

MERLIC Installation and Licenses:

How to get MERLIC running

Version 5.2.0

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Contents

1 System Requirements and Supported Platforms	1
1.1 Image Acquisition Interfaces	1
1.2 Recommended Configuration	1
2 MERLIC Packages and MERLIC Trial	2
2.1 MERLIC Packages	2
2.2 MERLIC Trial	2
3 MERLIC Installation	3
3.1 Downloading SOM	3
3.2 Starting SOM and Installing MERLIC	3
3.3 Further Information on the Installation	7
4 How to Activate a MERLIC License	5
4.1 Activating a License for a MERLIC Package	6
4.2 Activating a MERLIC Add-On	7
5 Troubleshooting	6
5.1 General Advice for Troubleshooting	6
5.2 Known Issues	6
5.3 Collecting Information for Troubleshooting	8

1 System Requirements and Supported Platforms

To use MERLIC 5.2.0, the following system requirements must be fulfilled:

- Windows 10 (64-bit operating system).
- x64 processor
- MERLIC works best with at least OpenGL 3.0 (alternatively OpenGL 2.x with the framebuffer_object extension) or OpenGL ES 2.0. If this requirement 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 the environment variable QT_OPENGL=desktop (uses OpenGL) or QT_OPENGL=software (uses software-only OpenGL) before launching MERLIC.

MERLIC actively makes use of multi-core processing platforms and AVX for highest performance.

1.1 Image Acquisition Interfaces

MERLIC offers hardware independence by supporting IA interfaces of the latest industry standards GigEVision2, GenICam GenTL, and USB3 Vision.

1.2 Recommended Configuration

To exploit the full potential of MERLIC, we recommend to use MERLIC on a system with at least the following configuration:

Component	Specification
CPU	x64 quad-core (2.50 GHz)
Memory	at least 4 GB
Graphics	1920x1080, 32-bit color, OpenGL 3.0
Hard disk	6GB (Full installation; during the installation process more space is needed)

2 MERLIC Packages and MERLIC Trial

2.1 MERLIC Packages

MERLIC is available for purchase in different packages with different feature sets. Depending on the required number of image sources 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

The trial version allows you to test the full functionality of MERLIC, i.e., the full functionality of the MERLIC package "X-Large". 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 for one of the other MERLIC packages 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.

Restrictions

- 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.

3 MERLIC Installation

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 package for MERLIC 5.2.0. Basically, you can start SOM, select the desired MERLIC version, and SOM takes over the installation process. Thus, SOM allows you to install MERLIC without downloading the executable file of MERLIC. If a new maintenance release is available for your MERLIC installation, SOM enables you to update your current installation. SOM also detects MVTec products that have been installed by other means. However, these installations cannot be updated or uninstalled via SOM.

3.1 Downloading SOM

SOM is a self-contained application and requires no installation at all. However, you first have to download SOM to access its executable file. For this, you will have to log in with your MVTec account to access the download page. In case you have no MVTec account yet, please register and proceed with your new account.

1. Log in to the MVTec download area for MERLIC on the following website: www.mvtec.com/downloads/merlic.
2. Choose the desired product version, operating system, and, if applicable, the architecture.
3. Click on "MVTec Software Manager (SOM)" to download the SOM package and then extract the zip file to access the executable file of SOM.

MERLIC 5.2.0	Windows	x64-win64
Release Notes Installation Guide		
DOWNLOADS:		
MVTec Software Manager	5 MB	Package-based online installer for MVTec products - Use this lightweight, browser-based tool to efficiently download and install MERLIC, HALCON, and the Deep Learning Tool. Also allows to manage other installed MVTec Products.

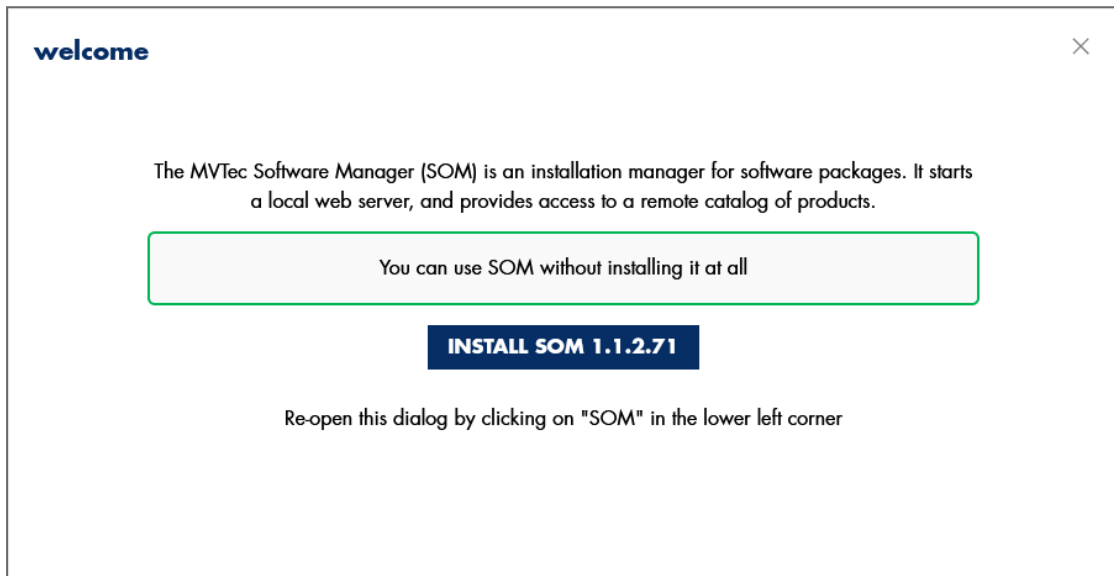
3.2 Starting SOM and Installing MERLIC

SOM operates in two modes: user mode and system mode. In the user mode, you can install MERLIC only with user permissions, i.e., without administrator rights. In this case, MERLIC will be installed for yourself, i.e., by default in the directory "%LOCALAPPDATA%\Programs\MVTec". In the system mode, you can install MERLIC with administrator rights. In this case, MERLIC will be installed for all users of the system, i.e., by default in the directory "%PROGRAMFILES%\MVTec", with all required parts and firewall rules.

We recommend to start SOM in system mode, i.e., with administrator rights, to ensure that MERLIC is installed with all required components and firewall settings. In case you want to use SOM in user mode, please also refer to the information in the section [Consequence of Installing MERLIC without Administrator Rights](#).

3.2.1 Installation Steps

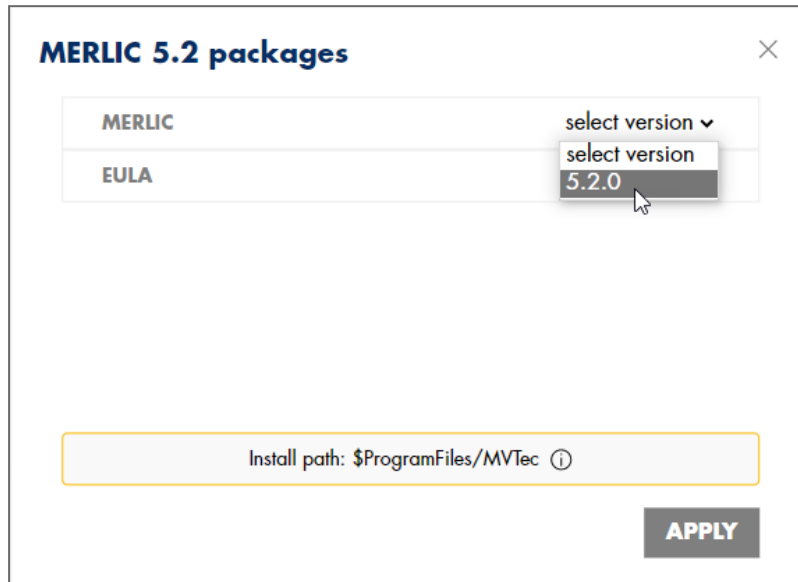
1. To start SOM in system mode, right-click on the executable file "som.exe" that has been extracted from the downloaded zip file of SOM and select "Run as administrator". If SOM is already installed on your system, you can right-click on the desktop shortcut or the start menu entry "MVTec Software Manager" instead. On startup of SOM, your default browser automatically opens the start page of the MVTec Software Manager website. If your browser does not come up and you have an installation of SOM, start "MVTec Software Manager CLI" and enter "som". You can then use the displayed address in any HTML5-compliant browser on your system.
2. Optionally, you can install SOM from the "welcome" dialog that is shown on startup of SOM. For more information on the installation of SOM, see the section [Optionally Installing SOM](#).



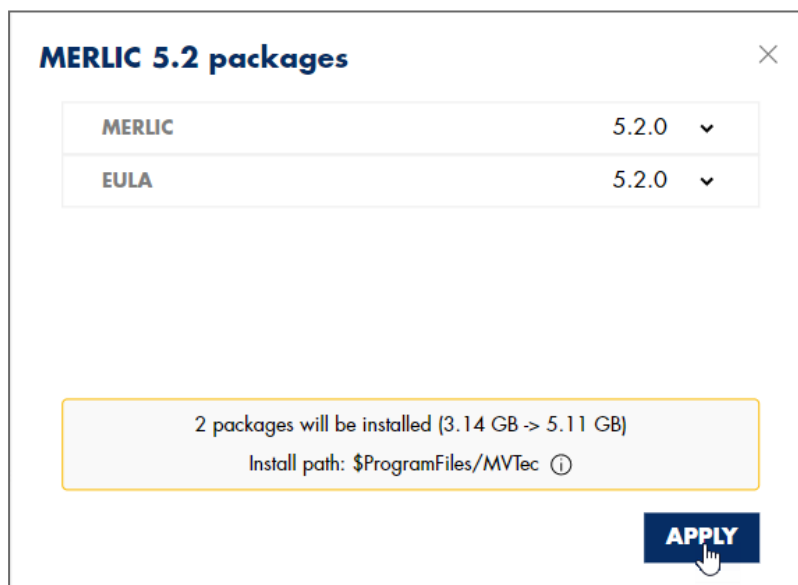
3. Close the "Welcome" dialog and continue to use SOM.
4. On the start page of SOM, switch to the page "AVAILABLE" on the top. You will see a list of all software packages that are available for download.
5. Click on the "INSTALL" button beside the respective MERLIC version.



- In the new dialog, the version should already be selected. If not, select it from the drop-down menu. At the bottom of the dialog, you can see the path of the directory in which MERLIC will be installed. We recommend to use the default installation directory. However, if you want to install MERLIC in a different directory anyway, you can change the directory in the SOM settings as described in the section [Changing the MERLIC Installation Directory](#).



- Click on "APPLY" to start the installation process. If you are not yet logged in with your MVTec account, you will now have to log in to your account to start the installation process.



To use the full functionality of MERLIC without the restrictions of a trial version, you have to activate your MERLIC license. Read the topic [How to Activate a MERLIC License](#) for instructions on how to activate your license.

3.2.2 Optionally Installing SOM

Although SOM can be used without any installation, it will offer you the installation via a new "Welcome" dialog that appears on the first startup of SOM. If you want to install SOM, click on the "INSTALL" button. If you want to install

SOM at a later time, but this dialog no longer appears when you start SOM, you can reopen the dialog from the MVTec Software Manager website by clicking on "SOM" at the bottom of the browser window.

If you choose to perform the installation of SOM, it will be installed into the directory "%LOCALAPPDATA%\Programs\MVTec\SoftwareManager" and add both a desktop icon and a start menu entry for SOM. You may then delete the original executable file of SOM once the current session is exited.

If you want to install SOM for all users, run it as an administrator by starting it via a right-click on the executable file and selecting "Run as administrator". In this case, SOM will be installed into the directory "%PROGRAMFILES%\MVTec\SoftwareManager". If another version of SOM is already installed, that version will be upgraded. Once installed, SOM can manage itself from the page "INSTALLED" at the MVTec Software Manager website, i.e., you can see your SOM installation in the list of installed products and you can update SOM directly from this page.

3.2.3 Default 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 the mode in which SOM was started for the installation of MERLIC.

If you use SOM in system mode, i.e., with administrator rights, MERLIC is installed by default to the directory "%PROGRAMFILES%\MVTec\MERLIC-5.2".

If you use SOM in user mode, i.e., without administrator rights, MERLIC is installed by default to the directory "%LOCALAPPDATA%\Programs\MVTec\MERLIC-5.2".

3.2.3.1 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. You will see several settings. However, only the installation path "Install target (programs)" can be changed for the MERLIC installation. All other settings have no effect on your installation.
2. Specify the directory for the installation at the entry "Install target (programs)" either via the browse button  or manually in the text field.

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.

3. Save your changes.

3.2.4 Consequences of Installing MERLIC without Administrator Rights

If you start SOM in user mode, i.e., without administrator rights, some differences or restrictions may apply depending on various factors.

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, e.g., firewall settings, will be set accordingly. However, the installation directory of MERLIC still differs from the one that is used by default when the installation was started in the system mode of SOM. See also the section [Default Installation Directory of MERLIC](#).

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.

3.3 Further Information on the Installation

3.3.1 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 the performance and robustness when using GigE Vision compliant cameras in MERLIC.

3.3.2 Association of MVApp Files

MERLIC Vision App files with file ending .mvapp will be automatically associated with the MERLIC installation that was installed last. All files with ending .mvapp will be opened in the last installed MERLIC version by double-clicking on the .mvapp files in the file explorer. This also applies if you install a MERLIC version with a lower version number than the currently installed version, e.g., if you install MERLIC 5.1.0 on a system on which MERLIC 5.2.0 is already installed.

3.3.3 Environment Variables

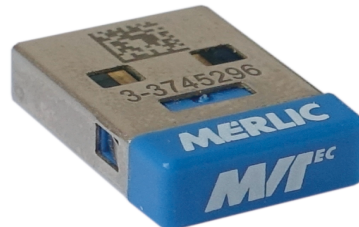
When installing MERLIC via SOM, no environment variables will be set.

3.3.4 Multiple MERLIC Versions

If you install MERLIC via SOM while the previous or a different MERLIC version is still installed on your system, .mvapp files will be associated automatically to the newly installed MERLIC version. In addition, the Windows start menu entries will also be associated to the newly installed MERLIC version. To use the previous MERLIC installation, you can open MERLIC via the respective desktop shortcuts or directly from the respective installation directory.

4 How to Activate a MERLIC License

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.

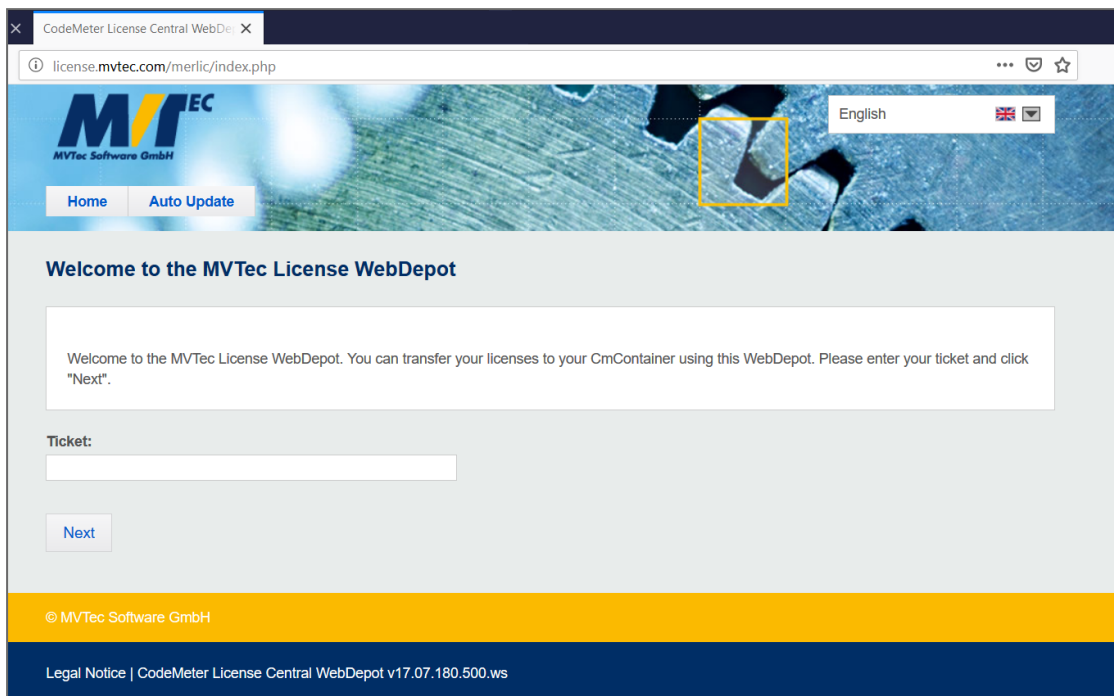
A license dongle for MERLIC can contain only one license. However, you may run two MERLIC instances with one license. If you want to use MERLIC on multiple computers simultaneously, you need a license dongle for each of them. However, you have to activate your license to use MERLIC as described below.

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.

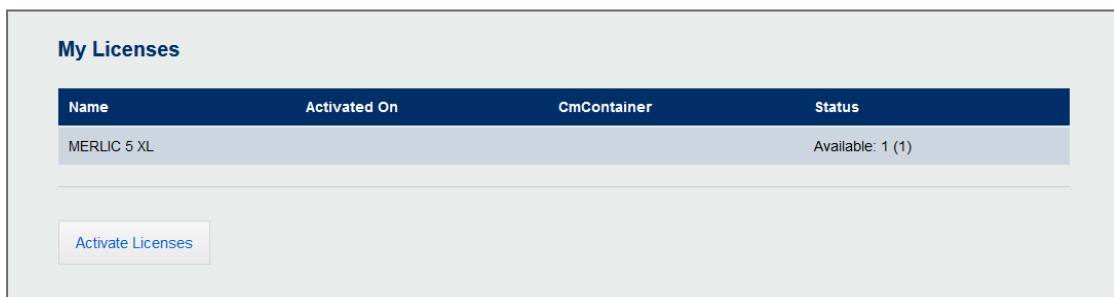
4.1 Activating a License for a MERLIC Package

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".

☒	Name	Activated On	CmContainer	Status
☒	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.

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.

☒	Name	Activated On	CmContainer	Status
☒	MERLIC Deep Learning Add-On			Available

5 Troubleshooting

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

- 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

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.

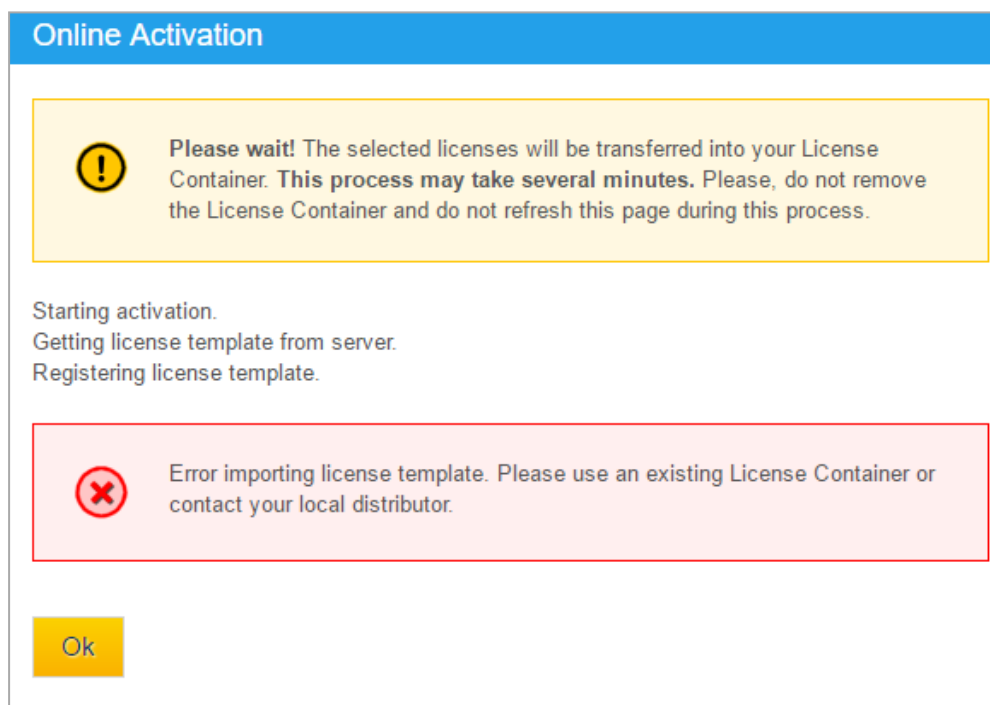
Possible solutions:

- 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.