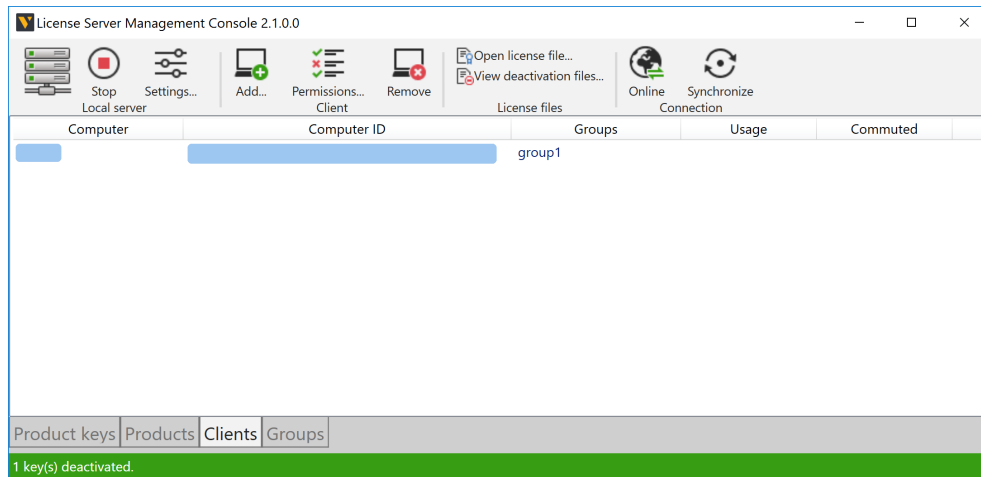


# License Server 2.1.0 User Guide

Version: February 23, 2022



The Visual Components License Server can be used to manage licenses on a network for users of all Visual Components products and compatible OEM products.

**Support**  
support@visualcomponents.com

**Forum**  
forum.visualcomponents.com

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# Installation & Setup

The installation of the license server is a straightforward process that can perform upgrade installation.

## Requirements

Before you install the license server, verify that you have local administrator rights to install the license server on a computer. Your computer must be using one of the following operating systems:

- Windows 8.1 Pro 64-bit
- Windows 10 Pro 64-bit
- Windows Server 2012 64-bit
- Windows Server 2012 R2 64-bit
- Windows Server 2016
- Windows Server 2019

## Installation Notes

- In order to run the license server on your computer, during installation some dependency files and runtime libraries may be installed. If your computer has no Internet connection, the provided folder "Dependencies" must be included in the same folder with the license server installer.
- 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 an activated product key is transferred from license server v1 to v2, the key is first deactivated and then reactivated on your computer.
- During installation, if the license server is unable to connect to the global Visual Components license server, the installer will prompt you to manually upgrade product keys by generating an **upgrade request file**. Next, you would need to use your product user account to upload the request file and manually generate a **license file**. Finally, after completing installation, you can run the license server, and then use the Open license file command to upload the license file for upgrading transferred product keys.
- After a product key has been activated on a computer using a newer version of the license server, that computer can no longer use an older version.

## Security

Online product key activation and deactivation synchronization uses HTTPS encrypted communication to contact a global Visual Components license server.

For Visual Components 2014 or older product keys:

- <https://portal.visualcomponents.net>

For Visual Components 4.0 or higher product keys:

- <https://license.visualcomponents.net>

In some cases, your license server might communicate with both global servers directly or they communicate with one another to accommodate the request from your local server.

**IMPORTANT!** If online functionality is to be used, corporate firewalls and web proxies should not block nor prevent the connection your license server has to the global Visual Components license server(s).

## Portal Accounts

In some cases, you might need to sign in to your portal account to handle licensing issues. For example, you might need to manually deactivate or activate product keys and upgrade licenses to work on a new license server.

For Visual Components 2014 or older product versions, go to:

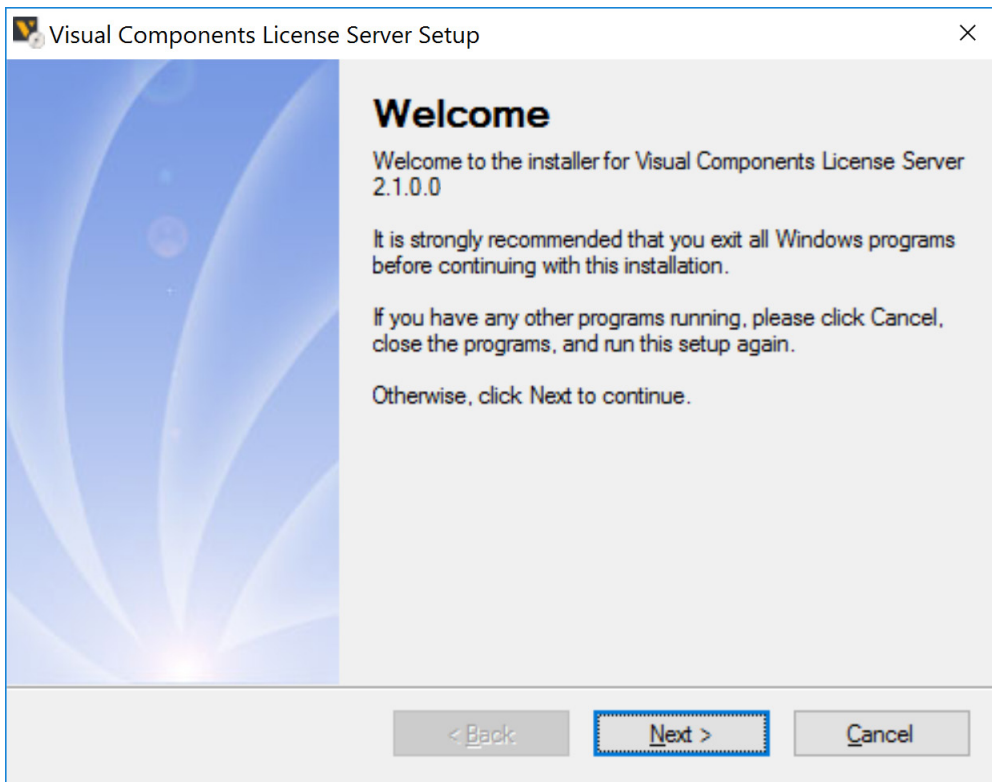
- <https://portal.visualcomponents.net>

For Visual Components 4.0 or higher product versions, go to:

- <https://license.visualcomponents.net>

# Instructions

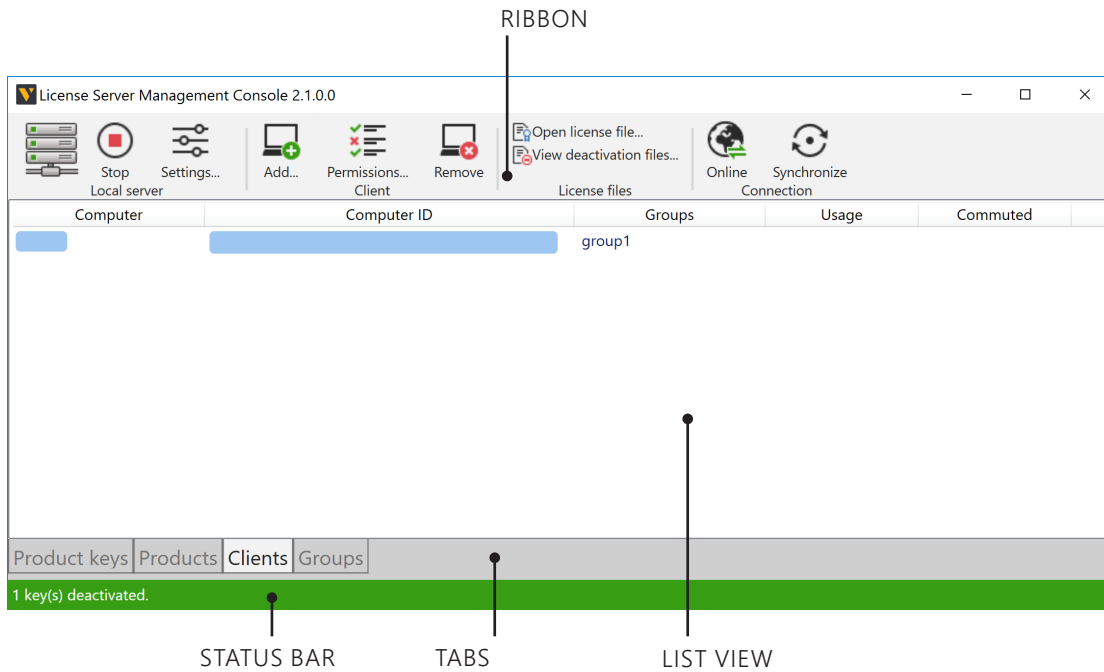
1. Download the installer for the license server. A download link is available on the Visual Components website or you may be provided with one.



2. Run the installer, and then follow the steps offered by the Wizard to complete installation.
3. After completing installation, run the Visual Components License Server Manager.

# User Interface

The workspace of the license server contains different views for managing licenses.



**List View.** View of a license server database.

**Ribbon.** Commonly used commands.

**Status Bar.** Indicates the status of a license server.

**Tabs.** Different contexts and views of a license server.

# Product keys

The Product keys tab displays a view for handling keys.

## Columns

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

## Commands

- **Activate.** Activates a selected key.
- **Add.** Allows you to add a product key to server.
- **Deactivate.** Deactivates a selected key.
- **Online/Offline.** Indicates if the license server is connected to the global Visual Components license server.
- **Open license file.** Allows you to open a .dat file containing license information.
- **Remove.** Removes a selected key from the server. You should not remove a key that has a status of *Activated*. First, deactivate the key, and then remove it.
- **Renew.** Renews a selected key, for example another 360 days.
- **Settings.** Displays the license server settings.
- **Start/Stop.** Turns on/off the license server.
- **Synchronize.** Syncs the license server with the global Visual Components license server and refreshes its database.
- **View deactivation files.** Shows the Deactivations folder in File Explorer.

# Products

The Products tab displays a view of product information, which includes the amount of available licenses and usage by clients.

## Columns

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

## Commands

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



# Clients

The Clients tab displays a view about client computers of the license server.

## Columns

- **Commuted.** If client borrows a license, it indicates the product of that license.
- **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 client is using a license, indicates the product of that license.

## Commands

- **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.
- **Online/Offline.** Indicates if a license server is connected to the global Visual Components license server.
- **Open license file.** Allows you to open a .dat file containing license information.
- **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.
- **Settings.** Displays the license server settings.
- **Start/Stop.** Turns on/off the license server.
- **Synchronize.** Syncs the license server with the global Visual Components license server and refreshes its database.
- **View deactivation files.** Shows the Deactivations folder in File Explorer.

# Groups

The Groups tab displays a view about client groups of the license server.

## Columns

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

## Commands

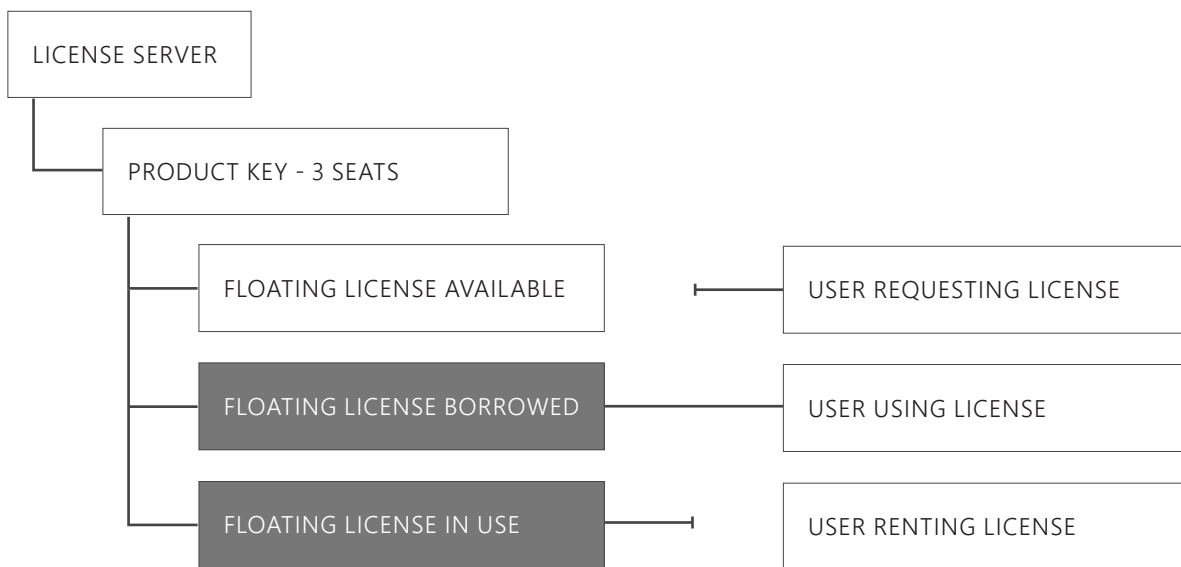
- **Add.** Allows you to add a new client group to server, set the clients into this group and define the products that can be accessed by the clients in this group.
- **Edit.** Allows you to edit the selected client group.
- **Online/Offline.** Indicates if a license server is connected to the global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

# Product Keys

The license server supports product and add-on keys. A **product key** allows you to use a Visual Components product. An **add-on key** allows you to use a plugin or additional services in a Visual Components product.

In some cases, Visual Components or an OEM may license an add-on. In other cases, the concept of licensing add-ons is resolved by upgrading a product key, thereby removing the need for having an add-on key. In all cases, it depends on what product keys are managed by your server and the products used by its clients.

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



## Sharing

Sharing a license occurs when a user connects to a license server, and then uses an available license with a Visual Components product. Once a user stops using a Visual Components product, the license is reclaimed and becomes available for other users connected to the same license server.

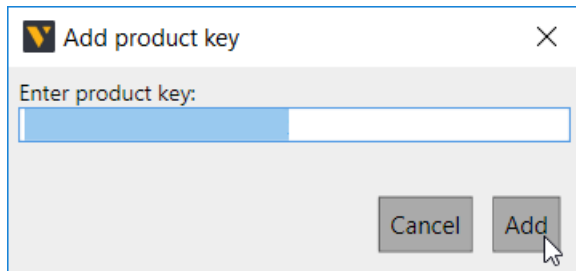
## Borrowing

Borrowing a license occurs when a user connects to a license server, and then checks out an available license from the server for a certain number of days to use offline with a Visual Components product, and then disconnects from the server. The borrowed license remains unavailable on the server until the user reconnects to the server, and then returns or checks in the license. Borrowing a license is also known as commuting. If a client needs to know how to borrow a license from the server, refer to *Licensing - Borrowing* in the product's Help File.

# Add a Product Key

The license server allows you to add product keys containing floating licenses. The number of licenses in a product key affects how many clients 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, **Enter product key** box, type or paste the 16 digit product key you want to add to the server, and then click **Add**.

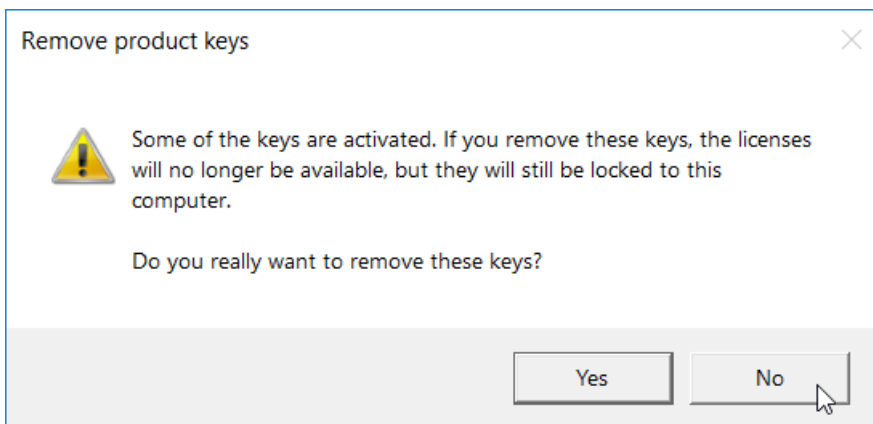


3. Verify the product key you added is listed in the license server.

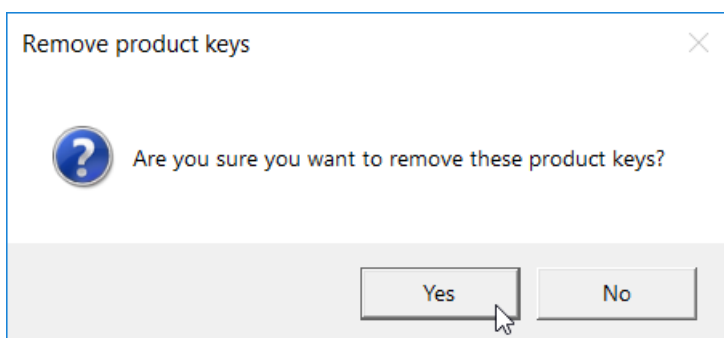
# Remove a Product Key

The license server allows you to remove any added product keys. In most cases, we recommend that you deactivate a product key before removing it from a license server. That allows a key to be added and used with a license server on another computer.

1. Click the **Product keys** tab, and then select the listed product key you want to remove from the server.
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 of this workflow.



4. In the **Remove product keys** dialog, click **Yes**.



5. Verify the product key is not listed on the license server.

# Activate a Product Key

The license server allows you to activate an added product key.

## Automatic Activation

Automatic product key activation requires a license server be connected to the global Visual Components license server(s).

1. Click the **Product keys** tab, and then select the listed product key you want to activate on the server.
2. On the **Product keys** tab, in the **Connection** group, verify the license server is online, and then in the **Product key** group, click **Activate**.

**NOTE!** If a selected product key is not activated, verify the product key has not expired and the website for your portal account is not down or undergoing maintenance.

## Manual Activation

Manual product key activation requires you to generate an activation request file in a license server, and then upload and activate that file using the portal website.

1. Click the **Product keys** tab, and then select the listed product key you want to activate on the server.
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. Open a web browser, and then go to the website associated with your product key and portal account. For more information, review the "Portal Accounts" section of this guide.
4. Log in to your portal account, and then on the Welcome page or Ribbon of the website, click **Manual Licensing**.
5. On the **Manual Licensing** page, upload the activation request file.
6. Click **Confirm** to generate an activated license file.
7. Click **Download file ...** to save the license file.
8. 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.

# Deactivate a Product Key

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

## Automatic Deactivation

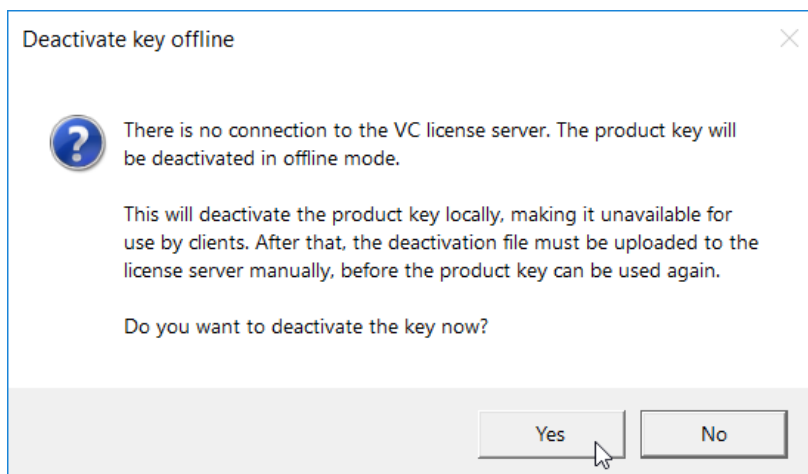
Automatic product key deactivation requires a license server to be connected to the global Visual Components license server(s).

1. Click the **Product keys** tab, and then select the listed product key you want to deactivate on the server.
2. On the **Product keys** tab, in the **Connection** group, verify the license server is online, and then in the **Product key** group, click **Deactivate**.

**NOTE!** If a selected product key is not deactivated, verify the product key has not expired and the website for your portal account is not down or undergoing maintenance.

## Manual Deactivation

1. Click the **Product keys** tab, and then select the listed product key you want to deactivate on the server.
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. Open a web browser, and then go to the website associated with your product key and portal account. For more information, review the "Portal Accounts" section of this guide.
4. Log in to your portal account, and then on the Welcome page or Ribbon of the website, click **Manual Licensing**.
5. On the **Manual Licensing** page, upload the deactivation request file.
6. Click **Confirm** to generate a deactivation permission file.
7. 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.
8. 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.



9. Open a web browser, and then go to the website associated with your product key and portal account. For more information, review the "Portal Accounts" section of this guide.
10. Log in to your portal account, and then on the Welcome page or Ribbon of the website, click **Manual Licensing**.
11. On the **Manual Licensing** page, upload the license file.
12. Click **Confirm** to unlock the license from the computer hosting the local license server.



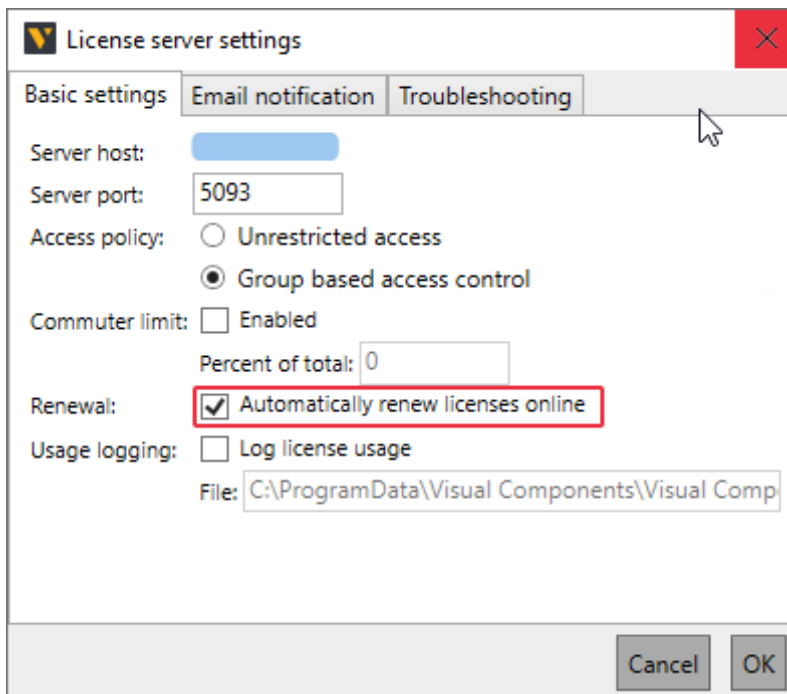
# Renew a Product Key

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

## Automatic Renewal

The license server can try to renew a product key automatically if the renewal date of the key is coming due within the renewal period of your server.

1. On the **Ribbon**, in the **Local server** group, click **Settings**.
2. In the **License server settings** dialog, **Basic settings** tab, **Renewal** field, select the **Automatically renew licenses online** check box, and then click **OK**.



## Adjust Renewal Period

The default renewal period for a license server is 14 days. You can configure the server to use a renewal period that is less than, but not greater than 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.

**NOTE!** 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 then for its child element **<licenseServerSetting>** add an **autoRenewLicensePeriod** attribute that is assigned the number of days before a license expires in which the server should try to renew that license.

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

4. Save changes made to the file, and then restart your license server.

## 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 listed product key you want to renew on the server.
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.

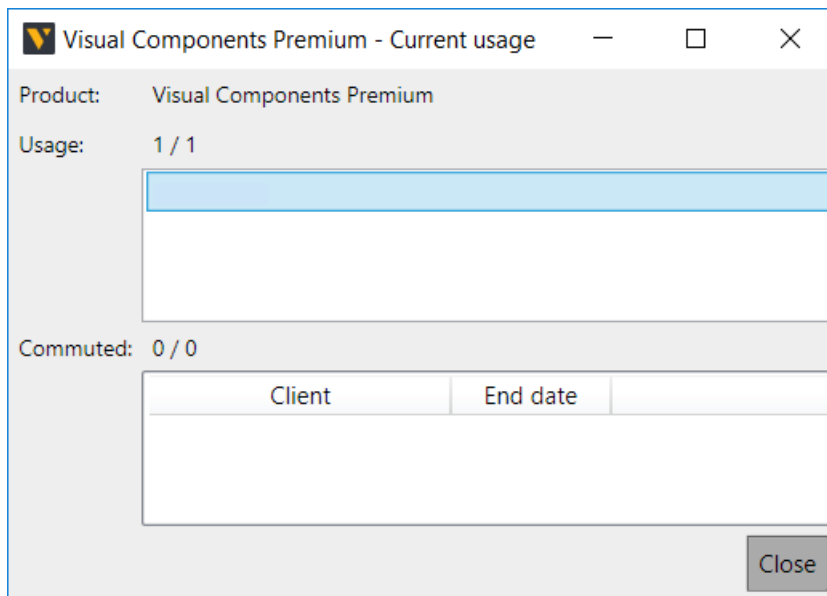
**NOTE!** Renewing a product key too early before its renewal date may not have any effect on the key.

# Verify Product Key Usage

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

**NOTE!** Keys for older products will not provide detailed information about usage and check-out history.

1. Click the **Products** tab, and then select the listed product you want to review on the server.
2. On the **Products** tab, in the **Product** group, click **Usage info**.



# Add a Client Computer

The license server allows you to add client computers that request licenses from the server to use with products.

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 checked, all the client's permissions are overridden to block the access for the client.

**Add client computer**

Computer name: Example

Computer ID (new):

Computer ID (old):

Last connected:

Permissions:  Grant licenses to client

Groups:  Sales  
 R&D

Usage:

Product	Used	Commuted	End date
---------	------	----------	----------

Permission changes can take up to 15 minutes to take effect.  
Permission limits do not apply to commuted licenses.

Cancel OK

# Edit Client Permissions

The license server allows you to view 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 listed client that you want to review on the server.
2. On the **Clients** tab, in the **Client** group, click **Permissions**.
3. In the **Permissions** dialog, edit the **Computer name**.
4. Set the **Permissions** and **Groups** fields. If **Grant licenses to client** is not checked, all the client's permissions are overridden to block the access for the client.
5. Click **OK**.
6. Verify the permissions of the selected client are updated in the server.

VMWIN10PRO64 - Permissions

Computer name: [Redacted]

Computer ID (new): ULYNA-XFX1W-DFHPF-L52TQ-XXF5K-7XG35

Computer ID (old): 6AFGJ-FLLS9-VTA6U-8582E-AHND0-TNN83

Last connected: 2021-05-27 12.11.52

Permissions:  Grant licenses to client

Groups:  Sales  
 R&D

Usage:

Product	Used	Commuted	End date
---------	------	----------	----------

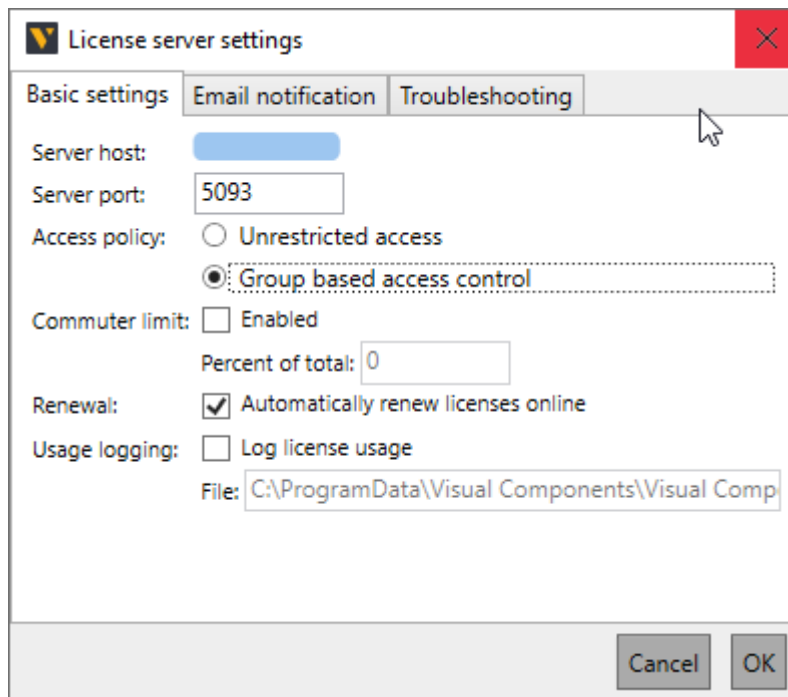
Permission changes can take up to 15 minutes to take effect.  
Permission limits do not apply to commuted licenses.

Cancel OK

# Client Groups

## Groups based access control

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



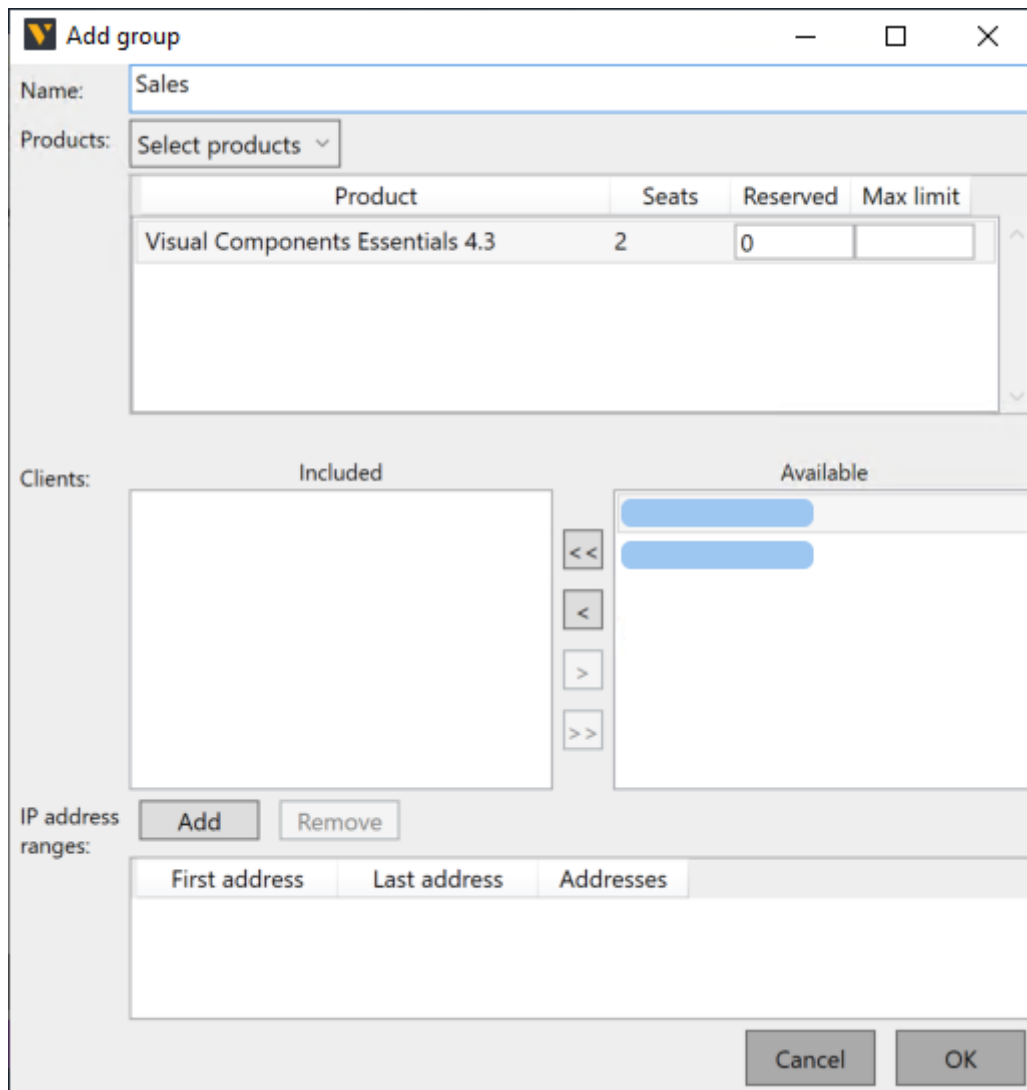
If **Access policy** is defined as **Unrestricted access**, all clients in the network could have access to the licenses on the network license server, regardless of the settings defined by the grouping.

## 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 amount of seats for each product.

1. On the **Groups** tab, in the **Group** group, click **Add**.
2. In the **Add group** dialog, set the **Name** for the client group.
3. Select product(s) from the **Select products** drop-down list.
4. Define number of **Reserved** seats and **Max limit** of seats for each product.

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



## Dialog Properties

- **Name:** The name of the 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.

## Edit group

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

## Remove group

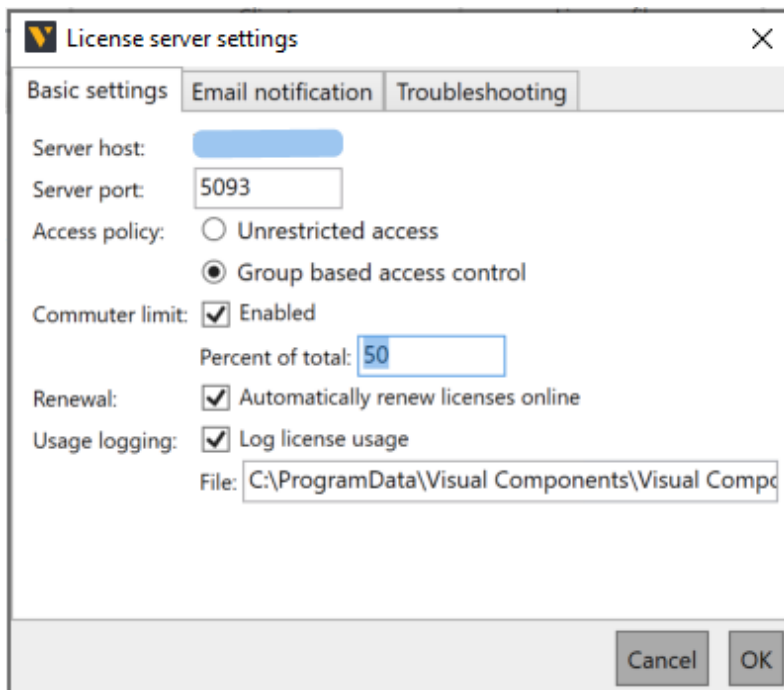
1. On the **Groups** tab, select a group.
2. Then in the **Group** group, click **Remove**.



# Edit Borrowing Limit

The license sever allows you to limit the total amount of licenses that can be borrowed by clients based on a percentage. That is, you can limit the amount 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 checked out from the server.

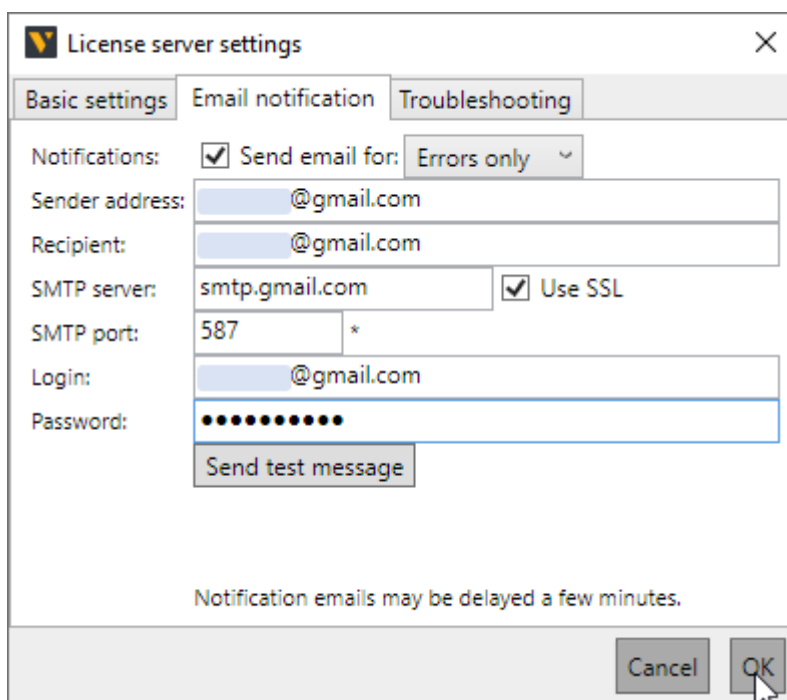
1. On the **Ribbon**, in the **Local server** group, click **Settings**.
2. In the **License server settings** dialog, **Basic settings** tab, **Commuter limit** field, select the **Enabled** check box, and then set **Percent of total** to be the percentage of total amount of licenses on the server that you want to make available for borrowing, and then click **OK**.



# Receive Email Notifications

The license server allows you to receive emails about events, for example 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 choose 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**.



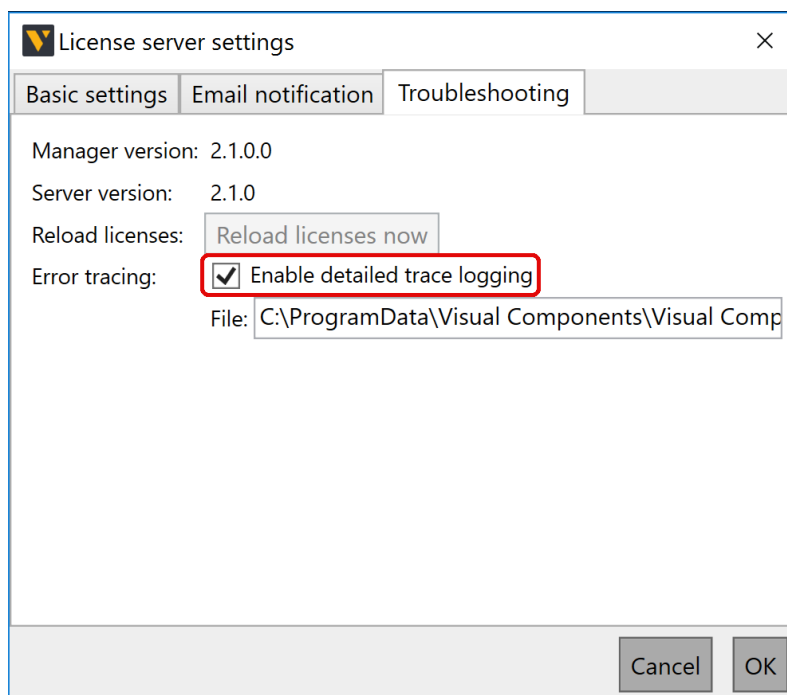
# Troubleshooting

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

## Tracing

You can enable tracing to log the activity 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 any needed changes to the file path of the log file, and then click **OK**.



## Reloading

You can reload the server to use 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, but it might help to reload license data.

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**.

## Common Cases

The following are recommended methods to handle potential issues with the license server.

### Client cannot connect to the license server

1. Verify the client has the correct address of the license server.
2. Ensure there is no firewall or web proxy blocking the connection between the client and the license server.

### Client cannot use a license

In some cases, you may need to free up licenses by editing the permissions of a client or requesting that a borrowed license be returned to the server. In other cases, you would need to request more floating licenses (seats) from your license provider.

1. In the license server, go to the Clients tab, and then verify the client has permissions to use a license with the product in question.
2. In the Products tab, verify the Network Available column shows an available license for the client and product.

### State of product key cannot be changed

A common fix for this issue is to synchronize your license server with the global Visual Components license server(s), and then restart your server. If the issue persists, the data of your product key might be corrupted. In those cases, submit a support ticket. 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

In some cases, you may need to free up licenses by editing the permissions of a client or requesting a borrowed license be returned to the server. In other cases, you would need to request more floating licenses (seats) from your license provider.

1. On the license server, go to the Products tab, and then verify the Commuter Available column shows an available license for the client and product.
2. Check if an error has occurred in the connection between the client and your server. If found, consider restarting the license server and advise the client to restart the product.
3. Synchronize your license server with the global Visual Components license server(s).
4. If the issue persists, go to the website for the portal account associated with the license to verify the state of its product key.

### Client cannot check in a license

In some cases, you may need to synchronize your license server or check the state of the product key. In other cases, a client would need to manually remove the license from their computer, and then request a different license from your server.

1. Verify the client is trying to check in a license listed on your server.
2. Verify the license has not expired or past its due date.