インストールとライセンス情報について (VR)

アドミニストレータハンドブック

3D VIEWSTATION

KISTERS

KISTERS

Table of Contents

Chapter I:

VR Hardware

1   VR Hardware

Connect your VR headset as described in the manufacturer's manual and ensure its functionality.

Hints:

- **Inside-Out-Tracking**: Ensure adequate lighting of the room when using a camera-based tracking system.
- **Lighthouse-Tracking**: The individual tracking stations need visual contact to each other for synchronization. If this is not possible, synchronize them as described in the manufacturer's manual.

Chapter II:

SteamVR

2   SteamVR

- Install the Steam client (SteamSetup.exe)
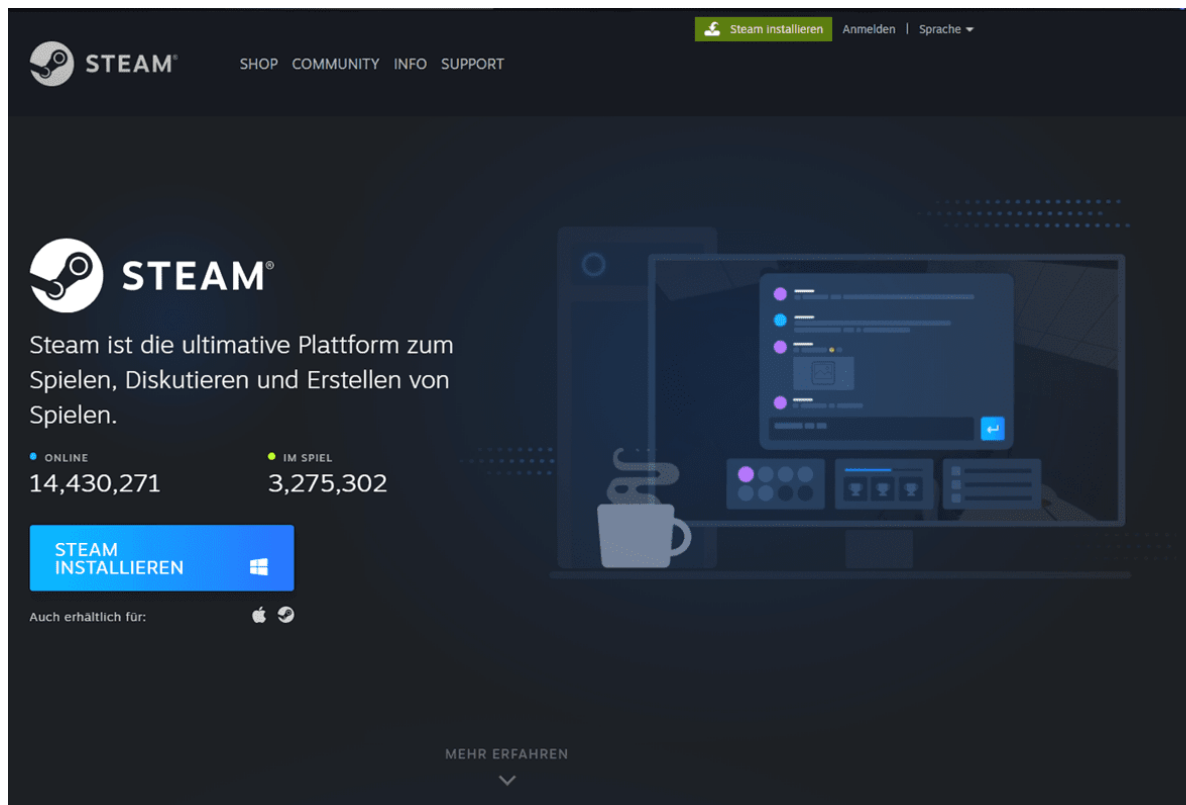
- Start the Steam Store Client, register and log in.
- Install **SteamVR** from the Steam Store.
- Only when using Windows Mixed Reality hardware, additionally install **Windows Mixed Reality for SteamVR**.

Chapter III:

インストール

3 インストール

You need a license to start the VR edition. If you have not received one, please contact our sales department ⌐38¬.

You can download the KISTERS 3DViewStation Setup via the download link included with the license delivery or request it via the registration form on our website. Extract the downloaded zip archive and start the installation.

Follow the instructions and select the option **3DVIEWSTATION DESKTOP INSTALLATION PACKAGE**.

If you have any questions about licensing, please read the following chapter.
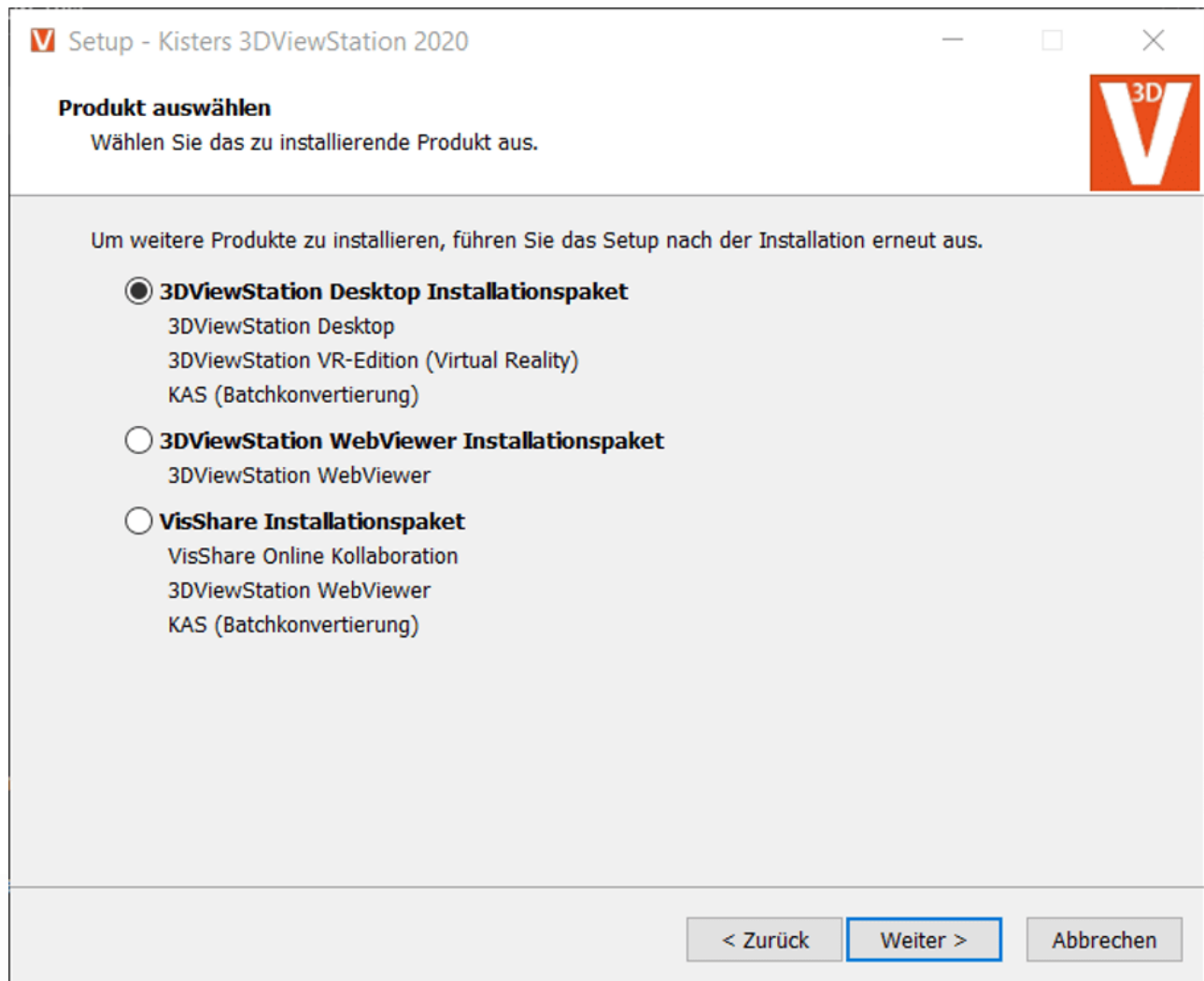
Chapter IV:

ライセンス

4   ライセンス

4.1   ライセンス付与およびデモライセンス

3DViewStation Desktop is available as a full 30-day trial. For the 3DViewStation VR-Edition you need a (demo) license, please contact our sales department 38 .

If you have already purchased a license for the VR-Edition, you are also entitled to use 3DViewStation Desktop to optimize your CAD models for the VR-Edition.

4.2   Node Locked Licensing (Activation)

Node-locked licenses are tied to the hardware of a specific PC.

Compared to file-based licensing, license activation has the advantage that the user or system administrator can independently deactivate the license and thus unbind a specific computer in order to use that license on another PC.

Note: The license must be deactivated before changing PCs or changing an activated system. Otherwise this activation will expire and will no longer be available to you.

This chapter contains these topics:

- Activation During Installation 11
- Activation of an Installed KISTERS 3DViewStation 13
- Activation with VS Activator 15
- Deactivation 17
- Overview of Activated Computers 17
- Troubleshooting 17

4.2.1   Activation During Installation

Activation

If no valid license is found on your system, you will be prompted to select a license type at the end of the installation process.

- Select **ACTIVATE LICENSE** and enter your activation key.
- Click [**ACTIVATE**].
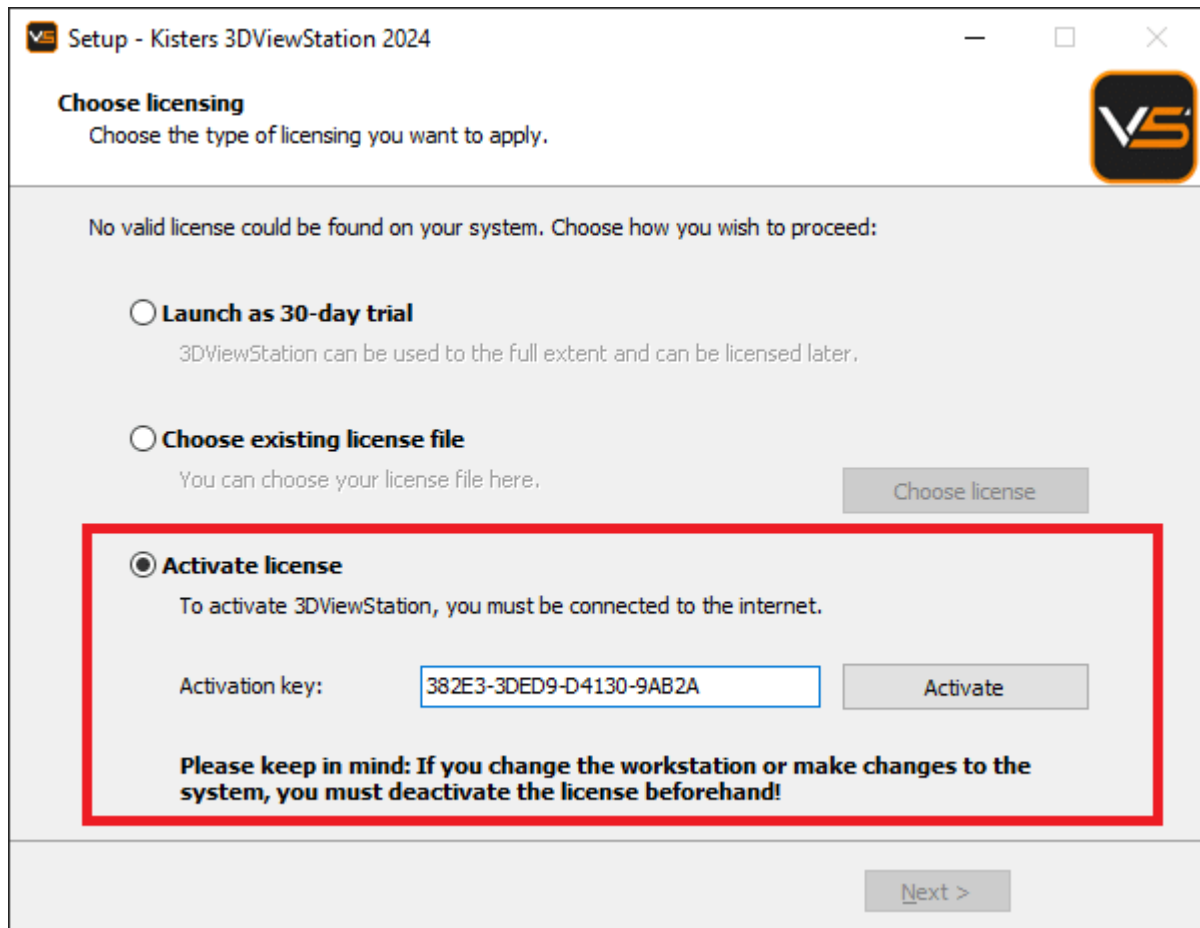
In case of an update, the license will also be updated automatically, as long as it is running under maintenance and our activation center is reachable.

If the activation is not successful, the VS Activator [15] opens with additional information. Please refer to the Troubleshooting [17] chapter for help.

Note: The license is now bound to this system! If you want to make changes to this system, such as installing new hardware or changing the host name, you must deactivate the license first. Otherwise, this activation will expire and will no longer be available to you.

Deactivation

The license can be disabled during the uninstall process. You can find the uninstaller in the installation directory.
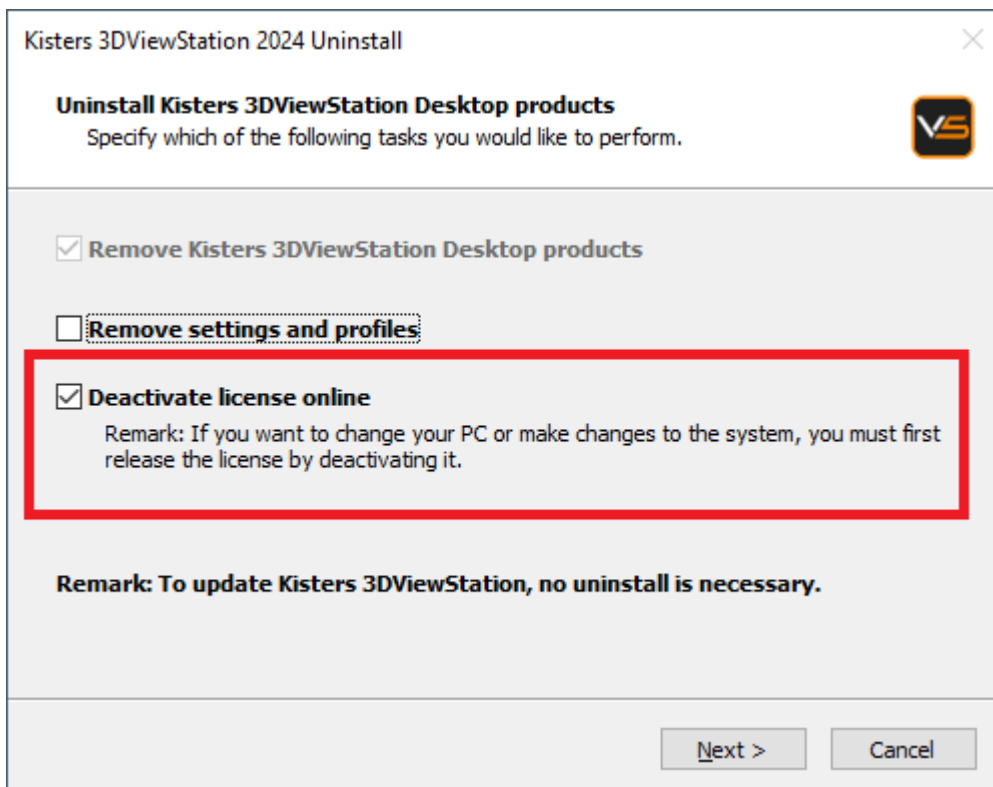
4.2.2   Activation of an Installed KISTERS 3DViewStation

An already installed 3DViewStation can be activated via the **LICENSING PANE** (visible in the lower left corner by default). If this pane is hidden, you can activate it via the tab **VIEW** > **SHOW PANES** > **LICENSING**.

Activation

- In the tree view of the **LICENSING PANE**, expand the **LICENSE ACTIVATION** branch.
- Enter your Activation key.
- Click [**ACTIVATE KEY**].
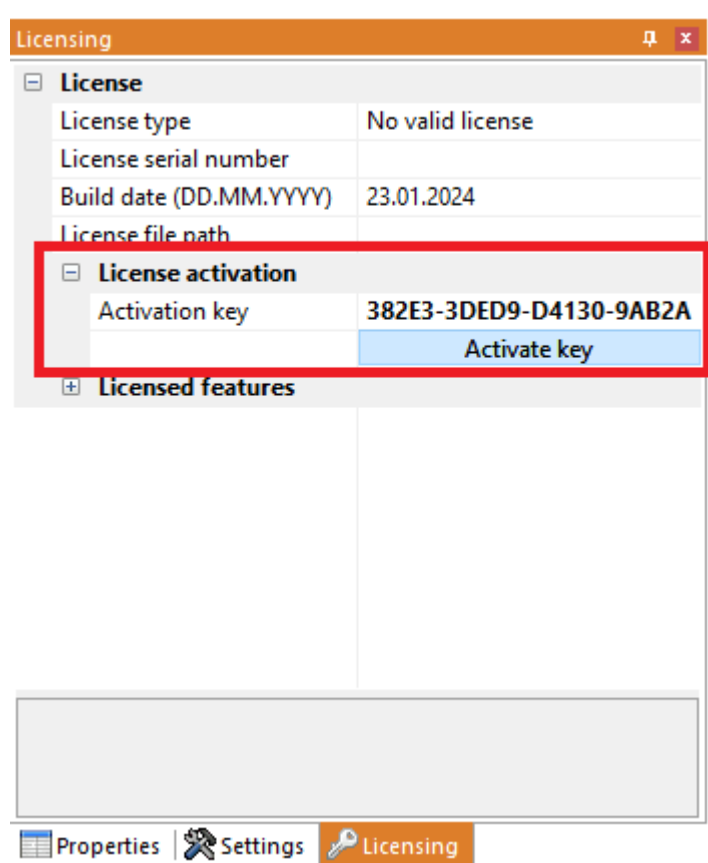
On success, you will be prompted to restart 3DViewStation, click Yes. If any errors occur, see Troubleshooting 17.

Update license

To update your license file, navigate to the **LICENSING** pane and click **DOWNLOAD LICENSE**.

Deactivation

To deactivate your license key, go to the pane **LICENSING** > **LICENSE ACTIVATION** and click [**DEACTIVATE KEY**]. If errors occur, see Troubleshooting 17.
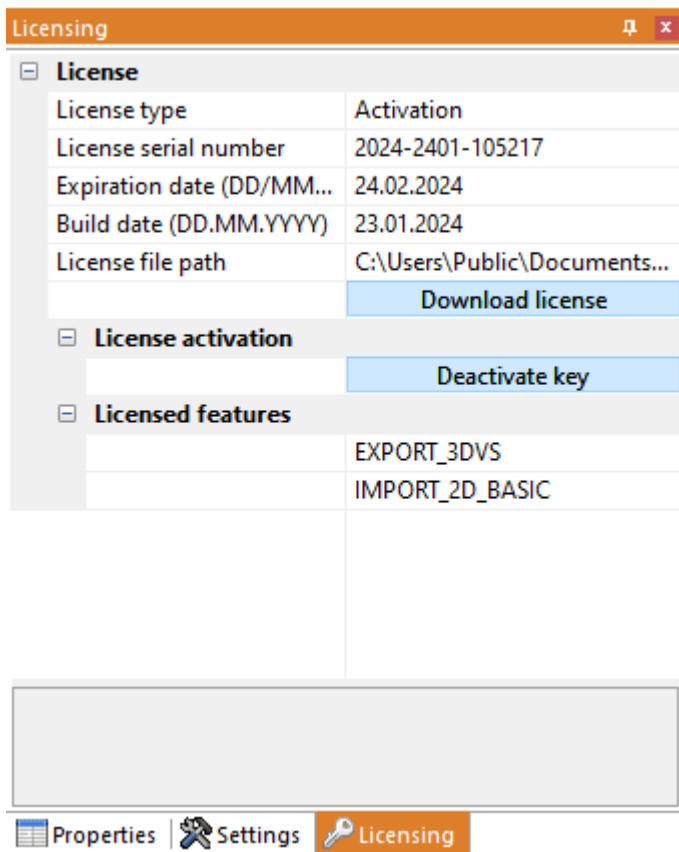
4.2.3   Activation with VS Activator

The VS Activator is installed with each 3DViewStation product. It is located in the Tools subdirectory of the 3DViewStation software installation folder.

Activation

- Open VS Activator by double-clicking `VSActivator.exe`.
- Enter your activation key in the input field. Optionally, enter a comment to identify your activation after the fact; you cannot edit it afterwards.
  In the log message window, you can see if the activation was successful. If errors occur, see Troubleshooting 17.
  In case of success, the license file is automatically downloaded and can be found by clicking **OPEN LICENSE FOLDER**.
- Close the VS Activator.
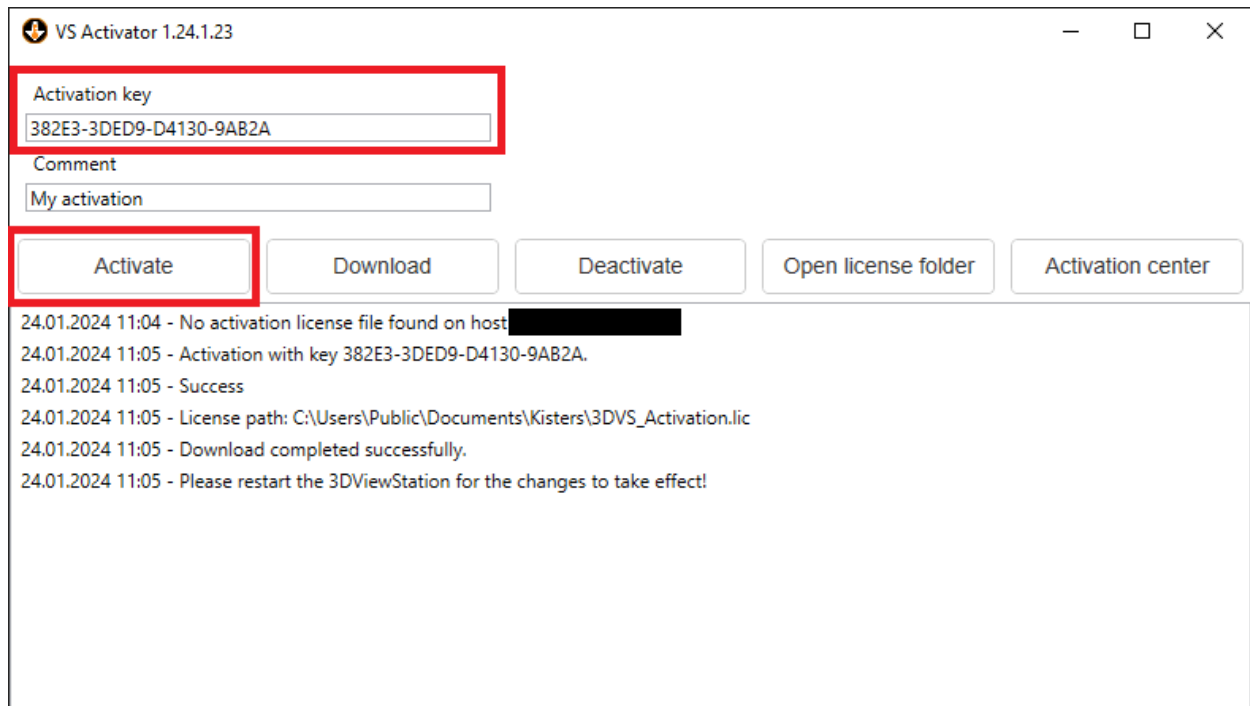
Download

Use the **DOWNLOAD** button to receive your updated license file.

Deactivation

- Open VS Activator by double-clicking `VSActivator.exe`.
- Your activated license is automatically loaded into VS Activator.
- Click the [**DEACTIVATE**] button.
- Close the VS Activator.

Note: WebViewer, VisShare and KAS cannot be deactivated. Please contact us⌐38⌐ if you need to move the installation to a new host system.

KISTERS
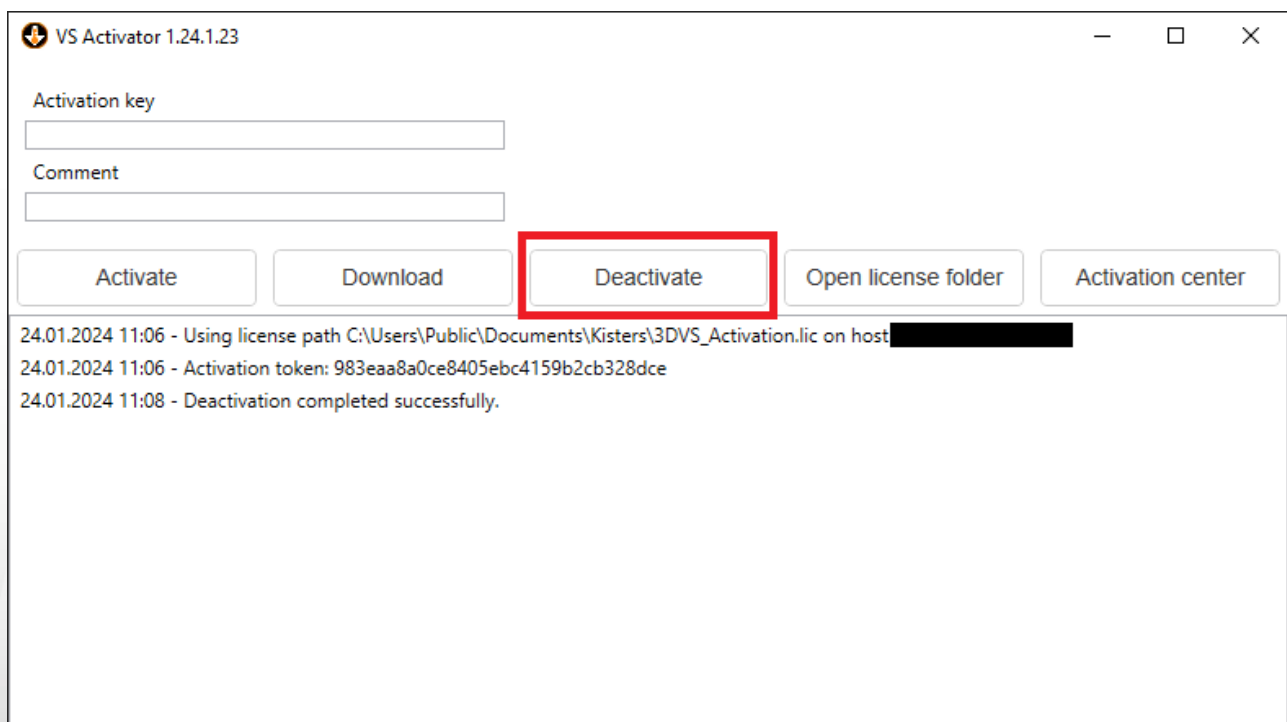
Activation Center

Clicking on the [**ACTIVATION CENTER**] button will open a browser window with an overview page of your activated machines [17]. An activation key must be entered to see the corresponding machines.

4.2.4   Deactivation

Note: For each activation, you get two deactivations per maintenance period.

There are several ways to deactivate a 3DViewStation:

- Deactivation with Uninstall [12]
- Deactivation using VS Activator [16]
- Deactivation from within 3DViewStation Desktop [14]

4.2.5   Overview of Activated Computers

You can find out which computers are activated in your organization by going to the following URL: https://license.viewstation.de/Activate

Enter your activation key in the **KEY** input field on the page. The list view of **ACTIVATED MACHINES** updates automatically when a key is entered.

You can filter the list of machines or download it as a CSV file.

4.2.6   Troubleshooting

"My license is not working or does not have all the features I purchased. What should I do?"

Try to download your license again and restart 3DViewStation. If this does not help, please contact us [38].
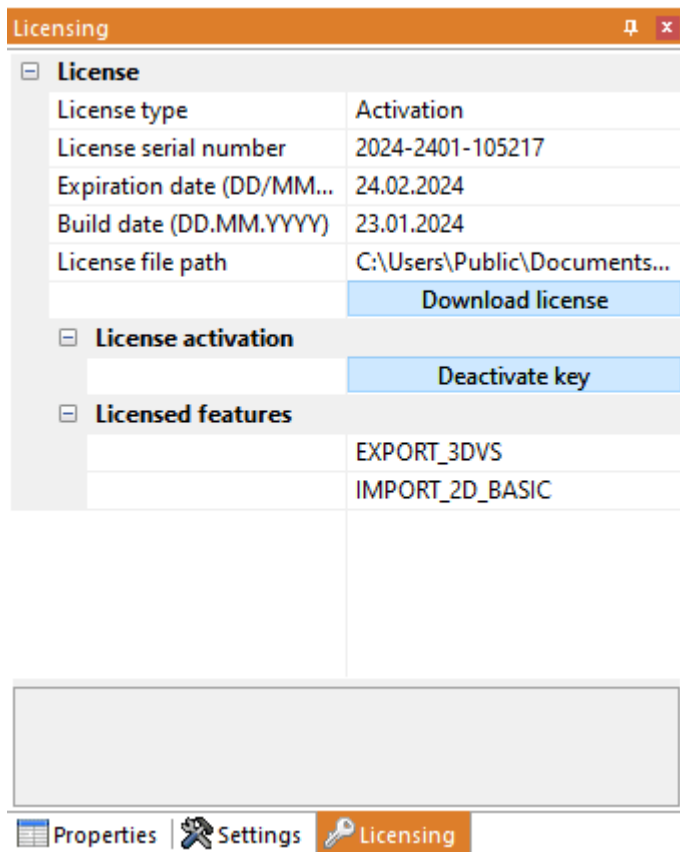
Possible error messages you may receive:

"There are no more activations available"

Your license activations have been used up. Either deactivate another machine first or contact us[38] to order more activations.

"There are no more deactivations available"

Your license deactivations have been used up. Wait until your next maintenance renewal or contact us[38] to order additional deactivations.

"Failed to connect to license.viewstation.de for activation"

This error message will open a browser window where you can perform your activation and download your license.

If you don't see the Activation Center in your browser window, please check your Internet connection.

"The download of the activation license failed"
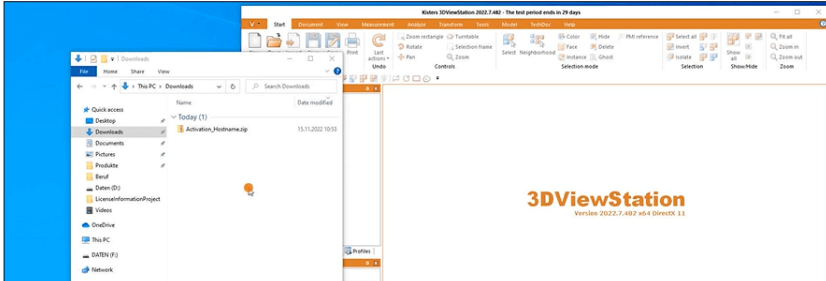
The automatic download was probably blocked by your proxy settings. You can download the license file in the appearing browser window instead.

"Failed to connect to license.viewstation.de for deactivation"

Please check if you have an Internet connection. If you are still having trouble properly deactivating the license, please contact our customer support [38].

"The license (de-)activation failed"

The license (de)activation failed for an unexpected reason. Please check the log messages for more information and contact our customer support [38]. If you are using 3DViewStation Desktop, you can generate helpful support information via **HELP** > **SUPPORT** > **SYSTEM INFORMATION**.

4.3   Network Licensing (Floating)

Floating licenses are tied only to the hardware of the server running the license manager. Each client connects to the license manager to request licenses. It will be denied if there are no more licenses available.

The advantage of this licensing method is that the license is not tied to a user's hardware. Thus, multiple users can share a license as long as they close 3DViewStation after using it.

4.3.1   VS License Manager

The VS License Manager (VSLM) is our in-house solution for floating licensing. It replaces the previously used X-Formation LM-X license server.

You can download the 3DViewStation and the VS License Manager from our homepage (https://viewer.kisters.de/downloads.html).

The installation instructions are divided into these chapters:

- License Server Installation 20
- Server Configuration 20
- Privilege Rule Configuration 23
- License Monitor 27
- Troubleshooting 28

4.3.1.1   License Server Installation

To install the VS License Manager, follow these steps:

- Download the VS License Manager ZIP archive.
- Move the contents of the ZIP archive to a directory of your choice, for example, `C:\Kisters\VSLM`.
- Copy the `VSLM.lic` license file you received by e-mail to the directory of your choice next to `VSLM.exe`.
- To run the VS License Manager, double-click `VSLM.exe` with administrator privileges. This opens a console with a log of all VS License Manager events. Closing the console stops VS License Manager.
- If you see error messages that mention ports, open the required local ports in the Windows Firewall. The default values are 6200 and 6280. The protocol is TCP. If you are using a third-party firewall, you can ignore these messages. Check the ports accordingly.
- Configure the VS License Manager as needed, see Server Configuration 20. For example, set an admin password for the License Monitor.
- Remove the underscore from `_ServerConfig.json` to activate the configuration file.
- Restart the VS License Manager for the new configuration to take effect.

Run as Windows Service

- To install and run the VS License Manager as a Windows service, run `windows_service_install.bat` with administrator privileges. This will configure the service to start automatically after a system restart.
- After updating `VSLM.lic` or `ServerConfig.json`, run `windows_service_restart.bat` with administrator privileges to apply the changes to the VS License Manager service.
- To remove the Windows service, run `windows_service_uninstall.bat` with administrative privileges.

4.3.1.2   Server Configuration

The behavior of the VS License Manager can be configured using a json file. In addition to general server settings, usage privileges and access permissions to features can also be regulated. To change the configuration, simply edit the `ServerConfig.json` file using a text editor as described below. Restart the VS License Manager for the changes to take effect.

Note: If special characters are used in file paths or usernames, the encoding of the JSON file must be UTF-8.

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▸ **General Settings**

Ports

The communication between the VS License Manager and the 3DViewStation clients uses the TCP network protocol. The `TCP_PORT` setting defines the port used:

```
"TCP_PORT": 6200,
```

The License Monitor 27, the web interface of the VS License Manager, can be accessed via a web browser: `<License Server Address>:<HTTP_PORT>`. The `HTTP_PORT` setting determines the HTTP port used:

```
"HTTP_PORT": 6280,
```

Note:
- The specified local ports must be opened in the server's firewall for the VS License Manager to function properly. The required protocol is TCP for both ports.
- If you are using ports other than the default, please let us know so we can keep your license up to date. To do so, send an email to orders-viewer@kisters.de with your server name, the TCP port you are using, and the serial number of your license.

Passwords

To access the Admin view of the License Monitor (including logs, configuration overview, and checkout history), a password must be configured:

```
"ADMIN_PASSWORD": "SuperUser123",
```

Note: The password is sent in base64 encoding only, so please choose a unique password that will be used only for the VS License Manager.

Optionally, it is possible to configure a main password. With this setting enabled, even the basic License Monitor will prompt for a password before displaying any information:

```
"MAIN_PASSWORD": "",
```

Logging

The location of the VS License Manager log files can be changed using the `LOG_PATH` parameter. The path can be absolute or relative with a leading "`./`":

```
"LOG_PATH": "./Logs",
```

The log format can be specified with the eponymous parameter:

```
"LOG_FORMAT": "NORMAL",
```

The alternative log format to `NORMAL` is `RESTRICTED`, which suppresses writing usernames, host names and IP addresses to the log file and displaying them in the License Monitor. For support cases, it is possible to convert recent log files from normal to restricted format using a button in the License Monitor.

It is possible to configure the number of days before old log files are removed:

```
"LOG_ARCHIVE_COUNT": 90,
```

The default is 90 files, which is equivalent to 90 days or 3 months. If you never want log files to be removed, set the value to zero.

▸ **Advanced Settings**

High Availability Licensing (HAL)

To ensure fail-safe licensing (e.g. server failure or updates), it is possible to set up redundant servers that can all serve the same licenses and features. The server addresses are defined like the License Server Address 21 in the client license:

```
"HAL_SERVERS": "port@server1;port@server2;...",
```

The order of the servers defines the priority of availability, so the first server should be the main server with the highest availability. If one server goes down, the next one in the list will take over as long as the other one is unavailable. Only the Borrow functionality will be unavailable during the downtime of the main server. Two or more servers can be configured.

Note:
- The list must be the same for all server configurations and client licenses. Otherwise, undefined behavior occurs.
- Please inform us about changes in your HAL configuration to keep your license up to date. To do this, send an email to orders-viewer@kisters.de with your server names, selected ports, the serial number of your license.

Internet Protocol Version

The VS License Manager supports both versions of the Internet Protocol (IPv4 or IPv6). Which one is preferred can be defined here:

```
"IP_VERSION": "IPv4",
```

History Settings

The history data (maximum usage and denials) is updated frequently, but only every eight hours by default to reduce server load. This can be changed in the preferences:

```
"HISTORY_UPDATE_HOURS": 8,
```

Similar to the log file archive cleanup, it is possible to automatically remove old history data. This includes only real-time data, which occupies most of the history data space. This setting is disabled by default:

```
"HISTORY_ARCHIVE_COUNT": 0,
```

Heartbeats and Timeout

To ensure continued use of checked-out features, the VS License Manager uses heartbeats.

- Use `HEARTBEAT_SECONDS` to configure how often heartbeats are sent from clients. The default is 2 minutes and 20 seconds.
- `TIMEOUT_SECONDS` allows you to configure when a client should timeout after the last heartbeat has been successfully received. The default is 5 minutes.
- Use `HEARTBEAT_CONTROL_SECONDS` to configure how often the server checks for client heartbeats. The default is 3 seconds. If you have a large number of clients, this value can be increased slightly to reduce server load.

In the configuration file, these values will look like the following:

```
"HEARTBEAT_SECONDS": 140,
"TIMEOUT_SECONDS": 300,
"HEARTBEAT_CONTROL_SECONDS": 3,
```

4.3.1.3   Privilege Rule Configuration

The VS License Manager's usage privileges can be configured by editing and saving the `ServerConfig.json` file. This includes allowing, denying, restricting, and reserving checkout and borrowing of features for specific users. Restart the VS License Manager for the changes to take effect.

When to use which privilege rule?

- If you want most of your users to be able to use all features and only a few to be restricted, use Deny Rules [25].
- If you want to allow a few privileged users to use certain features and restrict most of your users, use Allow Rules [24].
- If you want to control the number of features available to different user groups, use Limit Rules [26] and Reserve Rules [27].

How to specify users?

In each rule, users can be specified as usernames, host names, or IP addresses (IPv4 or IPv6) and must be separated by a semicolon:

```
"USERS": "UserOne;UserTwo;UserThree;..."
```

If the list becomes large, or if the same list is used in multiple privilege rules, it is useful to define `GROUPS` at the end of the configuration file. The format for `MEMBERS` is the same as for `USERS`. Curly braces {…} define a group within the group list […], separated by commas.

```
"GROUPS": [
    {
        "NAME": "Group 1",
        "MEMBERS": "UserOne;UserTwo;UserThree;...;UserN"
    },
    {
        "NAME": "Group 2",
        "MEMBERS": "Host01;Host02;Host03;...;HostX"
    }
]
```

You can now specify users as follows:

```
"USERS": "Group 1;Group 2"
```

Note:

- When restricting many host names or IP addresses, you can use wildcards like `"4.3.2.*"` or `"PC*"` or IP ranges such as `"4.3.2.10-50"`. Usage examples can be found below.
- On Windows, you can use your local groups. If you have a local group `"My Users"` that contains a list of domain users or a domain user group, you can use it like a user or group name in the configuration file by simply prefixing it with `'&'`: `"USERS" : "&My Users"`. Usage examples can be found below.

Important syntax rules:

- The server configuration file uses standard JSON syntax.
- Square brackets `[...]` define the list of privilege rules for a privilege setting, separated by commas.
- Curly braces `{...}` define a single privilege rule, separated by commas.
- Multiple key-value pairs within a privilege rule must also be separated by commas.
- All users, features, and serial numbers must be separated by a semicolon.
- You can use the following examples as templates.

Allow Rules

The `ALLOW_CHECKOUTS` and `ALLOW_BORROWS` allow rules restrict the use of features to all but the specified users. So if you have privileged users, use these settings. They consist of three keywords:

- `USERS`: required, list of usernames or host names, IP addresses or group names
- `FEATURES`: optional, list of the features to be restricted
- `SERIALNUMBERS`: optional, the affected licenses / serial numbers (only needed if using multiple licenses on one VS License Manager)

Note: The optional `FEATURES` and `SERIALNUMBERS` keywords can be removed, left blank, or set to '*' if not used.

Examples

A rule that allows functionality features only for selected users would look like this:

```
"ALLOW_CHECKOUTS": [
    {
        "FEATURES":
"FUNCTIONALITY_ADVANCED_ANALYSIS;FUNCTIONALITY_TECHDOC",
        "USERS": "Some user; Some other user; Another user"
    }
],
```

Allowing borrowing of `EXPORT_ALL` only for the `MEMBERS` defined in a `GROUP` with the `NAME` "`Borrow Users`" would look like this:

```
"ALLOW_BORROWS": [
    {
        "FEATURES": "EXPORT_ALL",
        "USERS": "Borrow Users"
    }
],

...

"GROUPS" : [
    {
        "NAME": "Borrow Users",
        "MEMBERS": "Some user; Some other user; Another user"
    }
]
```

The same rule, but restricting the borrowing of all features for all users except the members of the defined group:

```
"ALLOW_BORROWS": [
    {
        "USERS": "Borrow Users"
    }
],
```

Multiple allow rules are separated by a commas:

```
"ALLOW_CHECKOUTS": [
    {
```

```
        "FEATURES":
"FUNCTIONALITY_ADVANCED_ANALYSIS;FUNCTIONALITY_TECHDOC",
        "USERS": "Functionality Users"
    },
    {
        "FEATURES": "KAS",
        "USERS": "KAS Users"
    }
],
```

Allowing a feature only for a specific windows user group using the prefix & would look like this:

```
"ALLOW_CHECKOUTS": [
    {
        "FEATURES": "EXPORT_ALL",
        "USERS": "&WindowsGroup"
    }
],
```

Allowing a feature for a specific hostname pattern would look like the following. This would allow all PC's with names like PC001 and PC456 or WS12CAD and WS34CAD.

```
"ALLOW_CHECKOUTS": [
    {
        "FEATURES": "EXPORT_ALL",
        "USERS": "PC*;WS*CAD"
    }
],
```

Allowing one of the multiple licenses only for a specific IP domain would look like this:

```
"ALLOW_CHECKOUTS": [
    {
        "SERIALNUMBERS": "2024-0101-123456",
        "USERS": "4.3.2.*"
    }
],
```

Allowing a license only for a specific IP range would look like this:

```
"ALLOW_CHECKOUTS": [
    {
        "USERS": "4.3.2.10-50"
    }
],
```

Deny Rules

The DENY_CHECKOUTS and DENY_BORROWS deny rules restrict the use of features to the specified users, so most users will still be able to use them. The syntax and keywords are the same as for allow rules.

Examples

A rule that denies features to selected users would look like this:

```
"DENY_CHECKOUTS": [
    {
        "FEATURES":
"FUNCTIONALITY_ADVANCED_ANALYSIS;FUNCTIONALITY_TECHDOC",
        "USERS": "Some user; Some other user; Another user"
    }
],
```

A rule that denies the borrowing of `EXPORT_ALL` for the `MEMBERS` defined in a `GROUP` with the `NAME` "`Borrowing denied`" would look like this:

```
"DENY_BORROWS": [
    {
        "FEATURES": "EXPORT_ALL",
        "USERS": "Borrow denied"
    }
],

...

"GROUPS" : [
    {
        "NAME": "Borrow denied",
        "MEMBERS": "Some user; Some other user; Another user"
    }
]
```

Note:

- At the same time, checkout rules also restrict borrowing actions, but borrowing rules do not affect checkout actions.
- Deny rules override all allow rules. If a user is listed in both an allow rule and a deny rule for the same license and feature, the deny rule is applied and the allow rule is ignored.

Limit Rules

The `LIMIT_CHECKOUT` and `LIMIT_BORROW` limit rules are useful for controlling the number of features that should be available to different user groups. They are also used to limit the borrowing duration of features. Their syntax is based on the allow and deny rules, with additional keywords:

- `COUNT`: The number of features that should be available to the specified `USERS`.
- `EXCEPT_USERS`: It is possible to add exceptions to a limit rule. So if you have privileged users within a larger group that you want to restrict, add them here.

Only for `LIMIT_BORROW`:

- `HOURS`: The maximum number of hours the specified features can be borrowed.

Examples

Restrict the use of a feature within a group of users:

```
"LIMIT_CHECKOUTS": [
    {
        "FEATURES": "IMPORT_ALL",
```

```
        "USERS": "User 1;User 2; User 3;...;User 30",
        "COUNT": 15
    }
],
```

Restrict the borrowing period of any feature to one week for all users, except for a privileged user who is allowed to borrow for three months. This is accomplished by first increasing the default value to three months, and then restricting all users except the privileged user:

```
"LIMIT_BORROWS": [
    {
        "HOURS": 2160
    },
    {
        "EXCEPT_USERS": "Privileged User",
        "HOURS": 168
    }
],
```

Reserve Rules

The reserve rule `RESERVE_CHECKOUTS`, unlike the limit rules [26], can be used to ensure that a certain number of features are always available to certain users. The syntax is the same as for allow rules [24], with the addition of the `COUNT` keyword.

Examples

Reserve a feature for three privileged hosts:

```
"RESERVE_CHECKOUTS": [
    {
        "FEATURES": "IMPORT_2D_ADVANCED",
        "USERS": "HostX;HostY;HostZ",
        "COUNT": 3
    }
],
```

4.3.1.4   License Monitor

The License Monitor, the web interface of the VS License Manager, can be accessed via a web browser: `<License Server Address>:<HTTP_PORT>`. It displays license information, feature availability and usage, and connected clients. The License Monitor is automatically refreshed every 60 seconds to keep it up to date.

With the configured Admin password [21] it is possible to access an extended version of the License Monitor with the latest log messages, the configuration settings and a section to visualize the checkout history in charts. These tabs do not reload automatically.

If required, access to the basic License Monitor can be completely restricted by setting a main password [21].

Checkout History

The VS License Manager stores data locally about how many features are used over time and by which users. In addition to a real-time view of feature usage for the current day, there are preconfigured charts for hourly usage for

the last 24 hours, daily usage for the last 30 days, monthly usage for the last 12 months, and daily denied users for the last 30 days. It is also possible to create custom charts for individual time periods.

Usage data is stored in the installation directory under `/data/History/`. The data is stored in CSV format and can be easily used for further analysis. The columns are `time` (seconds since 01.01.1970), `count`, `feature`, `username` and `errorcode`.

4.3.1.5　Troubleshooting

"No allow rule found in windows firewall for tcp <port>, license checkout might not be accessible"

- Check that you have allowed the configured ports in your firewall 21.
- If you are using a third-party firewall (or no firewall at all), you can ignore this message. We can only check this successfully, if the Windows firewall is active.

4.3.2　X-Formation LM-X (discontinued)

Please consider updating your LM-X License Manager to the VS License Manager as LM-X will no longer be supported.

The installation instructions are divided into these chapters:

4.3.2.1　License Server Installation and Licensing

To install the license server, proceed as follows:

- Download the ZIP archive **LICENSE SERVER 64 BIT** from the Downloads chapter (More Downloads section) and unzip it.
- Execute the included setup and follow the installation instructions (e.g. `lmx-enduser-tools_v4.9.1_win64_x64.msi`).
- Select the enclosed `liblmxvendor.dll` and install the license server as a service. **Do not** start the license server after installation, as the license must be added first.
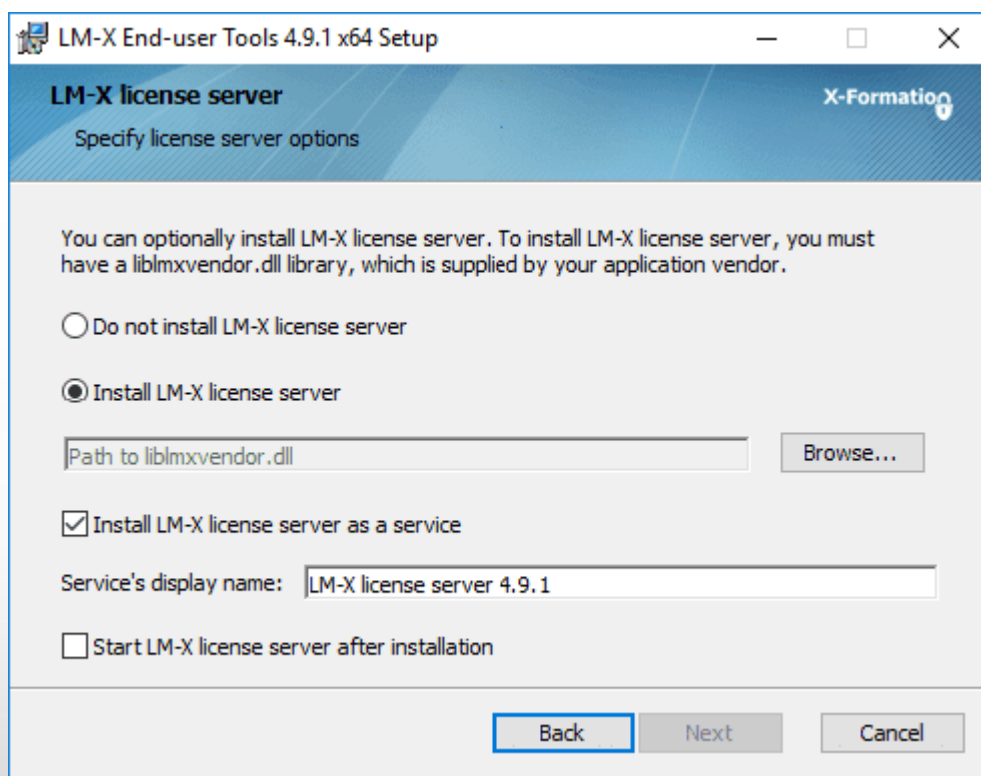
- After completing the installation, place the `Network.lic` file in the LM-X program directory before starting the LM-X license server service. For example `C:\Program Files\X-Formation\LM-X End-user Tools`. **Do not put old licenses or the client license (3DVS.lic) in this directory!**
- If the above steps have been completed successfully, start the license server service.
- The license server service can be uninstalled from the Windows system control.
- Note: The license server can be maintained remotely. The access password can be changed in the server configuration file `lmx-serv.cfg`. This can be found in the installation directory. Search for `REMOTE_ACCESS_PASSWORD`.

Note on updating the license server software and license

If licenses have been borrowed via the calendar function of the 3DViewStation client, a parallel update in exceptional cases may result in the license not being actively returned by the user before the expiry of the loan period. **The license is available again on the server after the expiry of the loan period.**

- The license can be replaced without stopping the service. Afterwards the service has to be restarted.
- A new license software can be installed parallel in a new directory according to the above instructions. Stop the old license service and then start the new service. We recommend that you uninstall the old service.

4.3.2.2   Client License Server Communication

The communication between 3DViewStation client and license server takes place via port 6200. You can change this by changing the port on the server side in the `lmx-serv.cfg` and on the client side in the license file `3DVS.lic`. If you suspect communication problems, please refer to the chapter Troubleshooting / FAQ.

Changing the port on the server:

- The server configuration file `lmx-serv.cfg` can be found in the installation directory, e.g. `C:\Programs\X-Formation\LM-X End-user`.
- Search for the line `TCP_LISTEN_PORT = 6200` and change the port 6200 to a available port of your choice.
- Save the configuration file and restart the server service for the changes to take effect.

Changing the port and the server names on the client:

Please check the red marked line in `3DVS.lic`. With this entry the 3DViewStation can find your license server.

Extract from 3DVS.lic:

`...`

`~LicenseServerAddress=6200@server_name`

`...`

- The entry must begin with a tilde "~".
- If necessary, change the port according to your server configuration file `lmx-serv.cfg`.
- Enter your server name or the IP address of the server after the "@".
- Avoid changes in other lines of the license file.
- Please inform us of any changes so that we can take them into account for the next license delivery.

4.3.2.3   License Monitoring

Our license monitoring application is described here. You can still use LMX's application, but it is no longer actively supported by us. Some features of LMX's application are no longer active (e.g. retrieving licenses).

Licenses that are in use are returned to the license server as soon as 3DViewStation is closed.

If a license is no longer available, you can use the Network License Monitor to find out which workstations currently occupy a license.

The Network License Monitor is part of the standard installation. You can also download the application later in the Downloads section (Optional Downloads).

- Click the **LICENSE MONITOR** button to start the Network in the licensing pane under License server.

Alternatively, you can run the Network License Monitor from the installation folder: `..\Tools\NetworkLicenseMonitor\NetworkLicenseMonitor.exe`

- When starting the Network License Monitor for the first time, enter the server path (Port@Servername) and confirm it with [**UPDATE**]. This information can be found directly under the License Monitoring button.
  Now the **FEATURES** tab lists all the features of your license, how many of them are in use, and how many of them have been borrowed.
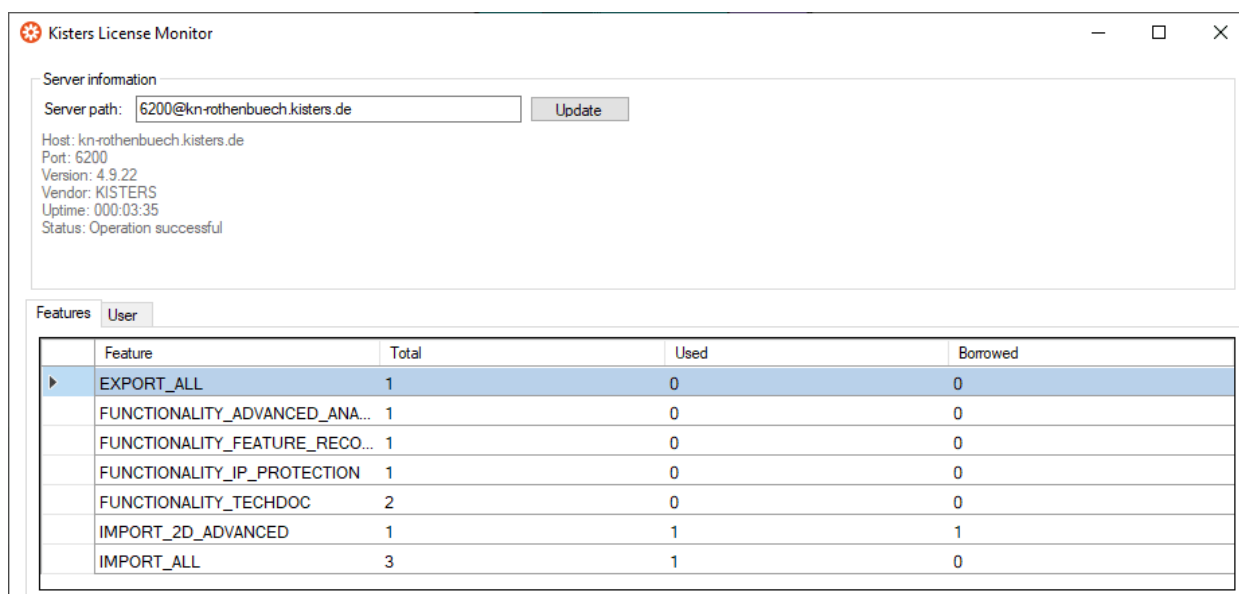
The **USER** tab contains a list of information such as the corresponding computer name (**HOST**), IP address (**IP**) and status (**LICENSE STATE**). The status (**LICENSE STATE**) indicates whether a license is currently in temporary use (checked out) or has been borrowed for a certain period of time (borrowed). The **BORROW EXPIRATION** column contains the date from which this license feature will be available again.
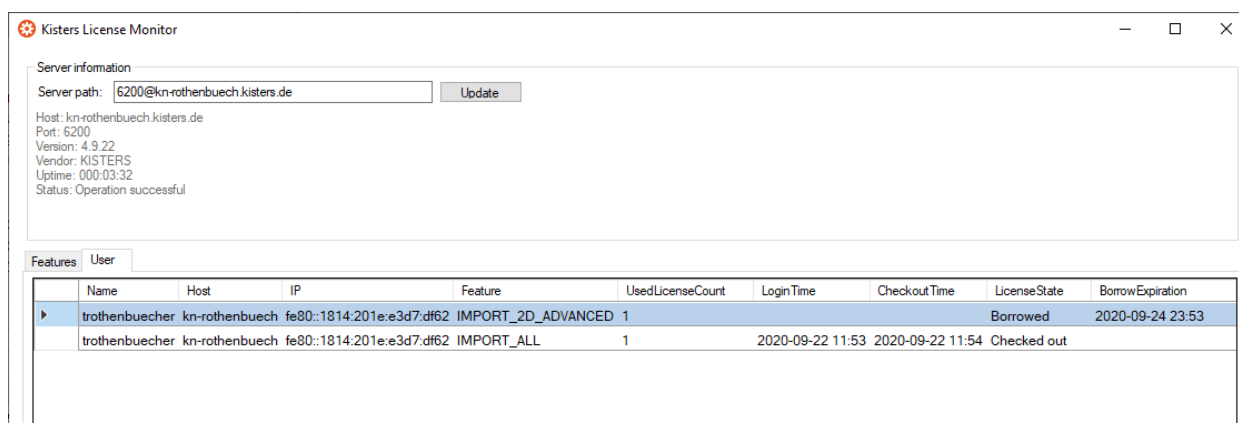
4.3.2.4　Troubleshooting

If problems occur, the log files on the server and client provide information about the cause of the problem:

- The server log file `lmx-serv.log` can be found directly in the installation directory.
- You can open the client log file directly from the 3DViewStation. To do this, click **USER** in the **HELP** tab in the **FOLDER** area. The directory `%userprofile%\Documents\Kisters\ViewStation` is opened. In this folder you will find the subfolder **LOGS** with the files of the logged-in user.

Problem 1: Unable to connect to license server

It is not possible to open models because communication with the license server is not possible.

Causes and solution:

1) The license server service was not started

Please start the license server service.

2) Communication blocked

Please make sure that the license server is reachable. Communication uses port 6200. If the firewall of the server blocks this port, you will find the entries in the server log:

- WARNING: Windows firewall blocks TCP port 6200.
- WARNING: Communication to license server might not work properly.
- WARNING: Windows firewall blocks UDP port 6200.
- WARNING: Automatic server discovery might not work properly.

To use a different port, please enter it in the `lmx-serv.cfg` file for the server and in the `3DVS.lic` file of the clients (See also chapter License server installation and licensing).

Note: If further LMX license server installations are available for non-KISTER products, they must communicate on a different port.

3) Invalid server license

The entry **WARNING: NO LICENSES TO SERVE** in the server log, means there is a licensing problem. The following error messages provide detailed information:

A. **No further error message:**
    No server license `Network.lic` has been stored.
B. **WARNING: .\3DVS.lic: License file is using unknown/invalid syntax**
    The client license `3DVS.lic` has been stored, please replace it with the server license `Network.lic` or delete `3DVS.lic` if you have stored both licenses in the folder.
C. **WARNING: .\ Network.lic: License file is using unknown/invalid syntax**
    The license has been damaged or modified. Please unpack them again from the ZIP archive we sent you.
D. **WARNING: Feature [Lizenz-Feature-Name] is ignored: (Err: 10) HostID does not match license**
    This is not the licensed server and the license is therefore invalid. Please use the correct server or contact our orders department (see ch. Contact) to request a license server change.
E. **WARNING: Feature [Lizenz-Feature-Name] is ignored: (Err: 8) Invalid license key**
    Possibly an incompatible liblmxvendor.dll from an older installation was used during the installation. Please replace the liblmxvendor.dll in the installation directory with the one from the downloaded archive `Kisters_LM-X_License_Server_x64.zip.` The license server service must then be restarted.

4) The client tries to reach the wrong license server.

In case of a license server change, the licenses(`3DVS.lic`) must be updated on the clients, since the license server and port are stored in these. Some clients may not have been updated. Please check server address and port in the license for the affected clients. You may also change this information on your own without invalidating the license. We recommend that you inform us of the changes so that you will receive the correct licenses directly in the future.

5) Changes to the server, configuration or license

Changes have been made to the server. For example, a new server license or configuration has been deposited, but the server service has not been restarted. Please restart the service for the changes to take effect.

6) Wrong license server service started

If there are several installations, Windows may have started an older service after restarting the system. Please quit this service and start the latest version. We recommend that you uninstall the older installations using the Windows Control Panel.

Problem 2: No features to borrow.

This message appears on the client when the license server service has been successfully installed and started, but does not have a valid license. The server is reachable and responds to the client's license request, but cannot provide the client with any license features "No features to borrow".

Please store the latest 3DVS_Server.lic in the installation directory of the license server and restart the service.

Problem 3: Importer cannot be initialized (importer name)! Missing Microsoft Redistributables.

When starting the 3DViewStation Desktop, one or more corresponding error messages appear. As a result, some formats can no longer be opened. Our importers require certain Microsoft Redistributables. You can download these individually from Microsoft or from us as a package (see chapter Download).

Note: During installation, Setup automatically checks and updates the Microsoft redistributables, unless this has been actively prevented by the corresponding parameter during software distribution.

Problem 4: Runtime error: SWbemObjectSet: Invalid class

During the installation process of the 3DViewStation, a corresponding error message appears, which means that the setup cannot be performed correctly. The reason for this is an error in the Windows Management Instrumentation (WMI). To eliminate this error, it is necessary to

- re-register the Performance Libraries,
- check the WMI database for consistency
- and reset the WMI repository.

Note: When carrying out the following steps, technical problems cannot be ruled out, so you should make a data backup of the PC before starting the procedure.

Steps towards a solution:

Start the Windows command prompt (`cmd.exe`) and carry out the following steps:

- Disable autostart of the WMI:

```
sc config winmgmt start= disabled
```

- Stop the WMI service:

```
net stop winmgmt
```

- Re-register the Performance Libraries:

```
winmgmt /resyncperf
```

- Check the WMI repository for consistency:

```
winmgmt /salvagerepository
```

- Reset the WMI Repostory:

```
winmgmt /resetrepository
```

- Restore the autostart setting of the WMI service:

```
sc config winmgmt start= auto
```

- Finally, run the 3DViewStation setup again.

4.3.3 Migration from LM-X to VSLM

The ViewStation Licence Manager (VSLM) is our new alternative to the LM-X Licence Manager. In the medium term, this will become the only licence manager.

The benefits of VSLM

- After the initial roll-out, client licenses don't need to be updated, e.g. when maintenance is renewed.
- Our own free license monitoring 27

- Local Windows groups are now supported to configure user rights.

To-do for migration

- Requires 3DViewStation version 2023.7.197 or later.
- Install the new VS Licence Manager with a new license file on your server.
- Roll out the new client license files.
- Uninstall the LM-X License Manager.
- If you are using Groups and User Permissions 23 you will need to convert the configuration to our new format. If you need help, please contact our customer support.

Chapter V:

トラブルシューティング

5　　トラブルシューティング

If problems occur, the log file provides information on the cause of the problem. You can open the directory of the log files directly from the 3DViewStation. To do this, click **USER** in the **HELP** tab in the **FOLDER** area. The directory `C:\Users\<username>\Documents\Kisters\ViewStation` is opened. In this folder you will find the subfolder **LOGS** with the log files of the logged-in user.

Log file of the VR-Edition:

`3DVSVR_DATE_TIME.log`

Log file of the desktop version:

`3DViewStation_DATE_TIME.log`

Problem 1: General causes

In general, the firmware of the VR hardware, Windows, graphics card and main board drivers, the SteamVR interfaces (SteamVR/WMR) should be up to date.

Problem 2: VR-Edition does not start

a) Log: Unable to load license 3DVS-VR.lic
    Solution: No valid license was found. Make sure that the correct license for this workstation is stored in the correct directory. Please read the chapter Licensing and Demo Licenses ⌐11⌐.
b) Log: License invalid
    Solution: The license has been damaged or tampered with. Please unpack the zip-archive delivered by us and reinstall the license. Please read the chapter Licensing and Demo Licenses ⌐11⌐.
    The license is not for this workstation. Please check if the MAC address in the license belongs to this workstation.
c) Log: Unable to init VR runtime: VR system shutting down (119)
    Solution: Steam was not started. Please start Steam.
d) Log: Unable to init VR runtime: Hmd Not Found (108)
    Solution: Hardware (headset) was not started. Please connect and start the Hardware (headset).

Problem 3: Poor performance / low frame rate (FPS)

Power saving mode Windows:

Especially mobile devices (laptops) should be connected to the power supply, other-wise the performance can be reduced.

Therefore, please also check in the Windows 10 info window (action window in the taskbar) as well as in the Windows power saving options of the control panel whether the computer is running in energy-saving mode.

Graphics card driver and power saving mode:

Please check if your graphics card drivers are up to date. Then set the operating mode to Performance in the software of your graphics card.

Select the correct graphics card:

If you have more than one graphics card, for example an integrated one on the CPU and a dedicated graphics card with better performance, please check that the correct card is selected in the settings (`Current.xml` or `CurrentVR.xml`). The graphics card currently used by the VR-Edition is also displayed in the title of the Desktop Client (see screenshot in chapter Opening a CAD model in VR).

Here is a way to proceed:
- Start the 3DViewStation Desktop.
- Go to the settings (bottom left).

- Enter the term "Display adapter" in the search field.
- Set the graphics card with the highest performance.
- Save the settings using the small floppy disk symbol.
  If you have not created separate settings for VR (`CurrentVR.xml`), the graphics card is now activated and you can exit 3DViewStation Desktop. However, if you are using a `CurrentVR.xml`, this setting must still be transferred.
- Open the **HELP** tab and activate the **USER** button.
- Open the **SETTINGS** folder and the included `Current.xml` (desktop settings) with an editor like Notepad++.
- Look for the line `<GraphicsAdapterToUse>0</GraphicsAdapterToUse>` and remember the value – here 0.
- Open the file `CurrentVR.xml` and store the same value here in the matching location (`<GraphicsAdapterToUse>`).
- Save the change.
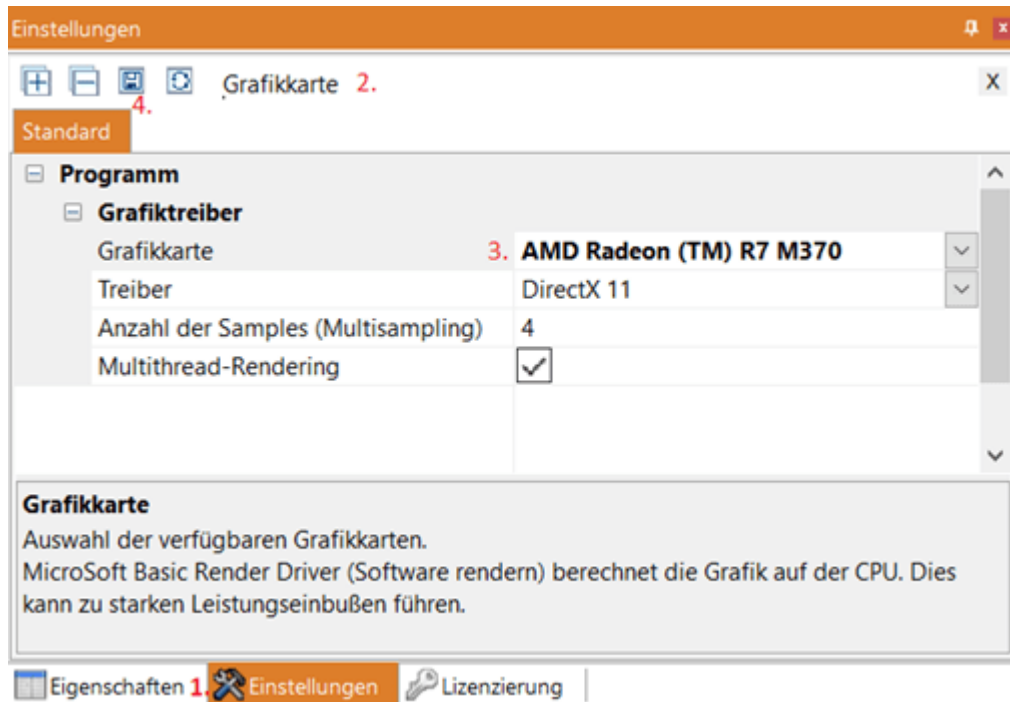
Problem 4: Poor tracking

Please check your hardware installation as described in chapter VR Hardware.

Chapter VI:

お問合せ

6 お問合せ

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