

# MERLIC Installation and Licenses

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## How to get MERLIC running on Windows systems

Version 5.7

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# 1 System Requirements and Supported Platforms

MERLIC is available for Windows and Linux systems. On Windows, all components of MERLIC can be used. For Linux systems, currently only the runtime environment of MERLIC, MERLIC RTE, and MERLIC Frontend is available.

For all systems applies that MERLIC actively makes use of multi-core platforms and AVX (Advanced Vector Extensions) for highest performance.

**In the following, we provide information installing and using MERLIC on Windows systems. For more information about installing and using MERLIC RTE or MERLIC Frontend on Linux systems, see the [MERLIC manual](#).**

To use MERLIC 5.7.0 on Windows systems, the following system requirements must be fulfilled:

Component	Property
Operating system	Windows 10 (64-bit, version 1903) or newer
Processor	x64 quad-core (2.50 GHz)
Memory	at least 4 GB
Disk space	6 GB (Default installation; during the installation process more space is needed)  If smaller MERLIC packages are installed, for example, only the package for the MERLIC Frontend, less disk space is required.
Graphics	1920x1080, 32-bit color  In addition, one of the following graphics API must be provided on the system: <ul style="list-style-type: none"> <li>• Direct3D 11.1 or Direct3D 12</li> <li>• Metal 1.2 or higher</li> <li>• OpenGL 3.0 or higher (OpenGL 3.3 or higher is strongly recommended)</li> <li>• OpenGL ES 2.0 or higher (OpenGL ES 3.0 or higher is strongly recommended)</li> <li>• Vulkan 1.0 or higher</li> </ul>

## 1.1 Further Requirements for Installation and License Activation

For specific tasks, some further requirements are necessary:

- Administrator privileges are required during the installation of MERLIC and for the installation of USB3 Vision camera drivers
- For the activation of the MERLIC license, a connection to the internet is required.

## 1.2 Deep-Learning-Based Applications

To benefit from the provided Artificial Intelligence Acceleration Interfaces (AI<sup>2</sup>) when using MERLIC tools with deep learning technology, make sure to install the respective AI accelerator hardware with the appropriate drivers.

For more information on the supported AI<sup>2</sup> interfaces, see the topic [AI<sup>2</sup> Interfaces for Tools with Deep Learning](#) in the MERLIC manual.

### 1.3 Image Acquisition Interfaces

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MERLIC offers hardware independence by supporting image acquisition interfaces of the latest industry standards GigE Vision, GenICam GenTL, and USB3 Vision. For more information about the respective system requirements, see the topic [Supported Image Acquisition Interfaces](#) in the MERLIC manual.

### 1.4 Additional Tips on OpenGL

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If the requirement for OpenGL is not met, software-only OpenGL is automatically used as fallback. The fallback technology will be slower and/or the display might not always work correctly. If needed, the autodetection of OpenGL can be disabled by explicitly setting one of the following environment variables before launching MERLIC:

- QT\_OPENGL=desktop (uses OpenGL)
- QT\_OPENGL=software (uses software-only OpenGL)

## 2 MERLIC Packages and MERLIC Trial

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### 2.1 MERLIC Packages

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MERLIC is available for purchase in different packages with different feature sets. Depending on the required number of camera devices and features ("add-ons"), the packages "Small", "Medium", "Large", and "X-Large" are available. You can find more detailed information on the available packages on the overview page [MERLIC Packages](#) of the MVTec website. The installation of MERLIC is independent of the selected MERLIC package. Thus, the installed file structure is always the same. However, depending on the selected MERLIC package only the respective features will be available for use.

#### Package Wizard

If you are not sure which package fits best for the scope of your application, you can try out our [package wizard](#) on the MVTec website. Simply answer the questions provided by our wizard to find the right MERLIC license package for your needs.

### 2.2 MERLIC Trial

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The MERLIC trial version allows you to test the full functionality of MERLIC, i.e., it corresponds to the MERLIC "X-Large" version, with the following limitations:

- The trial license is only valid for a limited period of 45 days. This time period begins with the day of the first usage of MERLIC in the trial version, i.e., the day when MERLIC is started for the first time without a license dongle. If the time period is exceeded, it is not possible to evaluate MERLIC for another trial period on this computer again. Ask your local distributor if you need to extend the evaluation period.
- The execution mode of the trial version is limited in time. You can run a MERLIC Vision App continuously for up to 30 minutes. If this time is exceeded, MERLIC will stop the execution of the MERLIC Vision App. The time limit of 30 minutes also applies for the execution of MERLIC RTE (Runtime Environment). If the time limit is exceeded, MERLIC RTE is automatically closed.
- The trial version only supports tools provided by MERLIC. It is not possible to use your own tools (i.e. custom tools) in the trial version.
- It is only possible to run one MERLIC instance at a time.
- The trial version cannot be used on a virtual machine.

To test MERLIC in the trial version, no explicit trial license is required. You can download MERLIC from the [MVTec website](#) for free and install it on your computer. MERLIC can be started directly after the installation. If no license dongle is connected to your computer, MERLIC is automatically started in the trial version.

The license of the trial version is bound to your computer hardware because no license dongle or license file is used. Therefore, you can test the trial version only on the computer on which MERLIC is installed.

## 3 MERLIC Installation

On Windows systems, MERLIC can be installed online via the MVTec Software Manager (SOM), an installation manager for software packages. It starts a local web server and provides access to a remote catalog of products, among others, the SOM package for MERLIC. Basically, you can start SOM, select the desired MERLIC version and components, and SOM takes over the installation process.

Software packages can be installed only for yourself or for all users of the system. If a new maintenance release is available for your MERLIC installation, SOM enables you to update your current installation. For more information on running SOM, see the internal documentation of SOM.

For the installation of MERLIC 5.7.0, we recommend using the latest SOM version 1.6. If you are using an older SOM version, MERLIC 5.7.0 might not be available for installation, and you will not be able to use the latest features of SOM.

### 3.1 Requirements

For the installation process of MERLIC, the following requirements are necessary:

- To download or modify products in SOM, you need to log in with your "MVLogin" account. If you have no account yet, please register.
- During the installation of MERLIC, administrator privileges are highly recommended to make sure that it is installed with all required components and firewall settings.

It is still possible to install MERLIC without administrator rights. However, please see to the information in the section [Consequence of Installing MERLIC without Administrator Rights](#) before installing MERLIC without administrator rights.

### 3.2 Starting the Installation Process

1. Start the MVTec Software Manager (SOM). If SOM is not installed on your system, download it from the following website: [www.mvtec.com/downloads/software-manager](http://www.mvtec.com/downloads/software-manager).
2. Open the page "AVAILABLE". It shows the list of available MERLIC versions.
3. Click on the "INSTALL" button of the MERLIC version you want to install. If you want to install MERLIC for all users, use the respective installation option for all users in the drop-down menu of the button.
4. Select the type of the installation:
  - **"Easy Installation"**: Quick and easy installation of the default set of MERLIC packages.
  - **"Advanced Installation"**: Fully customizable installation of a user-defined set of MERLIC packages. If you choose this installation type, you can select the individual SOM packages you want to install for MERLIC 5.7. For more information, see the section [MERLIC SOM Packages](#).

You can install additional packages at a later time by starting SOM again and selecting the desired package for your MERLIC version.

5. Check the configuration for the installation, for example, if a desktop shortcut should be created or if the installation should be activated.
6. Read and confirm the license agreement. The installation of MERLIC will then start.

After the installation, the new version will be shown on the "INSTALLED" page with all installed MERLIC packages. Here, you can start the individual MERLIC components or access the documentation when selecting the new MERLIC version.

Keep in mind to activate your MERLIC license to use the full functionality of MERLIC without the restrictions of a trial version. For more information about the license activation, see the topic [How to Activate a MERLIC License](#).

For more information about the installed file structure of MERLIC, see the topic [Installed File Structure](#) in the MERLIC manual.

### 3.3 MERLIC SOM Packages

The following table gives an overview of the available MERLIC packages for the installation. When choosing the "Easy Installation", the MERLIC packages of the default set will be installed. If "Advanced Installation" is applied, you can select or deselect packages for the installation.

Package	Description	Default Set
<b>Basic Fileset</b>	Contains all example files, the help, and all auxiliary files required by other packages.  This package is mandatory for each MERLIC installation. Therefore, it cannot be deselected during the installation.	✓
<b>EULA</b>	Contains the license agreement for MERLIC.  This package is mandatory for each MERLIC installation. Therefore, it cannot be deselected during the installation.	✓
<b>Frontend</b>	Contains the MERLIC Frontend.  This package can be installed separately.	✓
<b>Runtime and Development</b>	Contains the files required for MERLIC Creator including the Frontend Designer and the MERLIC Runtime Environment (MERLIC RTE). In addition, the files for collecting support information are contained.  This package can be installed separately.	✓
<b>Runtime Environment Setup</b>	Contains the MERLIC Runtime Environment Setup (MERLIC RTE Setup).  This package can be installed separately.	✓
<b>TCP Socket Plug-in</b>	Contains the communication plug-in for the communication via TCP sockets including the documentation of the plug-in.  This package is not part of the default set but it can be installed in addition to the other packages.	✗

### 3.4 Installation Directory of MERLIC

All files, including example applications and images, will be installed in the same installation directory. The default installation directory depends on whether you are installing MERLIC just for the current user or for all users.



Installation type	Default installation directory
Current user	%LOCALAPPDATA%\Programs\MVTec\MERLIC-5.7
All users	%PROGRAMFILES%\MVTec\MERLIC-5.7

### 3.4.1 Changing the MERLIC Installation Directory

If you want to install MERLIC in a different directory, you can change the installation directory as follows:

1. Open the SOM settings in the menu on the top right of the SOM start page.
2. Open the "Installations" tab.
3. Specify the directory for the installation at the entry "Install path (programs)".

MERLIC must not be installed in directories that contain mixed character sets. Also on Windows systems the characters \ / : \* ? " < > | are not allowed. Keep in mind that you require read and write permissions for the specified directory and make sure that you have started SOM in the mode (either user or system mode) in which you have the required rights for the directory.

4. Save your changes and start the installation of MERLIC.

## 3.5 Further Information on the Installation

### 3.5.1 Installation of the MVTec GigE Vision Streaming Filter

During the installation of MERLIC, the MVTec GigE Vision Streaming Filter will be automatically installed. The filter driver improves performance and robustness when using GigE Vision compliant cameras in MERLIC.

### 3.5.2 Association of MVApp Files

When opening MERLIC Vision Apps (MVApps) by double-clicking the respective .mvapp files, they will be opened automatically in the associated MERLIC installation. If there is only one MERLIC installation on your system, it is automatically associated to MERLIC files such as MVApps (.mvapp) and files for the user management (.mudb). If there are multiple MERLIC installations on your system, for example, of different MERLIC versions, you can define which MERLIC installation is associated to the MERLIC files by activating the desired installation.

By default, MERLIC is activated during the installation. However, if the desired MERLIC installation is not active, you can activate it via SOM.

1. Start SOM and open the "INSTALLED" page.
2. Select the desired MERLIC installation.
3. On the right, activate the selected installation via the toggle.

### 3.5.3 Environment Variables

When installing MERLIC via SOM, no environment variables will be set.

### 3.5.4 Multiple MERLIC Versions

You can install multiple versions of MERLIC on your system. When installing a new MERLIC version, it will be automatically activated. This means, the new version is associated to files with file ending .mvapp and MVApps will be opened in the newest installation when double-clicking on .mvapp files in the file explorer. You can activate

a previous MERLIC version in SOM if you want to open MVApps in a different MERLIC version by default. However, if you only want to open an MVApp once in a different version, you can use the context menu:

1. Right-click on the respective .mvapp file to open the context menu.
2. Click on "Open with" and select the desired MERLIC version. The MVApp will be opened in the selected version.

Alternatively, you can first open the desired MERLIC version via the Windows start menu and then open the MVApp from the MERLIC Creator. The Windows start menu provides entries for all MERLIC versions that are installed.

### 3.6 Consequences of Installing MERLIC Without Administrator Rights

When starting the MERLIC installation process in the user mode of SOM, you will be asked to provide the administrator credentials. If you enter them, the MERLIC installation will proceed and all settings will be set accordingly.

If you do not enter your administrator credentials and close the dialog, the MERLIC installation will also proceed. However, in this case, some of the MERLIC settings, e.g., firewall rules, will not be set. In addition, the CodeMeter software that is required for licensing will not be installed. This may have some serious consequences, which are described in the following sections.

#### If CodeMeter is not yet installed on your system

- You cannot activate your MERLIC license because CodeMeter is required to activate the license on the respective system.
- MERLIC will not start because the licensing failed. Even the MERLIC trial version cannot be started because it also requires CodeMeter to install the trial license on the system.
- No firewall rules have been set. Thus, some configurations will not work, e.g., configuration on remote systems.

Possible solutions:

- In this case, you can install CodeMeter separately and then activate your license. However, it is still not possible to use the trial version of MERLIC.
- Regarding the firewall settings, you can manually enter your administrator credentials for the firewall rule when you are asked again while working with MERLIC. The respective firewall rule will be set for the respective MERLIC executable file but only for the current port that is used.
- Re-install MERLIC with administrator rights. Then, CodeMeter will be part of the MERLIC installation, all firewall rules will be set, and you can immediately activate your license and use MERLIC.

#### If CodeMeter is still available on your system (e.g., from a previous installation)

- You can activate your license and start MERLIC.
- No firewall rules have been set. Thus, some configurations will not work, e.g., configuration on remote systems.

Possible solutions:

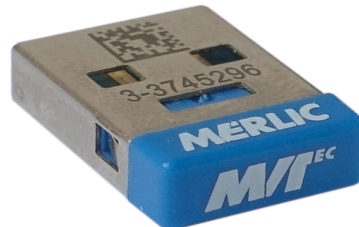
- You can manually enter your administrator credentials for the firewall rules when you are asked again while working with MERLIC. The respective firewall rule will be set for the respective MERLIC executable file but only for the current port that is being used.

- Re-install MERLIC with administrator rights. Then, all firewall rules will be set and you do not have to set any firewall rules manually.

## 4 How to Activate a MERLIC License

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All MERLIC packages except the trial version of MERLIC require a license dongle with an activated MERLIC license. If you have ordered a license for a MERLIC package, you will receive the dongle and an activation ticket for the license activation from your local distributor. If you have not received an activation ticket, please contact your local distributor in any case.



MERLIC licenses are always issued for a major version, e.g., for MERLIC 5. They are not bound to any computer hardware. Thus you can use the dongle on any computer with an installed MERLIC. It is not possible to use any dongle as license dongle for MERLIC. Only those supplied by MVTec via your local distributor can be used. Currently, MERLIC supports USB dongles.

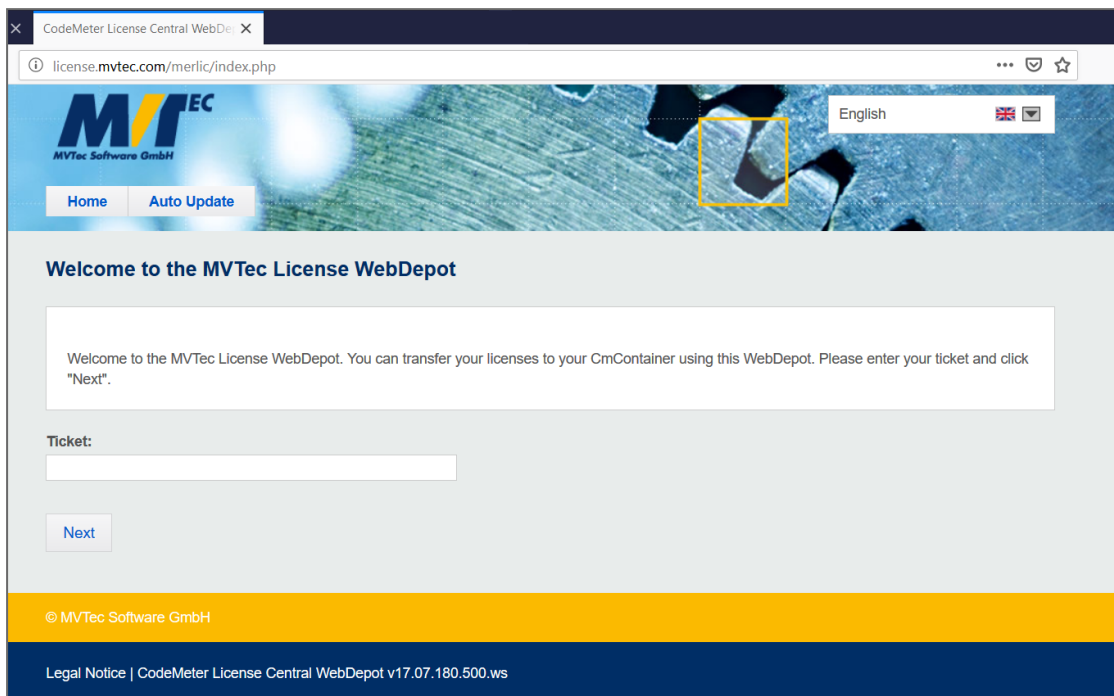
A license dongle for MERLIC can contain only one license. However, you may run two MERLIC instances with one license. If you want to use MERLIC on multiple computers simultaneously, you need a license dongle for each of them. However, you have to activate your license to use MERLIC as described below.

The activation of the license requires that MERLIC is already installed on your computer. Please make sure that MERLIC is already installed before proceeding with the license activation as described below.

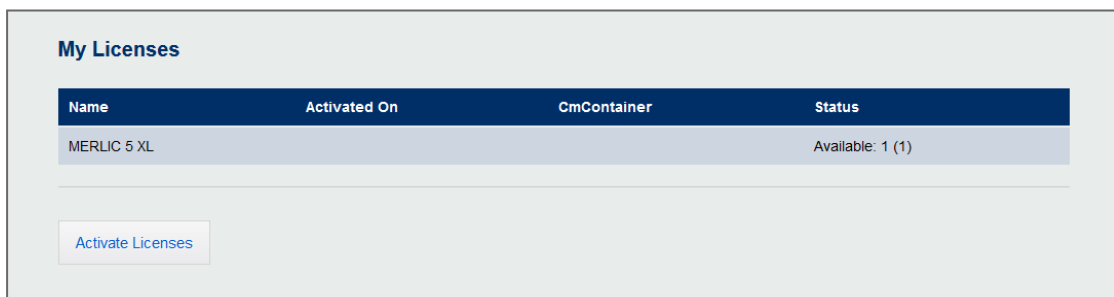
## 4.1 Activating a License for a MERLIC Package

The MERLIC license can be activated with just a few clicks:

1. Plug in the license dongle to your computer and open the [MVTec License WebDepot](https://license.mvtec.com/merlic/index.php) in a web browser.



2. Enter your activation ticket and click "Next" to see the license which is connected to your ticket. If more than one license is connected to your ticket, a list of these licenses is displayed.



3. Select the license you want to activate.


### Available Licenses

To activate your licenses:

1. Select the licenses you want to activate.
2. Select the locally connected CmContainer to which you want to transfer the licenses.
3. Click "Activate Selected Licenses Now".

<input checked="" type="checkbox"/> Name	Activated On	CmContainer	Status
<input checked="" type="checkbox"/> MERLIC 5 XL			Available

Select CmContainer


3-3954266 (MVTec MERLIC) 

Activate Selected Licenses Now

Offline license transfer

4. The CmContainer of your dongle is automatically selected. If the default selection does not work you can choose another dongle.

### Select CmContainer

3-3954266 (MVTec MERLIC) 

3-3954266 (MVTec MERLIC)

Activate Selected Licenses Now

If your activation was successful, the license of your MERLIC installation will be activated and you can immediately start using MERLIC. For more information on how to use MERLIC, see the [MERLIC documentation](#).

Make sure that your anti virus protection does not interfere with your license.

## 4.2 Activating a MERLIC Add-On

If you purchased an additional add-on for your MERLIC package, you also have to activate the license for the add-on. Your local distributor will send you an activation ticket for the license after the purchase.

The activation of the license is the same as the activation of a MERLIC package with the difference that you have to select the add-on instead of the MERLIC package.

<input checked="" type="checkbox"/> Name	Activated On	CmContainer	Status
<input checked="" type="checkbox"/> MERLIC Deep Learning Add-On			Available

## 5 Troubleshooting

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Many common problems during the installation, activation, and execution of MERLIC can be solved without external help. Please consider the following advice for troubleshooting:

### 5.1 General Advice for Troubleshooting

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- Try using a different browser. The installation and license activation was tested using Firefox.
- Make sure that your dongle is securely plugged in to your computer and is recognized by your operating system.
- Make sure that hibernation is disabled on your computer.
- Make sure that the system date of your computer is not changed after the installation.
- Check your anti virus and anti malware software. Include the CmAct folder and CodeMeter.exe in the list of authorized elements.
- Check your local firewall. If necessary, deactivate it or change the configuration.
- Check if your company firewall prevents the proper execution of MERLIC or any of its components.
- Make sure that the automatic container selection during the license activation is not changed.
- For trial versions: Check whether there is a trial license active already on your computer and whether this trial license is out of date.
  1. Open the CodeMeter Control Center and click "WebAdmin".
  2. In the browser window in "content" choose "licenses".
  3. In the drop down menu "CmContainer" inspect all entries for MERLIC trial version to get information about the license.

### 5.2 Known Issues

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This section provides information about known issues and tips on how to collect information for troubleshooting. MVTec has a dense, worldwide distribution network. This enables us to offer you qualified partners in your region, regardless of location. You can find the closest partner on the [local MERLIC distributors](#) page.

#### Trial License Does Not Work After the System Time Was Changed

**Description:**

If you had to change the system time on your computer, the MERLIC trial license will not work.

**Possible solution:**

You have to re-install your operating system in order to remove the MERLIC license container. After that you can re-install the MERLIC license container. It is not sufficient to reset your system to a system recovery point. If reinstalling your operating system is not a viable option, please contact your local distributor.

#### Error Code 0x18080001 - Upgrade License

**Description:**

During a MERLIC upgrade, the error 0x18080001 may occur if the necessary conditions for the upgrade are not met.

#### Possible solution:

Make sure the necessary condition is met. For example, to activate an upgrade license from MERLIC 4 to MERLIC 5, you must already have a license for MERLIC 4 on your dongle.

### Error Code 0x18088006 - CodeMeter Does Not Start

#### Description:

Some drivers and other software can be interpreted by CodeMeter as a reverse engineering attempt.

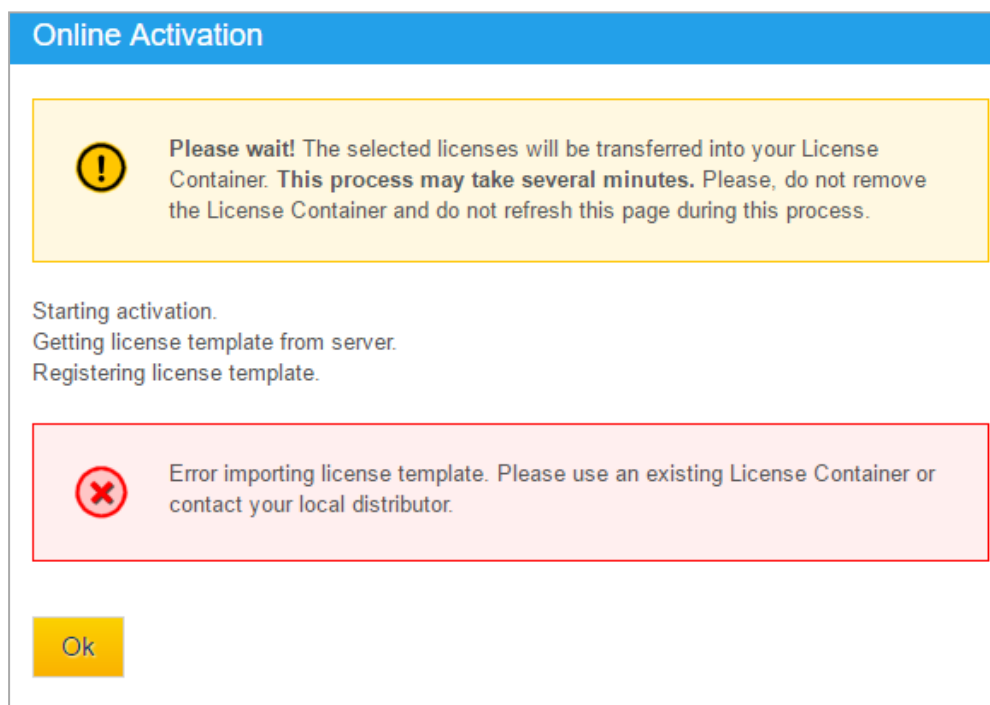
#### Possible solutions:

- Uninstall and reinstall CodeMeter. Contact [WIBU-SYSTEMS AG](#) if you need help.
- Check the "LicenseLock-\*.log" file. This log file is written on Windows into the directory "C:\ProgramData\CodeMeter\Logs". The name follows the pattern: LicenseLock-YYYY-MM-DD-hhmmss-TimeStampYYYY-MM-DD year-month-day specification. The file is partly plaintext partly encrypted. Wibu-Systems analyzes the encrypted information and let you know how to proceed.
- Remove the suspicious drivers or software products.

### Error Code 0x18080001 in Internet Explorer and "Error importing license template" in Firefox

#### Description:

During the activation of a license in Internet Explorer, the error code 0x18080001 is shown. In Firefox the following error message appears:



#### Possible solution:

[Collect information for troubleshooting](#) and contact your [local MERLIC distributor](#).

### Missing License

#### Description:

You get the error message "No MERLIC license was found".



**Possible solution:**

[Collect information for troubleshooting](#) and contact your [local MERLIC distributor](#).

**CodeMeterAct Error 263\_ License Has to Be Activated Again****Description:**

MERLIC shows a license error when starting:

"The machine is changed.

CodeMeterAct: It is needed to activate the license again.

the error no. is 263."

The log file shows an invalid license. This means that not all data of the license can be read. This error may happen if a cleanup tool, an anti virus software, or a firewall suppresses or deletes license data.

**Possible solutions:**

- Include the CmAct folder and CodeMeter.exe in the list of authorized elements in your anti virus software or firewall.
- Make sure that no other application is accessing your license file and folder.

**Dongle Errors****Description:**

MERLIC is running but the connection to the dongle fails and a license error is displayed.

**Possible solutions:**

- To check the MERLIC dongle, you can compare the number printed on the dongle with the number in the property "Parent" (string starts with "USB\..." and ends with the number of the HID-compliant device). You can find it in "Hardware and Sound" → "Devices and Printers" → "CodeMeter-Stick". Right-click on the device and choose "Properties" → "Hardware" → "Properties" → "Details" → "Parent". The same number should be shown in the CodeMeter Control Center.
- Use the CodeMeter Control Center to update the firmware of the dongle. Contact [WIBU-SYSTEMS AG](#) if you need help.

**Hibernation Errors****Description:**

After waking up the computer from hibernation, MERLIC displays a license error message or is no longer running.

**Possible solution:**

Make sure that MERLIC runs on a machine that does not go into hibernation mode. Especially during a date change. If an error message is shown, it may take several minutes until the next license check is successful.

## 5.3 Collecting Information for Troubleshooting

If the problem persists, please do not hesitate to contact your [local MERLIC distributor](#). The following data will be helpful for analyzing the problem and to provide a solution. Collect log data from the time right after the activation failed.

### "CmDust" Log File

1. Create the log file by starting the program "CmDust" via the Windows start menu "Start → CodeMeter → CmDust".
2. The file "CmDust-Result.log" is created automatically and the folder in which the file is created is also opened automatically.

### "CmAct" Log File

1. Open the folder in which the "CmAct" log files can be found via the Window start menu "Start → CodeMeter → Logs"

### Additional Information

Please prepare a detailed description where you encountered the error and how it can be reproduced. If possible, include screenshots.