Select products drop-down list.

4. Define the number of Reserved seats and Max limit of seats for each product.

5. Set clients by selecting computers from the Available list, and then move them to the Included list by clicking the left arrow (<). You can move all clients with the double left arrow (<<).

6. Then click OK.

Screen Explanations

Name:	The name of a client group.
Products:	Available products with a license.
Product:	Product name.
Seats:	Available number of seats for the product.
Reserved:	Reserved number seats for the clients in the group.
Max limit:	The max number of seats that is reserved for the clients in the group.
Clients:	List of available clients that can be included in the group.
IP address ranges:	IP address range that can be added to the group.

12.3　Edit group

1. Do one of the following:
   • On the Groups tab, double-click a group to edit.
   • On the Groups tab, select a group. Then in the Group group, click Edit.
2. In the <GroupName> - Settings dialog, edit Name of the client group.
3. Select or deselect product(s) from the Select products drop-down list.
4. Define the number of Reserved seats and Max limit of seats for each product.
5. Add clients by selecting computers from the Available list, and then moving them to the Included list by clicking the left arrow (<).
6. Remove clients by selecting computers from the Included list, and then move them to the Available list by clicking the right arrow (>).
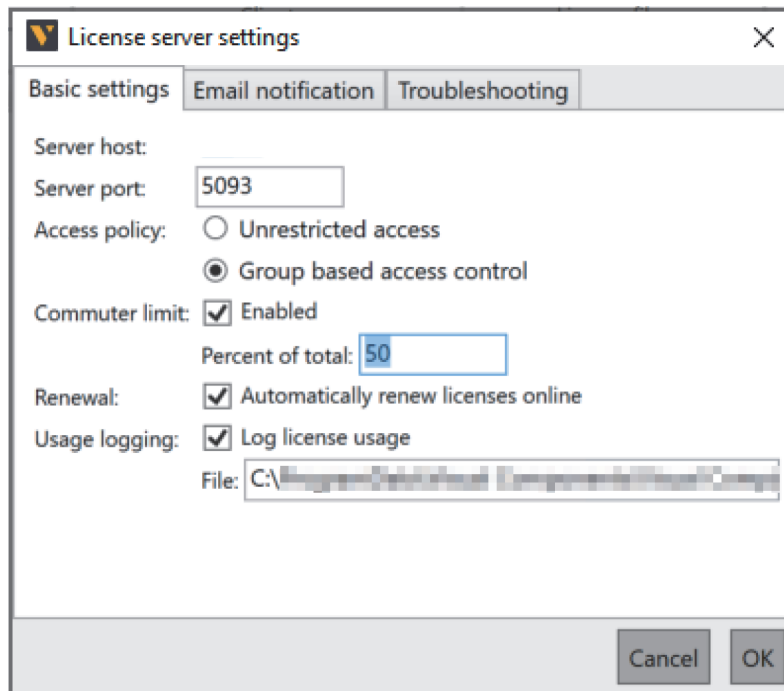7. Then click OK.

12.4　Remove group

1. On the Groups tab, select a group.
2. Then in the Group group, click Remove.

13 Edit Borrowing Limit

The license sever allows you to limit the total number of licenses that can be borrowed by clients. (Unit: Percentage)
That is, you can limit the number of licenses that can be checked out from the server at any given time. A limit of 0 percent prevents all clients from borrowing licenses, whereas a limit of 100 percent enables all licenses to be borrowed (checked out) from the server.

1. On the Ribbon, in the Local server group, click Settings.

2. In the License server settings dialog, on the Basic settings tab, in the Commuter limit field, select the Enabled check box.

3. Set the percentage of borrowable licenses to the total number of licenses in Percent of total.

License server settings	✕
Basic settings	Email notification	Troubleshooting

Server host:

Server port: `5093`

Access policy: ○ Unrestricted access
              ⦿ Group based access control

Commuter limit: ☑ Enabled

              Percent of total: `50`

Renewal: ☑ Automatically renew licenses online

Usage logging: ☑ Log license usage

              File: `C:\`
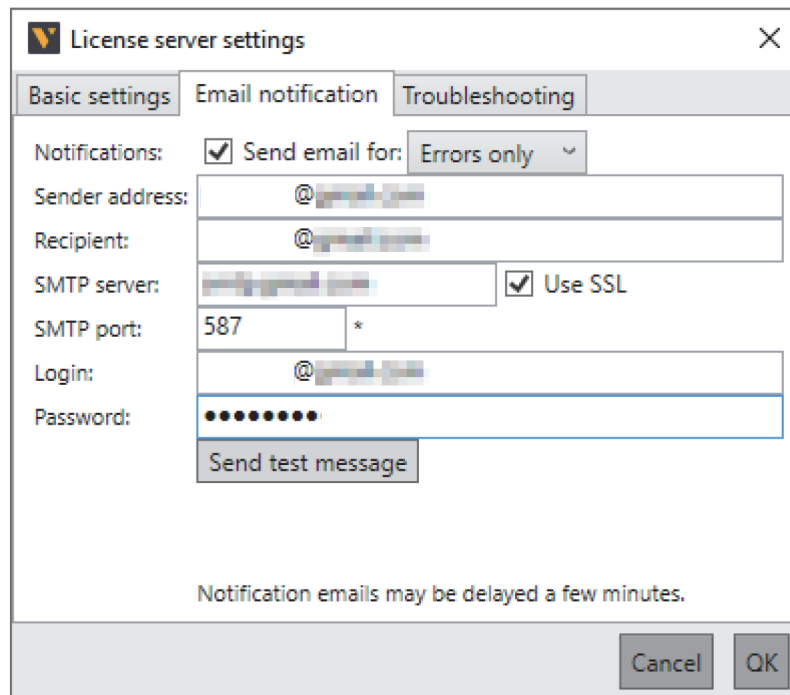
[Cancel] [OK]

MEMO

14 Set Email Notifications

The license server allows you to send emails about events to the set email address at the time of errors and warnings.

1. On the Ribbon, in the Local server group, click Settings.

2. In the License server settings dialog, click the Email notification tab.

3. For Notifications, select the Send email for: check box, and then select the type of event that will trigger an email.

4. Complete the remaining fields, and then send and verify a test message, and then click OK.

MEMO

15 Troubleshooting

The license server has some tools and functions for troubleshooting issues.

15.1 Logging

You can log the activities of the license server. The log file can then be used to debug and diagnose errors.

1. On the Ribbon, in the Local server group, click Settings.

2. In the License server settings dialog, click the Troubleshooting tab.

3. For Error tracing, select the Enable detailed trace logging check box, and then make changes to the file path of the log file as necessary, and then click OK.
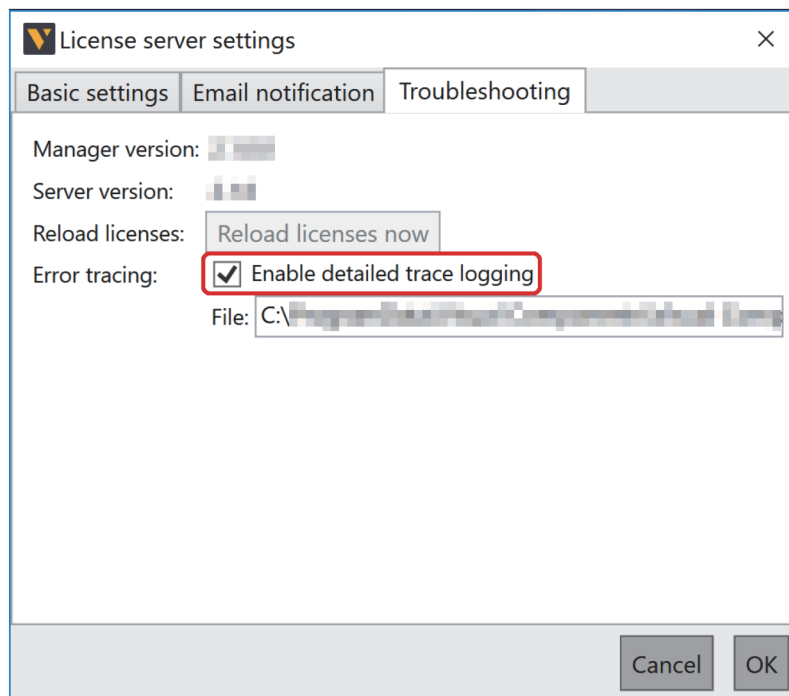
15.2　Reloading

You can reload the most recent set of license codes obtained from the global Visual Components license server as well as those added by you. Reloading does not contact the global server.

1. On the Ribbon, in the Local server group, click Settings.

2. In the License server settings dialog, click the Troubleshooting tab.

3. Click Reload licenses now.

15.3　Troubleshooting by Phenomenon

The following shows the troubleshooting by phenomenon.

Client cannot connect to the license server

1. Verify that the client has the correct address of the license server.

2. Ensure that there is no firewall or web proxy blocking the connection between the client and the license server.

Client cannot use a license

Free up licenses by editing the permissions of a client or returning a borrowed license to the server.

If the number of licenses is insufficient, request more network licenses (seats) from your license provider.

1. In the license server, go to the Clients tab, and then verify that the client has permissions to use a license with the product in question.

2. In the Products tab, verify that the Network Available column shows an available license for the client and product.

State of a product key cannot be changed

Syncs the license server with the global Visual Components license server and restarts the server.

If the issue persists, the data of your product key might be corrupted. Make an inquiry to the contact point stated in the maintenance contract. One outcome may involve an administrator fixing or reissuing a key. Another outcome is that you might be sent a repair kit and instructions for fixing the issue.

Client cannot check out a license

Free up licenses by editing the permissions of a client or returning a borrowed license to the server.

If the number of licenses is insufficient, request more network licenses (seats) from your license provider.

1. On the license server, go to the Products tab, and then verify that the Commuter Available column shows an available license for the client and product.

2. Check that no error has occurred in the connection between the client and your server. If an error is found, restart the license server and ask the client to restart the product.

3. Syncs the license server with the global Visual Components license server.

4. If the issue persists, contact the contact related to the maintenance contract and check the status of the product key.

Client cannot check in a license

You may need to synchronize your license server or check the state of the product key.

In other cases, a client manually removes the license from the computer, and then requests a different license from the server.

1. Verify that the client is trying to check in a license listed on your server.

2. Verify that the license has not expired.

15

MEMO

MITSUBISHI ELECTRIC CORPORATION

When exported from Japan, this manual does not require application to the
Ministry of Economy, Trade and Industry for service transaction permission.

Specifications subject to change without notice.