



zenon
by COPA-DATA

zenon manual

Licensing

v.8.20



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1 Welcome to COPA-DATA help

ZENON VIDEO TUTORIALS

You can find practical examples for project configuration with zenon in our YouTube channel (https://www.copadata.com/tutorial_menu). The tutorials are grouped according to topics and give an initial insight into working with different zenon modules. All tutorials are available in English.

GENERAL HELP

If you cannot find any information you require in this help chapter or can think of anything that you would like added, please send an email to documentation@copadata.com.

PROJECT SUPPORT

You can receive support for any real project you may have from our customer service team, which you can contact via email at support@copadata.com.

LICENSES AND MODULES

If you find that you need other modules or licenses, our staff will be happy to help you. Email sales@copadata.com.

2 Licensing

In order to be able to use COPA-DATA products, they must be licensed. A product runs in demo mode (on page 91) until it has been licensed.

COPA-DATA products:

- ▶ zenon Editor with zenon Logic Workbench as a module
- ▶ zenon Runtime:
Runtime for Demo licenses:
 - ▶ 43200 minutes (30 days) on hardware computers

- ▶ 1440 minutes (1 Tag) for virtual machines
- ▶ zenon Logic Workbench and Runtime
- ▶ Process Gateway and OPC DA Server
- ▶ zenon Web Server and Web Client
- ▶ HTML Web Engine
- ▶ zenon Analyzer
- ▶ Hub Controller
- ▶ Service Grid API
- ▶ Identity Service

The license is checked when the program starts. The product is started with the licensed modules. If no valid license is found when the program is started, a dialog notifies you of this. It is possible to choose to cancel starting up the product or to start the product in demo mode. The product cannot be started for the demo mode if there is also no license for demo mode. In addition, the **License Manager** can also be opened to assign the product a valid license.



Information

The mechanism for licensing described in this document is used for different products. Screenshots are not created for each individual product in the process. It can therefore be possible that the display of a screenshot is different from the description for your product.

VALIDITY

The information on licensing is applicable for:

- ▶ zenon products: as of version 8.00
- ▶ zenon Analyzer: as of version 3.20

Products from previous versions are licensed using a different method. You can find information on this in the documentation of these products.

USER DATA

When licensing COPA-DATA products, user data is obtained, saved and processed. You can find details in relation to this in the **Data Protection** (on page 12) chapter.

3 Licensing products - overview

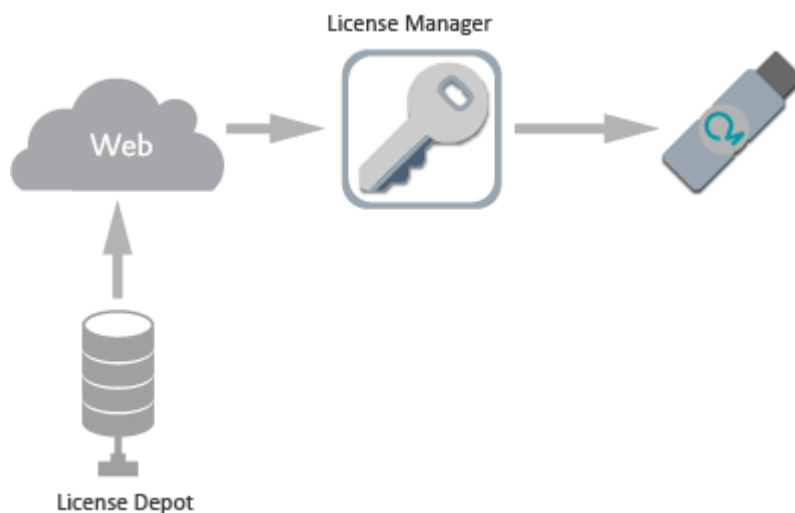
The license is issued in the form of a license certificate and tamper-proof digital information.

If a license is issued, it is stored in the "license depot". This is a database in which the license waits to be collected. The license must be saved on your system in order you to be able to use the license as a user. A dongle (on page 13) is used as a save location. This dongle is also called a license container. This is transferred from the license depot to the dongle when a license is activated.

Use the **License Manager** to activate the license. You can thus activate, deactivate and administer licenses and assign products. Alternatively, you can also activate licenses automatically (*silent*) using the command line tool (on page 77).

ONLINE ACTIVATION

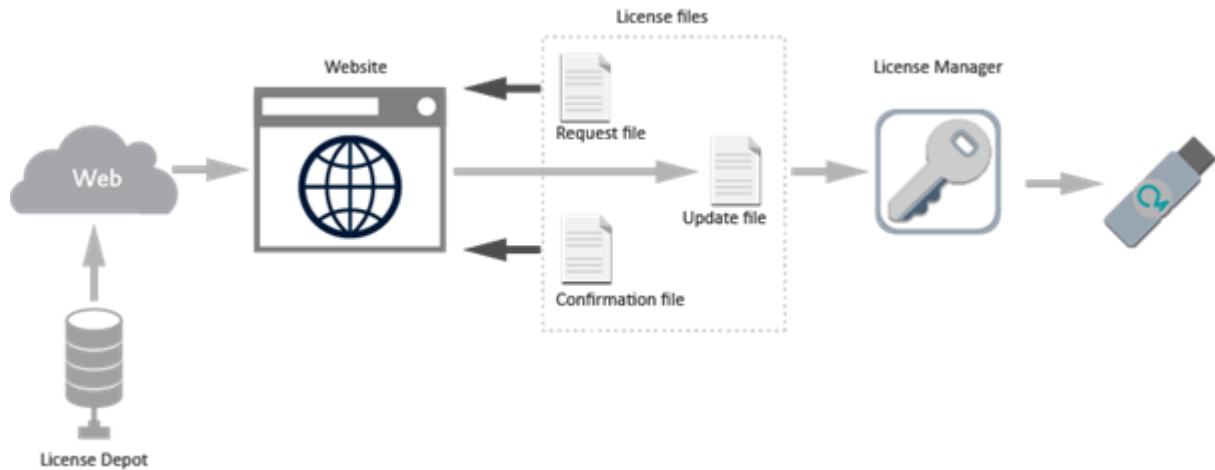
During online activation, licenses are activated directly without further applications or data carriers. There must be an online connection to the Internet available to do this.



For details, see the **Online activation** (on page 23) chapter.

OFFLINE ACTIVATION

With offline activation, the substitution of digital license information must be manual. In doing so, three files are transferred between the license depot and the dongle. Here too, some form of access to the Internet is necessary.



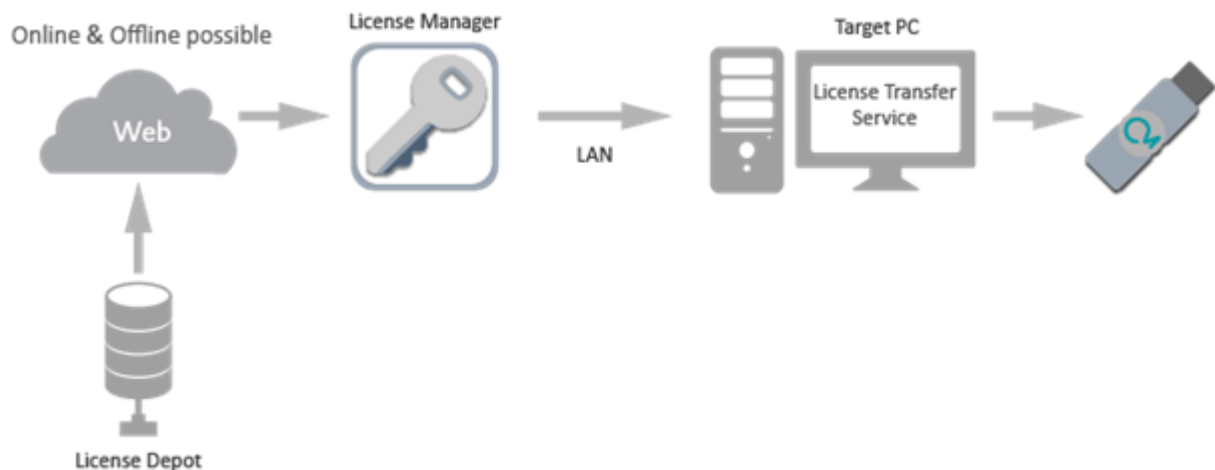
For details, see the **Offline activation** (on page 46) chapter.

ASSIGN LICENSES TO PRODUCTS

In order for a license to be able to be used, it is not sufficient for it to be saved in the dongle. It must also be assigned to the products from which they are used. There are often several licenses on a computer, including demo licenses too. For details, see the **Assign licenses to products** (on page 31) chapter.

REMOTE LICENSING

With remote licensing, all processes that support license administration are not carried out on the local computer but on another computer in the local network (LAN). This is primarily useful if the computer to be licensed does not have an Internet connection. The computer can then be used with the **License Manager** as a proxy computer (intermediary computer).



For details see the **Remote Licensing** (on page 72) chapter.

TRANSFER/RELOCATE LICENSES

Licenses can be transferred to other computers or dongles. Even if a virtual machine is transferred from one host system to another, the license must also be transferred so that it does not become invalid. Transfer or relocate means: The first step is that the license is returned to the issuer's license depot. In the second stage, it is picked up and activated by the new system. For details, see the chapter **Transfer/relocate licenses** (on page 66).

LICENSING PREVIEW PROGRAMS

The following time-limited licenses are available for zenon preview programs. They have a fixed expiry date.

If a preview version is installed, it needs an internet connection. The licensing will fail if this is not present.

In this case, the time stamp can be updated manually.

To do this:

1. Open the command line.
2. Enter: `%programfiles(x86)%\CodeMeter\Runtime\bin\cmu32.exe --time-update`

The time stamp is updated and the license is valid.

STATUS VARIABLES

License information can be retrieved using status variables and displayed in the Runtime:

Variable	Description
[System information] License protection present (local/global)	<p>Shows whether the product is licensed:</p> <ul style="list-style-type: none"> ▶ 0: No valid license. ▶ 1: Valid license. <p>The variable initially has the status 1. The variable is set to 0 in the event of a loss of the license. As soon as there is a license available, the variable is set to 1 again.</p> <p>Note in relation to global variables: Other network participants can set the value of the variable to 1 (license present) although the license continues to be lacking from the triggering computer. With global variables, the falling flank must therefore be evaluated.</p> <p>Note on updating to Version 7.60: Up to Version 7.60, the variable [System information] Dongle Status is used. As of Version 8.00, this must be replaced by [System information] License protection present.</p> <p>If files are created in a Version 8.00 or higher Runtime for use in 7.60 or lower, the variable [System information] License protection present (local) is automatically replaced by [System information] Dongle Status.</p>
[System information] Remaining time until license expires	<p>This shows in the Runtime how long the current license is still valid.</p> <p>The display is in hours for:</p> <ul style="list-style-type: none"> ▶ Demo license ▶ License with expiration date ▶ Borrowed license with expiration date ▶ No valid license found: If no valid alternative license is found, the variable [System information] License protection present will be set to 0 and the remaining time will be displayed with this

Variable	Description
	<p>variable 0.</p> <p>In all other cases, the value 4294967295 will be displayed.</p> <p>Note: The information displayed always relates to the currently valid license. If you change to a different license, for example, due to a network failure, the remaining period of validity will also change.</p>

4 Data protection

Information on collection, saving and processing of user data by COPA-DATA products.

PROCESSING OF USER DATA

When licensing via the **License Manager** by means of dialog or command line, user data is also recorded, saved and processed. This data is to restore lost or damaged licenses. The data is saved and processed at Ing. Punzenberger COPA-DATA GmbH.

DATA COLLECTED

The following is collected:

- ▶ Operating system: Type and version
- ▶ IP addresses: All IP addresses present on the computer
- ▶ Fully Qualified Host Name: Unique computer name and complete domain address
- ▶ User name and domain
- ▶ Serial number

This data is recorded for the computer on which licensing is executed. If the licensing is executed remotely, this data is also collected for the target computer.

You can find detailed information about data processing and data protection online at:

<https://www.copadata.com/privacy> (<https://www.copadata.com/privacy>).

TIME POINTS OF DATA COLLECTION

The data is collected when:

- ▶ Activating licenses
- ▶ Updating licenses
- ▶ Transferring/relocating licenses

DEACTIVATION

The recording of this data can be deactivated in the **License Manager** dialog in the **Settings** tab. Licenses can continue to be obtained and administered. Support and technical support for licensing is however not possible due to missing data.

If the recording is deactivated, COPA-DATA can no longer offer the following services:

- ▶ Automatic application of licenses to remote computers.
- ▶ Tracing of the computer on which the license was activated and by whom.
No support can thus be offered when searching for the license in the event of a loss of a license. Lost licenses can also not be replaced as part of customer care.

Data that has been collected up to the point of deactivation remains saved.

5 Dongle types

For licensing, only **CodeMeter** dongles from **Wibu Systems** are used. Dongles are the save location for licenses. They are therefore also called a license container. There are two basic types of dongles available: Hardware dongles and software dongles. All licenses can be saved as both dongle types, and also transferred (on page 66) from one type to another.

Dongle types:

- ▶ Hardware dongles:
The license information is incorporated into special hardware - a security chip.

Advantages:

- ▶ The license can be easily transferred from one computer to another by reinserting the dongle.
- ▶ Different physical forms are available, for example USB sticks, SD cards etc.

Disadvantages:

- ▶ When using a virtual machine, the license must be transferred from a host system into the Virtual Machine using the network (on page 134).

- ▶ Dongles can be stolen or lost.
- ▶ Software dongles - computer-based license protection:
In doing so, a software dongle is created on the computer directly. The software dongle is based on the computer hardware. If the hardware changes too much, the license becomes invalid (on page 117).

Advantage:

- ▶ The dongle cannot be lost or stolen.

Disadvantages:

- ▶ The license can become invalid if the hardware configuration is changed.
- ▶ The license must be returned before it can be transferred to another computer.

Both dongle types act the same in practice. All mechanisms can be used for both types. There are only limitations for software dongles in a virtual machine (on page 16).

6 Licensing in a few steps

In order for you to be able to operate zenon licensed, only a few steps are necessary, in most cases. There are two possibilities for having a license sent to you:

1. You receive a pre-programmed hardware dongle.
2. You get a license certificate for a computer-based software dongle or a license certificate and an empty hardware dongle.

With both variants, you can very easily get a licensed product.

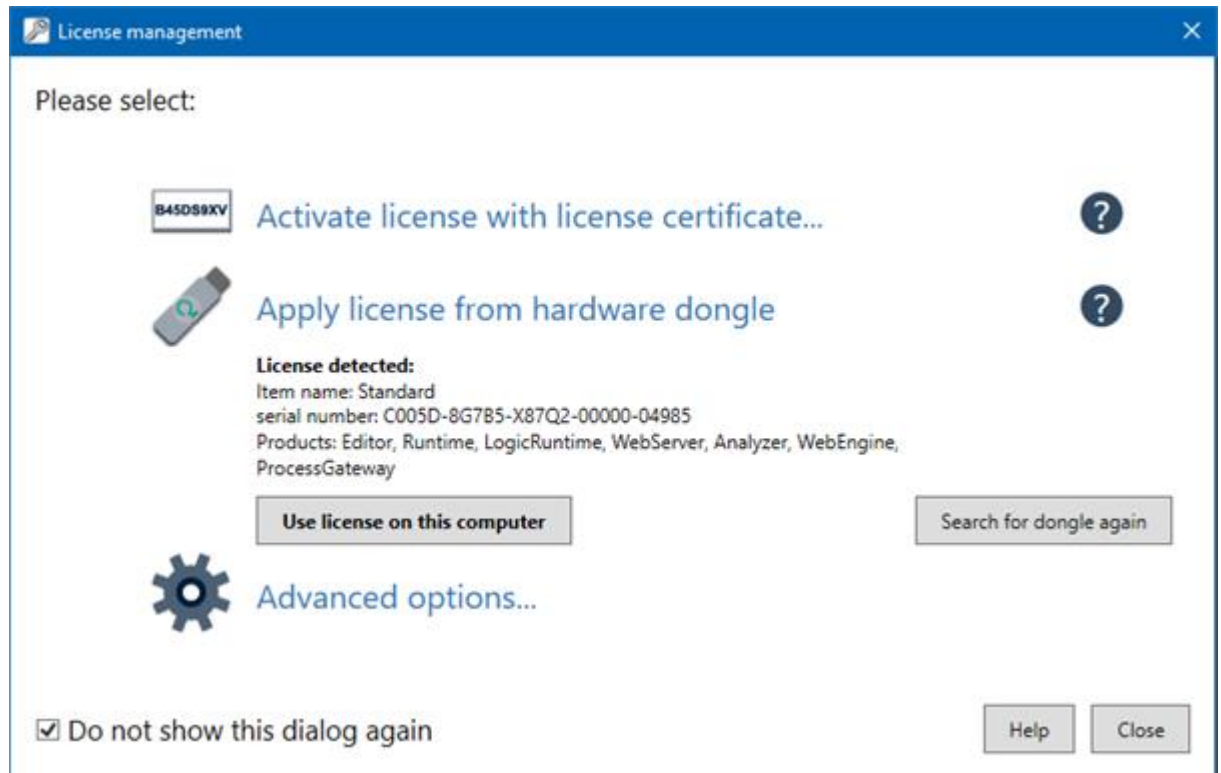
PRE-PROGRAMMED HARDWARE DONGLE

To use a pre-programmed hardware dongle:

1. Insert the hardware dongle into the computer and wait until Windows has detected the dongle.
2. Start the **License Manager** via **Windows -> License Manager**.

3. In the start dialog of the **License Manager**, select the **Apply license from hardware dongle** option.

The license detected is shown in the dialog.



4. Click on the **Use License on this Computer** button.
5. End the **License Manager**.

You can now start the licensed products.

You can find more detailed information on the procedure and limitations in the **Licensing** (on page 6) manual in the **Apply license from hardware dongle** (on page 25) chapter.

LICENSE CERTIFICATE FOR COMPUTER-BASED LICENSE

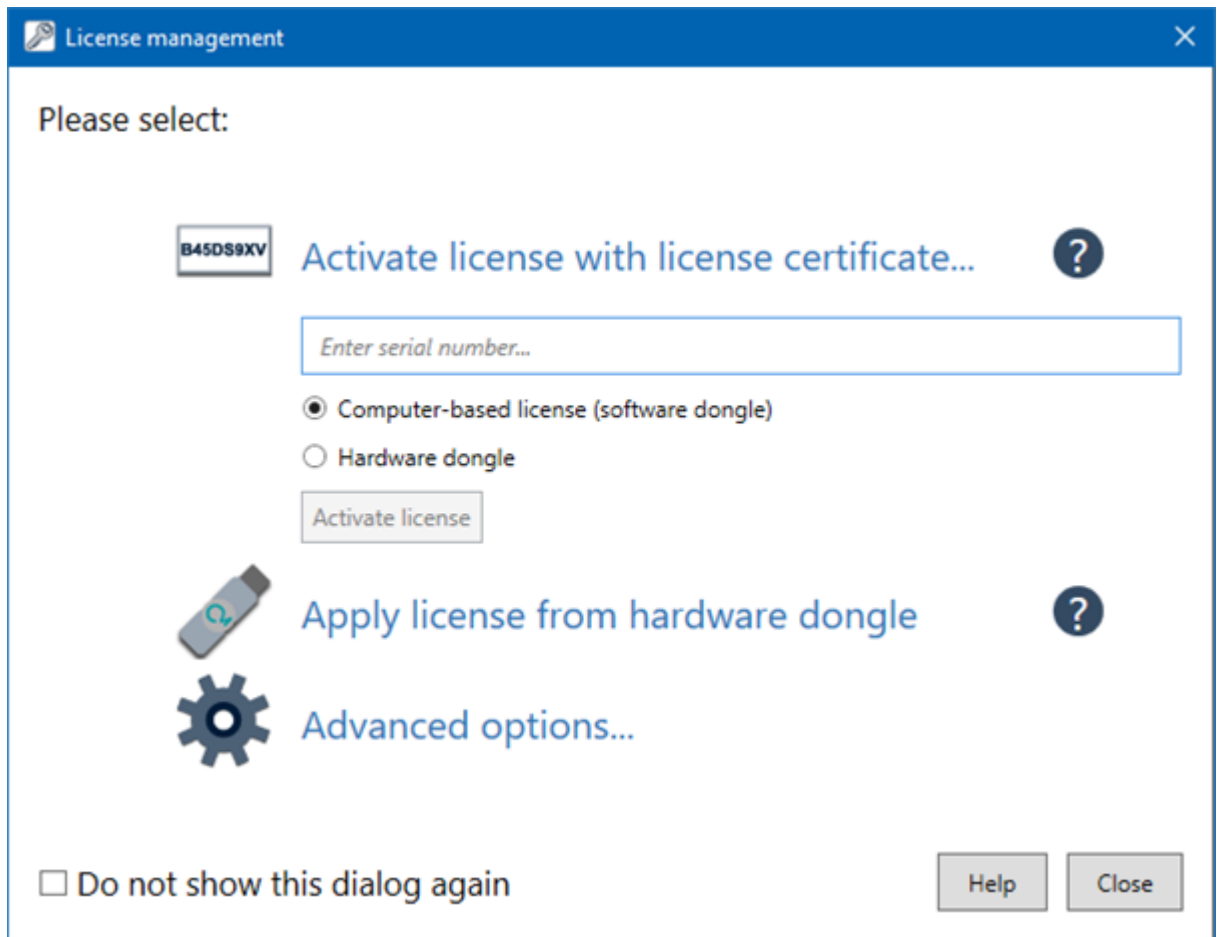
Info

Activation of a license with a virtual machine: Note the information in the **Virtual Machines** (on page 16) chapter of the zenon help for **Licensing** (on page 6).

To use a computer-based license:

1. Start the **License Manager** via **Windows -> License Manager**.

2. In the start dialog of the **License Manager**, select the **Activate license with license certificate** option.



3. Enter the serial number into the input field for the serial number.
4. Select **Computer-based license (software dongle)**.
5. Click on the **Activate license** button.
The license is transferred online via the Internet into the dongle you have selected.
6. Close the **License Manager**.

You can now start the licensed products.

You can find detailed information on the procedure, limitations and alternative procedures in the **Licensing** (on page 6) manual in the **Activate license** (on page 41) chapter and the following chapters.

7 Virtual machines

The licensing of a virtual machine is subject to special requirements and properties:

- ▶ Hardware dongles cannot be connected directly. The license must be transferred to the virtual environment.

The following procedures can be used for this:

- ▶ The dongle is connected to a physical computer and activated there as a network (on page 134). In the virtual environment, the network dongle is entered into the server search list (on page 135) and is thus available.
- ▶ The dongle is transferred to the virtual environment via a **USB to Ethernet box** (dongle server). In doing so, a local USB port is emulated in the virtual environment. The *CodeMeter Runtime* considers the dongle to be directly connected. Such boxes are commercially available.
Recommendation: SEH dongle server
(<https://www.seh-technology.com/products/usb-dongle-servers.html>).
- ▶ The dongle is routed to the virtual environment via the virtualization software. VM-ware and Virtual Box support such mechanisms. In doing so, a local USB port is emulated in the virtual environment. The *CodeMeter Runtime* considers the dongle to be directly connected.

Note: This procedure is not recommended by *Wibu Systems*.

- ▶ With software dongles, there are some limitations for use in virtual environments:

- ▶ Licenses are not unlocked by default for virtual environments. However, you can apply for unlocking from the license issuer.

Caution: Licenses that have already been activated cannot be converted. These must first be returned to the license issuer (on page 66). Only then can the license issuer convert the license. You can then activate the license in a virtual environment.

- ▶ Demo licenses only have a very limited running time in virtual environments.
- ▶ The license will be invalidated (on page 117) when moving a virtual machine to another host system.

You should therefore return the license to the license issuer (on page 66) before relocating the license. The virtual machine can only be moved after this. You can then activate (on page 41) the license again. When being used in a data center, a virtual machine can also automatically be assigned to different hosts. In this case, you need a **Software-Dongle VM DataCenter**.

- ▶ When changing the parameters of a virtual machine, such as the number of CPU cores, RAM or the MAC addresses, the license will become invalid (on page 117).
It is thus recommended that you use network licensing for virtual machines. You can find information about this in the Network Dongles (on page 134) chapter.
If this is not possible, return the license to the license issuer (on page 66) before changing the parameters. Only after this can the parameters of the virtual machine be changed. If necessary, the **Software-Dongle Virtual Machine** must be renewed. See also License invalidation with software dongles and virtual machines (on page 117). You can then activate (on page 41) the license again.

DIFFERENT TYPES OF SOFTWARE DONGLE

Depending on the type of operating system, different software dongle types are installed by the **License Manager**:

- ▶ **Software-Dongle Standard**: For use on physical computers.
- ▶ **Software-Dongle Virtual Machine**: For use with a virtual machine.
Can be used on a physical computer; not vice versa.
- ▶ **Software-Dongle VM DataCenter**: For use with a virtual machine in a public data center such as Microsoft Azure or Amazon Web Services (AWS), as well as in private data centers.
Can also be used on a physical computer, but not vice versa.

Note: If a virtual machine is converted into a physical computer, you then have both dongles on one system. Both are equivalent and both can be used.

Attention

If a physical computer is converted to a virtual machine, the **Software-Dongle Standard** dongle type can no longer be used. All licenses contained therein are thus no longer available. You must return the licenses beforehand. See the following chapter: Transfer/relocate license (on page 66)

CONVERSION TO VIRTUAL MACHINE

If you use software dongles and want to convert a physical computer into a virtual machine, then:

1. Return all activated licenses (on page 66).
2. Apply to COPA-DATA for a conversion of the license to a license for a virtual machine.
If you operate the virtual machine in a data center such as Microsoft Azure or Amazon Web Services (AWS), or in a private data center, apply for a license for VM DataCenter
Caution: Standard licenses cannot be activated on a virtual machine. You can see whether a license is suitable for a virtual machine from the license certificate.
3. Convert the operating system into a virtual machine.
4. Activate (on page 41) the license again

CONVERSION OF A VIRTUAL MACHINE INTO A PHYSICAL COMPUTER

If you use software dongles and want to convert a virtual machine into a physical computer, then:

1. Return all activated licenses (on page 66).
2. Convert the operating system into a physical computer.
3. Activate (on page 41) the license again

RELOCATION OF VIRTUAL MACHINES TO ANOTHER HOST SYSTEM

Licenses for software dongles become invalid if the hardware changes. Therefore return (on page 66) all licenses that are saved in software licenses before relocation.

8 License Manager

Licenses are administered in their own application, the **License Manager**.

You start these using:

- ▶ **Windows Start menu -> COPA-DATA -> License Manager.**
- ▶ **Startup Tool:** Click on the **Tools** button, select the **License Manager** entry in the **Available applications** area and click on **Start**.
- ▶ Via the **Open License Management** button in most **About** dialogs in zenon products.
- ▶ Also in ZAMS directly for zenon Analyzer.

FUNCTIONALITY

You can license the following in the **License Manager**:

- ▶ **Activate** (on page 41) locally or remotely (on page 73):
Activate licenses for a local computer or a remote computer and assign them to certain COPA-DATA products.
- ▶ **Activate online** (on page 44) and **offline** (on page 46):
You can activate licenses directly only or offline using a license request file.
- ▶ **Assign products** (on page 31) locally or remotely:
Determine which products are to use which licenses and in which order.
- ▶ **Carry out mass activation:**
Use a collective file to activate many licenses.
- ▶ **Borrow** (on page 58):
You can lend licenses to other users for up to 90 days. Service technicians can, for example, take licenses for use at customers' premises.
- ▶ **Return** (on page 66)/relocate:
You can return licenses and activate it again on another computer. This is how you transfer licenses to other computers or prevent license invalidation in the event of changes to hardware for software licenses or host systems for a virtual machine.

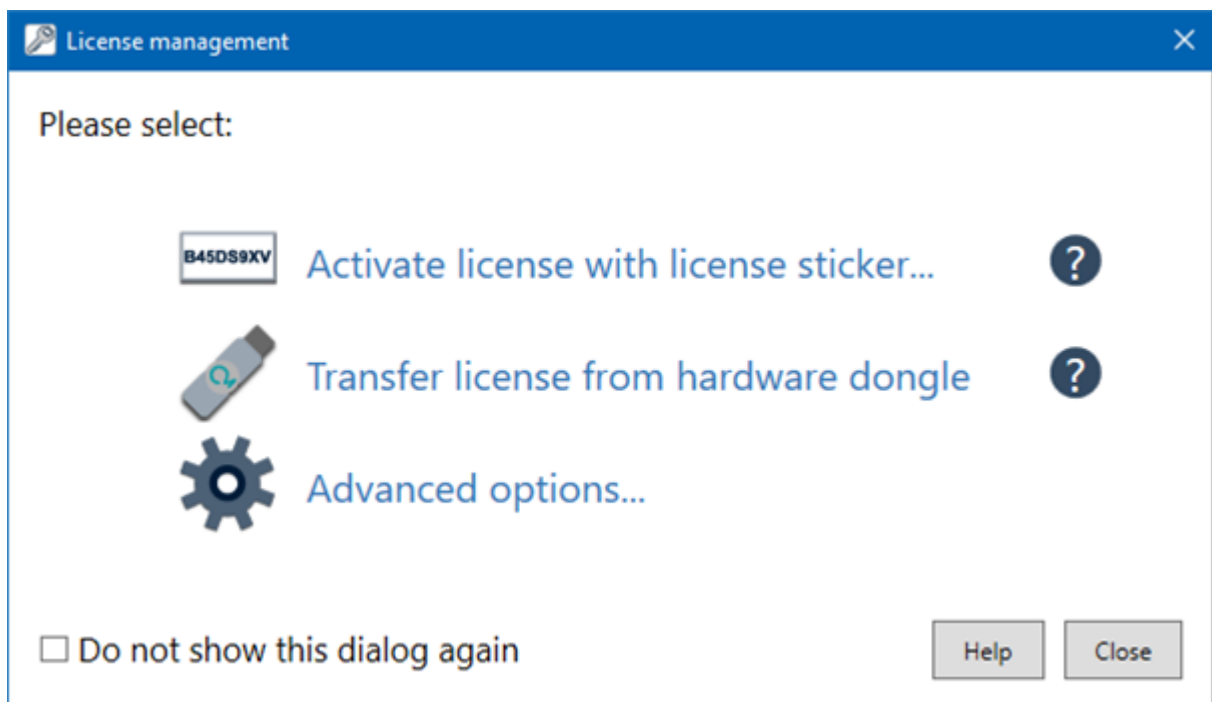
Note:

- ▶ You can also activate, update and distribute licenses *silently* using the command line (on page 77).

- ▶ All changes in the **License Manager** are immediately applied and executed.
- ▶ For remote licensing and license borrowing, the appropriate options must be enabled in the **Startup Tool**.
This can be done under **Application -> Options** in the **General** tab.

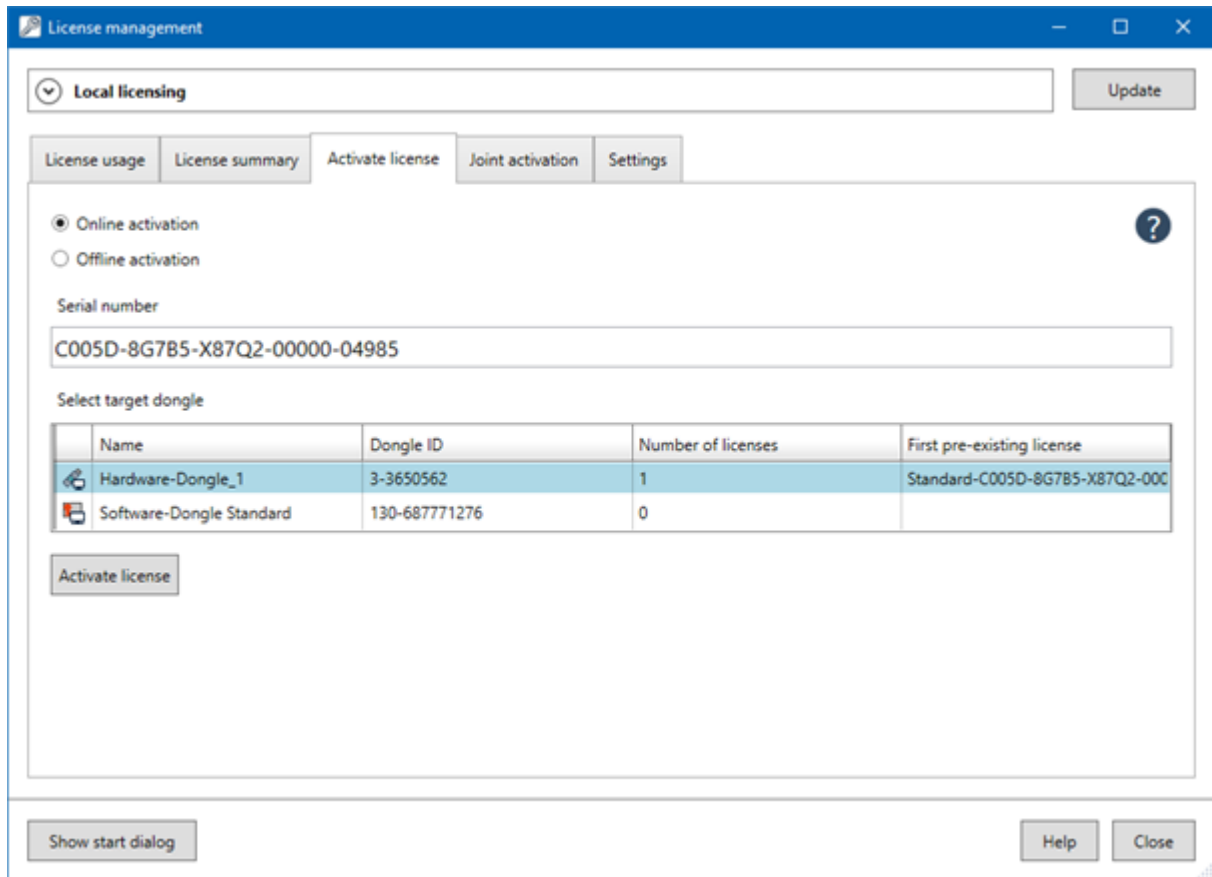
START DIALOG

The **License Manager** starts with a start dialog (on page 21) by default. This provides simple, interactive configuration possibilities. The **question mark** symbol shows brief help for the respective entry.



LICENSE MANAGEMENT DIALOG

There is a comprehensive application (on page 30) with several tabs available for individual settings.



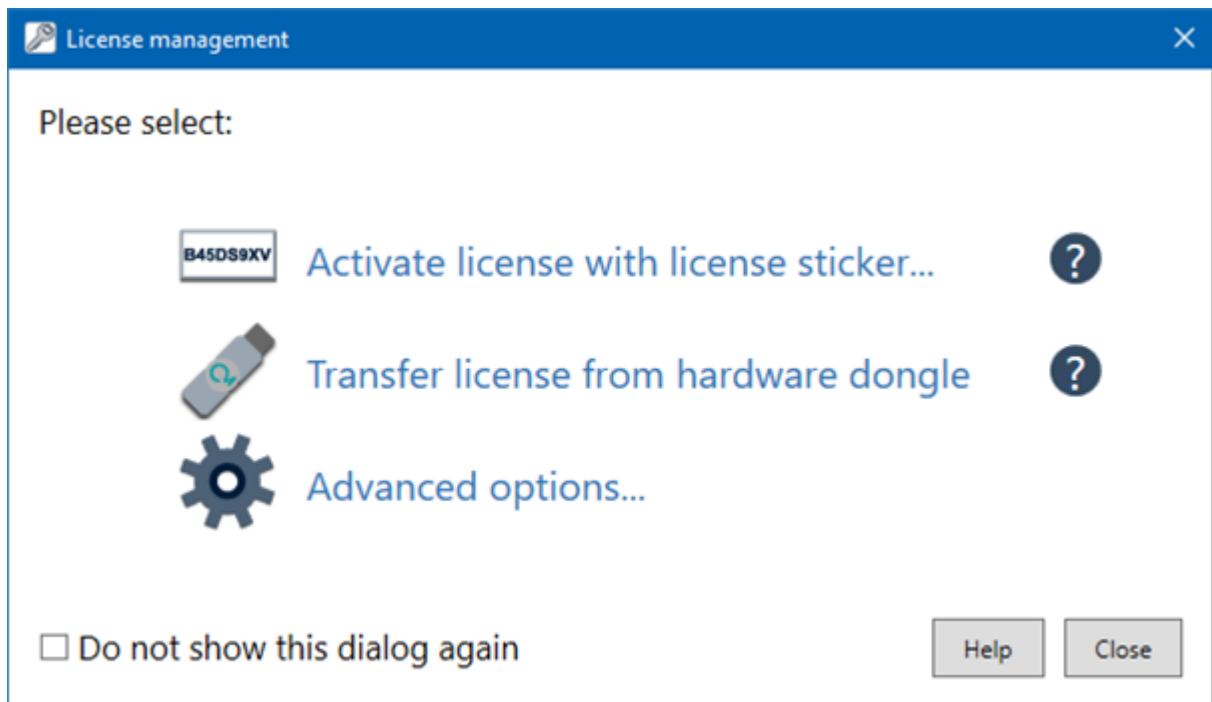
8.1 Start dialog

The **License Manager** starts with a start dialog. This can be deactivated using the **Do not show this dialog again** option. General reactivation is carried out using the **Settings** (on page 62) tab.

The two most important actions are available in the start view:

- ▶ Activation of a license (on page 23)

- ▶ Transfer of a license (on page 25) from a hardware dongle



Option	Description
Activate license with license certificate	Allows the online activation of a license (on page 23) with the serial number from the license certificate.
Apply license from hardware dongle	Allows the transfer of a license (on page 25) for all products of the license from a hardware dongle.
Advanced options	Opens further options for the administration (on page 29) of licenses.
Do not display this dialog	<ul style="list-style-type: none"> ▶ Active: The next time the License Manager is opened, the dialog is hidden and the view is opened with all tabs.

CLOSE DIALOG

Option	Description
Help	Opens online help.
Close	Clicking on the button closes the dialog.

8.1.1 Activate the license in the start dialog

Use this preferred option if you want to activate a license on a local dongle online.

You can choose whether the license is transferred to a software dongle or - if present - hardware dongle. You can read details on available dongles in the dongle types (on page 13) chapter.

During online activation, licenses are activated directly without further applications or data carriers. There must be an online connection to the Internet available to do this.

Hint

Use the Remote Licensing (on page 72) if you have a direct Internet connection

If you use a proxy server for your Internet connection, ensure you have the correct proxy settings (on page 65).

To activate a license with a license certificate:

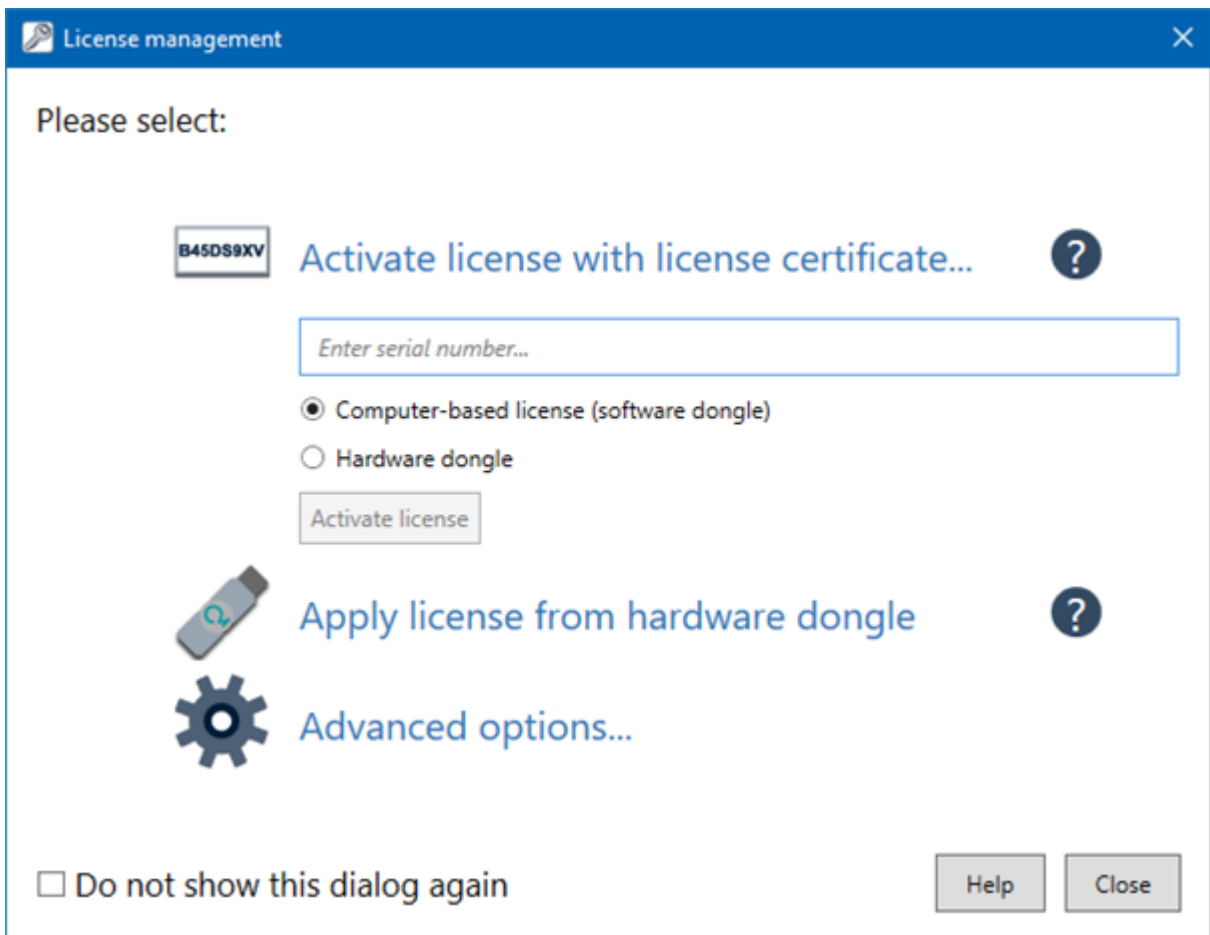
1. Start the **License Manager**.
If the start dialog is not displayed, click on the **Show start dialog** button.
2. Click on **Activate license with license certificate**.
3. Enter the serial number from your license certificate into the field.
4. Select the desired dongle (on page 13).
 - ▶ Computer-based license (software dongle)
 - ▶ Hardware dongle. If you have not yet plugged your hardware dongle in yet, insert it now and click on the **Reload** button.

Note: The license cannot be activated automatically if there are several hardware or software dongles. The **License Manager** automatically forwards you to the **Activate License** (on page 42) tab.



5. Click on **Activate License**.

The license is transferred to the dongle and saved in a tamper-proof form there. If you have set the **Apply activated licenses immediately** in the **Settings (on page 62)** tab, the license is entered for all products at the first place in the **License.ini** file. This INI file contains information on the sequence in which the licenses are used. You can amend the order in the **License Application** (on page 31) tab.

ACTIVATE LICENSE WITH LICENSE CERTIFICATE DIALOG





Please select:


 **Activate license with license certificate...** 

☒ Computer-based license (software dongle)

☐ Hardware dongle

Activate license

 **Apply license from hardware dongle** 

 **Advanced options...**

☐ Do not show this dialog again

Help **Close**

Option	Description
Activate license with license certificate	Clicking opens the further input options.
Serial number	Input field for the serial number that is to be activated.
Computer-based license (software dongle)	Selection of a software dongles for a computer-based license.
Hardware dongle	Selection of a CodeMeter hardware dongle. The dongle must be inserted
Activate license	Clicking on the button activates the license online. Only available if a valid serial number has been entered and a valid dongle has been selected.

CLOSE DIALOG

Option	Description
Help	Opens online help.
Close	Clicking on the button closes the dialog.

8.1.2 Apply license from hardware dongle

In order for a license to be able to be used, it is not sufficient for it to be saved in the dongle. It must also be assigned to the products from which they are used. There are often several licenses on a computer, including demo licenses too.

With this option, you enter a hardware dongle license for all products that are included in the license, at the first place in the **License.ini** file:

1. Insert the dongle into the computer.
2. Click on **Apply license from hardware dongle** in the start dialog.
The license detected is displayed.
3. Click on the **Use License on this Computer** button.
The license is applied.

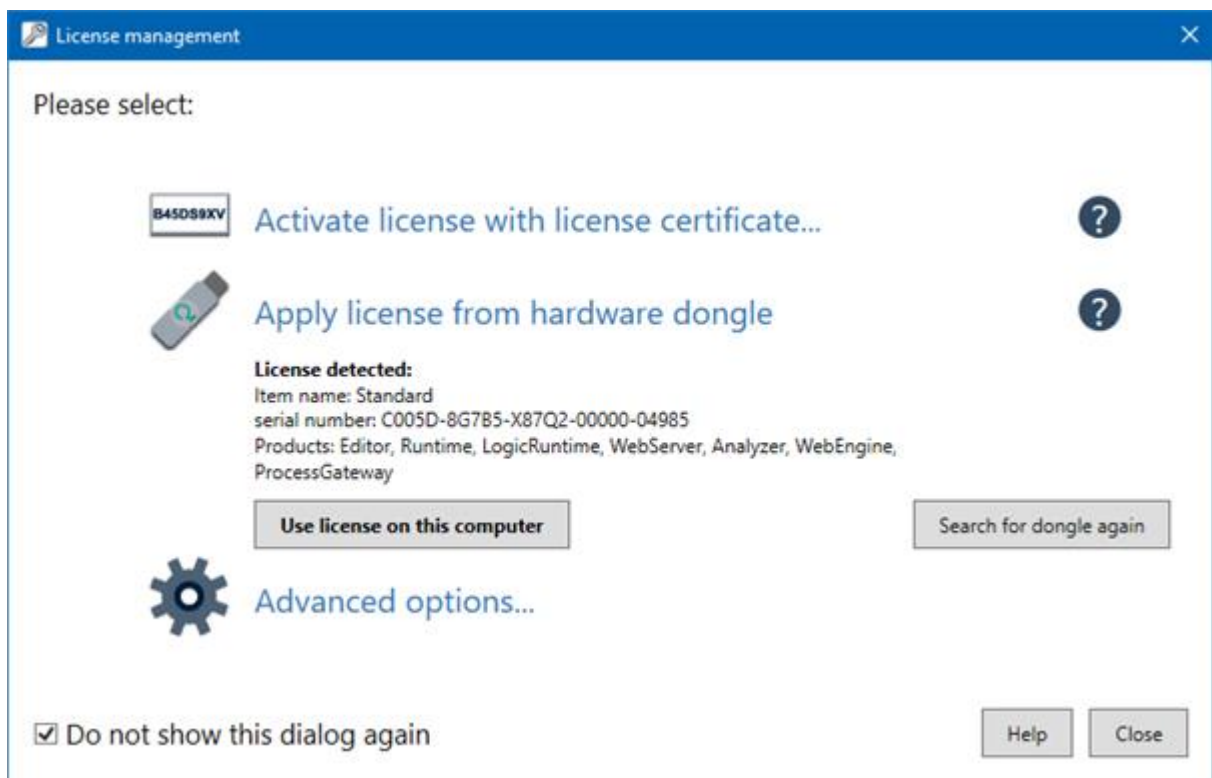
If several licenses are saved on a dongle, a corresponding message is shown in the start dialog. In this case:

- ▶ Insert a dongle with just one license and click on **Refresh**.
Or
- ▶ Click on **License Management**. The License usage (on page 31) tab is opened. There, with several licenses on a hardware dongle, you can also specify which product uses a license, and in which sequence.

Hint

You can set the license order (on page 31) at any time in the License usage tab

APPLY LICENSE FROM HARDWARE DONGLE DIALOG

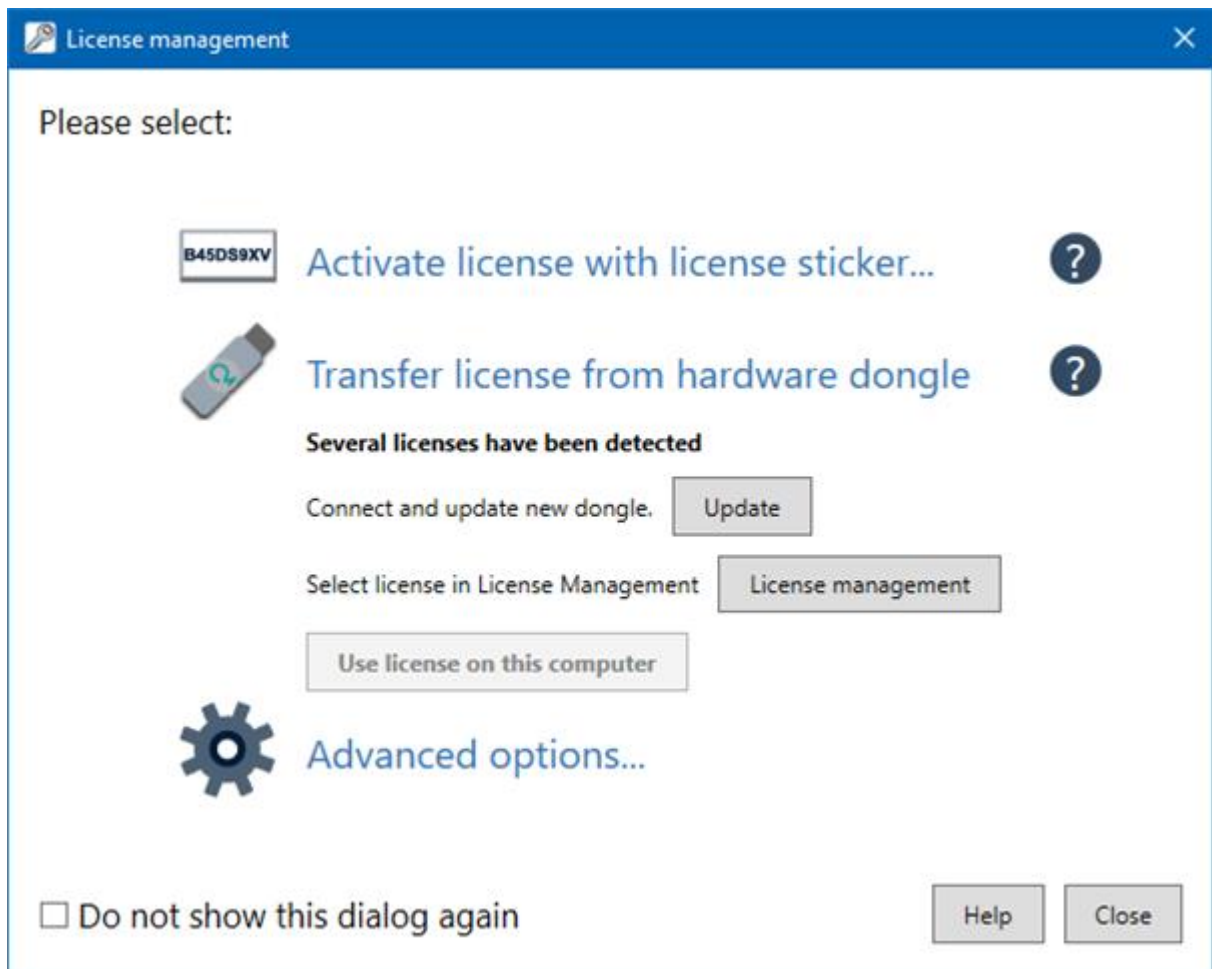


Option	Description
Apply license from hardware dongle	Clicking opens the further input options and shows the license found. If no license is found, you can start an update by clicking on Search for dongle again again.
Use license on this computer	Clicking on the button accepts the license for the computer.
Search for dongle again	Searches for dongle and updates the information displayed.

CLOSE DIALOG

Option	Description
Help	Opens online help.
Close	Clicking on the button closes the dialog.

DIALOG FOR SEVERAL LICENSES ON A DONGLE



Option	Description
Apply license from hardware dongle	Clicking opens the further input options and shows the license found.
Several licenses have been detected	<p>Several licenses were found. Select the desired procedure:</p> <ul style="list-style-type: none"> ▶ Connect new dongle and refresh: Insert a new dongle with only one license and click on Refresh. ▶ Select license in License Management: Click on License Manager and select the desired license there.
Reload	Reads the dongle again.
License Manager	Opens the License usage (on page 31) tab.

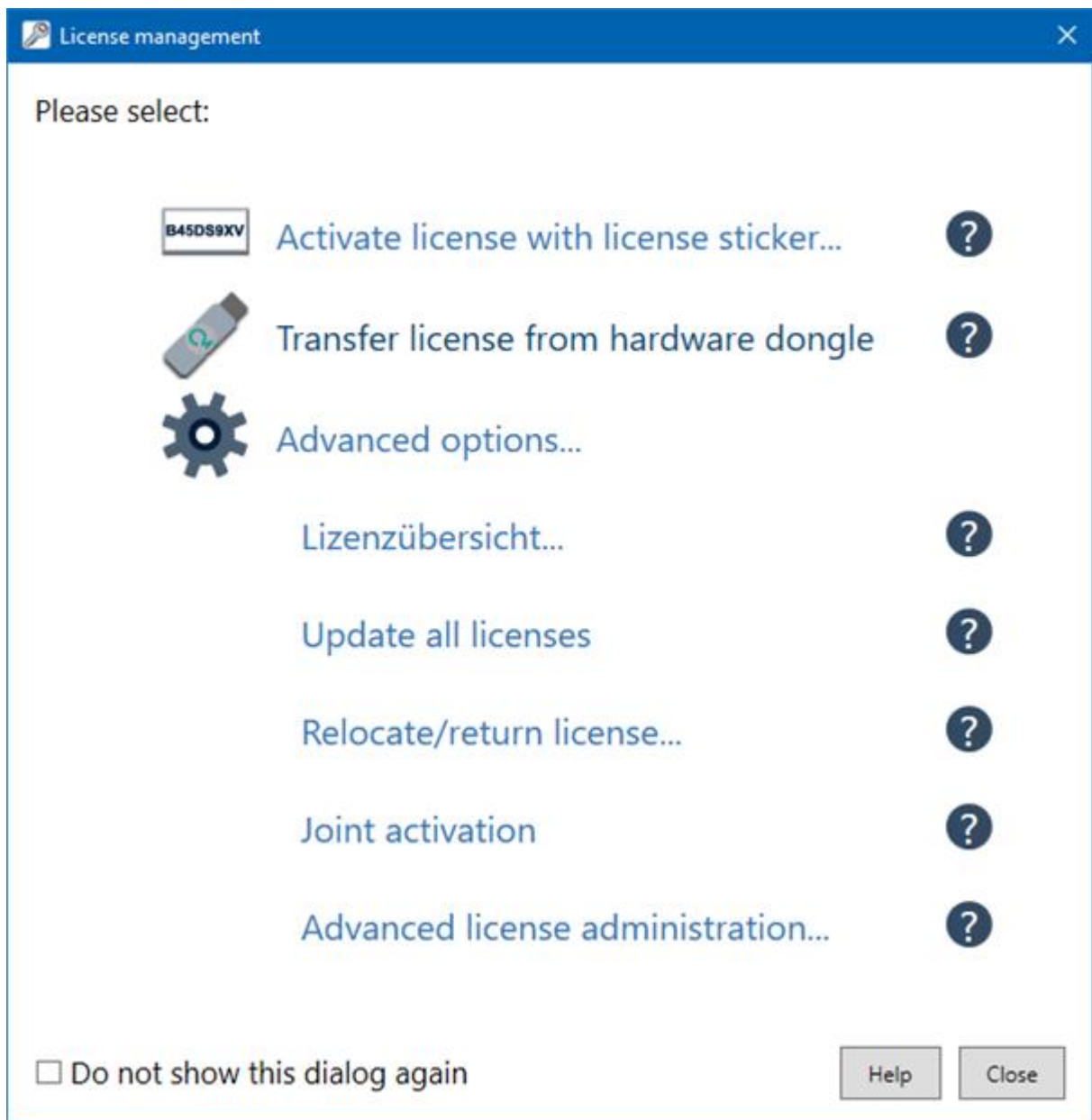
Option	Description
Use license on this computer	Clicking on the button accepts the license for the computer.

CLOSE DIALOG

Option	Description
Help	Opens online help.
Close	Clicking on the button closes the dialog.

8.1.3 Enhanced view

The enhanced view offers you additional actions for licensing.



Option	Description
Activate license with license certificate	Allows the activation of a license (on page 23) with the serial number from the license certificate.
Apply license from hardware dongle	Allows the transfer of a license (on page 25) for all products of the license from a hardware dongle.
Advanced options	Opens further options for the administration (on

Option	Description
	page 29) of licenses.
License overview	Opens the dialog with the License Overview (on page 38) tab. All activated licenses are displayed here. These can also be updated or returned here.
Update all licenses	Starts the update for all licenses. If errors occur, they are displayed in this dialog.
Relocate/return license	Starts the online return (on page 67) for a license. A request for confirmation is made before it is returned. If there are several licenses to return, there is an automatic switch in the dialog to the License Overview (on page 38) tab. A license must be returned if they are to be used on a different computer or if the computer's hardware will be changed significantly. For details, see the Transfer/relocate license (on page 66) chapter.
Mass activation	Opens the dialog with the Mass Activation tab. Licenses from a list can be activated here.
Advanced license administration	Opens the dialog with the License usage (on page 31) tab.
Do not show this dialog again	Active: The next time the License Manager is opened, the dialog is hidden and the view is opened with all tabs.

CLOSE DIALOG

Option	Description
Help	Opens online help.
Close	Clicking on the button closes the dialog.

8.2 Main application

Licensing tasks are administered using the tabs:

- ▶ **License usage** (on page 31): Display and assignment of licenses to products and order for use.
- ▶ **License summary** (on page 38): Display of all activated licenses and actions for updating and returning licenses.
- ▶ **Activate license** (on page 42): Options for online and offline activation of licenses.
- ▶ **Mass activation** (on page 51): Possibility to activate licenses from a list.
Must be activated via the **Settings** tab.
Default: *Hidden*
- ▶ **License borrowing** (on page 54): Allows to lend licenses to another dongle for up to 90 days.
- ▶ **Settings** (on page 62): Configuration of the settings.

8.2.1 License usage

In order for a license to be able to be used, it is not sufficient for it to be saved in the dongle. It must also be assigned to the products from which they are used. There are often several licenses on a computer, including demo licenses too.

You assign your licenses to the individual products in this tab. Furthermore, with several licenses, you can specify the sequence in which they are used. If a connection to a license is lost, an attempt is made to use another valid license. The sequence of the licenses defines the sequence of the license search. You can find details in relation to this in the **Redundant License Protection** (on page 114) chapter.

Attention

The display always relates to the computer that is set in the header for **Local licensing / remote licensing**. It can therefore be a local view or a remote view.

With remote view, all licenses that the remote computer sees are displayed. With network licenses in particular, this can be a completely different view because the network licenses are found with CodeMeter mechanisms. See in relation to this the **Set up server search lists for network dongles** (on page 135) chapter.

Note: If the **Apply activated licenses immediately** option has been activated in the **Advanced** tab, the licenses are automatically assigned in first place for all applicable products the first time they are activated.

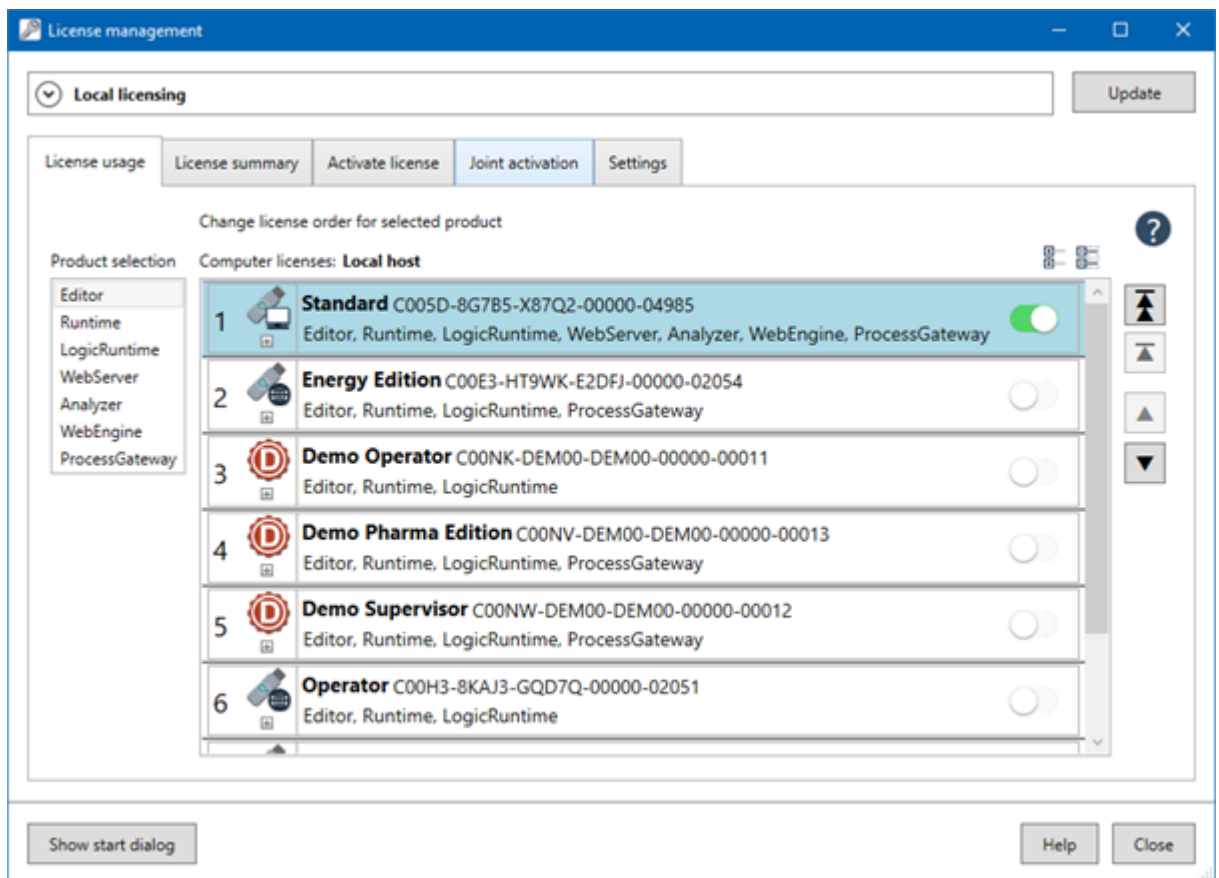
Hint

To assign a license to all products at the first place, click on the button with the two arrows and the horizontal line: **Enter selected license for all products at the first location**.

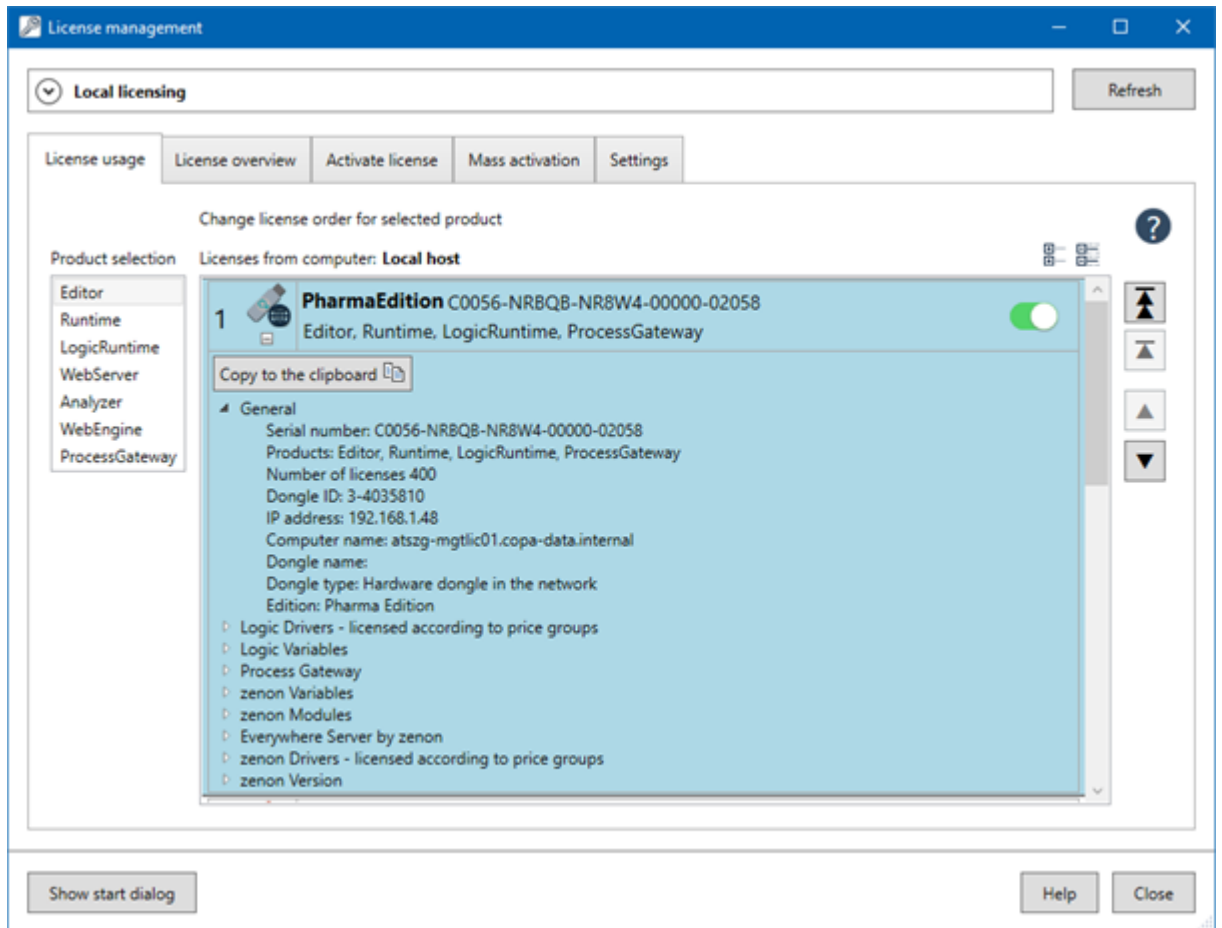
ASSIGN LICENSES

To enter licenses manually for a product or to change the order:

1. Start the **License Manager**.
2. If the start dialog is shown, then click on the **Advanced Options** button and then on **Advanced License Administration**.
3. Switch to to the **License usage** tab.
All products for which there is a license are shown.

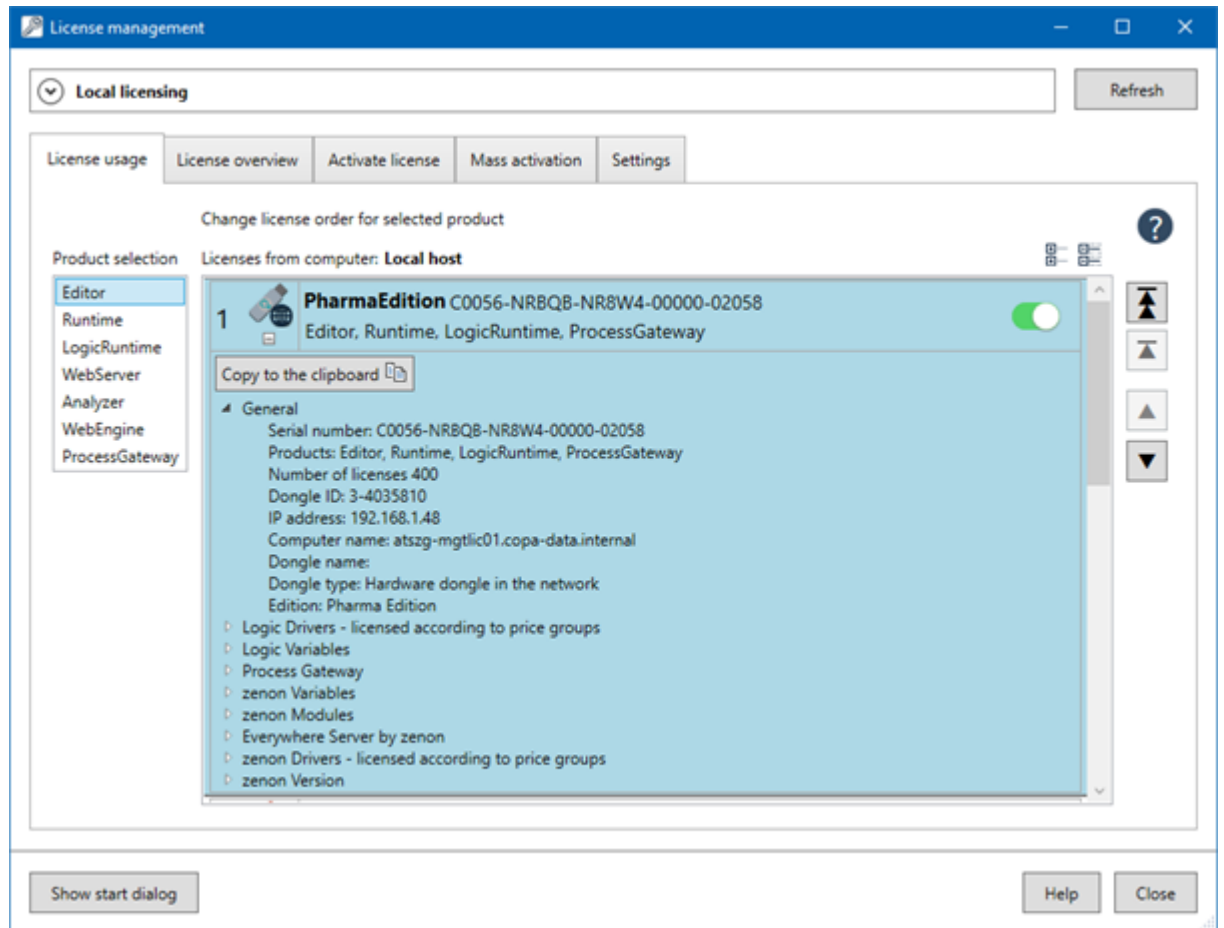


4. Select the product to which a license is to be assigned.

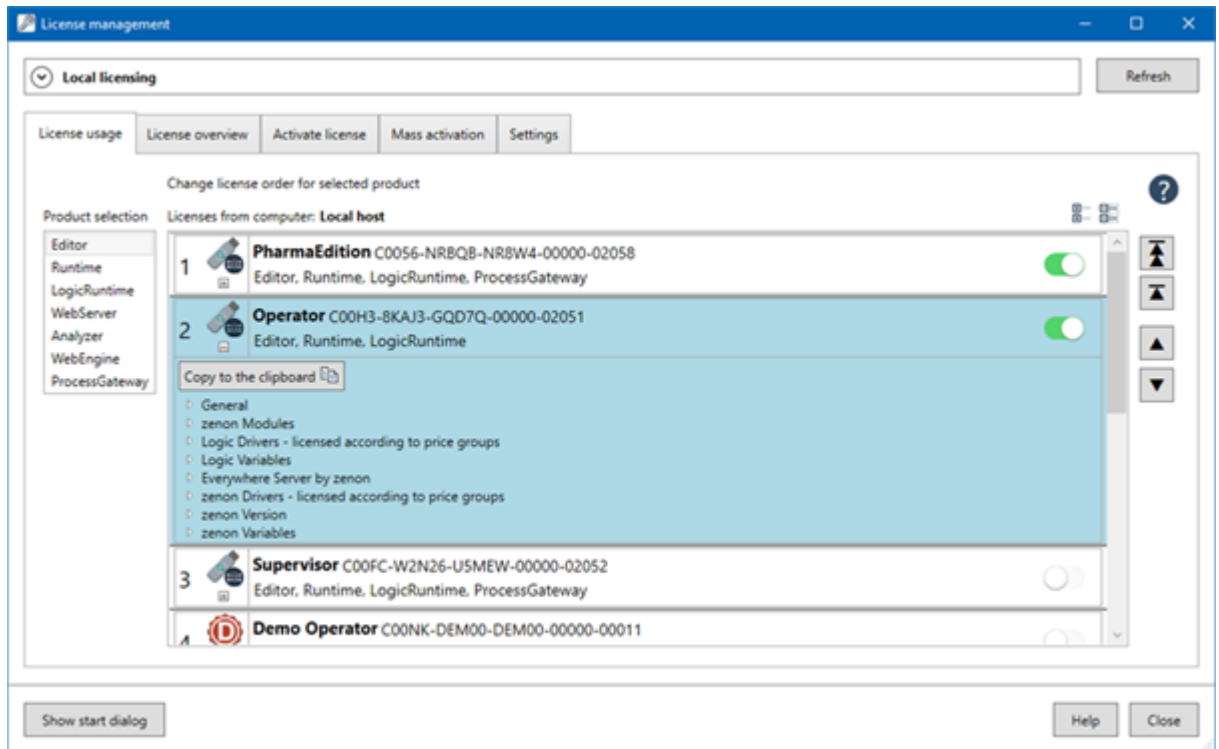


5. Click on the button at the far right in the list for the desired license. The button is colored green.

The license is assigned to the product and entered into **License.ini**.



6. If several licenses are assigned to a product, they can be sorted. Click on the up or down arrow keys to set the order of the licenses. The sorting can also be carried out by dragging & dropping. The sorting is applied immediately in **License.ini**.

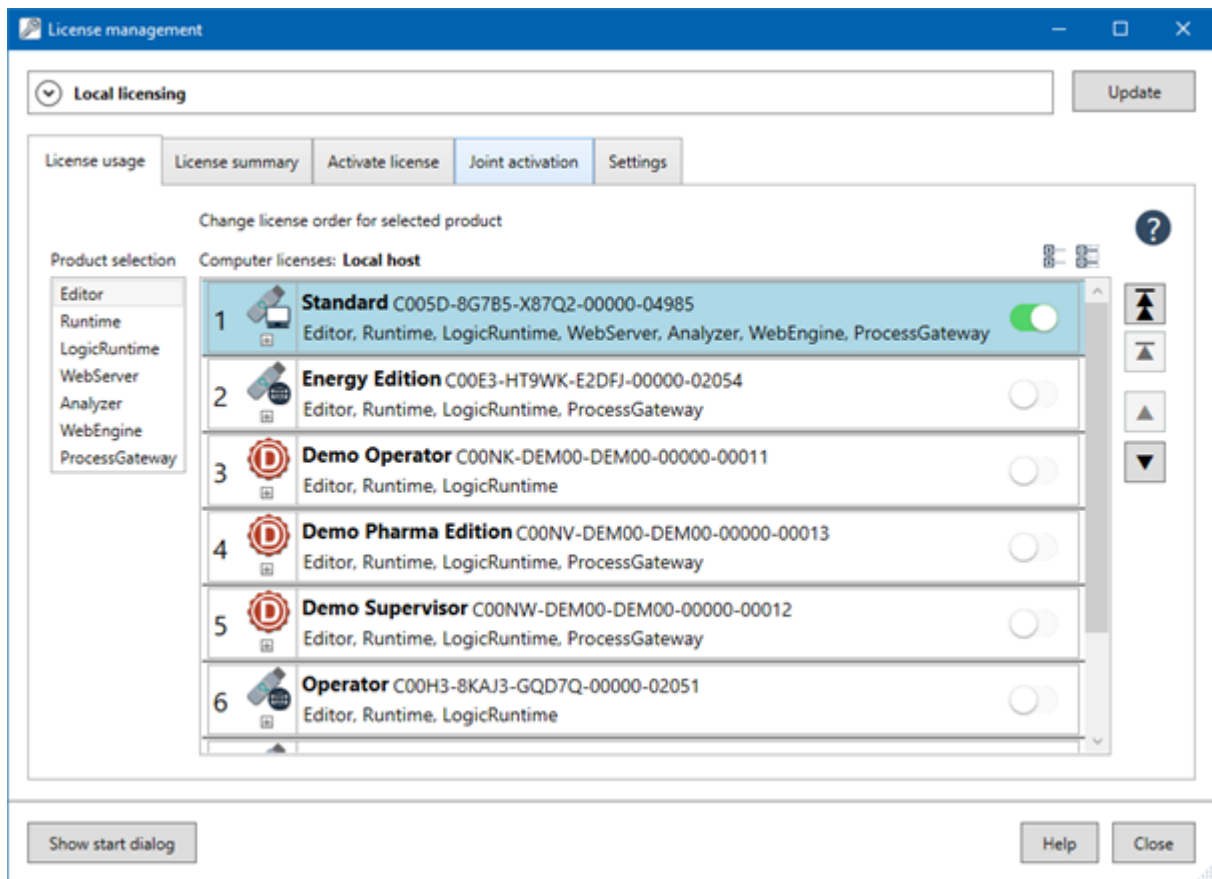


⚠ Attention

Licenses are sometimes administered by the system in the **License.ini** file. Manual changes to this file can lead to the licenses becoming unusable and thus being lost. Only carry out any necessary changes for your licenses using the **License Manager**.

Errors in **License.ini** are shown by corresponding error messages.

TAB OPTIONS



Option	Description
Product selection	<p>List of available licensed products.</p> <p>Clicking on a product shows the available licenses for the product in the Licenses list.</p>
Licenses	<p>List of licenses that are available for the selected product on the selected computer.</p> <p>Clicking on the plus sign shows detailed information for the respective license.</p> <p>Clicking on the Copy to Clipboard button copies all information about the selected licenses to the clipboard.</p> <p>The status of a licenses is displayed and amended by means of a switch:</p> <ul style="list-style-type: none"> ▶ Green symbol: This license is in the License.ini and and was also found on the dongle. Clicking removed the license from License.ini.

Option	Description
	<ul style="list-style-type: none"> ▶ White symbol: This license was found on a dongle but has not been entered into License.ini. Clicking enters the license into License.ini. ▶ Red exclamation mark plus green symbol: This license is in License.ini but was not found on the dongle. This can have several causes, how the dongle was removed, dongle cannot be found in the network etc. <p>Changes are entered into License.ini immediately.</p>
Symbols to display details	Two symbols above the list make it possible to show and hide detailed information for all licenses. The left symbol shows details; the right symbol hides details.
Arrow symbols	<p>Arrow symbols next to the list sort the licenses.</p> <ul style="list-style-type: none"> ▶ Horizontal line + double arrow pointing upwards: The license is sorted up to the top and entered at the first place for all products in License.ini. ▶ Horizontal line + arrow pointing upwards: The license is sorted up to the top and entered at the first place for the selected product in License.ini. ▶ Arrow upwards: The license is moved one step up. ▶ Arrow downwards: The license is moved one step down. <p>The order can also be amended with the mouse by means of dragging & dropping.</p>

DIALOG OPTIONS

Option	Description
Local licensing / remote licensing	Clicking on the arrow in the header opens the options to establish a connection (on page 73) to a remote computer or select the local computer.
Show start dialog	Opens the start dialog for standard licensing tasks.
Help	Opens online help.

Option	Description
Close	Clicking on the button closes the dialog.

8.2.1.1 Test licenses

Because the first appropriate license is always used for the license query, you can use demo licenses purposefully for testing. To do this, create the desired demo license to be used as the first license to be used in the **License Manager** in the **License Manager** (on page 31) tab. The duration of a demo license is always shown in the license manager under **Details** of the license. Once this duration has expired, this license starts in demo mode with a 10 minute duration.

8.2.2 License overview

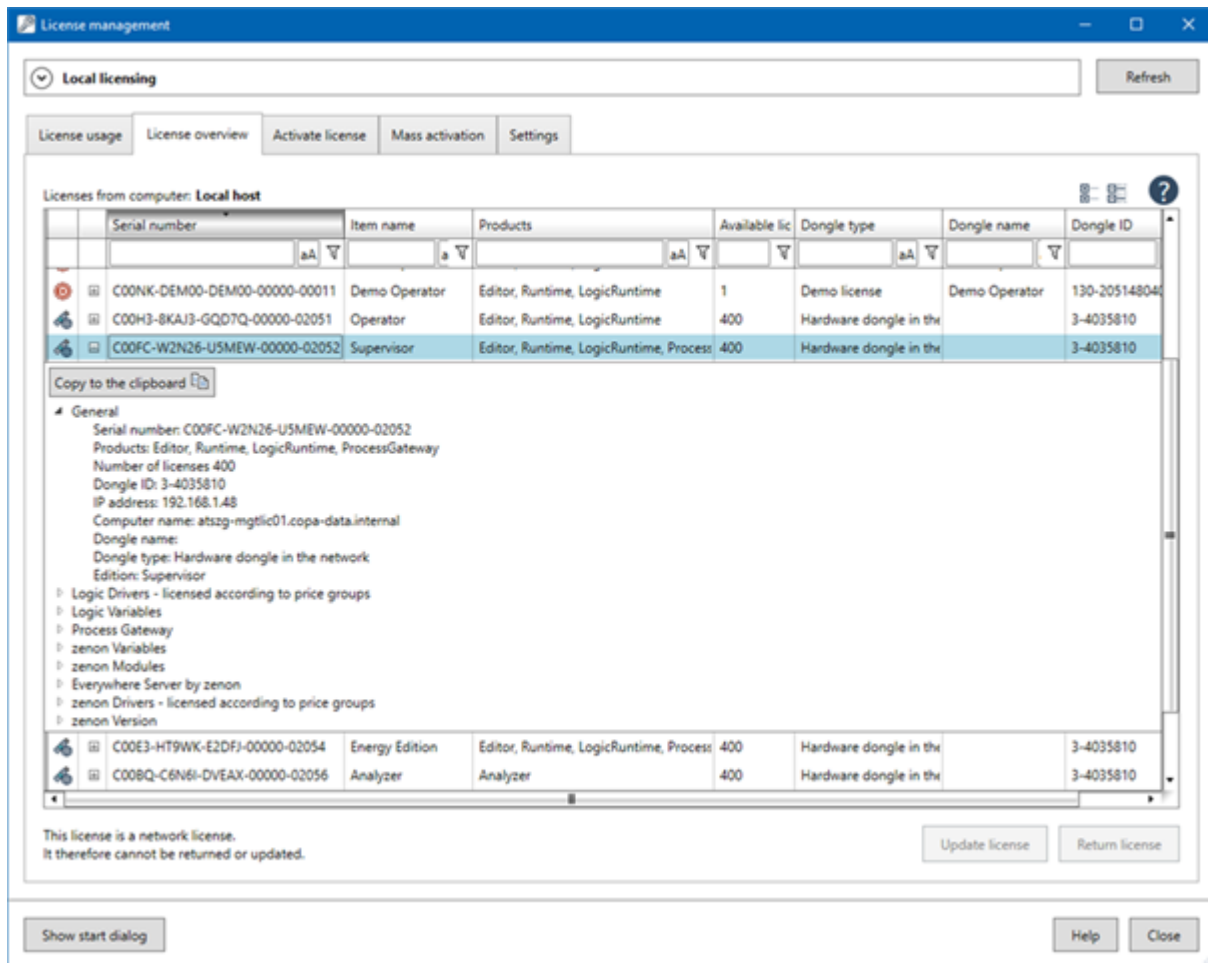
You can do the following in this tab:

- ▶ Show details of all licenses that can be accessed from your computer.
This is both local licenses as well as licenses that have been saved on a network dongle (on page 134).
If you need the current version to order the license expansion, you can find all information here.
- ▶ Update licenses (on page 70).
- ▶ Return licenses (on page 66).

Attention

The display always relates to the computer that is set in the header for **Local licensing / remote licensing**. It can therefore be a local view or a remote view.

With remote view, all licenses that the remote computer sees are displayed. With network licenses in particular, this can be a completely different view because the network licenses are found with CodeMeter mechanisms. See in relation to this the **Set up server search lists for network dongles** (on page 135) chapter.



Option	Description
License list	<p>Lists all available licenses. The following information is available for each license:</p> <ul style="list-style-type: none"> ▶ Symbol: Shows which type of dongle* it is. ▶ Serial number ▶ Item name ▶ licensed products ▶ Available licenses: Shows how many licenses are present and not loaned. The information does not state how many licenses are currently occupied by a product or are free. This information can only be obtained via CodeMeter WebAdmin (on page 132). ▶ Loaned licenses ▶ End of validity of loan license ▶ Loan dongle ID

Option	Description
	<ul style="list-style-type: none"> ▶ Dongle type* ▶ Dongle ID ▶ Dongle name The name can be amended using the CodeMeter Control Center (on page 129). ▶ Computer name <p>The following additional columns are available for licenses that it concerns:</p> <ul style="list-style-type: none"> ▶ Loaned licenses ▶ End of validity ▶ End of usage period <p>The list can be sorted and filtered.</p>
Details	<p>Click on the + to open the display of the details.</p> <ul style="list-style-type: none"> ▶ General information on the dongle and addresses, as well as edition ▶ Modules ▶ Number of variables ▶ Version <p>Symbols:</p> <ul style="list-style-type: none"> ▶ + button: expands all details of all licenses ▶ - button: collapses all details of all licenses
Update license	<p>Clicking on the button establishes a connection to the license depot online, searches for an update and applies this if present.</p> <p>Not available for demo licenses and licenses in the network.</p>
Return license	<p>Returns selected license online (on page 66).</p>

***Dongle types:**

- ▶ Local hardware dongle
- ▶ Local software dongle
- ▶ Network hardware dongle
- ▶ Network software dongle
- ▶ Demo licenses (always software dongle)

Color code:

- ▶ Licenses are colored red if:
 - ▶ The end of validity has been exceeded
 - ▶ The usage period has been exceeded
 - ▶ The loan duration has been exceeded
- ▶ Demo licenses are colored in orange if they have exceeded the maximum usage duration or the maximum number of starts has been exceeded for one of the products contained.

DIALOG OPTIONS

Option	Description
Local licensing / remote licensing	Clicking on the arrow in the header opens the options to establish a connection (on page 73) to a remote computer or select the local computer.
Show start dialog	Opens the start dialog for standard licensing tasks.
Help	Opens online help.
Close	Clicking on the button closes the dialog.

8.2.3 Activate license

If a license is issued, it is stored in the "license depot". This is a database in which the license waits to be collected. The license must be saved on your system in order you to be able to use the license as a user. A dongle (on page 13) is used as a save location. This dongle is also called a license container. This is transferred from the license depot to the dongle when a license is activated.

There are the following possibilities for this transfer:

- ▶ Online activation via start dialog (on page 23):
Preferred method. In doing so, a connection from your computer to the license depot is established via the Internet and the license is transferred to the dongle.
- ▶ Online activation via **Activate License** tab (on page 44):
This online method must be used if you have connected several software or hardware dongles.
Note: You can also use this method if the computer to be licensed is not connected to the Internet directly. Remote licensing (on page 72) is available to you for this.
- ▶ Online mass activation (on page 51):
Use this method if you want to activate several computers at once.

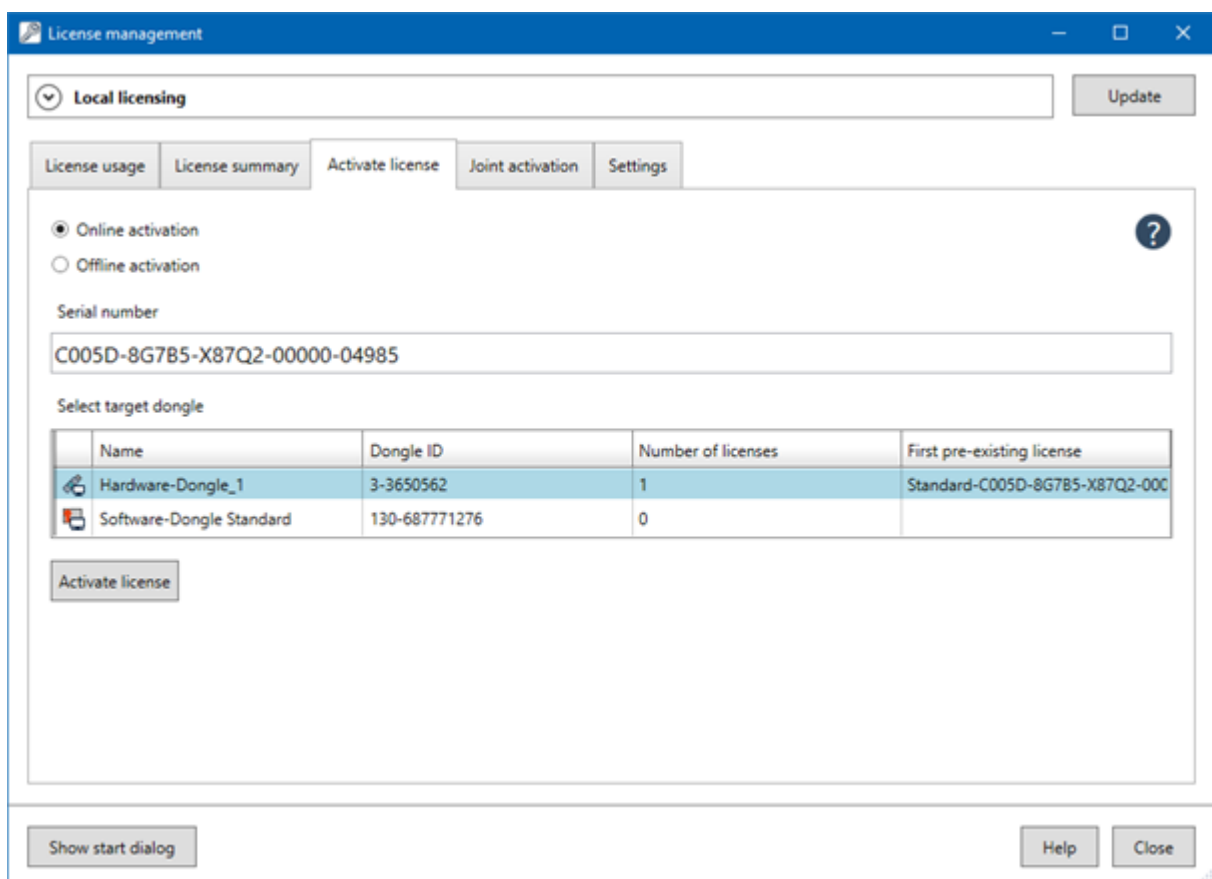
- ▶ Activation via command line tool (on page 77):
Use this possibility if you want to activate licenses online in an automated manner via third-party applications. The command line tool allows both individual activation as well as joint activation and supports local and remote activation.
- ▶ Offline activation (on page 46):
Manual method. This method is used if there is a direct Internet connection. In doing so, the complete handling of the transfer must be carried out with the help of a web browser.

If you receive a pre-programmed dongle, the license was already transferred to the dongle and activated. You only need to assign this license to the respective products for use. For details, read the **Apply license from the hardware dongle** (on page 25) chapter.

8.2.3.1 Activate licenses via License tab

Activate a license in this tab.

You can find the detailed procedure of how a license is activated from the Online activation (on page 44) and Offline activation (on page 46) chapters.



License management



Local licensing [Update]

License usage | License summary | **Activate license** | Joint activation | Settings

☒ Online activation ?
☐ Offline activation

Serial number
 C005D-8G7B5-X87Q2-00000-04985

Select target dongle

	Name	Dongle ID	Number of licenses	First pre-existing license
	Hardware-Dongle_1	3-3650562	1	Standard-C005D-8G7B5-X87Q2-00C
	Software-Dongle Standard	130-687771276	0	

[Activate license]

[Show start dialog] [Help] [Close]

Option	Description
Local licensing	Selection of whether licensing is local or on a remote

Option	Description
	computer.
Online activation (on page 44)	Select <i>online</i> activation type. The license is activated online. You need an Internet connection for this.
Offline activation (on page 46)	Select <i>offline</i> activation type. Activation is carried out by means of file exchange.
Serial number	Enter the serial number that is to be activated.
Select target dongle	<p>List of available dongles. Clicking on a dongle selects it as a target for the license.</p> <p>The list shows:</p> <ul style="list-style-type: none"> ▶ Name: Dongle name. ▶ Identification: Number of the dongle. ▶ Number of licenses: Number of the licenses that have already been activated on this dongle. ▶ First existing license: Serial number of the license that has been activated first on the dongle. <p>The list can be sorted. To sort, click on the head of the desired column. Another click inverts the sorting.</p> <p>Note: Only locally-available dongles are displayed.</p>
Activate license	<p>Clicking on the button activates the license.</p> <p>Only available for online activation and only if a valid serial number has been entered and a dongle has been selected.</p>
Create license request file	<p>Clicking on the button creates a file with which the activation of the license can be requested.</p> <p>Only available for offline activation and only if a valid serial number has been entered and a dongle has been selected.</p>
Import license update file	Clicking on the button opens the dialog to select a file for the offline activation of a license.

Option	Description
	Only available for offline activation .
Create license confirmation file	<p>Clicking on the button creates a file with which the activation of the license can be confirmed.</p> <p>Only available for offline activation and only if a valid serial number has been entered and a dongle has been selected.</p>

DIALOG OPTIONS

Option	Description
Local licensing / remote licensing	Clicking on the arrow in the header opens the options to establish a connection (on page 73) to a remote computer or select the local computer.
Show start dialog	Opens the start dialog for standard licensing tasks.
Help	Opens online help.
Close	Clicking on the button closes the dialog.

8.2.3.1.1 Online activation

You can choose whether the license is transferred to a software dongle or - if present - hardware dongle. You can read details on available dongles in the dongle types (on page 13) chapter. During online activation, licenses are activated directly without further applications or data carriers. There must be an online connection to the Internet available to do this.

Hint

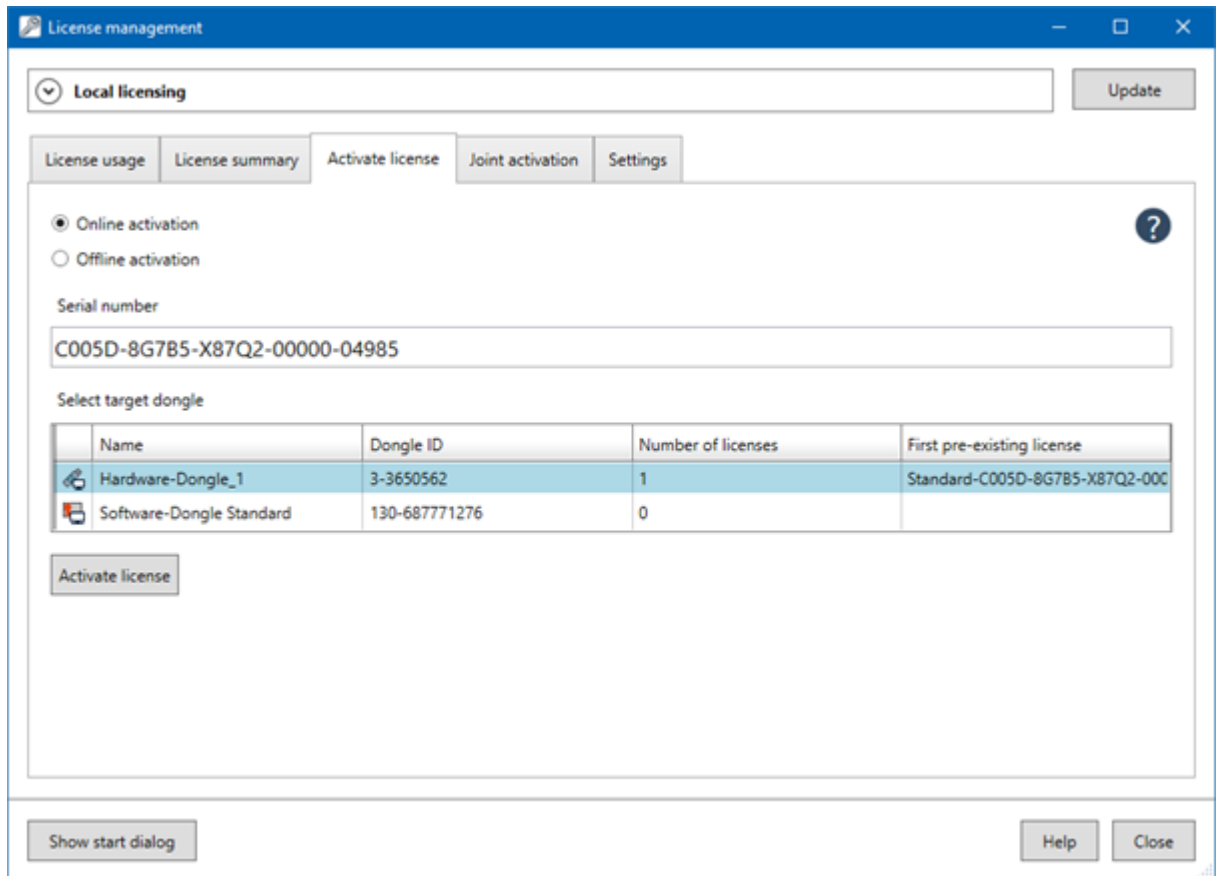
Use the Remote Licensing (on page 72) if you have a direct Internet connection

If you use a proxy server for your Internet connection, ensure you have the correct proxy settings (on page 65).

To activate a license online:

1. Start the **License Manager**.
2. If the start dialog is shown, then click on the **Advanced Options** button and then on **Advanced License Administration**.

- Switch to the **Activate License** tab.



- Decide whether licensing is local or on a remote computer.
 - ▶ *Local*: Leave the setting as *Local Licensing*.
 - ▶ *Remote*: Establish a connection (on page 73) to the remote computer on which the license is to be used. For details see the **Remote Licensing** (on page 72) chapter.
- Activate the **Online activation** radio button.
- Enter the serial number that is to be activated into the **Serial number** option. You can find the serial number on the license certificate.
- Select the dongle on which the license is to be stored in the **Select target dongle** option. If you have not yet connected your hardware dongle, insert it now and click on the **Reload** button on the top right corner.
- Click on the **Activate license** button.

The license is transferred to the dongle and saved in a tamper-proof form there. If you have set the **Apply activated licenses immediately** in the **Settings (on page 62)** tab, the license is entered for all products at the first place in the **License.ini** file. This INI file contains information on the sequence in which the licenses are used. You can amend the order in the **License Application** (on page 31) tab.

8.2.3.1.2 Offline activation

With offline activation, the license must be transferred from the license depot to the dongle manually. This method is only recommended as the last option if online (on page 23) or remote licensing (on page 72) cannot be carried out. With hardware dongles, it is easier under certain circumstances to connect the hardware dongle to a computer with an Internet connection and to activate it online there.

An Internet connection is also necessary for offline licensing. The access computer can be freely defined however.

Offline activation requires a multi-step procedure:

1. Create license request file
2. Transfer license request file on a computer with Internet access.
This can be carried out with the help of any desired storage medium such as USB sticks, removable media or similar.
3. Upload license request file to the licensing web site and get the license update file from there.
4. Transfer the license update file to the computer to be licensed.
5. Import the license update file by double-clicking on the file and create a license confirmation file.
6. Transfer the license confirmation file to a computer with Internet access.
7. Upload the license confirmation file to the licensing web site.

The process is thus concluded.

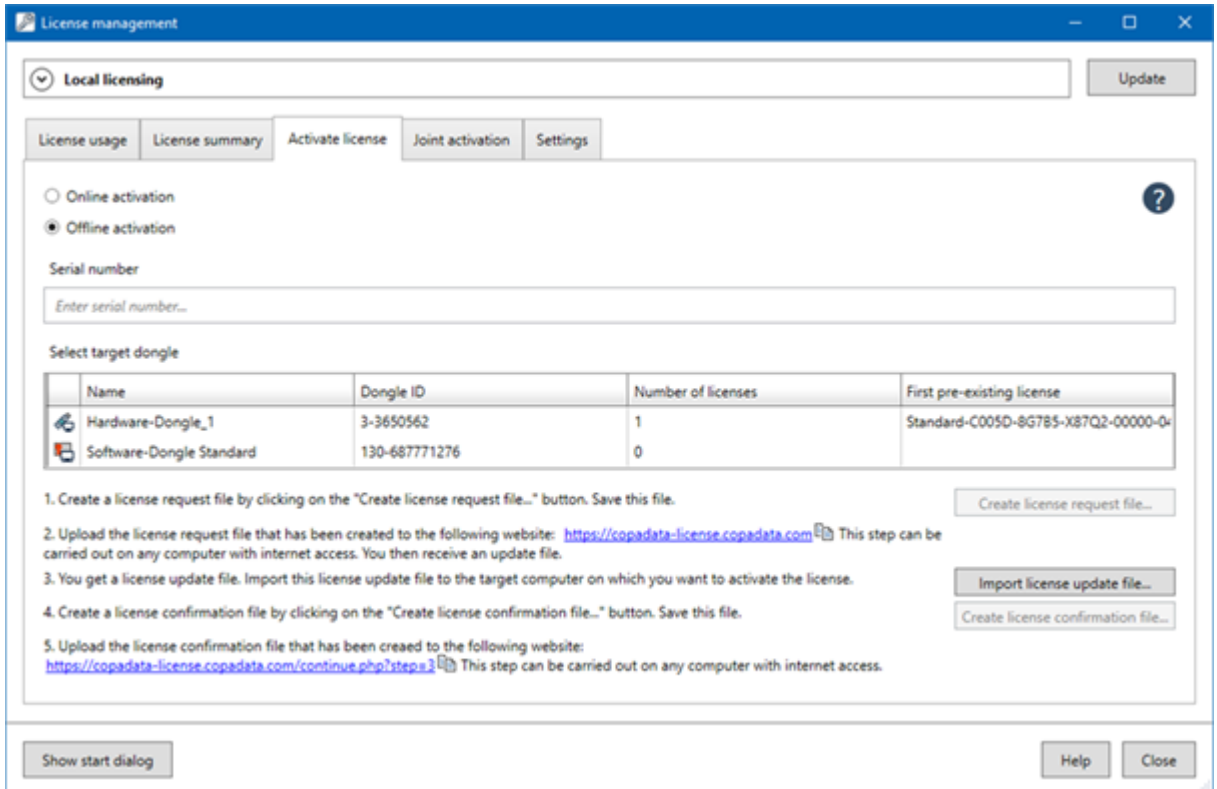
You can choose whether the license is transferred to a software dongle or - if present - hardware dongle. You can read details on available dongles in the dongle types (on page 13) chapter.

THE PROCESS IN DETAIL

To activate a license online:

1. Start the **License Manager**.
2. If the start dialog is shown, then click on the **Advanced Options** button and then on **Advanced License Administration**.

- Go to the **Activate License** tab



The screenshot shows the 'License management' window with the 'Activate license' tab selected. The 'Local licensing' dropdown is set to 'Local licensing'. The 'License usage' tab is active, showing 'Online activation' and 'Offline activation' radio buttons. The 'Serial number' field is empty. Below it, the 'Select target dongle' table lists two options: 'Hardware-Dongle_1' and 'Software-Dongle Standard'. The 'Hardware-Dongle_1' option is selected. The table has columns for Name, Dongle ID, Number of licenses, and First pre-existing license. Below the table, there are five numbered steps for activation, each with a corresponding button: 'Create license request file...', 'Import license update file...', and 'Create license confirmation file...'. The 'Show start dialog' button is at the bottom left, and 'Help' and 'Close' buttons are at the bottom right.

Name	Dongle ID	Number of licenses	First pre-existing license
Hardware-Dongle_1	3-3650562	1	Standard-C005D-8G7B5-X87Q2-00000-04
Software-Dongle Standard	130-687771276	0	

- Decide whether licensing is local or on a remote computer.
 - Local*: Leave the setting as *Local Licensing*.
 - Remote*: Establish a connection (on page 73) to the remote computer on which the license is to be used. For details see the **Remote Licensing** (on page 72) chapter.
- Activate the **Offline activation** radio button.
- Enter the serial number that is to be activated into the **Serial number** option. You can find the serial number on the license certificate.
- Select the dongle on which the license is to be stored in the **Select target dongle** option. If you have not yet connected your hardware dongle, insert it now and click on the **Reload** button on the top right corner.
- Click on the **Create license request file** button.
The button is only active if the serial number is valid and a target dongle has been selected.
The dialog to save the file is opened.
- Save the file.
 - Default name: (the serial number)
 - Default file suffix: **LicReq**.

If the dongle is removed between selecting the dongle and saving the file, or it is no longer found, the saving is canceled with an error message. The user must then provide the dongle again or select a new dongle before the file can be saved.

10. Transfer the license request file, by means of a USB stick or another offline transport media, to a computer with Internet access.
11. Start a web browser on it.
12. Open the website <https://copadata-license.copadata.com/> (<https://copadata-license.copadata.com/>).
13. Click on the **Search** button and select the license request file.
14. Click on the **Upload Request File** button.
If the request can be successfully processed, the web site switches to the second page, **Download Update**.
15. Click on the **Download Update** button. You get a license update file. Depending on the browser and browser setting, the file is saved as a download folder:
 - ▶ Default name: (the serial number)
 - ▶ Default file suffix: **LicUpd**.
16. Transfer the license update file back to the initial computer by means of a USB stick or another offline means of transport.
17. Ensure that the dongle to be licensed is connected.
18. Double-click on the license update file.

The **License Manager** is opened automatically. The license is transferred to the dongle and saved in a tamper-proof form there. If you have set the **Apply activated licenses immediately** in the **Settings (on page 62)** tab, the license is entered for all products at the first place in the **License.ini** file. This INI file contains information on the sequence in which the licenses are used. You can amend the order in the **License Application** (on page 31) tab. With remote licensing, a connection to the remote system is also established after double-clicking on the license update file.

Requirement: The **user data collection** option in the **Settings** tab is not deactivated.

Alternative procedure:

- a) Open the **License Manager** and select the **Activate license** tab.
- b) If necessary, establish a connection to the remote system on which the dongle to be licensed is located.
- c) Activate the **Offline activation** radio button.
- d) Click on the **Import License Activation File** button.
- e) Select the license update file and click on **Open**.

The license is transferred to the dongle and saved in a tamper-proof form there. If you have set the **Apply activated licenses immediately** in the **Settings (on page 62)** tab,

the license is entered for all products at the first place in the **License.ini** file. This INI file contains information on the sequence in which the licenses are used. You can amend the order in the **License Application** (on page 31) tab.

In order for the license depot to know that the license has been successfully transferred to the dongle, a license confirmation file must be created and sent to the license issuer. The file is created automatically as soon as online activation has been carried out successfully. The dialog to save the file opens automatically.

19. Save the license confirmation file:

- ▶ Default name: (the serial number)
- ▶ Default file suffix: **LicConf**.

If you want to carry out confirmation later, you can create the license confirmation file at any desired subsequent point in time. For details, see the **Create license confirmation file** (on page 49) chapter.

20. Transfer the license confirmation file by means of a USB stick or another offline transport media to a computer with Internet access.
21. Start a web browser on it.
22. Open the website <https://copadata-license.copadata.com/continue.php?step=3> (<https://copadata-license.copadata.com/continue.php?step=3>).
23. Click on the **Search** button and select the license confirmation file.
24. Click on the **Upload Confirmation File** button.

The file is uploaded to the web site and the offline activation mechanism is thus concluded.

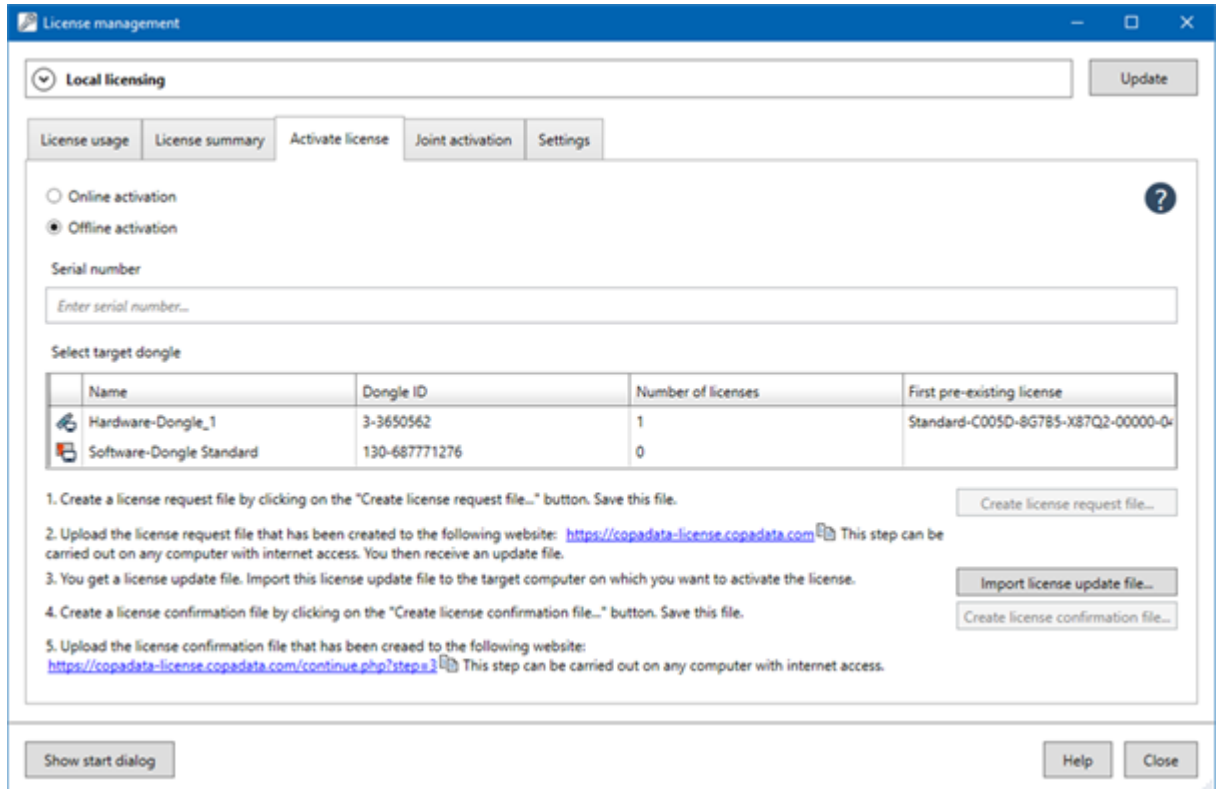
8.2.3.1.3 Create license confirmation file

In order for the license depot to know that the license has been successfully transferred to the dongle, a license confirmation file must be created and sent to the license issuer.

To create a file at any desired point in time:

1. Start the **License Manager**.
2. If the start dialog is shown, then click on the **Advanced Options** button and then on **Advanced License Administration**.

- Go to the **Activate License** tab



License management

Local licensing

Update



License usage License summary **Activate license** Joint activation Settings

☐ Online activation
☒ Offline activation

Serial number

Enter serial number...

Select target dongle

	Name	Dongle ID	Number of licenses	First pre-existing license
	Hardware-Dongle_1	3-3650562	1	Standard-C005D-8G7B5-X87Q2-00000-04
	Software-Dongle Standard	130-687771276	0	

1. Create a license request file by clicking on the "Create license request file..." button. Save this file.
 2. Upload the license request file that has been created to the following website: <https://copadata-license.copadata.com> This step can be carried out on any computer with internet access.
 3. You get a license update file. Import this license update file to the target computer on which you want to activate the license.
 4. Create a license confirmation file by clicking on the "Create license confirmation file..." button. Save this file.
 5. Upload the license confirmation file that has been created to the following website: <https://copadata-license.copadata.com/continue.php?step=3> This step can be carried out on any computer with internet access.

Create license request file...
 Import license update file...
 Create license confirmation file...

Show start dialog Help Close

- Decide whether licensing is local or on a remote computer.
 - Local*: Leave the setting as *Local Licensing*.
 - Remote*: Establish a connection (on page 73) to the remote computer on which the license is to be used. For details see the **Remote Licensing** (on page 72) chapter.
- Activate the **Offline activation** radio button.
- Enter the serial number for which you want to create a license confirmation file.
- Select the dongle on which this license is saved.
- Click on the **Create License Confirmation File** button.
The dialog to save the file is opened.
- Save the license confirmation file:
 - Default name: (the serial number)
 - Default file suffix: **LicConf**.
- Transfer the license confirmation file by means of a USB stick or another offline transport media to a computer with Internet access.
- Start a web browser on it.
- Open the website <https://copadata-license.copadata.com/continue.php?step=3> (<https://copadata-license.copadata.com/continue.php?step=3>).

13. Click on the **Search** button and select the license confirmation file.

14. Click on the **Upload Confirmation File** button.

The file is uploaded to the web site and the offline activation mechanism is thus concluded.

8.2.4 Mass activation

If you order several licenses, you also get a collective file (*.LicSN) in addition to the license certificate. You can use this file to administer the licenses centrally and to activate them from a central point. Remote licensing (on page 72) is available for this.

You can activate the licenses from collective file either with **License Manager** in the Mass Activation tab or use the **LicenseManagerAutomation.exe** command line tool (on page 77) in an automated manner. Mixed use is also possible.

The collective file is a CSV file that can be edited with any desired text editor or a table calculation.

- ▶ Column separator: Semicolon (;) or tab (\t)

Column structure:

Column	Identification	Description
1	Serial number	The unique serial number of each license.
2	Item name	Contains the article names of the license. Is for information only and has no functional effect.
3	Target computer	Indication of the target computer: <ul style="list-style-type: none"> ▶ If not yet licensed: Computer name onto which the license is to be transferred. The following can be used: IPv4 address, IPv6 address or computer name. ▶ If already licensed: Computer name onto which the license has been transferred.
4	User name	Windows user name from which the license has been activated. Only used for information.
5	Activated	Display of the status of the activation. <ul style="list-style-type: none"> ▶ <i>True</i>: activated ▶ <i>False or empty</i>: not activated <p>With <i>True</i>, this license is no longer taken into account when</p>

Column	Identification	Description
		processing using the command line.
6	Error text	If an error occurred during activation, the error is logged here.

The original file is only filled with the first two columns.

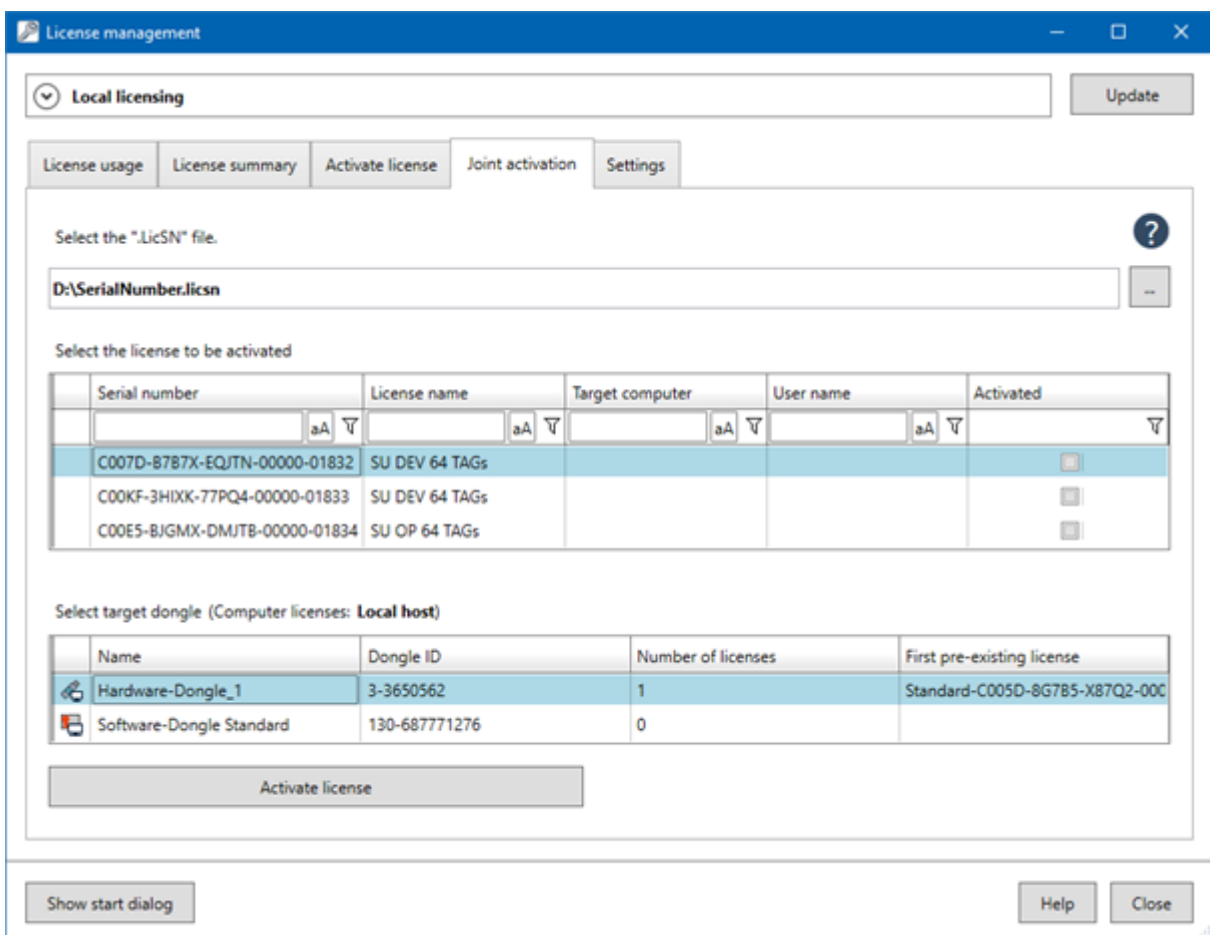
To use a file for the mass activation using the **License Manager** or the command line:

- ▶ Enter the target computer into column 3 for each license.

Example:

- ▶ Original line of the collective file: *C005L-XQP49-Z42Q8-00000-02985;zenon SU RT 64 TAGs;*
- ▶ Add this line: *C005L-XQP49-Z42Q8-00000-02985;zenon SU RT 64 TAGs;MyPctoLicense*

MASS ACTIVATION IN THE LICENSE MANAGER



The screenshot shows the 'License management' window with the 'Local licensing' tab selected. The interface includes a file selection field for the '.LicSN' file, a table for selecting licenses to activate, and a table for selecting target dongles. The 'Activate license' button is visible at the bottom.

Select the ".LicSN" file.

D:\SerialNumber.licsn

Select the license to be activated

Serial number	License name	Target computer	User name	Activated
C007D-B7B7X-EQJTN-00000-01832	SU DEV 64 TAGs			<input type="checkbox"/>
C00KF-3HIXK-77PQ4-00000-01833	SU DEV 64 TAGs			<input type="checkbox"/>
C00E5-BJGMX-DMJTB-00000-01834	SU OP 64 TAGs			<input type="checkbox"/>

Select target dongle (Computer licenses: Local host)

Name	Dongle ID	Number of licenses	First pre-existing license
Hardware-Dongle_1	3-3650562	1	Standard-C005D-8G7B5-X87Q2-00C
Software-Dongle Standard	130-687771276	0	

Activate license

Show start dialog Help Close

Note: This tab is hidden by default. To display it, activate the **Show tab for additional licensing options** property in the **Settings** tab.

TO ACTIVATE A LICENSE

To activate a license:

1. Save the mass license file with the ***.LicSN** suffix on your computer.
2. Enter the target computer into the file.
3. Open the **License Manager**.
4. If the start dialog is shown, then click on the **Advanced Options** button and then on **Advanced License Administration**.
5. Switch to the **Mass Activation** (on page 51) tab

If this is not shown:

- a) Switch to to the **Settings** tab.
 - b) Activate the **Show tab for additional licensing options** checkbox.
6. Select the collective file with the licenses in the **Select the .LicSN file** option.
To do this, click on the ... button. The file has the file extension ***.LicSN**.

All available licenses available in the file are shown in the **Select the license to be updated** list.
You can filter (on page 75) and sort the licenses contained in the file according to serial number, license name, target computer, user name and activation status.
Incorrect serial numbers are highlighted by a symbol.
 7. Select the desired license.
If a target computer has been entered, a connection to this target computer is established.
If an already-activated license has been selected, the **Activate license** button is changed to **Update license**.
 8. In the **Select target dongle** option, select the dongle on the remote computer on which the license is to be transferred.
 9. Click on **Activate license** or **Update license**.

The license is activated on the selected target dongle and the text file is filled with the licensing data.

MASS ACTIVATION TAB

Option	Description
Select the .LicSN file.	Selection of the file with the license numbers. The file has the file extension .LicSN . The licenses contained in the file are shown in the Select the license to be updated option.
Select the license to be updated	Display and selection of existing licenses. The display can

Option	Description
	<p>be filtered and sorted.</p> <ul style="list-style-type: none"> ▶ Filter: Enter the filter term into the filter line. ▶ Sort: Click on the column title. The entries are shown in sorted order. Another click inverts the display. <p>Selection by clicking on a license.</p>
Select target dongle	Selection of the dongle with which the license is to be linked.
Activate license Update license	Activates the selected license on the selected dongle, or updates the license if it has already been activated.

DIALOG OPTIONS

Option	Description
Local licensing / remote licensing	Clicking on the arrow in the header opens the options to establish a connection (on page 73) to a remote computer or select the local computer.
Show start dialog	Opens the start dialog for standard licensing tasks.
Help	Opens online help.
Close	Clicking on the button closes the dialog.

8.2.5 License borrowing

Licenses can be borrowed remotely and locally. A service technician can thus, for example, take a certain license for external use and return it later.



Information

Ensure that the settings are correct in the **Startup Tool** for the source computer and the target computer.

Settings under **Application -> Options** in the **General** tab:

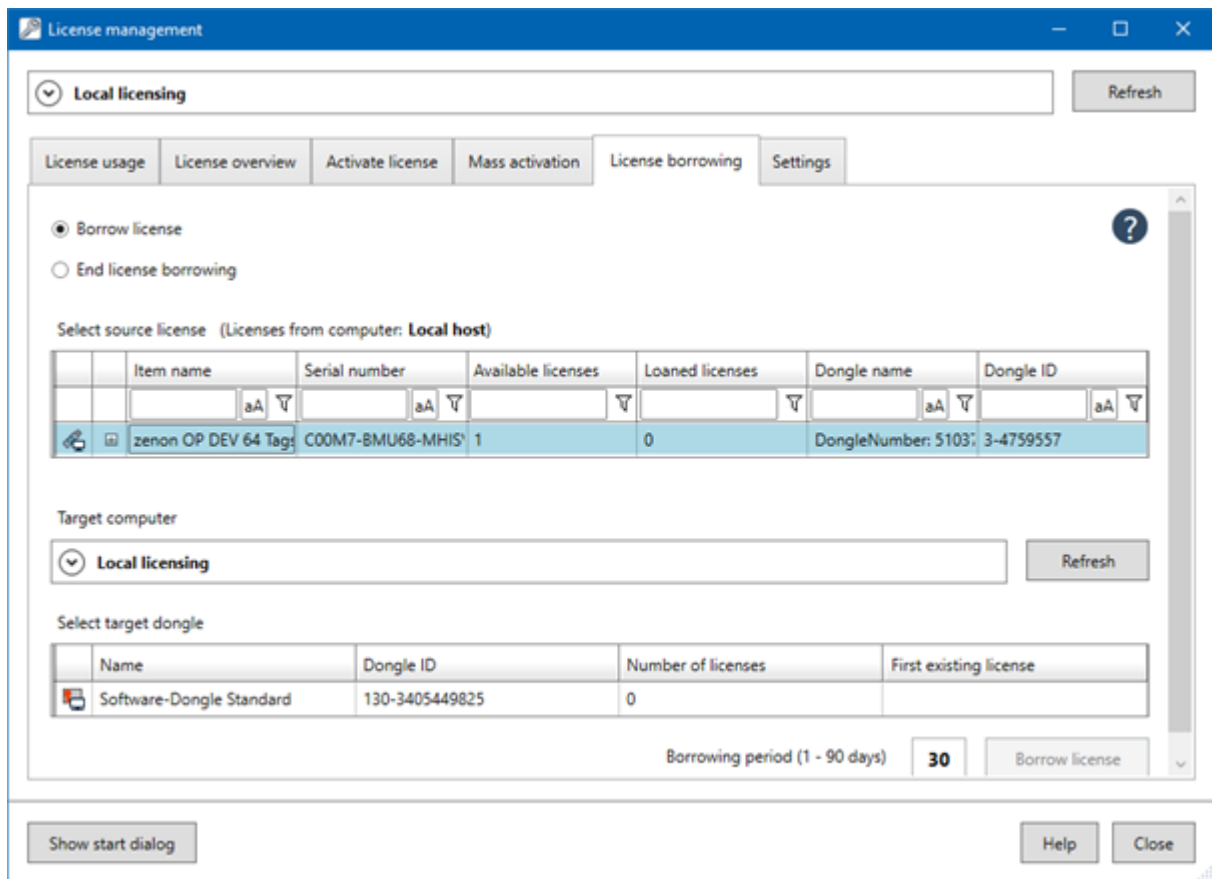
- ▶ The **Enable license borrowing** option must be activated for license loan.
- ▶ The **Enable remote licensing** option must be activated for remote licensing.

RULES FOR LICENSE BORROWING

The following is applicable for license loan:

- ▶ **Expiration date:**
Each loaned license has an expiry date. If this is reached, the license is automatically returned to the loaning source dongle.
In this case, there is a search for further valid licenses for the target computer. If no other valid license is found, each product that has been licensed with the loan license is closed.
- ▶ **Loan duration:**
The maximum loan duration is 90 days.
The license is automatically returned after this.
- ▶ A license can be returned manually before the expiry date is reached.
- ▶ **Automatic assignment:**
If the **Apply activated licenses immediately** option is activated, the license is automatically entered at the first place on the target computer for all licensed products.
- ▶ **Demo licenses:**
Demo licenses can be neither loaned nor returned.
- ▶ **License overview:**
The respective current loan details are displayed in the license details in license use, license overview and license loan:
Loaned licenses, end of validity of the loaned license, ID of the loan dongle. These are only visible if a line contains at least one value.
- ▶ **Availability:**
A loan is only possible for hardware dongles and software dongles, not for virtual machines.
- ▶ **Loan forwarding limit:**
A borrowed license cannot be loaned further.
The license must first be returned before being loaned again to another user.

LICENSE BORROWING/LICENSE RETURN DIALOG



License management

Local licensing Refresh

License usage License overview Activate license Mass activation License borrowing Settings

☒ Borrow license ?
☐ End license borrowing

Select source license (Licenses from computer: Local host)

Item name	Serial number	Available licenses	Loaned licenses	Dongle name	Dongle ID
zenon OP DEV 64 Tags	C00M7-BMU68-MHIS	1	0	DongleNumber: 5103	3-4759557

Target computer

Local licensing Refresh

Select target dongle

Name	Dongle ID	Number of licenses	First existing license
Software-Dongle Standard	130-3405449825	0	

Borrowing period (1 - 90 days) 30 Borrow license

Show start dialog Help Close

Note: This tab is hidden by default. To display it, activate the **Show tab for additional licensing options** property in the **Settings** tab.

BORROW/RETURN

Option	Description
Borrow license	<i>Active:</i> The options of the dialog are configured for the borrowing (on page 58) of a license.
End license borrowing	<i>Active:</i> The options of the dialog are configured for the return (on page 60) of a license.

Further options depend on the selection of whether a license is borrowed or returned:

The **source licenses** option shows licenses that can be returned or used for borrowing. The **Target dongle** shows all dongles to which a license can be forwarded for borrowing. For the return, no dongle can be selected, because a return can only ever be to the original dongle. A connection to this must be established if required.

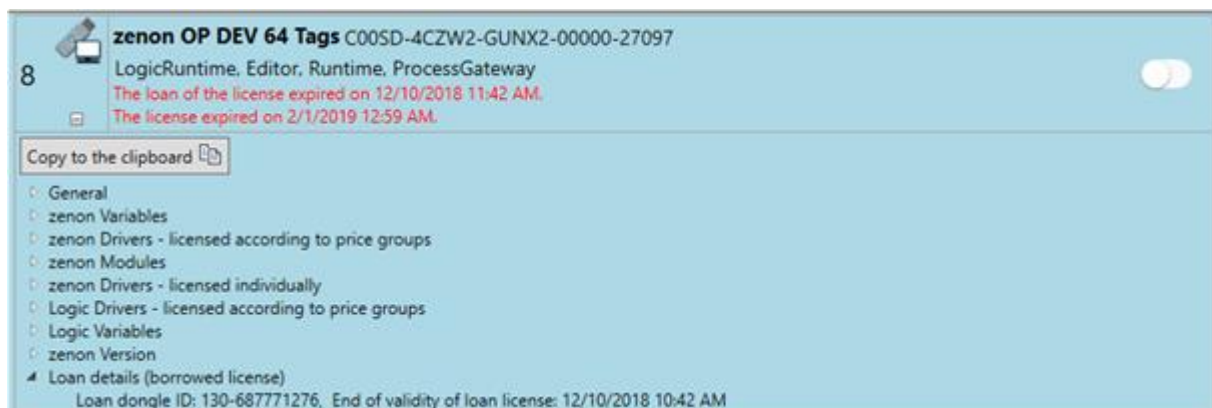
DIALOG OPTIONS

Option	Description
Local licensing / remote licensing	Clicking on the arrow in the header opens the options to establish a connection (on page 73) to a remote computer or select the local computer.
Show start dialog	Opens the start dialog for standard licensing tasks.
Help	Opens online help.
Close	Clicking on the button closes the dialog.

STATUS DISPLAY

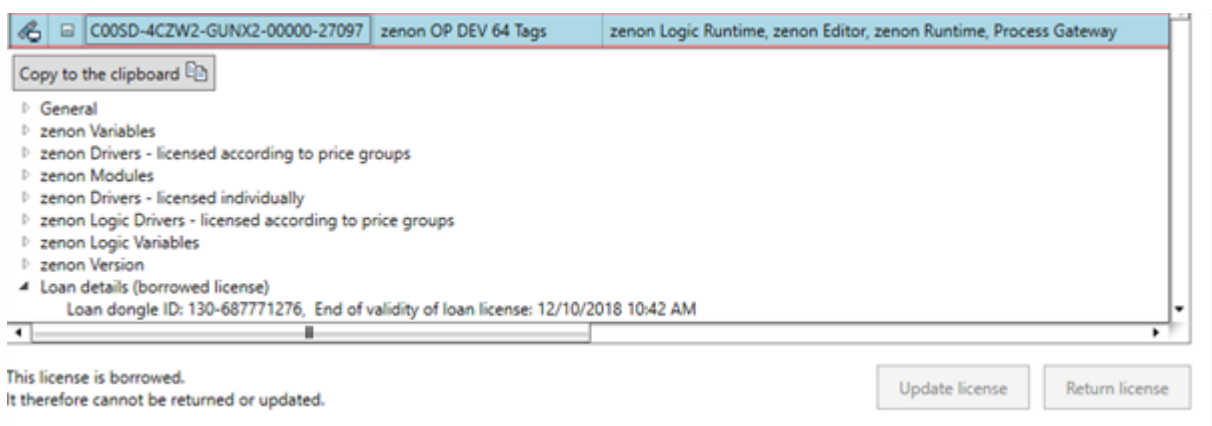
The status of borrowed licenses is displayed in the license details.

Borrowed license:



- ▶ ID of the loaning source dongle
- ▶ Expiry date of the loan

Loaned license:



- ▶ ID of the borrowing target dongle
- ▶ Expiry date of the loan
- ▶ Date of the loan

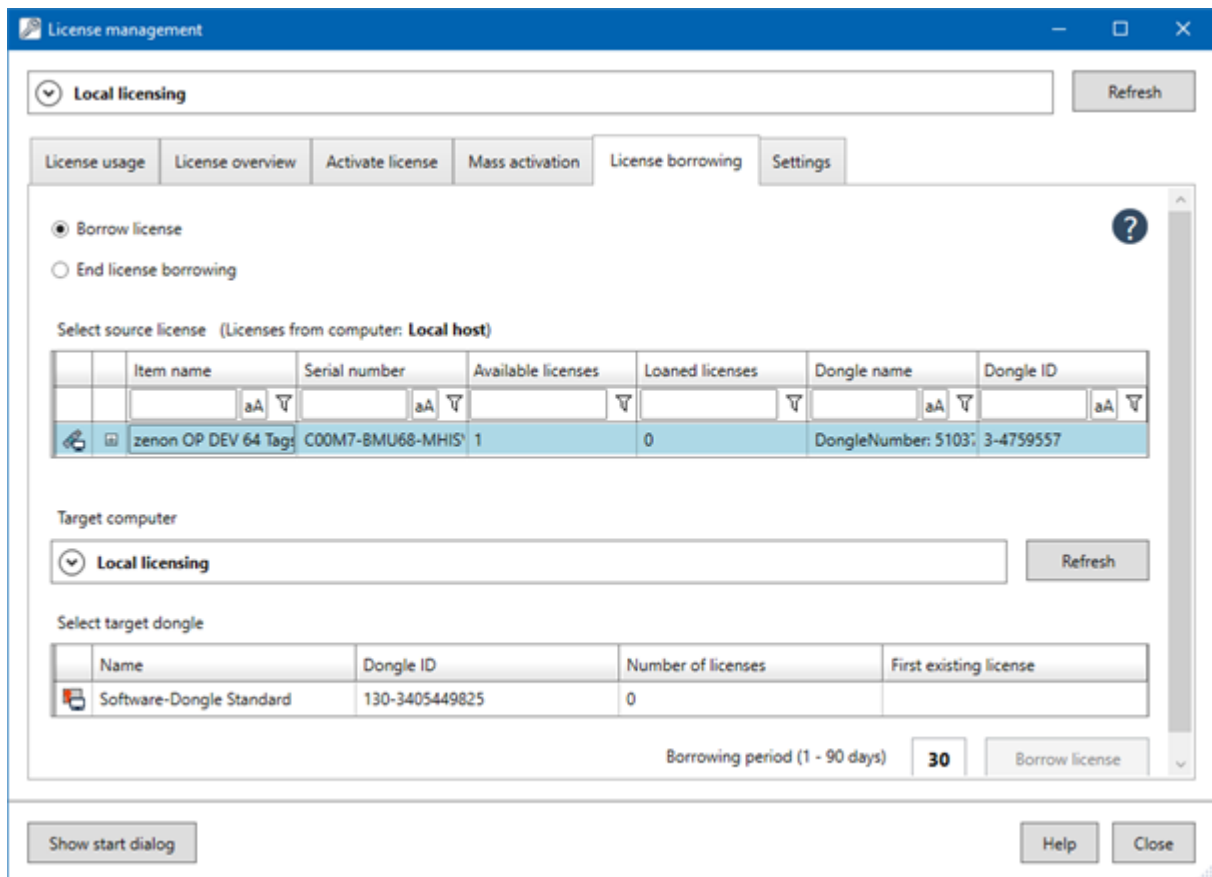
8.2.5.1 Borrow license

To borrow a license:

1. Select the type of connection for the computer from which the license has been borrowed: Local or remote.
Configure the remote connection if necessary.
2. Activate the **Borrow License** option.
3. Select the license that is to be loaned in the **Select source license** option.
4. Select the connection type for the computer that is receiving the license: Local or remote.
Configure the remote connection if necessary.
5. Select the dongle on which the license is saved in the **Select target dongle** option.
6. Enter the desired loan duration in the **Loan duration** option.
A license can be borrowed for a maximum of 90 days. If it is not returned within this time period, the license is automatically returned on expiry of 90 days.
7. Click on the **Borrow License** button.

The license is moved from the source dongle to the target dongle. A message shows whether it was successful or if there were errors.

BORROW LICENSE DIALOG



License management

Local licensing Refresh

License usage License overview Activate license Mass activation License borrowing Settings

☒ Borrow license
☐ End license borrowing

Select source license (Licenses from computer: Local host)

Item name	Serial number	Available licenses	Loaned licenses	Dongle name	Dongle ID
zenon OP DEV 64 Tags	C00M7-BMU68-MHIS	1	0	DongleNumber: 5103	3-4759557

Target computer

Local licensing Refresh

Select target dongle

Name	Dongle ID	Number of licenses	First existing license
Software-Dongle Standard	130-3405449825	0	

Borrowing period (1 - 90 days) 30 Borrow license

Show start dialog Help Close

Option	Description
Borrow license	<i>Active:</i> The options of the dialog are configured for the borrowing (on page 58) of a license.
End license borrowing	<i>Active:</i> The options of the dialog are configured for the return (on page 60) of a license.
Select source license	Selection of the license that is to be borrowed.
Target computer	Configuration of the computer onto which the license is to be transferred. Default: Local licensing
Select target dongle	Selection of the dongle to which the license is to be transferred.
Loan duration	Entry of the loan duration. <ul style="list-style-type: none"> ▶ Minimum: 1 day ▶ Maximum 90 days

Option	Description
	Default: <i>30 days</i>
Borrow license	Clicking on the button transfers the selected license to the target dongle and removes it from the source dongle.

8.2.5.2 Return license

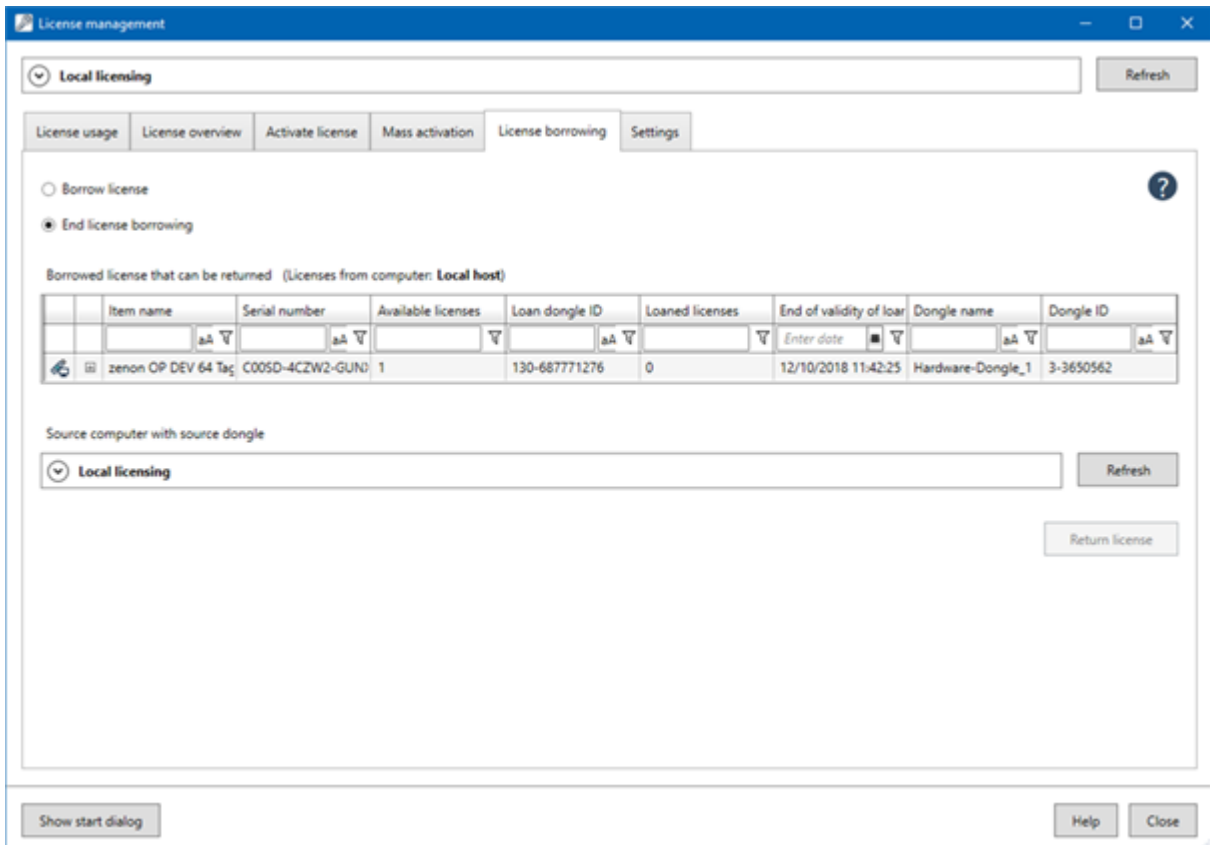
A license can be returned manually before the expiry date is reached. Expired licenses are automatically returned to the source dongle.

To return a license:

1. Select the connection type for the computer that is returning the license: Local or remote. Configure the remote connection if necessary.
2. Activate the **End license borrowing** option.
3. Select the license that is to be returned in the **Borrowed licenses that can be returned** option.
4. Select the connection type for the computer to which the license is to be returned: Local or remote. Configure the remote connection if necessary.
5. Click on the **Return License** button.

The license is moved back to the source computer. A message shows whether it was successful or if there were errors.

RETURN LICENSE DIALOG



License management

Local licensing Refresh

License usage License overview Activate license Mass activation License borrowing Settings

☐ Borrow license

☒ End license borrowing

Borrowed license that can be returned (Licenses from computer: **Local host**)

	Item name	Serial number	Available licenses	Loan dongle ID	Loaned licenses	End of validity of loan	Dongle name	Dongle ID
		aa ▼	aa ▼	▼	aa ▼	Enter date ▼	aa ▼	aa ▼
	zenon OP DEV 64 Tag	C00SD-4CZW2-GUN	1	130-687771276	0	12/10/2018 11:42:25	Hardware-Dongle_1	3-3650562

Source computer with source dongle

Local licensing Refresh

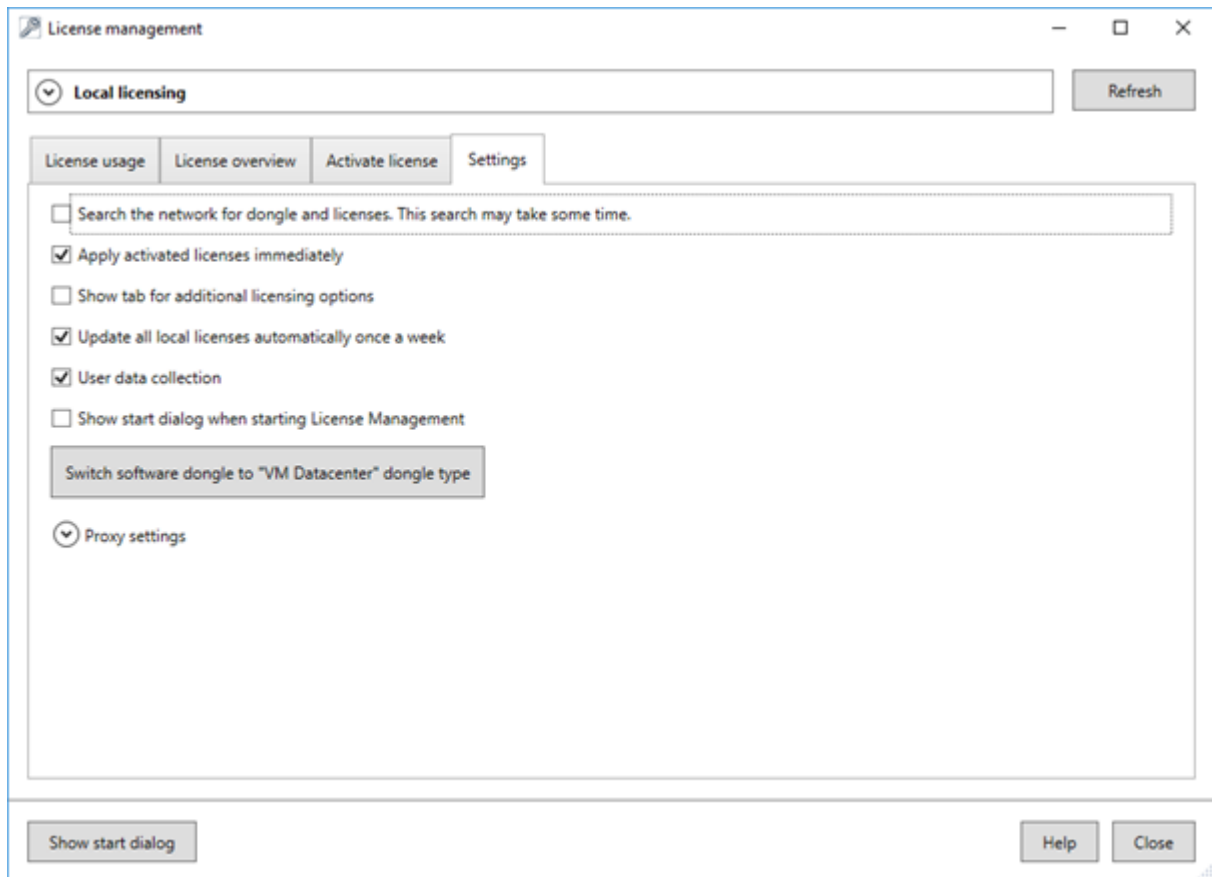
Return license

Show start dialog Help Close

Option	Description
Borrow license	<i>Active:</i> The options of the dialog are configured for the borrowing (on page 58) of a license.
End license borrowing	<i>Active:</i> The options of the dialog are configured for the return (on page 60) of a license.
Borrowed license that can be returned	Selection of the license that is to be returned.
Source computer with source dongle	Configuration of the connection to the source computer from which the license has been loaned. Default: Local licensing
Return license	Clicking on the button transfers the selected license to the source dongle and removes it from the target dongle.

8.2.6 Settings

Settings for license management are configured in this tab.



Option	Description
Search the network for dongles and licenses.	<p>Settings for the search for licenses:</p> <ul style="list-style-type: none"> ▶ <i>Active</i>: Dongles and licenses are also searched for in the network. This search can take a long time. ▶ <i>Inactive</i>: A search is only carried out on the local network. <p>Default: <i>inactive</i></p> <p>Setting is applied immediately. To show new dongles and licenses, the respective list must be updated.</p> <p>Note: This setting only has an effect on the License Manager. zenon applications always resort to the network if it cannot find the license locally.</p>
Apply activated licenses	Setting if the activated license is written to License.ini :

Option	Description
immediately	<ul style="list-style-type: none"> ▶ <i>Active</i>: The license is immediately written at the first place in License.ini and assigned to all licensed products by clicking on Activate license. ▶ <i>Inactive</i>: The license is only written by means of assignment to the License usage (on page 31) tab in License.ini. <p>Default: <i>active</i></p>
Show tab for additional licensing options	<p>Controls the Mass Activation (on page 51) and License borrowing (on page 54) display tabs:</p> <ul style="list-style-type: none"> ▶ <i>Active</i>: Tabs are displayed. ▶ <i>Inactive</i>: Tabs are hidden. <p>Default: <i>inactive</i></p>
Update all local licenses automatically once a week	<p>Update licenses automatically.</p> <ul style="list-style-type: none"> ▶ <i>Active</i>: All local licenses are automatically checked for updates once a week ▶ <i>Inactive</i>: Licenses are not checked. The check must be carried out manually. <p>Default: <i>active</i></p> <p>Additional information: See Apply amended licenses (on page 70) chapter.</p>
User data collection	<p>Settings to record user data:</p> <ul style="list-style-type: none"> ▶ <i>Active</i>: User data is collected. The following, among others, is collected: Operating system, user name, computer name, IP addresses and domains. For details, see the Data Protection (on page 12) chapter. Note: When activating the checkbox, a dialog with the data protection declaration is opened. This must be confirmed by clicking on Accept. The data protection declaration is thus made known and binding. If the dialog is canceled, recording of user data cannot be carried out. ▶ <i>Inactive</i>: No user data is recorded. <p>Default: <i>active</i></p>

Option	Description
	<p>Attention: If this option is deactivated, lost licenses can no longer be restored or replaced.</p>
Show start dialog when starting License Management	<p>Activation of the wizard for licensing tasks:</p> <ul style="list-style-type: none"> ▶ <i>Active:</i> Before opening, the start dialog that leads you through the typical licenses processes is shown. ▶ <i>Inactive:</i> The application is opened directly. <p>Default: <i>active</i></p>
Switch software dongle to "VM DataCenter" dongle type.	<p>Changes the type (on page 121) of the software dongle used from Virtual Machine to VM DataCenter.</p> <p>Only available if License Manager is running in a virtual machine.</p>
Switch software dongle to "Virtual Machine" dongle type	<p>Changes the type (on page 121) of the software dongle used from VM DataCenter to Virtual Machine.</p> <p>Only available if the License Manager is running in a virtual machine.</p>
Proxy settings	<p>Opens or closes the area to configure a proxy computer. For details see chapter: Configure proxy (on page 65)</p>
Detect proxy configuration automatically	<ul style="list-style-type: none"> ▶ <i>Active:</i> The proxy is automatically detected using the system settings.
Manual proxy configuration	<ul style="list-style-type: none"> ▶ <i>Active:</i> The proxy is configured manually. <p>The following must be entered for the configuration:</p> <ul style="list-style-type: none"> ▶ Proxy: URL of the proxy. ▶ Port: Port to be used. Minimum: 1 Maximum: 65535 Default: 80 ▶ User: User name for proxy access. Is not validated. ▶ Password: Password for proxy access. Is saved in encrypted form and not validated.
Save proxy configuration	<p>Saves the manual proxy configuration.</p>

DIALOG OPTIONS

Option	Description
Local licensing / remote licensing	Clicking on the arrow in the header opens the options to establish a connection (on page 73) to a remote computer or select the local computer.
Show start dialog	Opens the start dialog for standard licensing tasks.
Help	Opens online help.
Close	Clicking on the button closes the dialog.

8.2.6.1 Configure proxy

Access to the Internet is required for online activation, license return and license updating. No direct access is thus possible in some corporate networks. The connection must be established via a proxy server. If your system administrator has stored the data for the proxy server correctly in the operating system, no further settings are required. Otherwise the proxy server must be configured manually:

1. Open the **Settings** tab in the **License Manager**.
2. Click on **Proxy Settings**
3. Activate the radio button for **Manual Proxy Configuration**.
4. Enter the URL for the proxy.
5. Enter the port number.
6. Enter the user name.
Attention: It is not validated.
7. Enter the password.
It is entered in encrypted form.
Caution: The password is not validated.
8. Click on **Save Proxy**.

With a manual configuration, the **License Manager** also saves the proxy setting set by the system. These are used as a fallback if no connection can be established with the proxy settings configured manually. This is relevant, for example, if the **License Manager** is used for the user in this context but a proxy is configured, but this setting is not available in the system context.

ONLINE ACTIVATION

If the configured proxy can no longer be reached by online activation, the dialog for configuration is shown. Error messages are also shown. Changes to the settings are automatically saved the next time the connection is established.

8.2.7 Transfer/relocate license

Transferring a license is necessary, for example, if:

- ▶ The license is to be used on another computer or in another virtual machine
- ▶ The hardware of a computer with a software dongle changes
- ▶ The operating system of a computer with a software dongle is replaced
- ▶ The hard drive of a computer designated as the **C** drive is to be replaced with a software dongle
- ▶ The host computer for a virtual machine switches or its hardware is changed
- ▶ You want to combine several licenses on a hardware dongle
- ▶ You want to convert a physical computer into a virtual machine

Whether a license can continue to be used when a computer is physically rebuilt depends on which components and how many components are changed. A change of the computer name or a replacement of a hard drive (except drive **C**) generally does not constitute a problem.

The transfer of licenses works the same for hardware dongles and software dongles.

To transfer a license from one computer (dongle) to another computer (dongle):

1. Return (on page 66) the license from the previous dongle.
2. Activate (on page 41) the license again on the new dongle.



Information

Licenses cannot be transferred directly between a physical computer and a virtual machine. The license must be amended to the respective condition. In this case, contact your COPA-DATA sales partner. Also see the **Virtual Machines** (on page 16) chapter.

8.2.7.1 Return license

Licenses can be returned. This is necessary, for example, even if a license is to be used on another computer. See also the **Transfer/relocate license** (on page 66) chapter.

Notes on returning licenses:

- ▶ Only local licenses can be returned.
- ▶ Licenses with a defined usage period and demo licenses cannot be returned.
- ▶ Loaned licenses or licenses that have been loaned out in full or in part cannot be returned. You must first end the loan.

Licenses can be returned in two ways:

- ▶ Return license online (on page 67) (preferred method)
- ▶ Return license offline (on page 68)

8.2.7.1.1 Return license online

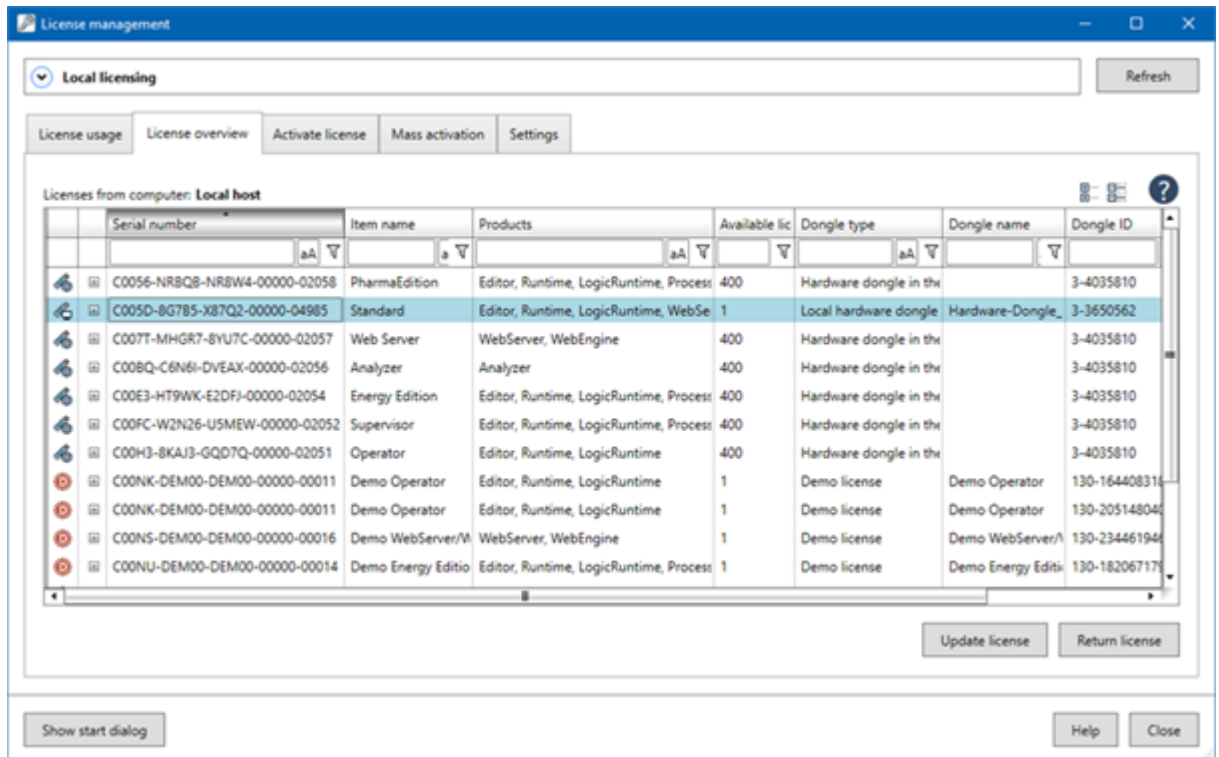
To return a license online:

1. Start the **License Manager**
2. In the start dialog, click on the **Advanced Options** button and then on the **Relocate/Return License** button.
 - ▶ If there is only one returnable license locally on your computer, it is returned online. Confirm the corresponding request to do this.
 - ▶ If there are several returnable licenses locally on your computer, you are automatically forwarded to the **License Overview** tab. Continue with the **process for several licenses**, step 3.

Process for several licenses:

1. Start the **License Manager**
2. If the start dialog is shown, then click on the **Advanced Options** button and then on **Advanced License Administration**.
3. Switch to the **License Overview** tab.

4. Select the desired license from the list.



5. Click on **Return License**.

The license is returned online.

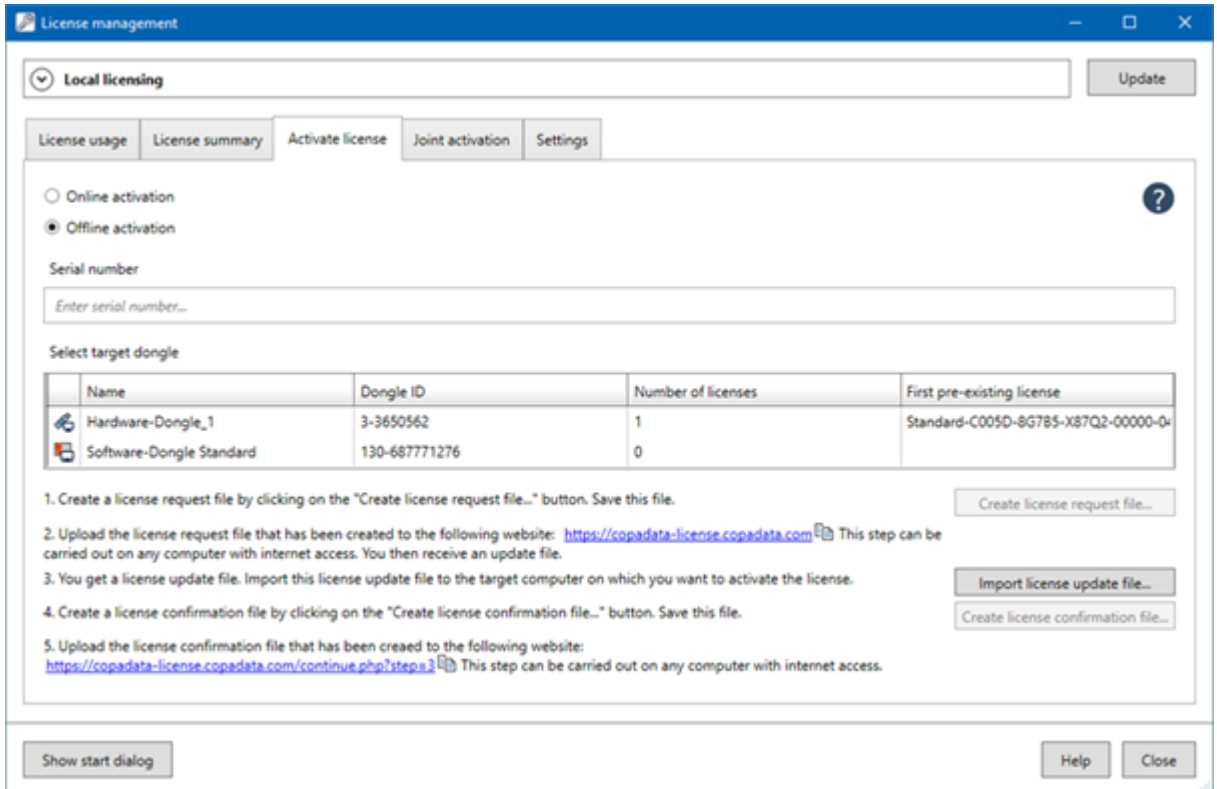
8.2.7.1.2 Return license offline

Offline return has not yet been integrated into the **License Manager**. However it works in the same way as offline activation. Difference: Another return link must be entered into the web browser!

Procedure:

1. Start the **License Manager**

2. Switch to the **Activate license** tab.
If the start dialog is shown, click on **Advanced Options** and then on **Advanced License Administration**. Then switch to the **Activate License** tab.



License management

Local licensing Update

License usage License summary **Activate license** Joint activation Settings

☐ Online activation
☒ Offline activation

Serial number
 Enter serial number...

Select target dongle

Name	Dongle ID	Number of licenses	First pre-existing license
Hardware-Dongle_1	3-3650562	1	Standard-C005D-8G7B5-XB7Q2-00000-04
Software-Dongle Standard	130-687771276	0	

1. Create a license request file by clicking on the "Create license request file..." button. Save this file. Create license request file...

2. Upload the license request file that has been created to the following website: <https://copadata-license.copadata.com> This step can be carried out on any computer with internet access. You then receive an update file.

3. You get a license update file. Import this license update file to the target computer on which you want to activate the license. Import license update file...

4. Create a license confirmation file by clicking on the "Create license confirmation file..." button. Save this file. Create license confirmation file...

5. Upload the license confirmation file that has been created to the following website: <https://copadata-license.copadata.com/continue.php?step=3> This step can be carried out on any computer with internet access.

Show start dialog Help Close

3. Select the **Offline activation** option.
4. Enter the serial number of the license that you want to return.
5. Select the dongle on which the license is saved.
6. Create a license request file. To do this, click on the **Create license request file** button.
A file with the suffix ***.LicReq** is created.
7. **Attention:** Use the link that is prescribed in the **License Manager**!
Instead, open this link in a web browser:
<https://copadata-license.copadata.com/return.php>
(<https://copadata-license.copadata.com/return.php>)
8. Upload the renamed license request file ***.LicReq** to the website.
You get a license update file with the file ending ***.LicUpd** as a response.
9. In the **License Manager**, click on the **Import license update file** button and apply the file generated by the website.

Important: In order for the license to actually be accepted as returned by the license depot, you must create the confirmation file and transfer it to the website.
To do this:

- a) Click on the **Create license confirmation file** button.
A file with the suffix ***.LicConf** is created.
10. Open this link in a web browser:
<https://copadata-license.copadata.com/continue.php?step=3>
(<https://copadata-license.copadata.com/continue.php?step=3>)
11. Upload the license confirmation file ***.LicConf** to the website:

The process is thus concluded.

8.2.8 Apply/update amended license

All license information is saved in the dongle. If you order an update or an upgrade, the license in the dongle must be updated.

Changes to the license can be required by:

- ▶ Product upgrade or amended module extension
- ▶ Expiry date or period of usage amended
- ▶ New version or change to the service agreement
- ▶ Quantity of licenses amended

The following is applicable for updates and upgrades:

- ▶ These are always booked to an existing serial number.
You receive a license certificate with the serial number concerned.
- ▶ The change to a license is stored and must be transferred to the dongle. If several license updates are stored in the license depot, they are always transferred in one process.
- ▶ If you have never activated the license, the update is applied the first time it is activated.
You do not need to carry out any more steps.
- ▶ If the license has already been activated, you must apply the update.
There are two possibilities:
 - ▶ Update license online (on page 70) - the preferred method
 - ▶ Update license offline (on page 72)

8.2.8.1 Update licenses online

Licenses can be updated manually or automatically. Except for demo licenses and licenses in the network.

AUTOMATIC UPDATE

All licenses are checked for updates in a 7-day cycle by default. The cycle time can be changed in the **Settings [SETTINGS]** of **License.ini**. The automatic update can be deactivated in the **License Manager** in the **Settings** tab using the **Update all local licenses automatically once a week** option.

Automatic updates are carried out using the license transfer service. No automatic updates are carried out if the Windows service has not been started.

UPDATE LICENSE MANUALLY

There are three ways you can update a license manually

- ▶ Update all licenses using the **start dialog** (on page 21).
- ▶ Update a license using the **License Overview** (on page 38) tab.
- ▶ Update all licenses using the **LicenseManagerAutomation.exe** (on page 77) command line application.

UPDATE VIA THE START DIALOG

1. Start the **License Manager**.
The **Show start dialog when starting License Management** option must be activated. The start dialog then opens when the application is started. Otherwise click on the **Show start dialog** button.
The licensing assistant is shown.
2. Click on **Advanced options**.
3. Click on **Update all licenses**.
4. The process of updating is started.
If a license cannot be updated or there is no update available, a corresponding message is given.

UPDATE VIA THE LICENSE OVERVIEW TAB

1. Open the **License Overview** (on page 38) tab in the **License Manager**.
2. Select the license that is to be updated.
If a license cannot be updated by the user, the **Update license** button is not unlocked.
3. Click on the **Update license** button.
The license is updated online.
If there is no update available, a corresponding message is shown.

UPDATE VIA COMMAND LINE

To update licenses automatically via a third-party application, use the **LicenseManagerAutomation.exe** (on page 77) command line program.

Command: **LicenseManagerAutomation.exe -a UpdateAll**

8.2.8.2 Update licenses offline

To apply offline updates for licenses, use offline activation (on page 46) as with the initial activation. There is no functional difference between activation and update.

Attention

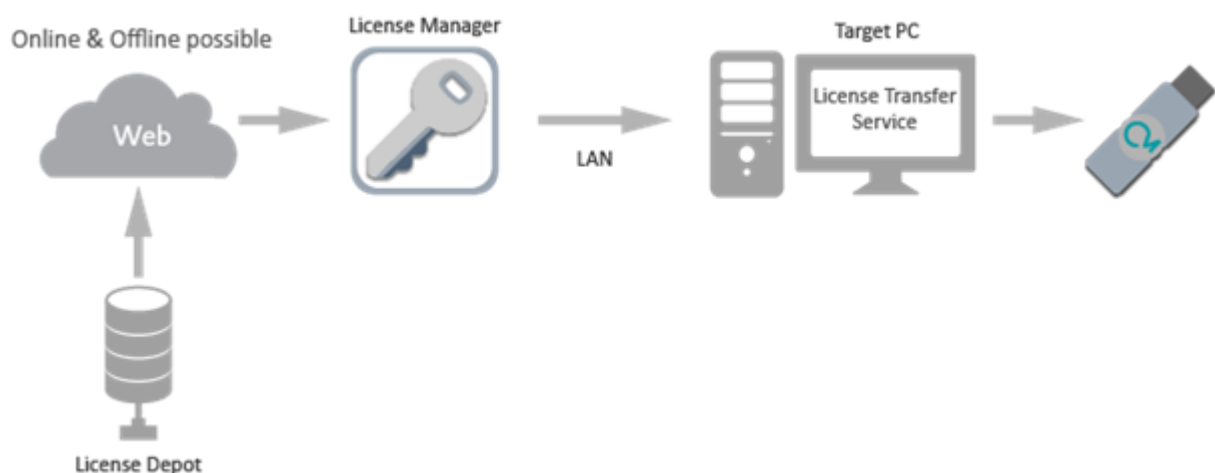
The update can only be applied to the same dongle on which the original license has been activated. You must therefore ensure that you select the correct dongle.

8.2.9 Remote licensing

With remote licensing, all processes that support license administration are not carried out on the local computer but on another computer in the local network (LAN).

There are two applications for remote licenses:

- ▶ The computer to be licensed is not on site directly.
- ▶ The computer to be licensed is not directly connected to the Internet. In this case, you can use a second computer as a proxy computer (intermediate computer). In order for you to nevertheless use the benefits of online activation, return and update, the steps do not need to be executed manually.



Remote licensing works both in the **License Manager** as well as in the command line tool. The **zenLicTransfer** (on page 75) service always works as a counterpoint. This service always accesses the data available locally on the remote computer.

Attention! Remote licensing has nothing to do with the **CodeMeter** network licensing. The **CodeMeter** mechanisms are based on **CodeMeter Runtime** and serve to assign or unlock the license from a product.

zenon remote licensing serves to activate, deactivate and administer licenses remotely.

Because both systems must fulfill different tasks and use different transport layers, it is quite possible that a dongle is detected by one of the two system about not the other.

Remote functions offered:

- ▶ Activate licenses (online and offline)
- ▶ Activate licenses with mass activation
- ▶ Assign licenses to products
- ▶ Return licenses
- ▶ Borrow/lend license



Information

For remote licensing, ensure the correct settings in the **Startup Tool** for the source computer and the target computer.

Settings under **Application -> Options** in the **General** tab:

- ▶ For remote licensing activate the **Enable remote licensing** option.

8.2.9.1 Licensing local or remote

You can activate licenses locally or remotely - on remote computers - and assign products. Licensing is local by default.

Requirements for remote activation:

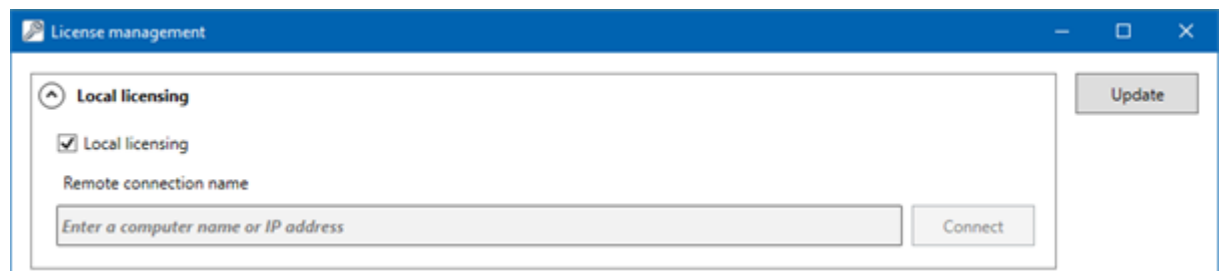
- ▶ The remote computer can be contacted in the network.
- ▶ The **zenLicTransfer** (on page 75) license service is active and contactable on the remote computer.

REMOTE LICENSING

To switch the licensing to remote:

1. Click, in the header of the **License Manager**, on the arrow next to **Local Licensing**.

The area for this option is opened.



2. Deactivate the **Local Licensing** checkbox.

The area is renamed to **Remote Licensing**.

The area to enter a connection name is unlocked.

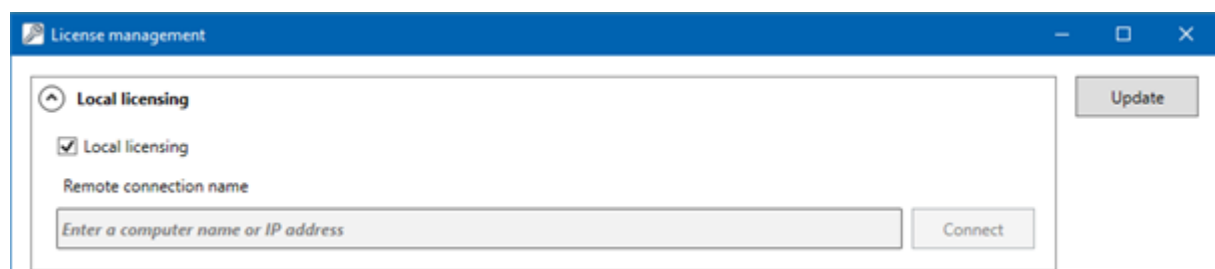
3. Enter the name or the IP address of the remote computer.
4. Click on **Connect**.

The connection is created. All further actions in the **License Manager** are executed on the remote computer.

Hint

You can also use remote licensing to activate licenses online on computers that do not have an Internet connection. In doing so, the **License Manager** takes on the function of a proxy (intermediary computers).

DIALOG SETTINGS



Option	Description
Local licensing/remote licensing [computer] (on page 73)	<p>Selection of whether licensing is carried out locally or on a remote computer.</p> <p>Displays which type of licensing has been selected. With remote licensing, the computer name or the IP address of the remote computer is displayed.</p> <p>License and dongle data is reloaded during switching.</p>
Local licensing	Activates and deactivates local licensing:

Option	Description
	<ul style="list-style-type: none"> ▶ <i>Active</i>: Licensing is local. ▶ <i>Inactive</i>: Licensing is carried out remotely on the computer stipulated for remote connections. <p>Default: <i>active</i></p>
Remote connection name	<p>Entry of the connection data for the remote computer: Computer name or IP address. IPv4 or IPv6 addresses can be entered.</p> <p>Only available if Local licensing is inactive.</p>
Connect	Establishes a connection to the remote computer.
Refresh	Reloads license and dongle data from the local or remote computer.

8.2.9.2 zenLicTransfer Service

For the transfer of license information to a remote computer, the **License Manager** uses the **License Transfer Service** service (**zenLicTransfer**). This is automatically started with the operating system. The service opens a TCP server port and accepts connections from the **License Manager**. Communication is encrypted with AES and limited to a simultaneous connection.

The service communicates via the 50784 port by default. This port can be amended via the **Startup Tool** in the **Listening ports** tab. Changes to the port must be carried out locally and remotely.

This service also carries out automatic updating (on page 70) of licenses.

8.2.10 Filter and sort lists

Lists can be shown filtered and sorted.

FILTER LISTS

Options for filters.

Option	Description
Input field	Entry of the character sequence that is to be filtered for.
aA	Switches between:

Option	Description
	<ul style="list-style-type: none"> ▶ <i>Capitalization is not taken into account</i> ▶ <i>Capitalization is taken into account</i> <p>Default: <i>Capitalization is not taken into account</i></p>
Symbol filter	<p>Clicking on the filter symbol opens a list to select a filter criterion.</p> <p>Default: <i>Contains</i></p>

FILTER CRITERIA

The following are available as criteria for filter expressions:

Criterion	Description
<i>Remove filter</i>	Removes all filter criteria. All lines are displayed again.
<i>Contains</i>	All entries that contain this character sequence are displayed. (Default setting.)
<i>Does not contain</i>	All entries that do not contain this character sequence are displayed.
<i>is empty</i>	All empty cells are displayed.
<i>is not empty</i>	All entries that contain at least one character are displayed. Spaces are also considered characters.

SORT LISTS

To sort a list:

1. Click in the header of the column according to which sorting is to take place.
2. Click again to change the sorting.

Three sorting processes are gone through in sequence:

- ▶ *Ascending*: The list is sorted from 0 - 9 and from a - z.
Display with arrow pointing upwards.
- ▶ *Descending*: The list is sorted from 9 - 0 and from z - a
Display by the arrow upwards.
- ▶ *Unsorted*: The list is displayed in the original status, i.e. as it was created.

9 Licensing via command line - automation

The **LicenseManagerAutomation.exe** command line tool makes it possible to activate and administer licenses in the command line interface in an automated way with a batch file and in large quantities online or offline. Mass activations are thus also possible in the network.

The following functions are available:

- ▶ Activate single license (on page 83)
- ▶ Mass activation using a collective file (on page 85)
- ▶ Update all licenses of a computer (on page 87)
- ▶ Enter license at the first position in License.ini (on page 88)

All functionalities are available both locally as well as on a remote PC. Remote PC: Located in the network with License Manager installed and running service **zenLicTransfer**.

CALL

- ▶ Call: **LicenseManagerAutomation.exe**
- ▶ Path: **%ProgramFiles(x86)%\Common Files\COPA-DATA\STARTUP**
- ▶ Syntax: **LicenseManagerAutomation.exe [Aktion] [Serial number] [Dongle-Typ] [Option]**
- ▶ Prefix for arguments:
 - ▶ Argument short form: **- (-a)**
 - ▶ Argument long form: **-- (--action)**
- ▶ Arguments:
 - ▶ Upper/lower case is ignored.
 - ▶ Sequence is as desired.
- ▶ Values: Upper-case/lower case is taken into account, if not otherwise stated.
- ▶ Example of long form: **LicenseManagerAutomation.exe --action ActivateOnline --SerialNumber C00WU-Z5SVK-UCGC2-00000-01633 --DongleType Hard --WriteIni**
- ▶ Example of short form: **LicenseManagerAutomation.exe -a ActivateOnline -sn C00WU-Z5SVK-UCGC2-00000-01633 -dt Hard -wi**

ERROR MESSAGE

When an argument is entered incorrectly, a corresponding error is issued and a LOG entry is written. In addition, help to enter the arguments is called up.

Color coding of the display:

- ▶ *Red*: Error
- ▶ *Green*: Success message
- ▶ *White*: Help

Return values:

- ▶ *0*: Success.
The license has been successfully activated.
- ▶ *-1*: Invalid arguments.
Incorrect arguments have been given.
- ▶ *-2*: Error:
for example: No connection to the license depot, or target computer cannot be contacted.

ARGUMENTS

Argument for short description / Argument for long form	Values
-a --action	<p>Command for the application. Is supplemented with one of these values:</p> <ul style="list-style-type: none"> ▶ ActivateOnline: Carry out online activation. ▶ ActivateOnlineFile: Online activation for licenses from one file. Requires -f with the file path specified. ▶ ActivateOffline: Carry out offline activation. Requires -fu with the file path specified. ▶ CreateRequestFile: Creates a license request file for offline activation. ▶ WriteIniTop: Enters the serial number for each product at the first position in the License.ini. Used with --SerialNumber or --AllValid. ▶ UpdateAll: Carries out an update for all licenses. <p>Example: -a ActivateOnline</p> <p>Note: Entry of the argument without a value shows help for arguments and values.</p>

Argument for short description / Argument for long form	Values
-sn --SerialNumber	<p>Transfer of the serial number. Required for actions:</p> <ul style="list-style-type: none"> ▶ ActivateOnline ▶ CreateRequestFile ▶ WriteIniTop
--AllValid	<p>Activates all valid serial numbers that have been found on the computer and puts them in the first place of the valid licenses. If more than one valid license is found, the following sequence applies:</p> <ul style="list-style-type: none"> ▶ Hardware dongles before software dongles ▶ More recent product versions before older ones <p>Is required for action:</p> <ul style="list-style-type: none"> ▶ WriteIniTop <p>Attention: Demo licenses are ignored.</p>
-dt --DongleType	<p>Type of dongle:</p> <ul style="list-style-type: none"> ▶ <i>Hard</i>: Hardware dongle ▶ <i>SoftStd</i>: Computer-based Software-Dongle Standard ▶ <i>SoftVM</i>: Computer-based Software-Dongle VirtualMachine ▶ <i>SoftVMDataCenter</i>: Computer-based Software-Dongle VM DataCenter ▶ <i>Soft</i>: The dongle - standard or virtual machine - is selected dynamically. The Software-Dongle VirtualMachine is selected on a virtual machine; the Software-Dongle Standard is selected on a physical machine. If <i>DATA_CENTER_LICENSE</i> is set for the dongle, the Software-Dongle VM DataCenter dongle type is selected for a virtual machine. <p>Required for the ActivateOnlineFile and CreateRequestFile (optional) actions.</p>

Argument for short description / Argument for long form	Values
	Note: Only -dt or -di can be used.
-di --DongleIdentification	<p>ID of the dongle.</p> <p>Each dongle has a unique ID. E.g.: 3-3440001 for a hardware dongle or 130-636662578 for a software dongle.</p> <p>Required for the ActivateOnlineFile and CreateRequestFile (optional) actions.</p> <p>Note: Only -dt or -di can be used.</p>
-wi --WriteIni	<p>Activated license is written to License.ini.</p> <p>Optional argument for the ActivateOnline, ActivateOnlineFile and ActivateOffline actions.</p> <p>Note: This argument must always be stated too.</p>
-r --Remote	<p>Host name or IP address of the remote system. If not stated: <i>Localhost</i></p> <p>Optional argument for the ActivateOnline, ActivateOnlineFile, ActivateOffline, CreateRequestFile and WriteIniTop actions.</p>
-f --File	<p>File path of liqSN- file. The complete path must be entered.</p> <p>Is needed for the ActivateOnlineFile action.</p>
-fr --FileNameRequest	<p>Path in which the license request file *.LicReq is stored.</p> <p>Optional argument for the CreateRequestFile action.</p> <p>Default: Current folder with file name [serial number].LicReq e.g.: ...\\License\\C00WU-Z5SVK-UCGC2-00000-01633.LicReq</p>
-fu --FileNameUpdate	<p>Path to license update file *.LicUpd, that is activated. This file will be issued by the licenser and must be downloaded by the user.</p> <p>Is required for the ActivateOffline action.</p>
-fc	Path in which the license request file *.LicConf is stored.

Argument for short description / Argument for long form	Values
<code>--FileNameConfirmation</code>	<p>Is required for the ActivateOffline action.</p> <p>Default: Current folder with file name [serial number].LicConf e. example: <code>...\License\C00WU-Z5SVK-UCGC2-00000-01633.LicConf</code></p> <p>Attention: The license also functions without this step. If however the license confirmation file is not uploaded, from the point of view of the web depot, the license is still not completely licensed. It cannot be returned and reassigned again later.</p>

EXAMPLES

Examples of calls:

- ▶ Activate license online for the first hardware dongle found:
 - ▶ `LicenseManagerAutomation.exe --action ActivateOnline --SerialNumber C00WU-Z5SVK-UCGC2-00000-01633 --DongleType Hard`
 - ▶ `LicenseManagerAutomation.exe -a ActivateOnline -sn C00WU-Z5SVK-UCGC2-00000-01633 -dt Hard`
- ▶ Activate license for the dongle with the ID 3-3440011:
 - ▶ `LicenseManagerAutomation.exe -a ActivateOnline -sn C00WU-Z5SVK-UCGC2-00000-01633 -di 3-3440011`
- ▶ Activate license for the dongle with the ID 3-3440011 and write in the first position of **License.ini**:
 - ▶ `LicenseManagerAutomation.exe --action ActivateOnline --SerialNumber C00WU-Z5SVK-UCGC2-00000-01633 --DongleIdentification 3-3440011 --WriteIni`
- ▶ Write license C00WU-Z5SVK-UCGC2-00000-01633 at the first position of **License.ini**:
 - ▶ `LicenseManagerAutomation.exe -a WriteIniTop -sn C00WU-Z5SVK-UCGC2-00000-01633`
- ▶ Activate all found licenses and write to the top in the **License.ini**:
 - ▶ `LicenseManagerAutomation.exe -a WriteIniTop --AllValid`
- ▶ Update all licenses listed in **License.ini**:
 - ▶ `LicenseManagerAutomation.exe --action UpdateAll`
- ▶ Activate license online for the first hardware dongle found on the remote system 129.0.0.1:

- ▶ **LicenseManagerAutomation.exe -a ActivateOnline -sn C00WU-Z5SVK-UCGC2-00000-01633 -dt Hard -r 129.0.0.1**
- ▶ Activate all licenses from a license file for the first dongle found on a remote system that is stated in the file:
 - ▶ **LicenseManagerAutomation.exe --action ActivateOnlineFile --File C:\Users\Public\Desktop\SerialNumber.LicSN --DongleType Hard**
- ▶ Creates a licensing request file for offline licensing on a dongle for serial number **C00WU-Z5SVK-UCGC2-00000-01633** on the remote system **127.0.0.1**.
 - ▶ **LicenseManagerAutomation.exe -a CreateRequestFile --SerialNumber C00WU-Z5SVK-UCGC2-00000-01633 --FileNameRequest C:\Users\Public\Desktop\SerialNumber.LicReq --DongleType Hard --Remote 127.0.0.1**
- ▶ Activates the license from the specified file on the remote system **127.0.0.1** and writes the confirmation in a new file.
 - ▶ **LicenseManagerAutomation.exe -a ActivateOffline --FileNameUpdate C:\Users\Public\Desktop\SerialNumber.LicUpd --FileNameConfirmation C:\Users\Public\Desktop\SerialNumber.LicConf --WriteIni --Remote 127.0.0.1**

You can get further examples after calling **LicenseManagerAutomation.exe** without further values or arguments.

PROCESSING OF USER DATA

When licensing via the **License Manager** by means of dialog or command line, user data is also recorded, saved and processed. This data is to restore lost or damaged licenses. The data is saved and processed at Ing. Punzenberger COPA-DATA GmbH.

DATA COLLECTED

The following is collected:

- ▶ Operating system: Type and version
- ▶ IP addresses: All IP addresses present on the computer
- ▶ Fully Qualified Host Name: Unique computer name and complete domain address
- ▶ User name and domain
- ▶ Serial number

This data is recorded for the computer on which licensing is executed. If the licensing is executed remotely, this data is also collected for the target computer.

You can find detailed information about data processing and data protection online at: <https://www.copadata.com/privacy> (<https://www.copadata.com/privacy>).

TIME POINTS OF DATA COLLECTION

The data is collected when:

- ▶ Activating licenses
- ▶ Updating licenses
- ▶ Transferring/relocating licenses

DEACTIVATION

The recording of this data can be deactivated in the **License Manager** dialog in the **Settings** tab. Licenses can continue to be obtained and administered. Support and technical support for licensing is however not possible due to missing data.

If the recording is deactivated, COPA-DATA can no longer offer the following services:

- ▶ Automatic application of licenses to remote computers.
- ▶ Tracing of the computer on which the license was activated and by whom.
No support can thus be offered when searching for the license in the event of a loss of a license. Lost licenses can also not be replaced as part of customer care.

Data that has been collected up to the point of deactivation remains saved.

9.1 Activate single license

The **ActivateOnline** value activates a license online, either locally or remotely.

The following can be stated as a target dongle:

- ▶ Fixed dongle using dongle ID
- ▶ Hardware dongle
- ▶ Software dongle for:
 - ▶ Real existing computer
 - ▶ Virtual Machine

Attention

Always state the `--WriteIni` or `-wi` argument so that the license is also entered into the first position in the **License.ini** file.

This functionality has many possibilities for combination. See list with all arguments in the overview (on page 77). The most important examples are stated here. You can find further examples if you call up **LicenseManagerAutomation.exe** without further arguments.

CALL

Local call for hardware dongle:

- ▶ Short form: **LicenseManagerAutomation.exe -a ActivateOnline -sn C00WU-Z5SVK-UCGC2-00000-01633 -dt Hard -wi**
- ▶ Long form: **LicenseManagerAutomation.exe --action ActivateOnline --SerialNumber C00WU-Z5SVK-UCGC2-00000-01633 --DongleType Hard --WriteIni**

Remote call for hardware dongle:

- ▶ Short form: **LicenseManagerAutomation.exe -a ActivateOnline -sn C00WU-Z5SVK-UCGC2-00000-01633 -dt Hard -r 127.0.0.1 -wi**
- ▶ Long form: **LicenseManagerAutomation.exe --action ActivateOnline --SerialNumber C00WU-Z5SVK-UCGC2-00000-01633 --DongleType Hard --Remote 127.0.0.1 --WriteIni**

Note: Instead of the IPv4 address, you can also state an IPv6 address or the computer name of the target computer.

Local call for software dongle:

- ▶ Short form: **LicenseManagerAutomation.exe -a ActivateOnline -sn C00WU-Z5SVK-UCGC2-00000-01633 -dt Soft -wi**
- ▶ Long form: **LicenseManagerAutomation.exe --action ActivateOnline --SerialNumber C00WU-Z5SVK-UCGC2-00000-01633 --DongleType Soft --WriteIni**

Remote call for software dongle:

- ▶ Short form: **LicenseManagerAutomation.exe -a ActivateOnline -sn C00WU-Z5SVK-UCGC2-00000-01633 -dt Soft -r 127.0.0.1 -wi**
- ▶ Long form: **LicenseManagerAutomation.exe --action ActivateOnline --SerialNumber C00WU-Z5SVK-UCGC2-00000-01633 --DongleType Hard --Remote 127.0.0.1 --WriteIni**

Note: Instead of the IPv4 address, you can also state an IPv6 address or the computer name of the target computer.

MESSAGES

Return values:

- ▶ 0: Success.
The license has been successfully activated.
- ▶ -1: Invalid arguments.
Incorrect arguments have been given.
- ▶ -2: Error:
for example: No connection to the license depot, or target computer cannot be contacted.

9.2 Mass activation using a collective file

The **ActivateOnlineFile** value activates all licenses that are stated in the collective file online.

The following can be stated as a target dongle:

- ▶ fixed dongle using dongle ID
- ▶ Hardware dongle
- ▶ Software dongle for:
 - ▶ Real existing computer
 - ▶ Virtual Machine

If you order several licenses, you also get a collective file (*.LicSN) in addition to the license certificate. You can use this file to administer the licenses centrally and to activate them from a central point.

The collective file is a CSV file that can be edited with any desired text editor or a table calculation.

- ▶ Column separator: Semicolon (;) or tab (\t)

Column structure:

Column	Identification	Description
1	Serial number	The unique serial number of each license.
2	Item name	Contains the article names of the license. Is for information only and has no functional effect.
3	Target computer	Indication of the target computer: <ul style="list-style-type: none"> ▶ If not yet licensed: Computer name onto which the license is to be transferred. The following can be used: IPv4 address, IPv6 address or computer name. ▶ If already licensed: Computer name onto which the license has been transferred.
4	User name	Windows user name from which the license has been activated. Only used for information.
5	Activated	Display of the status of the activation. <ul style="list-style-type: none"> ▶ <i>True</i>: activated ▶ <i>False</i> or <i>empty</i>: not activated With <i>True</i> , this license is no longer taken into account when

Column	Identification	Description
		processing using the command line.
6	Error text	If an error occurred during activation, the error is logged here.

The original file is only filled with the first two columns.

To use a file for the mass activation using the **License Manager** or the command line:

- ▶ Enter the target computer into column 3 for each license.

Example:

- ▶ Original line of the collective file: *C005L-XQP49-Z42Q8-00000-02985;zenon SU RT 64 TAGs;*
- ▶ Add this line: *C005L-XQP49-Z42Q8-00000-02985;zenon SU RT 64 TAGs;MyPCtoLicense*

⚠Attention

Ensure that you have entered a target computer in the 3rd column in each line of the collective file.

PROCEDURE

Process for licensing:

- ▶ Entries from the file are read in line by line and activated consecutively online.
- ▶ The serial number and the computer name or the IP address are read from the file.
- ▶ The target dongle type is taken from the argument of the command line.
- ▶ If a license has been activated successfully, the **LicSN** file is updated.
- ▶ If an error occurred, the reason for the error is written in the 6 column of the file.
- ▶ In the event of problems connecting to the licensing server, the complete process is canceled. With all other errors, an attempt is made to activate the next license.

Message after each serial number:

- ▶ *Red:* Error
- ▶ *Green:* Success message

⚠Attention

Always state the *--WriteIni* or *-wi* argument so that the license is also entered into the first position in the **License.ini** file.

Note: With this type of activation, the **-r (--Remote)** parameter does not need to be stated. The remote computer must be entered into the third column of the collective file.

CALL

Call for hardware dongle:

- ▶ Short form: `LicenseManagerAutomation.exe -a ActivateOnlineFile -f C:\Users\Public\Desktop\SerialNumber.LicSN -dt Hard -wi`
- ▶ Long form: `LicenseManagerAutomation.exe --action ActivateOnlineFile --File C:\Users\Public\Desktop\SerialNumber.LicSN --DongleType Hard --WriteIni`

Call for software dongle:

- ▶ Short form: `LicenseManagerAutomation.exe -a ActivateOnlineFile -f C:\Users\Public\Desktop\SerialNumber.LicSN -dt Soft-wi`
- ▶ Long form: `LicenseManagerAutomation.exe --action ActivateOnlineFile --File C:\Users\Public\Desktop\SerialNumber.LicSN --DongleType Soft--WriteIni`

MESSAGES

Return values:

- ▶ 0: Success message.
 - ▶ 0: No license has been activated.
 - ▶ 1-n: n Licenses have been successfully activated.
- ▶ -1: Invalid arguments.
Incorrect arguments have been given.
- ▶ -2: Error:
for example: No connection to the license depot, or target computer cannot be contacted.

9.3 Update all licenses of a computer

The **UpdateAll** value updates all local licenses that are entered in the **License.ini** file. Network licenses and demo licenses are not taken into account.

This function cannot be executed remotely.

CALL

Short form:

`LicenseManagerAutomation.exe -a UpdateAll`

Long form:

LicenseManagerAutomation.exe --action UpdateAll

MESSAGES

Return values:

- ▶ 0: Success. No license has been updated.
- ▶ 1-n: success: n licenses updated.
- ▶ -1: Error:
for example: No connection to the license depot, or target computer cannot be contacted.

9.4 Enter license at the first position in License.ini

The **WriteIniTop** argument carries the given serial number for all products that are included with the license, at the first position in the **License.ini** file at the first position for the respective product.

Example: The **Editor**, **Runtime** and **Process Gateway** products are included with the license. The licenses are entered at the first position for all three products with the command.

CALL

Example for call:

- ▶ Short form: **LicenseManagerAutomation.exe -a WriteIniTop -sn C00WU-Z5SVK-UCGC2-00000-01633**
- ▶ Long form: **LicenseManagerAutomation.exe --action WriteIniTop --SerialNumber C00WU-Z5SVK-UCGC2-00000-01633**

PROCEDURE

The following is applicable for licensing via the command line:

- ▶ The serial number is validated in the first step.
- ▶ The license is then searched for locally and in the network.
Note: If a demo license number is entered, only a local search is carried out.

Only if the license is found is it entered into the **License.ini** file.

MESSAGES

Return values:

- ▶ 0: Success.
License has been successfully entered.
- ▶ -1: Invalid arguments.
Incorrect arguments have been given.
- ▶ -2: Error:
for example: No connection to the license depot, or target computer cannot be contacted.

10 LicenseTypes

There are licenses available for different uses for COPA-DATA products. Each product is also supplied with a demo license. You can find details on products, editions and licenses in the COPA-DATA price list valid for your version.

Licenses can be used with a:

- ▶ *Hardware dongle*: Freely transferable license on a hardware USB dongle.
- ▶ *Software dongle Standard*: Computer-based license on a software dongle.
This is a file in the computer.
- ▶ *Software dongle Virtual Machine*: Computer-based license for use in virtual machines.
This is a file in a virtual machine.

Licenses can be:

- ▶ Available locally or in the network.
- ▶ Given a fixed date of expiry.
- ▶ Configured for a certain period of usage.
- ▶ Configured for a certain time quota.
- ▶ Returned and thus transferred to a different system.

Attention: Licenses with a specific period of usage cannot be returned.

10.1 Licenses and number of licenses/network licenses

The licensing takes into account single licenses, license quantities and network licenses.

A license includes one or more products. For example, an editor and a Runtime are included in the **development environment** license. Each product is administered individually by the licensing. The license version (modules, number of TAGs etc.) is the same for all products in a license. This information is saved for the license and not with the product.

Example: If the license has over 2000 TAGs, 2000 TAGs can be used both in the Editor as well as in Runtime.

The license products do not need to be used on the same computer. They can also be divided. For example, if the editor runs on Computer A, runtime runs on Computer B.

NUMBER OF LICENSES / NETWORK LICENSES

A number of licenses is also stated for each license.

Default: 1

With a number of licenses greater than 1, the products can be used more than once accordingly. If the license has 3 licenses, then e.g. 3 Editors and 3 Runtimes can be started. Because only one editor and/or one runtime can run, the **CodeMeter** runtime must be set up as a network server (on page 134) with a number of licenses greater than 1. So that products can be licensed on additional computers.

HTML WEB ENGINE

With the HTML web engine, the number of instances is licensed, such as 5 instances for example. If such a license is in a bundle with a number of licenses greater than 1, then the instances multiply accordingly.

Example: 3 licenses, each with 5 instances results in 15 HTML web engine instances that can be started.

10.2 End of validity - Period of use - Time quota

Licenses can be limited by:

- ▶ End of validity
- ▶ Time period for use
- ▶ Time quota

END OF VALIDITY

For licenses, a fixed end of validity (=date of expiry) can be saved as a date + time.

The end of validity is programmed into the dongle and can only be validated by means of a license update. The end of validity is a property of the license and thus influences all of the products in the license.

TIME PERIOD FOR USE

A usage time period can be saved for licenses.

The usage time period defines how long the licenses can be used from the first time it is started, for example 30 days from the first time it is started. The usage period is a property of the license and thus

influences all of the products in the license. The first product that is started starts the duration of the time period. This date is saved in the dongle and can only be validated by means of a license update.

TIME QUOTA

If a time quota has been issued for a license, the duration is calculated in minutes. The remaining time is saved in the dongle in a forgery-proof manner.

In doing so, the following applies:

- ▶ Each minute started is deducted from the time quota.
- ▶ The usage time also continues after a dongle is removed and is updated later.
- ▶ Reconnect (on page 114): If, during an automatic switch between licenses, a valid license without time quota is used as a substitute license, the counting of the time is paused until a dongle with a time quota is active again.

Note: Demo licenses for the zenon Runtime are licenses with a time quota.

10.3 Demo licenses and Demo mode

Each installation contains:

- ▶ Demo licenses: Allows you to test a product for a certain time period.
Demo licenses follow the rules for licenses with a time quota (on page 90).
- ▶ Demo mode: Allows you to start a product and use it for a certain period of time. It is closed again afterwards.
Runtime Editor: 10 Minutes
Runtime: 30 minutes

Each installation contains at least one demo license. This has a pre-defined duration or number of permitted starts. If these are used up, the product can continue to be used in demo mode, but it is ended after running for 10 minutes however. You can find out the usage period that is available in the **License Manager** in the **License usage** tab in the details of the license.

COPA-DATA products:

- ▶ zenon Editor with zenon Logic Workbench as a module
- ▶ zenon Runtime:
Runtime for Demo licenses:
 - ▶ 43200 minutes (30 days) on hardware computers
 - ▶ 1440 minutes (1 Tag) for virtual machines
- ▶ zenon Logic Workbench and Runtime
- ▶ Process Gateway and OPC DA Server

- ▶ zenon Web Server and Web Client
- ▶ HTML Web Engine
- ▶ zenon Analyzer
- ▶ Hub Controller
- ▶ Service Grid API
- ▶ Identity Service

Demo licenses have their own software dongles. These cannot be used for other licenses. The last existing demo license cannot be deactivated using the **License Manager**.

The remaining duration and the number of the starts that are still possible for demo licenses and demo mode are shown in the start screen and in the version and license information.

MISSING DEMO LICENSE

If no demo license is available on your computer, then:

1. Open the **License Manager**.
2. Open the **License usage** tab.
3. Select the desired demo license.
4. Select the desired product.
5. Click on the button at the far right of the list.
The button turns green in color and the license is now being used.

Note: If there is also no demo license available in **License Manager**, contact your COPA-DATA sales partner.

Hint

You can use demo licenses to test products and editions. To do this, place the demo license at the first location of the license list in the **License Manager**. This license is used the next time the product is started.

10.4 Education & Training

Licenses for education & training mode are issued especially for training purposes.

They allow a maximum of 90 minutes duration; the program is then ended automatically. There is 90 minutes of running time available again after a restart.

11 Version checking and service period / service agreement

From version 8.00, the product version is saved in the license. The product is only started if the product version of the license and the product version of the product match each other. Otherwise a corresponding error message is shown.

If there is a valid service agreement (SLA/SUS/CDDN), the a service period is saved in the license. All versions that have been unlocked during this service period are covered by the license.

The check is carried out for all products in this sequence:

1. Service period present and valid for the product.
 - ▶ Yes: Product starts.
 - ▶ No: Next step for checking.
2. Product version in license correspond to the product version.
 - ▶ Yes: Product starts.
 - ▶ No: The license is invalid. Product does not start.

Example:

The license has a service period of 1/1/2018 - 31/12/2020. All versions that have been unlocked by COPA-DATA within this time period run with this license. All other versions (earlier or later) cannot be started.

12 Product-specific themes

This chapter contains details about COPA-DATA products:

12.1 Variables: Selecting the appropriate license size

Licenses for zenon Editor and Runtime are always issued for a certain number of TAGs (variables). A TAG corresponds to an external variable, regardless of data type. Internal variables are not counted as a TAG. TAGs are only used for licensing. For determining the license size, the total sum of TAGs from the following drivers are used: All PLCs and bus drivers.

The following are not counted: Internal process variables (**internal driver** for internal use without time stamp) as well as process variables from the **system driver**, **math driver** and **simulator driver**.

For determining the license size, consider the total number of TAGs (= variables) of the following drivers:

- ▶ PLC drivers and bus drivers.

- ▶ **Internal driver** with complete support for all time stamps (internal and external) and complete status display.

You can find further information in relation to this in the driver documentation for the **internal driver** in the **Licensing and display in Runtime** chapter.

Variables of the following drivers do not count:

- ▶ Internal drivers without support for the internal time stamp and limited display of the status bits.

You can find further information in relation to this in the driver documentation for the **internal driver** in the **Licensing and display in Runtime** chapter.

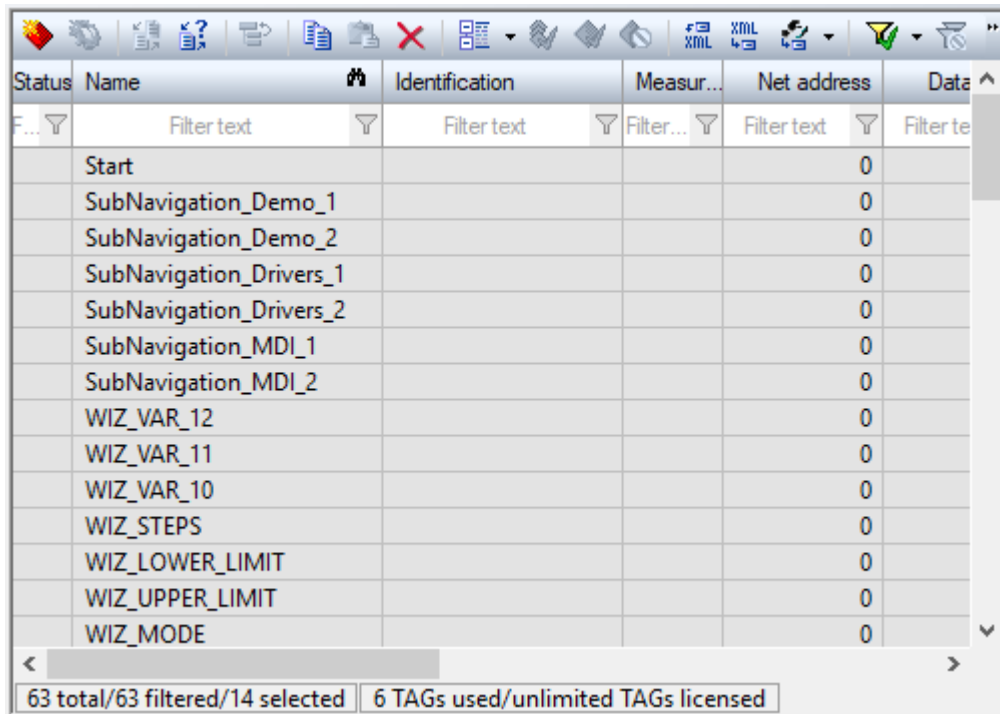
- ▶ **System driver**
- ▶ **Mathematics driver**
- ▶ **Simulation driver**
- ▶ **Alternative Data Point driver**

You can license TAGs for the Editor and the Runtime in the following gradation:

- ▶ 64 TAGs
- ▶ 128 TAGs
- ▶ 256 TAGs
- ▶ 512 TAGs
- ▶ 1,024 TAGs
- ▶ 2,048 TAGs
- ▶ 4,096 TAGs
- ▶ 8,192 TAGs
- ▶ 16,384 TAGs
- ▶ 65536 TAGs
- ▶ unlimited

DISPLAY IN ZENON

In the status line of the detail view of the variables the following information can be found:



Status	Name	Identification	Measur...	Net address	Data
	Start			0	
	SubNavigation_Demo_1			0	
	SubNavigation_Demo_2			0	
	SubNavigation_Drivers_1			0	
	SubNavigation_Drivers_2			0	
	SubNavigation_MDI_1			0	
	SubNavigation_MDI_2			0	
	WIZ_VAR_12			0	
	WIZ_VAR_11			0	
	WIZ_VAR_10			0	
	WIZ_STEPS			0	
	WIZ_LOWER_LIMIT			0	
	WIZ_UPPER_LIMIT			0	
	WIZ_MODE			0	

63 total/63 filtered/14 selected 6 TAGs used/unlimited TAGs licensed

How many variables:

- ▶ are present in the project
- ▶ are shown in filtered form
- ▶ are selected
- ▶ are used in the project
- ▶ are licensed

12.2 Client License

You can use client licenses if:

- ▶ the start project is a standalone project or a client project
- ▶ the start project uses a maximum of 64 TAGs that require licensing, if it is not a client project
- ▶ all sub-projects are client projects

12.3 Licensing drivers

Drivers must be licensed for use in Runtime. There are different models with individual licensing, price groups and free drivers for this. The license models can be mixed. In this case, the licensing is

supplemented. If no driver has been licensed, only the licensed drivers can be used in the Runtime. All drivers can always be used in the Editor.

Note: Drivers do not need a license for use in the Runtime simulation (**Process Recorder** module).

LICENSE MODELS

The following license models are available for drivers:

License model	Description	Example
Individual drivers	Certain drivers have dedicated licenses. Only these drivers that require a license are available in the Runtime.	The IEC850 driver is licensed. Only the IEC850 driver can be used in the Runtime, as well as all license-free drivers, such as internal drivers.
Single price groups	<p>Drivers are licensed by means of price groups. The following are available:</p> <ul style="list-style-type: none"> ▶ Price group A ▶ Price group B ▶ Price group C ▶ Price group R <p>Each group contains certain drivers. You can see the drivers that are contained from the price list valid for your product version.</p> <p>The licensed number of drivers from each group can be used. Several groups can be licensed at the same time.</p>	<p>3 drivers from the A group and 2 drivers from the R group are licensed. 5 drivers from these two groups can be used in the Runtime. This is also applicable in addition to drivers that have been licensed individually.</p>
Price group ABC	A certain number of drivers in the groups A , B or C are licensed. In doing so, drivers in group R are not included.	3 drivers from the price groups ABC are licensed. Three drivers can thus be used in Runtime, regardless of which group (except R). This is also applicable in addition to drivers that have been licensed individually.
Price group ABCR	A certain number of desired	5 drivers from the price

License model	Description	Example
	drivers from the groups A, B, C or R are licensed. Any desired driver from these groups can be used in Runtime, as long as the overall number is not exceeded. Excepted from this are the drivers for SICAM 230 .	groups ABCR are licensed. Five desired drivers can be used in Runtime. This is also applicable in addition to drivers that have been licensed individually or through a group.
Free drivers	Some drivers are license free. These can be used at any time. They are also not deducted from the licensed quantity with price group licenses.	No drivers have been licensed. The internal driver can be used in Runtime however.
Customer-specific driver	If the customer develops their own driver on the basis of the driver kit, it does not need to be licensed.	No drivers have been licensed. However, all self-developed drivers and the internal driver can be used in Runtime.
SICAM 230 driver. (Price group K)	Do not fall under the zenon driver license models and must be licensed individually. These drivers are not licensed by means of price groups.	

Example

Five drivers of price group **ABCR** are licensed, three drivers of price group **R** and the **IEC850** driver. First the **IEC850** driver is checked, then the **R** price group, then the **ABCR** price group.

Result: Nine drivers can be used in Runtime:

- ▶ **IEC850** Driver.
Even if it is part of the **R** group.
- ▶ 3 drivers of **R** group.
In addition to the **IEC850** driver.
- ▶ 5 further drivers.
In addition to the 3 drivers of the **R** group and the **IEC850** driver.

CHECK IN RUNTIME

In Runtime, all projects including subprojects are checked to ensure that the drivers used are licensed. If a driver is not licensed, an error message is issued and an entry is written to the LOG file. The Runtime is closed. A driver is not licensed if none of the models available has a valid license

Procedure for checking:

1. First a check is carried out to see if it is a license-free driver.
It is accepted if that is the case. It is no longer taken into account for individual licensing, group licensing or price group licensing.
2. The individual licensing is checked if it is not a license-free driver.
The driver is accepted if it is included here. It is no longer taken into account for group licensing or price group licensing.
3. If the driver is not included in the individual licensing, the group licensing is checked.
The driver is accepted if it is included here. It is no longer taken into account for price group licensing.
4. If the driver is not included in group licensing, the price group licensing is checked.
If there is still a license available for a driver, it is accepted.
5. It is not evaluated as licensed if the driver is not contained in any model.

Note: SICAM 230 drivers must always be licensed individually. They are checked separately and no longer covered by the other zenon license models.

You can however check which drivers are licensed:

- ▶ In the **License Manager**
- ▶ In the Editor in the License information (on page 101).
- ▶ In Runtime using the **Show license information** function

BEHAVIOR WITH SUBLICENSING

If it is established in Runtime that non-licensed drivers are being used, a corresponding error message is given. The message states that at least 1 driver has not been licensed. Runtime is ended afterwards.

This is how you amend the licensing:

1. Open the **License Manager**.
2. Check in the License usage (on page 31) tab:
 - ▶ Which license is currently being used for Runtime.
 - ▶ How many and which drivers have been licensed.
3. Check which drivers are used in the project configuration.
4. License the missing drivers.

5. Restart Runtime.
6. The driver licenses are checked and Runtime starts with successful checking.

12.4 zenon Analyzer licensing

The components of zenon Analyzer must have a valid license. The servers and clients must be licensed for the same version.

The license data is entered via the **License Manager**. This dialog (on page 19) is also used for other COPA-DATA products.

Note: Ensure that you have sufficient licensing to provide all users with a fixed license and possibly provide additional users with licenses.

LIMITATIONS

There are the following restrictions without a valid license:

- ▶ No external access via the default access site is possible.
- ▶ There is no connector functionality
- ▶ Report templates and reports cannot be used.
- ▶ ZAMS, Data Editors and the Prediction Model Manager can be started without a license, but do not allow connection to the Analyzer Server.

Without connection it is only possible:

- ▶ To configure the application
- ▶ Opening the version information
- ▶ Opening the help
- ▶ Opening the **License Manager** (ZAMS only)

Note: If a license is lost during ongoing operation, all reports that are open in ZAMS are closed. You are able to save them before they are closed.

LICENSING IN WORKGROUPS

For licensing for computers that are not in domains, but in Windows workgroups, note the procedure in the Licensing in workgroups (on page 100) chapter.

NUMBER OF DEVICES PER USER

From version 3.40, up to three different devices at the same time are permitted for each user. Each user can occupy up to three devices with their user name. Further devices are declined.

If a device is inactive for a period of time, the license allocation also expires. This license that has become free can be assigned to a new device.

Waiting periods:

- ▶ ZAMS, Prediction Model Manager, Manual Data Editor and Metadata Editor: 30 seconds
- ▶ Report Launcher: 15 minutes

12.4.1 Licensing in workgroups

Licensing for zenon Analyzer in Windows workgroups is different from the licensing for domains.

REQUIREMENTS

For licensing within workgroups, the zenon Analyzer License Service must work in Workgroup mode. To do this, the following requirements must be fulfilled:

- ▶ The computer that acts as the Analyzer Server must be a member of the workgroup.
- ▶ All users of the workgroup must also be present on the Analyzer Server.
- ▶ The license service on the Analyzer Server must run in the user context of a user of the workgroup. Other computers in the workgroup are thus recognized as members of the group. The local account must not be a local system account. It is nevertheless set up as a system account during installation.

CHANGING LICENSE SERVICE USER CONTEXT

This is how you change the user context for the license service:

1. Open the administration of the local services.
2. Go to the **zrsLicSrv** service.
3. Stop the service.
4. Click on **Properties** in the context menu of the service.
The dialog with the properties of the service is opened.
5. Open the **Log in** tab.
6. Activate the **This account** radio button.
7. Enter the user name, password and password confirmation for the desired user.
8. Close the dialog by clicking on **OK**.
9. Start the service.

Attention

The same user who is used for **zenLicSrv** must be present on all other computers on which an Analyzer application is used for all groups in the workgroup (ZAMS, metadata editor, manual data editor, Prediction Model Manager).

Otherwise the license server will not be found because the identification of the computer always fails.

Administrator rights are not mandatory on these computers.

If, on a computer that is relevant for the **zenLicSrv**, a user is switched, you must restart the **zenLicSrv**!

13 Display version and license information

You can see the version and license that you are currently using and which modules are included in this in the license information for the respective product.

13.1 zenon Editor:

To display license information in the Editor:

1. Open the menu **Help**.
2. Click on **About...**

The license information dialog is opened.

LICENSE INFORMATION DIALOG

License information - zenon Energy Edition Editor

Version
Version 8.00 SP0 Build44702 64Bit

Edition
zenon Energy Edition

Serial number
C00E3-HT9WK-E2DFJ-00000-02054

Detail information

Licensed product versions: 8.00, 8.10

Number of TAGs: Unlimited
Licenses for drivers of all price groups: Unlimited

Licensed modules:
Load flow calculation
State Estimator
Message Control
Recipe Group Manager
Process Recorder
3D Integration
Extended Trend
Historian
Historian and Extended Trend - Starter Edition
Reporting: Report Generator and Report Viewer
SAP Interface
SQL export

Open license administration... Close

Option	Description
Version	Editor version number.
Edition	Edition used.
Serial number	License serial number.
Expiration time (optional)	Shows, with a time-limited license, information about the expiry date.
Detail information	Information on licensed: <ul style="list-style-type: none"> ▶ Version ▶ Variables ▶ Modules and their their expansion

Option	Description
Open License Administration	Opens the License Manager . Licenses can be activated, returned and managed with this tool. The serial number is needed for this.
Close	Closes the dialog.

13.2 zenon Runtime

To display license information in Runtime:

1. Configure the function **Show license information**.
2. Execute this in Runtime.

The license information dialog is opened.

LICENSE INFORMATION DIALOG

License information - zenon Energy Edition Runtime

Version
Version 8.00 SP0 Build44702 64Bit

Edition
zenon Energy Edition

Serial number
C00E3-HT9WK-E2DFJ-00000-02054

Detail information
Licensed product versions: 8.00, 8.10
Number of TAGs: Unlimited
Licenses for drivers of all price groups: Unlimited
Licensed modules:
Load flow calculation
State Estimator
Message Control
Recipe Group Manager
Process Recorder
3D Integration
Extended Trend
Historian
Historian and Extended Trend - Starter Edition
Reporting: Report Generator and Report Viewer
SAP Interface
SQL export

Close

Option	Description
Version	Version number of Runtime.
Edition	Edition used.
Serial number	License serial number.
Expiration time (optional)	Shows, with a time-limited license, information about the expiry date.
Detail information	Information on licensed: <ul style="list-style-type: none"> ▶ Version ▶ Variables ▶ Modules and their their expansion

Option	Description
Close	Closes the dialog.

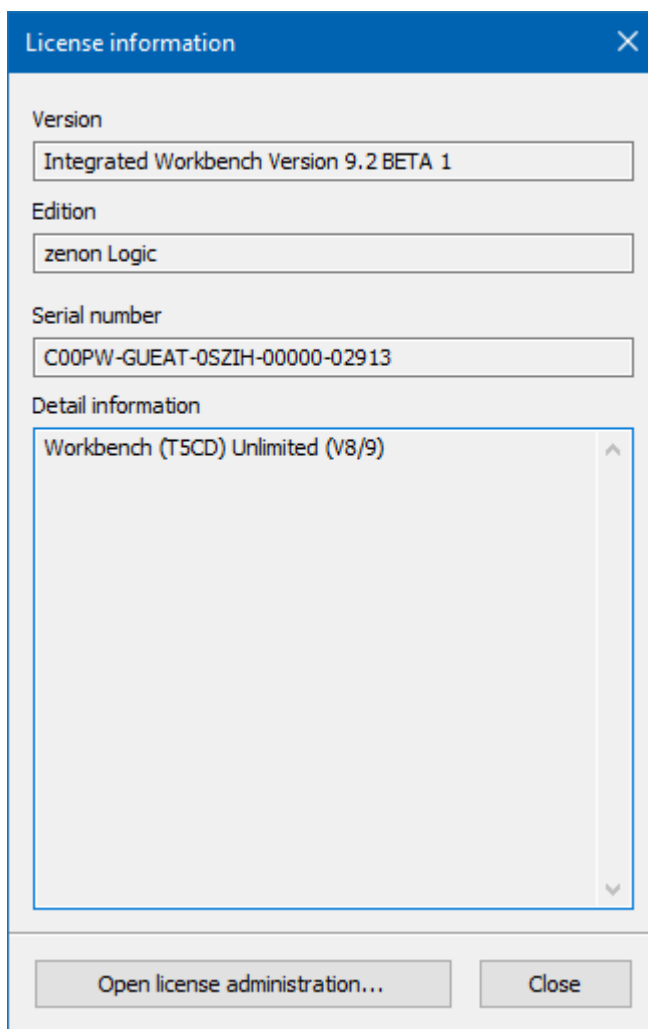
13.3 zenon Logic Workbench

To display license information in zenon Logic Workbench:

1. Open the menu **Help**.
2. Click on **About...**

The license information dialog is opened.

LICENSE INFORMATION DIALOG



The image shows a 'License information' dialog box with a blue title bar and a close button (X). The dialog contains the following fields:

- Version:** Integrated Workbench Version 9.2 BETA 1
- Edition:** zenon Logic
- Serial number:** C00PW-GUEAT-0SZIH-00000-02913
- Detail information:** Workbench (T5CD) Unlimited (V8/9)

At the bottom of the dialog, there are two buttons: 'Open license administration...' and 'Close'.

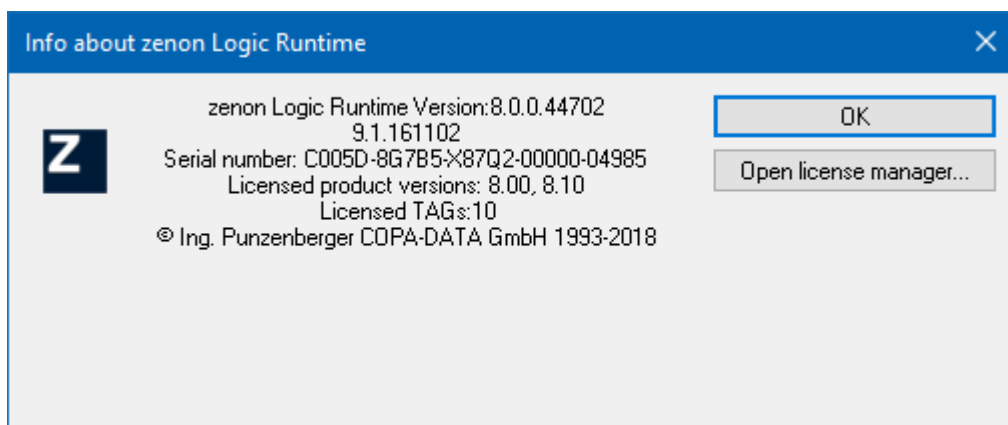
Parameters/buttons	Description
Version	Version number of the integrated workbench.
Edition	Edition used.
Serial number	License serial number.
Detail information	Shows details on the license.
Open license administration	Opens the License Manager . Licenses can be activated, returned and managed with this tool. The serial number is needed for this.
Close	Closes the dialog.

13.4 zenon Logic Runtime

To view the license information:

1. With Runtime running, double-click on the symbol for zenon Logic in the system tray.
The dialog with status information is opened.
2. In the top left corner, click on the zenon Logic logo.
3. In the drop-down list, select **About zenon Logic Runtime....**
The dialog with the license information is opened.

LICENSE INFORMATION DIALOG



The dialog shows information about the license currently being used.

Option	Description
OK	Closes the dialog.
Open license administration...	Opens the License Manager . Licenses can be activated, returned and managed with this tool. The serial number is needed for this.

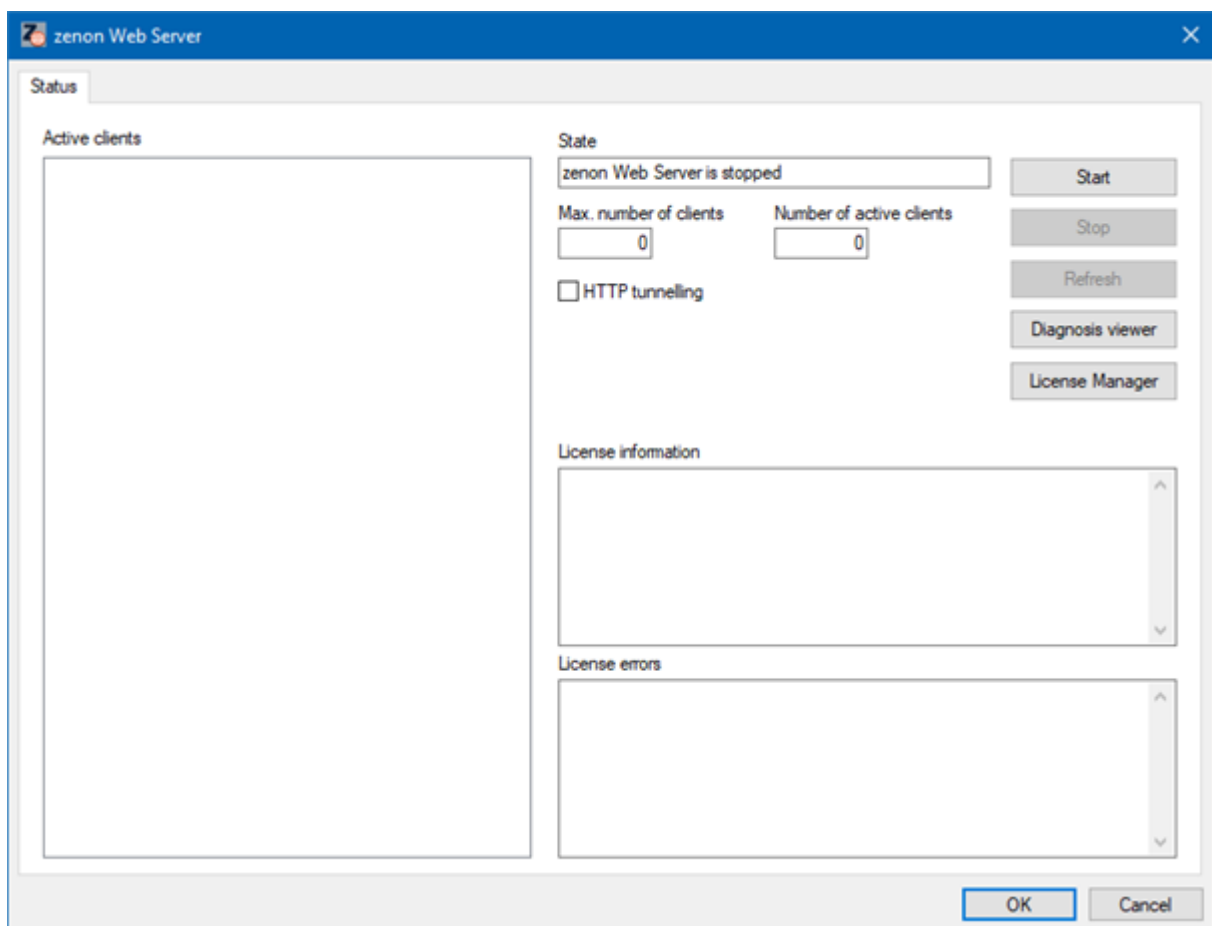
13.5 zenon Web Server

To view license information:

1. Open the **Control Panel** or the **Start Menu**.
2. Click on **zenon Web Server**.

The dialog for configuration and licensing is opened.

ZENON WEB SERVER DIALOG



Option	Description
Active Clients	List of the currently-connected zenon web clients.
State:	<p>Displays version and status of the Web Server:</p> <p>Possible versions:</p> <ul style="list-style-type: none"> ▶ zenon Web Server ▶ zenon Web Server Pro ▶ zenon Web Server Pro Light <p>Possible status messages:</p> <ul style="list-style-type: none"> ▶ <i>running</i>: Web Server is running with valid license ▶ <i>stopped</i>: Web Server has been stopped ▶ Demo mode: Web Server is running in demo mode without license ▶ <i>not installed</i>: Web Server not registered as a service or installation error
Max. number of clients:	<p>Maximum number of clients that are permitted to connect to the Web Server. The number is defined by the license. Two clients are licensed for 30 minutes in demo mode.</p> <p>Default:0</p>
Number of active clients:	Displays the number of clients currently connected.
HTTP tunnelling	<p><i>Active</i>: HTTP tunneling is activated.</p> <p>Not available in the Web Server Pro Light version.</p> <p>Note: Can only be changed if the Web Server has the status <i>stopped</i>. Cannot be switched during operation.</p> <p>Default: <i>inactive</i></p>
Start	Starts the Web Server
Stop	Stops the Web Server
Refresh	Refreshes the display.
Diagnosis Viewer	Opens the Diagnosis Viewer to evaluate error messages.

Option	Description
License Manager	Opens the License Manager . Licenses can be activated, returned and managed with this tool. The serial number is needed for this.
License information	Shows information about the license currently being used. <ul style="list-style-type: none">▶ If used: demo license / education & training license▶ Licensed product versions▶ Serial number▶ Expiry time / duration of use
License errors	Shows information about errors for the licenses found.
OK	Applies settings and closes the dialog.
Cancel	Discards all changes and closes the dialog.

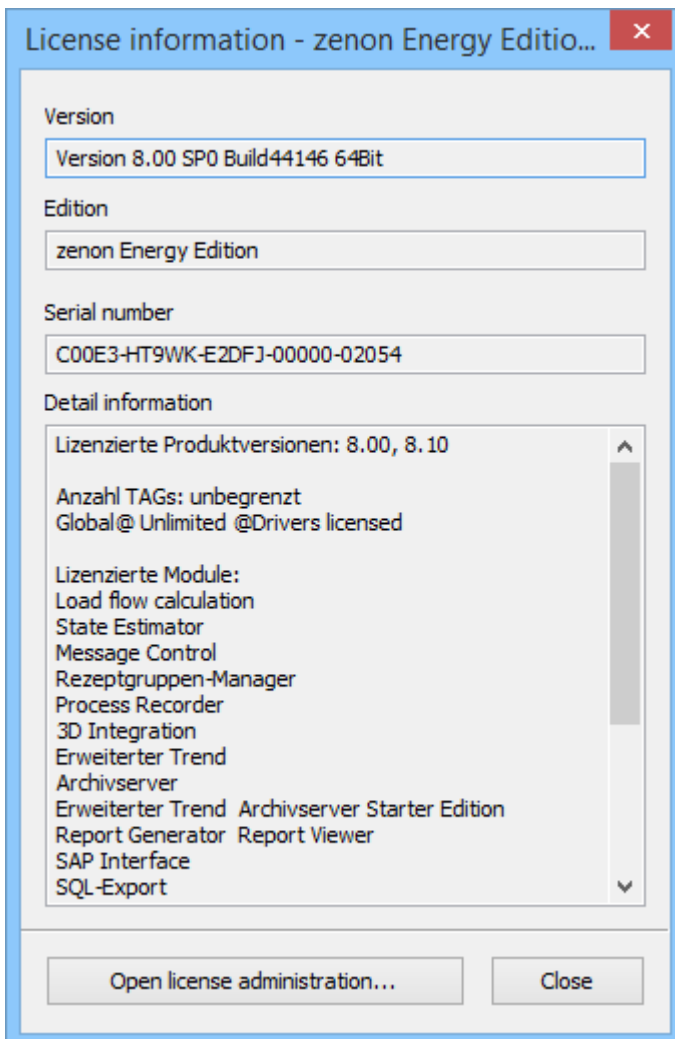
13.6 HTML Web Engine

To display license information in the HTML web engine:

1. Open the menu **Help**.
2. Click on **About...** .

The license information dialog is opened.

LICENSE INFORMATION DIALOG



License information - zenon Energy Editio...

Version
Version 8.00 SP0 Build44146 64Bit

Edition
zenon Energy Edition

Serial number
C00E3-HT9WK-E2DFJ-00000-02054

Detail information

Lizenzierte Produktversionen: 8.00, 8.10

Anzahl TAGs: unbegrenzt
Global@ Unlimited @Drivers licensed

Lizenzierte Module:
Load flow calculation
State Estimator
Message Control
Rezeptgruppen-Manager
Process Recorder
3D Integration
Erweiterter Trend
Archivserver
Erweiterter Trend Archivserver Starter Edition
Report Generator Report Viewer
SAP Interface
SQL-Export

Open license administration... Close

Option	Description
Version	Editor version number.
Edition	Edition used.
Serial number	License serial number.
Detail information	Information on licensed: <ul style="list-style-type: none"> ▶ Version ▶ Variables ▶ Modules and their their expansion
Open license manager	Opens the License Manager . Licenses can be activated, returned and managed with this tool. The serial number is needed for this.

Option	Description
Close	Closes the dialog.

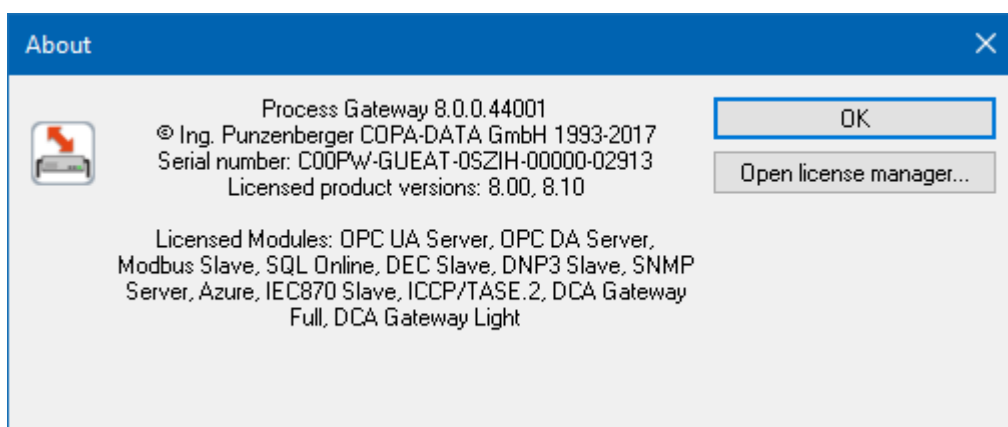
13.7 Process Gateway

To view license information in the **Process Gateway**:

1. Open the **Process Gateway**.
2. Click the **About** button .

The **About** dialog is opened.

DIALOG ABOUT



Option	Description
License information	Information on licensed modules including serial number.
OK	Closes the dialog.
Open license manager	Opens the License Manager . Licenses can be activated, returned and managed with this tool. The serial number is needed for this.

If the **Process Gateway** is opened without an existing module configuration, a model must be selected first. After selecting a module, the corresponding start dialog for the **Process Gateway** is opened. In doing so, the **Settings** button is inactive until the **Process Gateway** is licensed.

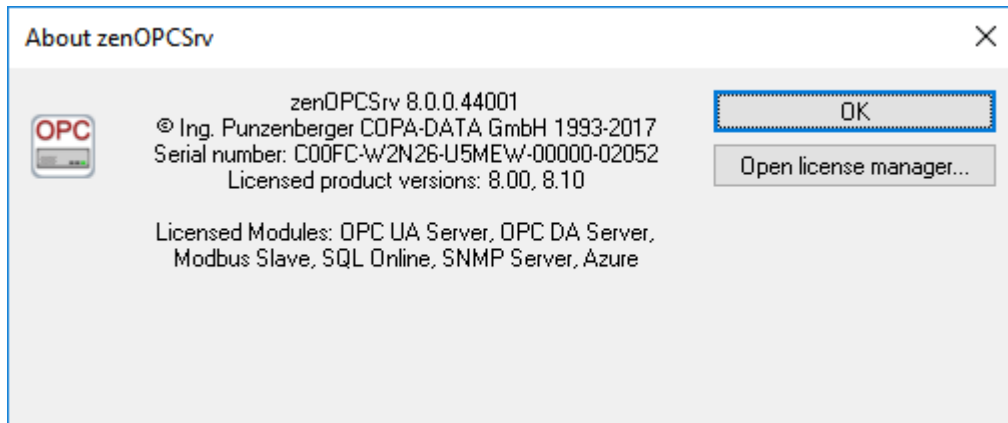
13.8 OPC DA Server

To display license information in the Process Gateway:

1. Open the OPC DA server.
2. Click **About**.

The **About** dialog is opened.

DIALOG ABOUT



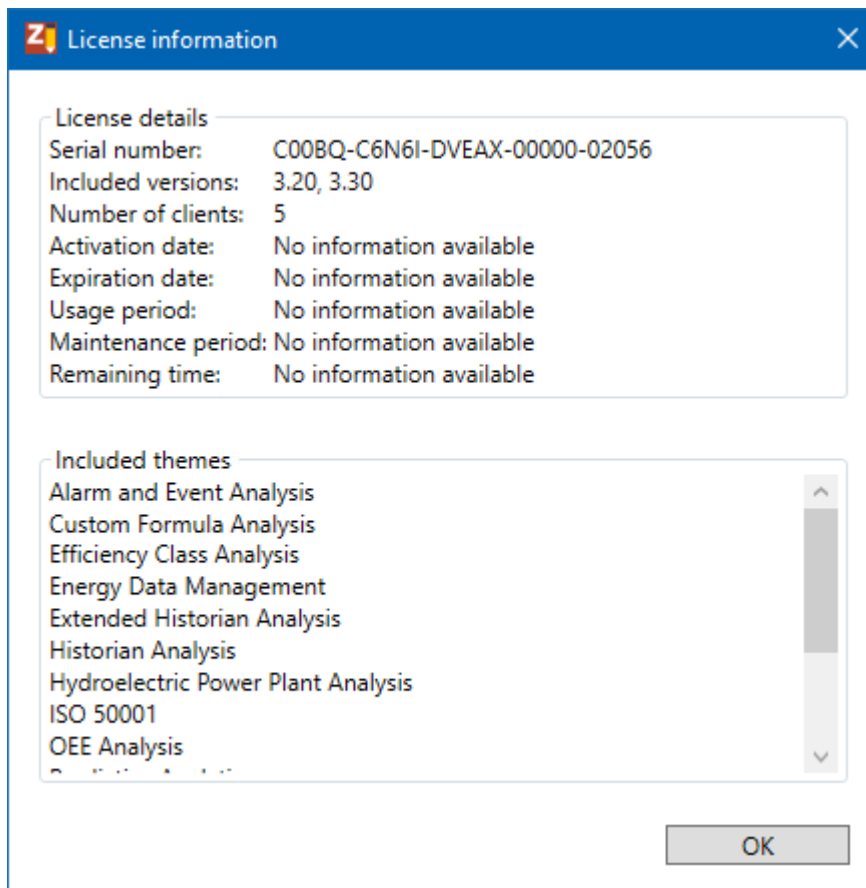
Option	Description
License information	Information on licensed modules including serial number.
OK	Closes the dialog.
Open license manager	Opens the License Manager . Licenses can be activated, returned and managed with this tool. The serial number is needed for this.

13.9 zenon Analyzer

To display the license used by the Analyzer server:

1. Select, in the **Analyzer server** ribbon, the **Show license** command

The dialog with the license information is opened.



Option	Description
Licensing details	Shows the details of the actual license. Above all: <ul style="list-style-type: none"> ▶ Serial number ▶ licensed versions ▶ Licensed clients ▶ Validity and expiration data
Included themes	Display of the report themes, included in this license.
OK	Closes the window.

For details on licensing, see also the **Licensing** (on page 99) chapter.

14 Redundant license protection

In some equipment, constant availability is essential. It must be ensured that the license protection can always be achieved. For such applications, a license search list can be created (on page 31) in the **License Manager**.

This search list is taken into account both when starting as well as during ongoing operation. All products always attempt to assign the next license in the list. Demo licenses are not taken into account at the time. If a license expires during ongoing operation, the next license is automatically used as a substitute license, if it complies with the rules.

RULES FOR THE RECONNECT

The following is applicable during a reconnect:

- ▶ The sequence of the query corresponds to the sequence in **License.ini**. This is established via the **License Manager** in the **License usage** (on page 31) tab.
- ▶ A maximum of 10 licenses are queried.
- ▶ In runtime, demo licenses are not taken into account as substitute licenses. They are skipped.
- ▶ A substitute license must be valid for the product version used and must be at least the same license version as the original license. It can also have a higher license version, for example more TAGs, more modules, etc. However, it is always only the versions available in the original license that are provided.
- ▶ The edition must be the same in both licenses.
- ▶ Examples:
 - ▶ Example 1: The license used the first time Runtime is started is an operator license. The substitute license is a supervisor license. The substitute license cannot be used because the edition is not the same.
 - ▶ Example 2: The license used when Runtime is started for the first time has 2000 TAGs, the Historian, Extended Trend modules and two drivers licensed. The substitute license has 4000 TAGs, in addition the Message Control module and three drivers are licensed. The substitute license is used. The increased TAG number, the new modules and drivers cannot be used however.

BEHAVIOR ON RESTARTING

On restarting, the license search list in *License.ini* is also taken into account. The difference to the reconnect:

- ▶ No comparison with the first license is made
- ▶ The complete version of the license is taken into account

- ▶ Demo licenses are taken into account.

Attention: This may result in unwanted behavior.

If you have, for example, entered a demo license as a second license, the behavior is different when restarting and reconnecting:

- ▶ With a reconnect, the demo license is skipped and the third license is used.
- ▶ The demo license is started when restarting.

15 Defective hard drive - replace hard drive - reinstall operating system

This chapter describes the procedure if a software dongle is used and the hard drive is replaced or the operating system is reinstalled.

Note: With hardware dongles, the license must be transferred again when the operating system is reinstalled. For details, see the Apply license from the hardware dongle (on page 25) chapter.

SOFTWARE DONGLE: PLANNED HARD DRIVE REPLACEMENT - REINSTALL OPERATING SYSTEM

If you want to replace the hard drive with the operating system (generally the **C** drive) or reinstall the operating system:

1. Return the license punctually.
2. Replace the hard drive and/or reinstall the operating system.
3. Activate the licenses again.

You can find details in chapter **Transfer/relocate license** (on page 66).

SOFTWARE DONGLE: UNPLANNED HARD DRIVE REPLACEMENT

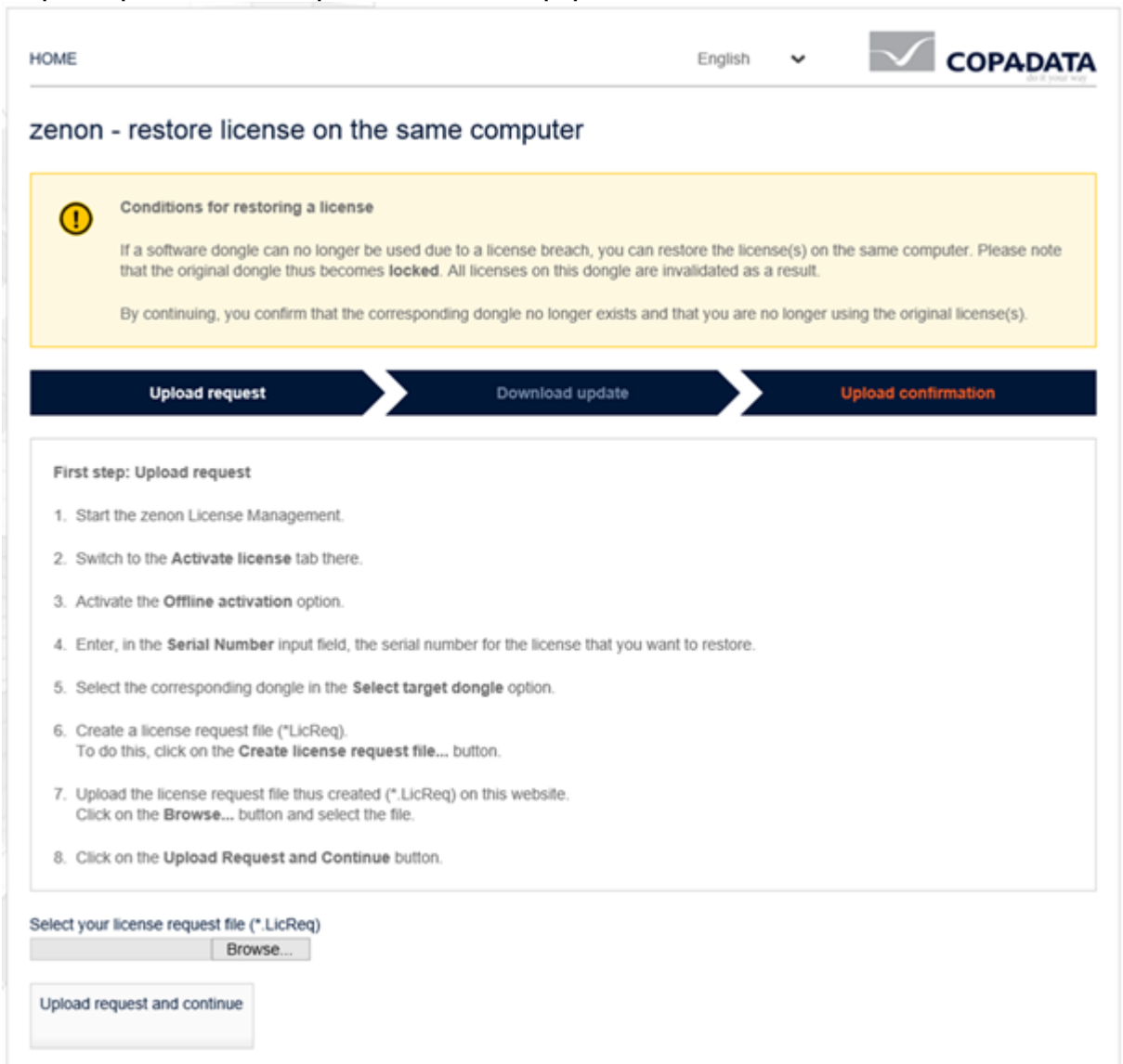
If the hard drive designated as the **C** drive is defective, the license can no longer be returned to the license depot. The license is thus lost. This is also applicable if the operating system has been reinstalled without the license having been returned beforehand. In general, the same serial number can be used again for reactivation.


Attention

No components other than the hard drive can be replaced. A replacement license must be issued if other components are changed.


To restore a license when a hard drive is replaced:

1. Set up the computer again and reinstall zenon.
2. Start the **License Manager**.
3. Switch to the **Activate license** tab in the advanced view.
4. Select the option **Offline activation**.
5. Enter the serial number that was used for the last activation.
6. Click on the **Create license request file** button.
7. Open the web browser.
8. Do not under any circumstances open the web address that is shown in the dialog!
Instead, you must open this web address:
<https://copadata-license.copadata.com/restore.php>
(**<https://copadata-license.copadata.com/restore.php>**)



HOME English  **COPADATA**
don't just read

zenon - restore license on the same computer

 **Conditions for restoring a license**
If a software dongle can no longer be used due to a license breach, you can restore the license(s) on the same computer. Please note that the original dongle thus becomes **locked**. All licenses on this dongle are invalidated as a result.
By continuing, you confirm that the corresponding dongle no longer exists and that you are no longer using the original license(s).

Upload request **Download update** **Upload confirmation**

First step: Upload request

1. Start the zenon License Management.
2. Switch to the **Activate license** tab there.
3. Activate the **Offline activation** option.
4. Enter, in the **Serial Number** input field, the serial number for the license that you want to restore.
5. Select the corresponding dongle in the **Select target dongle** option.
6. Create a license request file (*.LicReq).
To do this, click on the **Create license request file...** button.
7. Upload the license request file thus created (*.LicReq) on this website.
Click on the **Browse...** button and select the file.
8. Click on the **Upload Request and Continue** button.

Select your license request file (*.LicReq)

Attention: There is an error message if the host computer is not recognized as identical to the original activation computer. A substitute license (on page 117) must be requested in this case.

9. Upload the license request file **<SN>.LicRec**.
10. Download the update file **<SN>.LicUpd**.
11. Transfer the update file to the **License Manager**.
12. Upload the **<SN>.LicConf** confirmation file.

Your license is ready to use again.

16 License invalidation with software dongles

Licenses for software dongles are computer-based. They can only be used on the originally-licensed computers. They are invalid if they are used on other computers.

Whether a license can continue to be used when a computer is physically rebuilt depends on which components and how many components are changed. A change of the computer name or a replacement of a hard drive (except drive **C**) generally does not constitute a problem.



Information

Licenses can be returned and reactivated. It is thus possible to transfer a license to another computer or to another virtual machine without invalidating the license.

TYPES OF SOFTWARE DONGLES

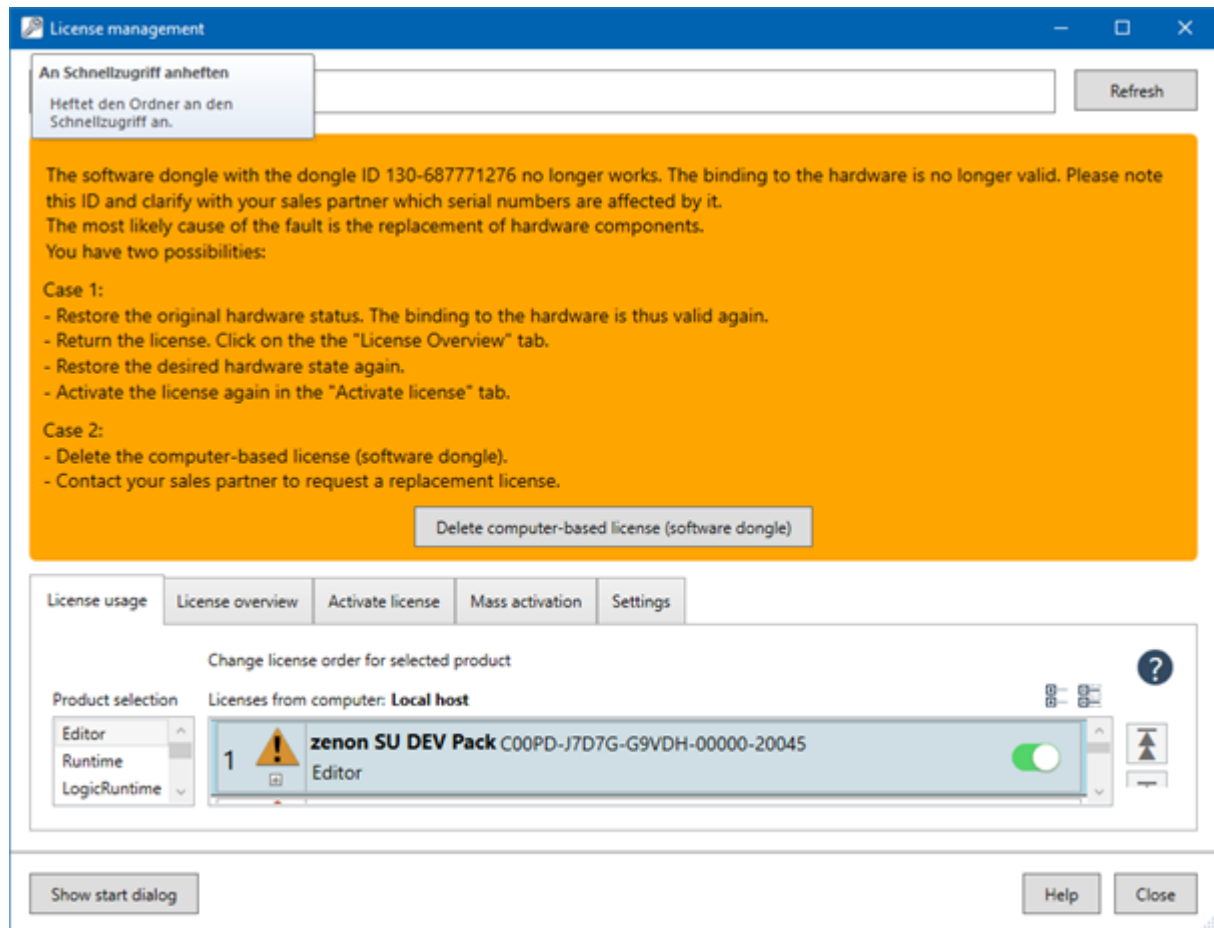
Software dongles are available in the following types. They are different in the way that they are used and in triggers for license invalidation.

Dongle type	Functionality	License invalidation
Software-Dongle Standard: (computer-based license)	<ul style="list-style-type: none"> ▶ License is only valid on the computer on which it was activated. ▶ License can only be used on a physical computer, but not in a virtual machine. 	The license is invalidated as a result of the following events: <ul style="list-style-type: none"> ▶ The hardware of the computer is changed. ▶ The operating system is reinstalled. For details in relation to this, read the Defective hard drive - replace hard drive - reinstall operating system (on page

Dongle type	Functionality	License invalidation
		115) chapter.
Software-Dongle VirtualMachine: (computer-based license for virtual machine)	<ul style="list-style-type: none"> ▶ License is only valid on the host computer on which the virtual machine was activated. ▶ License can be used in a virtual machine and on a physical computer. 	The license is invalidated as a result of the following events: <ul style="list-style-type: none"> ▶ The virtual machine is transferred to another host computer. ▶ The hardware of the host computer is changed. ▶ The parameters of the virtual machine have been changed too much. For example: Number of CPUs or MAC addresses of the network adapter.
Software-Dongle VM DataCenter: (license for virtual machine in data center)	<ul style="list-style-type: none"> ▶ License can be used in a virtual machine in a public data center such as Microsoft Azure or Amazon Web Services (AWS), as well as in private data centers. ▶ The virtual machine can be moved to different host systems within the data center. 	The license is invalidated as a result of the following events: <ul style="list-style-type: none"> ▶ The virtual machine is copied.

LICENSE INVALIDATION

If a license becomes invalid, a corresponding message is shown in the **License Manager**. Depending on the cause of the license invalidation, the license can either be restored or must be replaced with a new license.



Attention: Always note the serial numbers in question if a license is invalidated! If the serial numbers can no longer be established, the **Dongle-ID** must be given. You must therefore always note the **Dongle-ID** shown in the error message. Only then can the license issuer find out which dongles have been activated on the dongle. No other information can be read from invalidated software dongles.

RESTORING AND SUBSTITUTE LICENSES

If a software dongle becomes invalid, the licenses contained on it can be restored or re-requested under certain conditions.

- ▶ Restoring of the original status.
The software dongle becomes valid again as a result. The license can then be transferred with the regular procedure (on page 66).
- ▶ Restoring is no longer possible. Requesting a replacement license.

RESTORE LICENSE

A license can be restored if the physical status of the host can be reset back to the initial status.

1. Restore the computer's original hardware status. For example, by transferring the virtual machine back to the original host system.
The time of the zenon installation is decisive for the original status. The software dongle is bound to the hardware during installation.
2. The license is valid again.
3. Return the license.
4. Transfer the virtual machine or change the computer's hardware.
5. Activate the license again.

REQUEST SUBSTITUTE LICENSE:

A substitute license can be issued in the following cases:

- ▶ A license has been invalidated and cannot be restored.
- ▶ A license had been irretrievably lost due to a defective hard drive. Also see chapter: Defective hard drive - replace hard drive - reinstall operating system (on page 115)

The previous dongle is locked when the substitute license is issued. It can no longer be used. All licenses that were saved on the dongle thus become invalid. The lost serial numbers are required for the creation of substitute licenses. If these cannot be established, they can be found out via the **Dongle-ID**.

1. Delete the invalidated license
2. Contact your sales partner.
3. Request a new license.
4. Activate the new license.

Attention

Virtual machine in data center:

In a public data center such as Microsoft Azure or Amazon Web Services (AWS), as well as in private data centers, automated switching of the host system can trigger license invalidation on a virtual machine. In this case, request a license that is suitable for data centers from the license issuer.

17 Switch between virtual machine and Virtual Machine DataCenter

A virtual machine can either be operated with the **Software-Dongle VirtualMachine** dongle type or with the **Software-Dongle VM DataCenter** dongle type. The **Software-Dongle VirtualMachine** dongle type is generally used. If the virtual machine is operated in a public data center such as Microsoft Azure or Amazon Web Services (AWS), or in a private data center, it is expressly recommended that the **Software-Dongle VM DataCenter** dongle type is used. Otherwise the software dongle would be invalidated (on page 117) each time the host system is switched. The switch cannot generally be influenced by the user. Unlocking of this dongle type must be applied for from the license issuer.

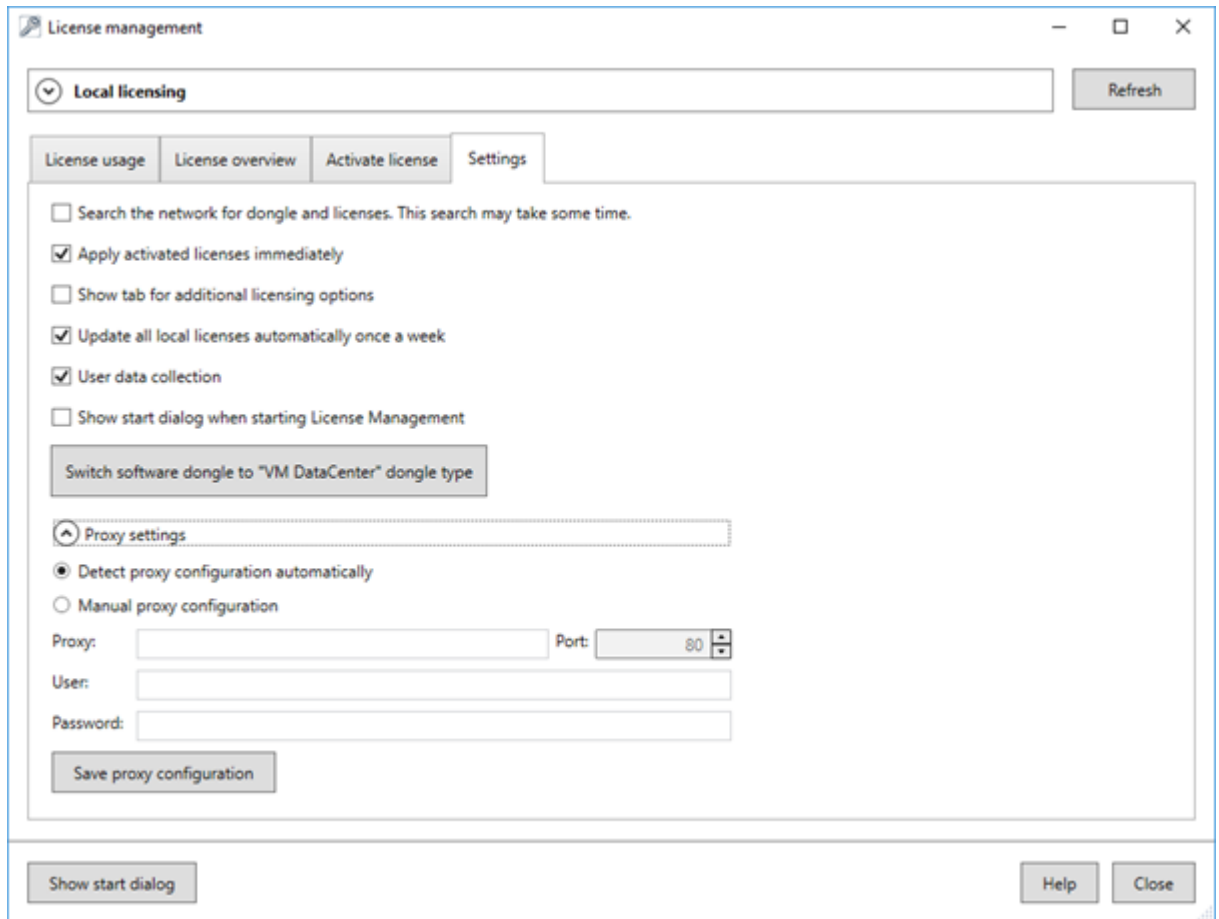
The switch is manual by switching in the **License Manager** or automatic by applying a corresponding license.

MANUAL SWITCH OF VIRTUAL MACHINE TO VIRTUAL MACHINE DATACENTER

Manual switch via **License Manager**:

1. Start the **License Manager** in the virtual machine.
2. Return licenses if there are any on the dongle.
3. Open the **Settings** tab.

4. Click on the **Switch software dongle to "VM DataCenter" dongle type**.



Note: This button is only displayed for licensing in a virtual machine.

5. Confirm this when requested to do so.

The existing **Software-Dongle VirtualMachine** is deleted and a **Software-Dongle VM DataCenter** is created.

The button changes its function to **Switch software dongle to "Virtual Machine" dongle type**.

6. Activate the required licenses on the new dongle.

To change a dongle to **Software-Dongle VirtualMachine**, carry out the steps again and click on **Switch software dongle to "Virtual Machine" dongle type**.

THE DONGLE IS SWITCHED AUTOMATICALLY WHEN A LICENSE IS ACTIVATED ONLINE.

The dongle **Software-Dongle VirtualMachine** and **Software-Dongle VM DataCenter** can also be switched automatically during online activation.

This happens if:

- ▶ The target dongle is empty and
- ▶ a corresponding license is activated on it

An error message is shown if there are already licenses present.

Note:

- ▶ If a license that is unlocked for **Software-Dongle VM DataCenter** is activated on a **Software-Dongle VirtualMachine**, the license loses its property of being able to be deployed in a data center regardless of hardware.
- ▶ If the dongle type is automatically switched during the licensing procedure but the licensing process fails, the dongle type is not reset.

EXAMPLE

A license for **Software-Dongle VM DataCenter** is activated online on a **Software-Dongle VirtualMachine** dongle. The dongle does not yet contain a license. It is automatically switched to a **Software-Dongle VM DataCenter**.

18 License query during operation

The license for the product being used is regularly checked during ongoing operation. If there is no license, an attempt is made to establish the connection again. If that does not succeed, the computer and the license are checked for further suitable licenses. The remaining validity can also be displayed in the Runtime.

DISPLAY OF THE REMAINING VALIDITY IN THE RUNTIME

To show in the Runtime how long the license is still valid:

1. Create a system driver variable **[system information] remaining time until license expiration**.
2. Evaluate the display in the Runtime.

This variable shows in the Runtime how long the current license is still valid.

The display is in hours for:

- ▶ Demo license
- ▶ License with expiration date
- ▶ Borrowed license with expiration date

- ▶ No valid license found:
If no valid alternative license is found, the variable **[System information] License protection present** will be set to 0 and the remaining time will be displayed with this variable 0.

In all other cases, the value 4294967295 will be displayed.

Note: The information displayed always relates to the currently valid license. If you change to a different license, for example, due to a network failure, the remaining period of validity will also change.

RULES FOR THE RECONNECT

The following is applicable during a reconnect:

- ▶ The sequence of the query corresponds to the sequence in **License.ini**. This is established via the **License Manager** in the **License usage** (on page 31) tab.
- ▶ A maximum of 10 licenses are queried.
- ▶ In runtime, demo licenses are not taken into account as substitute licenses. They are skipped.
- ▶ A substitute license must be valid for the product version used and must be at least the same license version as the original license. It can also have a higher license version, for example more TAGs, more modules, etc. However, it is always only the versions available in the original license that are provided.
- ▶ The edition must be the same in both licenses.
- ▶ Examples:
 - ▶ Example 1: The license used the first time Runtime is started is an operator license. The substitute license is a supervisor license. The substitute license cannot be used because the edition is not the same.
 - ▶ Example 2: The license used when Runtime is started for the first time has 2000 TAGs, the Historian, Extended Trend modules and two drivers licensed. The substitute license has 4000 TAGs, in addition the Message Control module and three drivers are licensed. The substitute license is used. The increased TAG number, the new modules and drivers cannot be used however.

LICENSE LOSS WITHOUT SUBSTITUTE LICENSE

If no valid license is found when running, the products act as follows:

- ▶ zenon Runtime: Runtime continues.
Entries are written to the CEL. The presence of license protection can be locally monitored and in the network using the system driver variable **available license protection**.
Attention: For time-limited licenses, Runtime will be terminated with an error message at the end of the license. Runtime will continue to operate until the error message is confirmed by clicking on **OK**. However it is no longer operable.

- ▶ zenon Web Server: The zenon web server continues to run. Corresponding information is shown in the zenon web server dialog.
- ▶ zenon Editor: Then the Editor is closed.
- ▶ HTML Web Engine: (continues to be executed)
- ▶ zenon Logic, Process Gateway and OPC DA Server: All products continue to be executed. The loss of a license is shown in the **About...** dialog.
- ▶ zenon Analyzer ZAMS: Is closed.
- ▶ zenon Analyzer Report Launcher: New reports cannot be opened. Opened reports cannot be updated.

The following applies to products: If no license is available, the product cannot be restarted. The products run up to the next restart at most. Demo mode can continue to be used.

POSSIBLE REASONS FOR LOSS OF LICENSE

If your product reports a loss of license, there can be a number of reasons for this. The most frequent causes of a loss of license are:

- ▶ The network connection to the license server is no longer available.
- ▶ The hardware dongle was removed.
- ▶ The license has expired.
- ▶ The time quota for the product is exhausted.

19 Computer defect with software dongle: Use 30-day demo license

If a hardware problem occurs with a computer, such as a defective main board for example, then licenses are usually affected by this for software dongles.

Either the soft dongle with the license breaks or it is no longer available.

In this case, you can use a demo license (on page 91) until the license is replaced.

- ▶ zenon Runtime: Service life is calculated in minutes. All Runtime demo licenses have over 43,200 minutes (30 days) Runtime. Exception: Demo licenses for a virtual machine. This is limited to 1,440 minutes (1 day).
- ▶ zenon Editor: Usage will be limited to the number of activations. There are 30 activations available:

20 Particular features with client-server operation

When licensing of modules in the client-server operation, the following particular features are applicable:

Module	Description
Historian	<p>The following cases are distinguished:</p> <ul style="list-style-type: none"> ▶ Server and client licensed: Archives can be opened and edited at the client. ▶ Server licensed and client not licensed: Archives can be opened but not edited at the client. ▶ Historian not licensed and started as standalone: The <i>archive revision</i> screen can be opened but the individual archives cannot be edited however.
Automatic Line Coloring	The client gets the license from the server and does not need its own license. If the server does not have a license of its own, the client cannot use the module.
Batch Control	The client gets the license from the server and does not need its own license. If the server does not have a license of its own, the client cannot use the module.
Load Management	The client gets the license from the server and does not need its own license. If the server does not have a license of its own, the client cannot use the module.
Message Control	The client gets the license from the server and does not need its own license. If the server does not have a license of its own, the client cannot use the module.
Everywhere Server by zenon	Everywhere Server gets the license of the Runtime. The Everywhere Server can not be used, If the Runtime does not have a corresponding license. This can lead to Runtime running but the Everywhere Server not being able to be started due to missing licenses.

21 Serial number

Each product must be licensed by means of a serial number.

The serial number is created according to certain rules. It consists of 5 groups each with 5 characters

and contains a checksum. The last 10 places contain a continuous number and make the serial numbers easily distinguishable from one another.

Example: *C00GF-2SQ5T-QWERT-00000-00035*

The serial number can only contain certain alphanumeric characters:

- ▶ Permitted characters:
 - ▶ Only Arabic figures: 0-9
 - ▶ Only letters from the Latin alphabet.
 - ▶ A-N
 - ▶ P-Z
- ▶ Non-permitted characters:
 - ▶ Letter O, so that there is no confusion with the character 0.
 - ▶ Special characters

22 License.ini file

The information on licensing is stored in the **License.ini** file. However, actions for licensing are always executed via the **License Manager**.

Path to the **License.ini**: *%programdata%\COPA-DATA\System*

Hint: You can also call up the path with the **%CD_System%** environment variable.

Attention

Never edit the **License.ini** file manually!
Changes to this file can lead to correctly-licensed products no longer being able to be used. Always carry out actions in relation to licensing through the **License Manager**.

23 CodeMeter requirements

Hardware and software from **CodeMeter** is used for licensing.
To do this, the following requirements must be met:

General:

- ▶ The **CodeMeter** Runtime version must be 6.60 or higher and running on the computer.

Hardware dongle:

The hardware dongle must have firmware (series) 3.10 or higher. The serial number of this dongle must be greater than 3-3440000.

Dongles from series 1, 2 and lower than 3.10 are not supported.

- ▶ **CodeMeter** There are various forms of dongles, such as internal and external USB sticks, as well as SD, PCMCIA and CFast cards. All forms have the same security chip inside and can be used.
- ▶ The **CodeMeter** hardware dongle must be available at a USB port on the local computer or as a server on a network computer.
- ▶ For virtual machines (VMs) (on page 16), Wibu Systems recommend not accessing the dongle by means of USB port in the VM. Instead, operate the dongle as a Wibu server in the host system and access it using the network.

Network:

- ▶ With license queries of network dongles, the **CodeMeter** service must be activated as a network server (on page 134).

Recommendation: Enter the server on the client system into the server search list (on page 135).

Note: When starting **License Manager**, the **CodeMeter** runtime is always checked for the correct version. In the event of an error, a corresponding message is displayed and the licensing is canceled. In this case, install the current **CodeMeter** Runtime.

24 CodeMeter Software

The dongles used by COPA-DATA dongles for licensing are based on **CodeMeter** hardware and software. Licenses are administered using the **License Manager**. The **CodeMeter Webadmin** provides additional functions for administrations. These are not generally needed in regular operation.

You can find detailed help on the use of **CodeMeter** in the help integrated into **CodeMeter**. You call this up using:

- ▶ Control center: In the **Help** menu, click on the **Help** entry.
- ▶ WebAdmin: Click on the question mark in the second line of the menu.
The **CodeMeter** help is opened context-sensitively.

Note: Descriptions of the **CodeMeter WebAdmin** relate to the respective version 6.60. This manual covers the most important applications for zenon users.

REQUIREMENTS

In order for the licensing via **CodeMeter** to work, the following requirements must be met:

General:

- ▶ The **CodeMeter** Runtime version must be 6.60 or higher and running on the computer.

Hardware dongle:

The hardware dongle must have firmware (series) 3.10 or higher. The serial number of this dongle must be greater than 3-3440000.

Dongles from series 1, 2 and lower than 3.10 are not supported.

- ▶ **CodeMeter** There are various forms of dongles, such as internal and external USB sticks, as well as SD, PCMCIA and CFast cards. All forms have the same security chip inside and can be used.
- ▶ The **CodeMeter** hardware dongle must be available at a USB port on the local computer or as a server on a network computer.
- ▶ For virtual machines (VMs) (on page 16), Wibu Systems recommend not accessing the dongle by means of USB port in the VM. Instead, operate the dongle as a Wibu server in the host system and access it using the network.

Network:

- ▶ With license queries of network dongles, the **CodeMeter** service must be activated as a network server (on page 134).

Recommendation: Enter the server on the client system into the server search list (on page 135).

ATTENTION

If the CodeMeter dongle is removed during ongoing operation, zenon closes and is opened in demo mode until a valid license is detected again.

24.1 Control Center

You start the **CodeMeter Control Center** using: **Windows -> CodeMeter -> CodeMeter Control Center**.

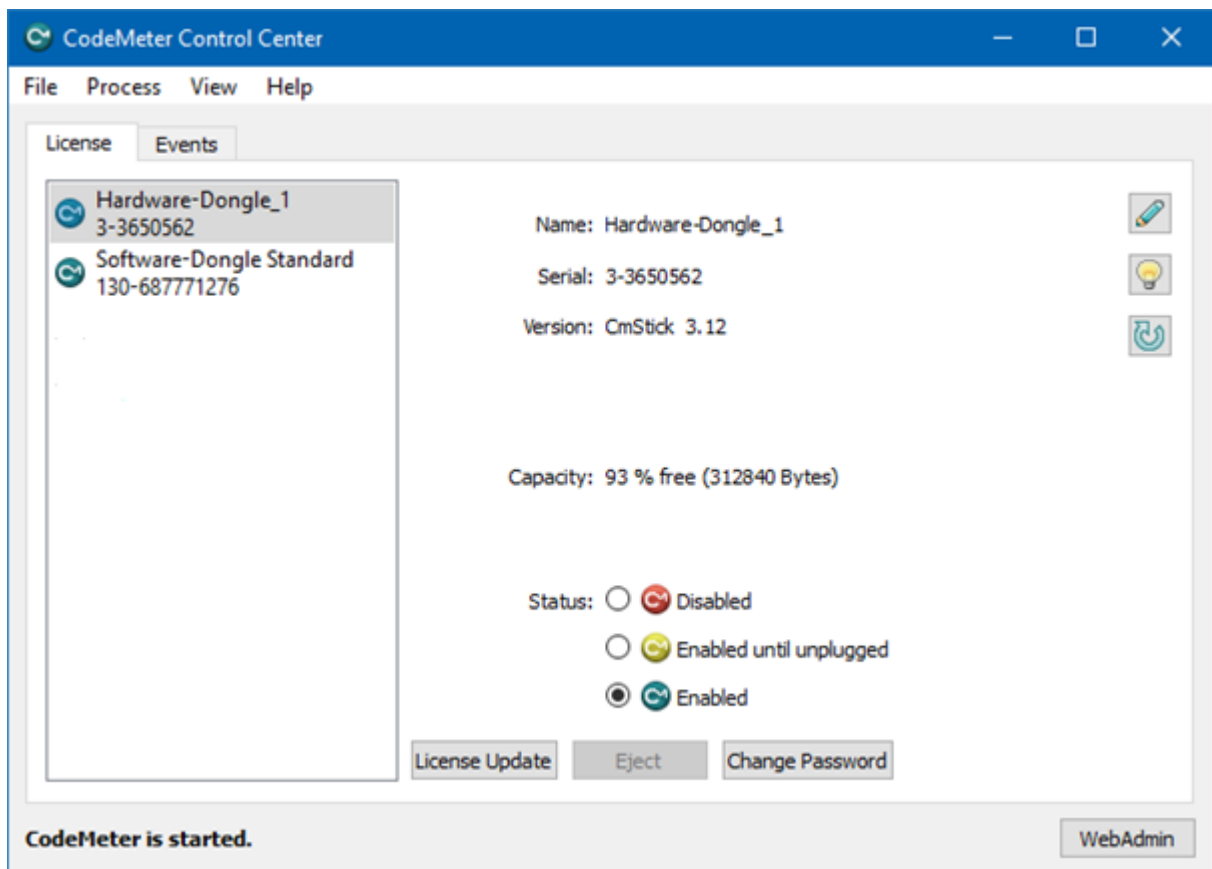
The **CodeMeter** Control Center is opened with 2 tabs:

- ▶ **License:** Contains information about the dongles found and allows actions with dongles and licenses.

- **Events:** Displays the number of sticks connected, the license entries, the firm items found and all access to the **CodeMeter** Runtime server. To log the entries on a permanent basis, activate the **Logging** entry in the **File** menu.

24.1.1 License tab

Dongles and licenses are displayed and configured in this tab.



Option	Description
License	Lists all active CodeMeter dongles.
Name:	Individual name of the selected dongle. With hardware dongles, the name can be changed using the button with the pen (to the right of it).
Serial Number:	Serial number of the selected dongle.
Version:	Firmware version of the selected dongle. Recommendation: Always use the most recent firmware. To update the firmware: Click on the arrow button. The online update via a Wibu server is started.

Option	Description
Capacity:	Display of free memory in percentage and bytes on the dongle.
Symbols:	<p>Three symbols allow actions with the dongle:</p> <ul style="list-style-type: none"> ▶ Pen: Rename the name of the dongle. ▶ Lamp: Let the selected stick flash. ▶ Arrow: Update the firmware of the selected stick.
Status	<p>Display and possible change of the status for a dongle.</p> <p><u>Hardware dongle:</u> Selection of the status of the selected CodeMeter dongle using radio buttons.</p> <ul style="list-style-type: none"> ▶ Deactivated: The dongle connected is deactivated and cannot be used by any application. ▶ Activates when connected: The stick is activated as long as it is connected. It is automatically deactivated after removal from the PC. ▶ Activated: The stick is fully activated and remains activated after it is removed. Recommended status: Ensures that unauthorized persons do not have access to licenses and personal data (such as CmPasswordManager) if the stick is lost. <p>Changes must be confirmed using the dongle password.</p> <p><u>Software dongle:</u></p> <ul style="list-style-type: none"> ▶ Display of the license status.
License updating	<p>Starts the assistant to add, amend and delete licenses.</p> <p>Note: Is not available for COPA-DATA products. Licenses are administered using the License Manager.</p>
Eject	<p>Allows the stick to be ejected. Only available for hardware dongles.</p>
Change password	<p>Allows the password to be changed. Only available for hardware dongles.</p>
Delete license	Deletes selected license.

Option	Description
	<p>Only available for software dongles.</p> <p>Caution: This option must not be executed under any circumstances, because restoring of licenses that are saved on the dongle is not possible.</p> <p>The following is applicable for demo mode with software dongles: These can no longer be applied after deletion.</p>
CodeMeter has been started/stopped	<p>Information on whether the CodeMeter service is running. Can be changed in the Action menu.</p> <p>Attention: The service cannot be stopped or restarted using the Control Center, because the zenon license transfer service depends on the CodeMeter service. Closing the service is only possible using the services.msc application of the operating system.</p>
WebAdmin	<p>Starts the web browser with the administration user interface for dongles. Port 22350 must be open for this. For details, see the WebAdmin (on page 132) chapter.</p>

24.2 WebAdmin

The **CodeMeter WebAdmin** is for the configuration and administration of dongles in the network.

To start the **CodeMeter WebAdmin**:

1. Open the **CodeMeter Control Center**.
2. Click on the **WebAdmin** button.

The **CodeMeter WebAdmin** is opened in the web browser.

Alternatively, use the following link: <http://localhost:22350/index.html>
(<http://localhost:22350/index.html>)

Detailed information on the individual settings can be found in the **CodeMeter WebAdmin** help pages. You can get to this using the question mark (?) symbol in WebAdmin. The most important options and instructions are also in this document.

Attention

CodeMeter WebAdmin uses port 22350 by default.

Note:

- ▶ If a firewall other than that integrated into the Windows operating system is used, this port must be enabled.

- ▶ If the port is changed, the WebAdmin surface cannot be started, because the port is part of the address
for example: B: `http://localhost:22350/configuration/extra.html`
If you have changed the port and no longer know which port it is, you can look it up in the registry. To do this, open Regedit.exe and go to the following node:
HKEY_LOCAL_MACHINE\SOFTWARE\WIBU-SYSTEMS\CodeMeter\Server\CurrentVersion. You can find the current port number in the **NetworkPort** entry. Enter the port used there into the browser address line instead of 22350.
Then amend the port in WebAdmin via **Settings-> Advanced-> Extras** .

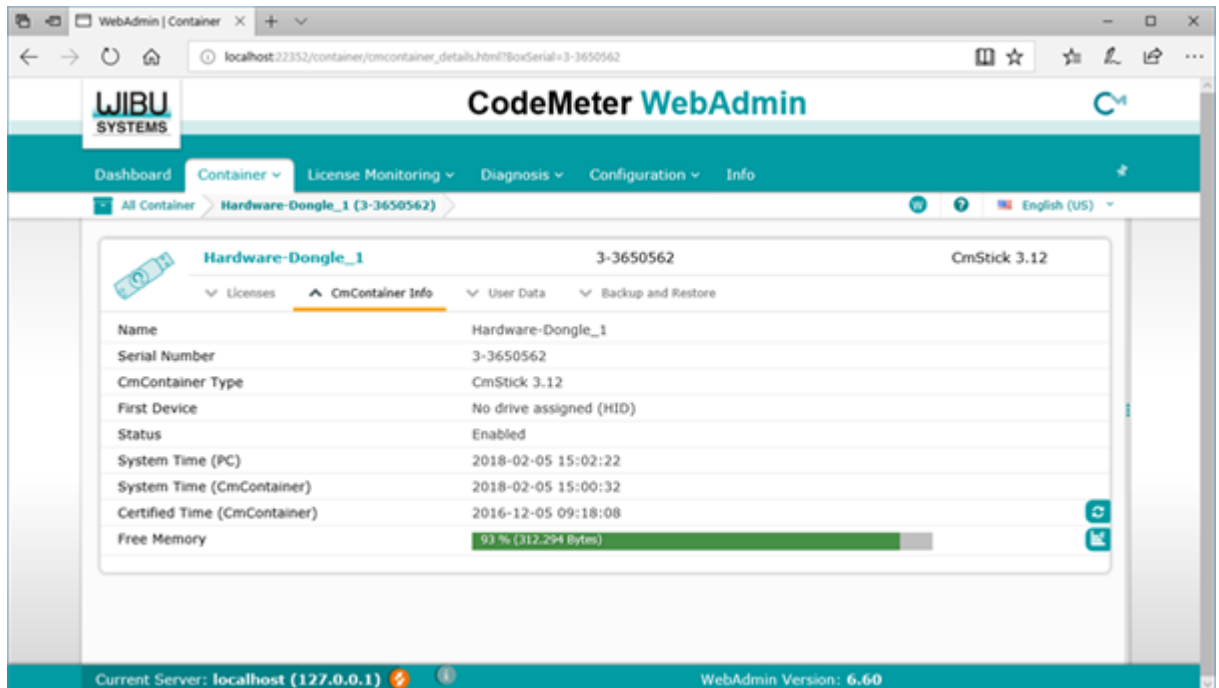
24.3 Update certified time

You can update the certified time saved in the dongle via the **CodeMeter** time server. You need access to the Internet for this.

To update the time:

1. Start the **CodeMeter WebAdmin**.
2. Check your network settings:
 - a) Are the proxy settings correct in **CodeMeter Webadmin**?
 - b) Is your access data up-to-date?
3. Navigate to the **Container** menu.
4. Select the desired dongle.

5. Click on **CMContainer info**



6. Select the **Time Certificate (CM Container)** entry.
7. Click on the symbol to update:
8. You are notified that this will update all sticks.
9. Click on **OK**.

You receive information on the update carried out.

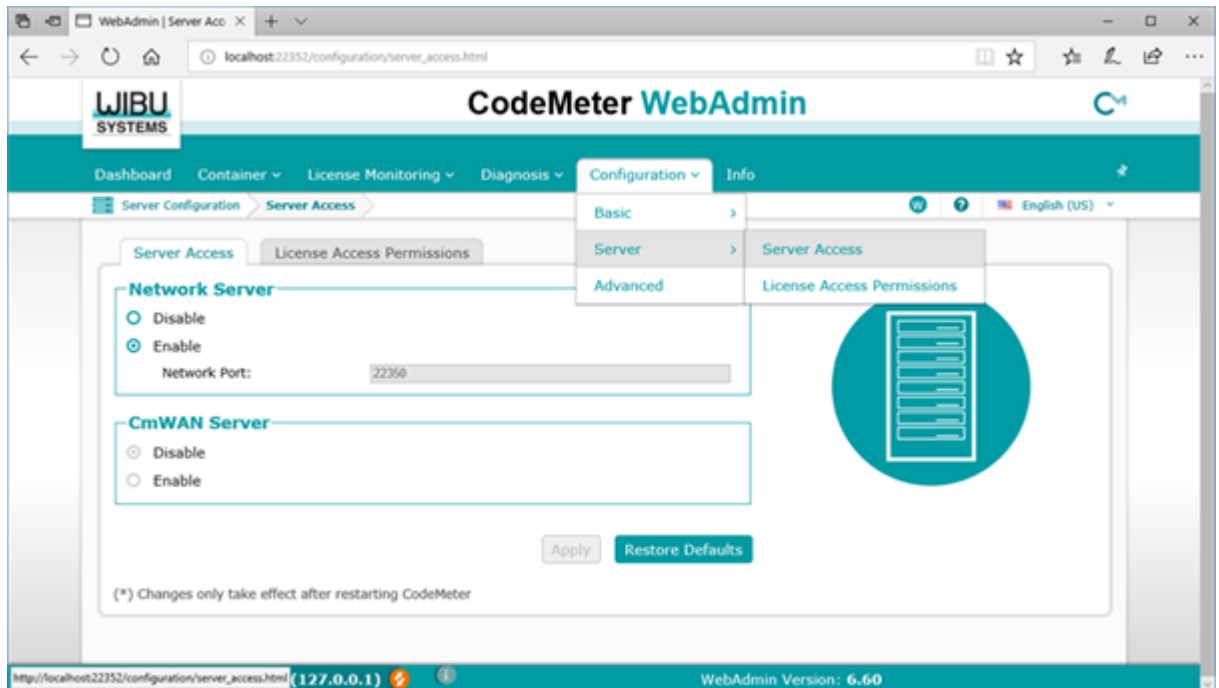
Hint: In the event of an error message (on page 146), you primarily check your access data for the proxy server.

24.4 Network dongles

Each license can be used in the network. In order for **CodeMeter** dongles to be able to be reached in the network, the **CodeMeter Runtime** service must be started as a network server.

To do this:

1. Open **CodeMeter Webadmin**: http://localhost:22350/configuration/server_access.html (http://localhost:22350/configuration/server_access.html).
You can also start **WebAdmin** via the CodeMeter Control Center (on page 129).



2. Go to the **Settings -> Basic -> Server Access** page and set the *activate* network server option.
3. Click on the **Accept** button.

The **CodeMeter** Runtime service is restarted.

All locally-connected hardware and software dongles are thus available via the network. Demo licenses on demo dongles are an exception. These can always only be used locally.

24.4.1 Set up server search list for network dongles

Dongles in the network are found using mechanisms in **CodeMeter Runtime**. This is independent from zenon and can only be influenced by **CodeMeter**. If a dongle is not found by **CodeMeter** it is also not found by zenon products.



Information

The **CodeMeter** mechanism is not to be mistaken with the mechanism of the **License Manager**.

This establishes a direct connection via the zenon license transfer. This connection is fundamentally different to the CodeMeter connection.

The CodeMeter mechanism always looks for dongles locally first. If the license being searched for is not found, a search in the network is carried out. In doing so, a broadcast is used as standard.

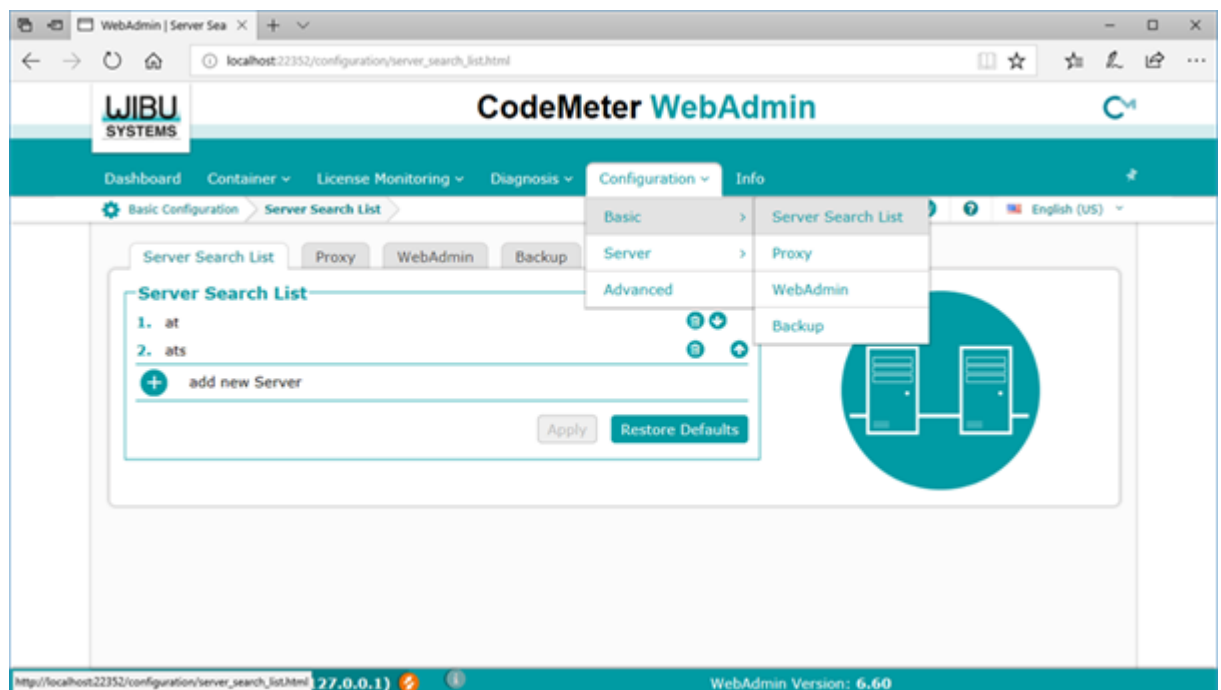
Broadcasts have the following disadvantages:

- ▶ All computers in the network are always searched for.
As a result, it is possible, especially with large networks or many dongles in the network, that there are long response times.
- ▶ Dongles that do not have the license being searched for are queried.
As a result, the network and **CodeMeter Runtime** are subjected to unnecessary load.
- ▶ Broadcasts only work in the local subset.
If the dongle is in another subnet, the dongle is not found.

Recommendation: Enter the dongles into the server search list. You thus avoid the described limitations.

To enter a CodeMeter server into the server search list:

1. Start the **CodeMeter WebAdmin**: http://localhost:22350/configuration/server_search_list.html
(http://localhost:22350/configuration/server_search_list.html).
You can also start **WebAdmin** via the CodeMeter Control Center (on page 129).
2. Go to **Settings -> Basic -> Server search list**.



3. Add the server by clicking on the plus sign.
4. With several servers: Position the server with the arrow symbols in the desired sequence of the query.
5. Apply the settings by clicking on the **Apply** button.

24.4.2 Check whether a dongle is found in the network

The finding of dongles in the network is carried out using **CodeMeter Runtime** mechanism. The check is therefore best carried out using the **CodeMeter** mechanisms:

1. Start the **CodeMeter WebAdmin**: <http://localhost:22350/index.html> (<http://localhost:22350/index.html>).
You can also start **WebAdmin** via the CodeMeter Control Center (on page 129).
2. At the lower edge, you can see the **Current server: localhost (127.0.0.1)** entry.
Click on the button



A dialog with all **CodeMeter** network servers found is opened.

3. Select the desired server to control where the dongle being searched for is found.
Attention: They are connected to the **CodeMeter** server remotely. All displayed information comes from the remote computer.

If the server being searched for is not on the list, then check it:

- ▶ Is the **CodeMeter** Runtime activated as a network server (on page 134)?
- ▶ Is the server entered into the server search list (on page 135)?
Was the TCP/IP port of CodeMeter runtime changed?
The standard port is 22350 and should not be changed. If you have changed the port and no longer know which port it is, you can look it up in the registry. To do this, open Regedit.exe and go to the following node:
HKEY_LOCAL_MACHINE\SOFTWARE\WIBU-SYSTEMS\CodeMeter\Server\CurrentVersion. You can find the current port number in the **NetworkPort** entry. It is best to reset the port number to the default of 22350.
The port must be the same on all **CodeMeter** computers.
- ▶ Is the **CodeMeter** runtime blocked by a firewall?
Check the firewall settings both on the server and on the client.

24.5 Configure CodeMeter dongle as an HID or drive

The dongle is integrated into the system as an HID (Human Interface Device) device by default. This configuration is recommended. The dongle can also be configured as a local mass-storage device or removable media.

Requirements:

- ▶ **CodeMeter** Container with the identification "2-xxxxxxx" or "3-xxxxxxx".
- ▶ At least **CodeMeter** firmware 2.02.

- ▶ **CodeMeter** Runtime 6.60 or higher. Should the version of **CodeMeter** that you have installed be older, you can download the current **CodeMeter** Runtime from Wibu Systems (www.wibu.com (<http://www.wibu.com/support-downloads.html>)).

CONFIGURATIONS

CodeMeter Sticks can be configured as:

Device	Description	Limitations
HID (Human Interface Device)	<p>Dongle is signed into the HID on the system.</p> <p>The dongle is thus not shown in the list of available drives and is not allocated a drive letter.</p> <p>Default for sticks without memory.</p> <p>Special USB host drivers are not required.</p>	Only available for CodeMeter dongles without memory.
Local mass-storage device (Mass Storage Device - MSD)	The dongle is displayed and managed as a fixed local drive with its own drive letter.	<p>Can lead to:</p> <ul style="list-style-type: none"> ▶ The operating system reporting too little memory for the dongle ▶ the icon for the Windows Recycle Bin no longer being displayed ▶ the dongle not being found in a virtual machine
Removable media	<p>The dongle is displayed and managed as removable media with its own drive letter.</p> <p>The dongle must have flash memory.</p>	<p>With configuration as removable media:</p> <ul style="list-style-type: none"> ▶ The booting of the computer can be prevented for with computers that can boot from a USB drive ▶ The dongle appears as a drive in the task bar and can be removed (ejected) at any time

PROCESS OF RECONFIGURING DONGLE

Status dongle	Target	Procedure
HID	Local mass-storage device	<ul style="list-style-type: none"> ► Configuration as mass-storage device. ► Configuration as local harddisk
HID	Removable media	<ul style="list-style-type: none"> ► Configuration as mass-storage device. Is automatically configured as removable media.
Local mass-storage device	Removable media	<ul style="list-style-type: none"> ► Configuration as removable media
Removable media	Local mass-storage device	<ul style="list-style-type: none"> ► Configuration as local harddisk
Local mass-storage device	HID	<ul style="list-style-type: none"> ► Configuration as HID
Removable media	HID	<ul style="list-style-type: none"> ► Configuration as HID

SYNTAX AND COMMANDS FOR DONGLE CONFIGURATION

There are commands and parameters for the configuration of dongles in the **CodeMeter Command Prompt**.

Syntax: `cmu32 /s <serial> --[command parameter]`

- `cmu32`: Call.
- `/s (/s)`: Entry of the serial number of the dongle that is to be applicable for the action.
- `--[Command parameters]`: Entry of command and possibly parameters.

Commands

Command	Meaning
<code>cmu32 /s <serial> --show-config-disk</code>	Show configuration for stick with certain serial number.
<code>cmu32 /s <serial> --set-config-disk</code>	Configure stick with certain serial number.
<code>cmu32 /h</code>	Shows the help for further commands and parameters.

Parameter:

Parameter	Meaning
<code>HidCommunication</code>	Configuration as HID.

Parameter	Meaning
	Only possible if no flash memory is present.
<code>MsdCommunication</code>	Configuration as mass-storage device. Dongles with this configuration can be configured as a local mass-storage device or removable media.
<code>RemovableDisk</code>	Configuration as removable media Requires <code>MsdCommunication</code> . Not directly possible from HID status.
<code>LocalDisk</code>	Configuration as local harddisk Requires <code>MsdCommunication</code> . Not directly possible from HID status.

Examples:

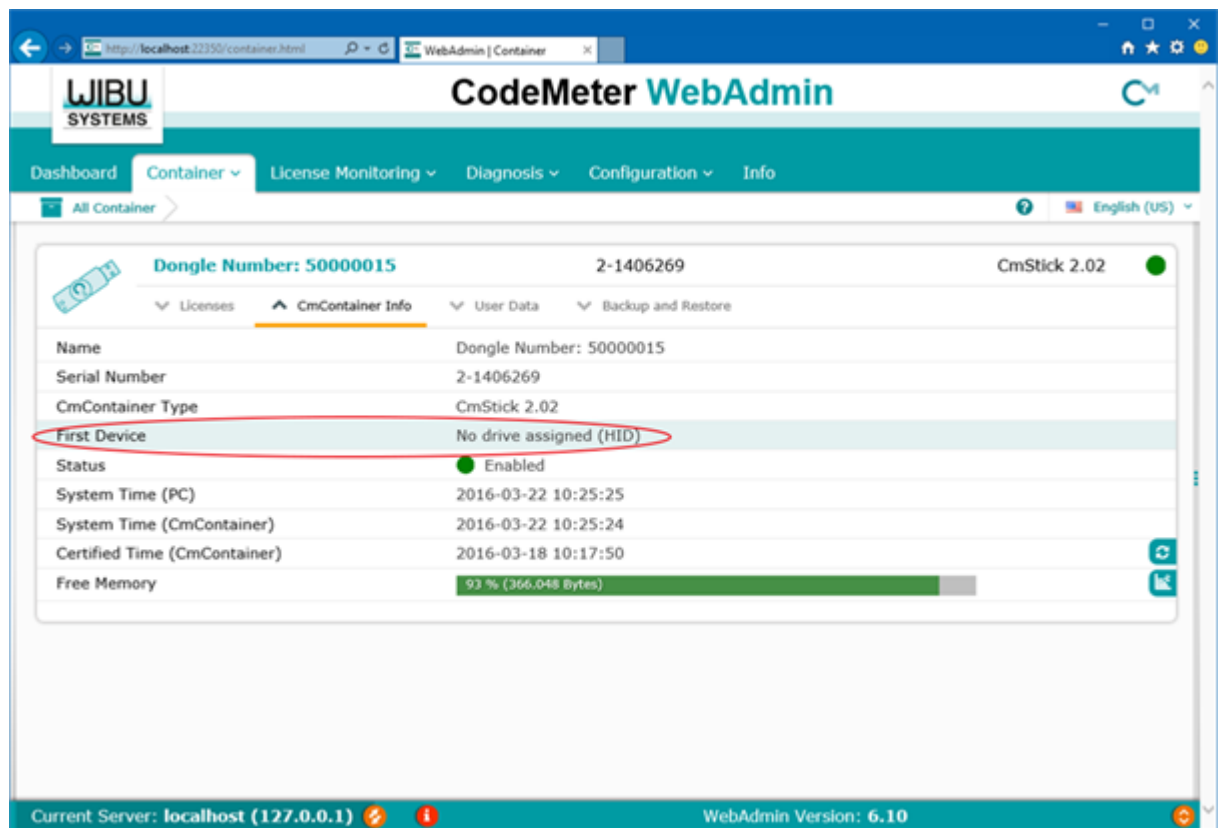
- ▶ Show configuration: `cmu32 /s3-1234567 --show-config-disk`
- ▶ Configure stick as HID: `cmu32 /s3-1234567 --set-config-disk HidCommunication`

24.5.1 Configure dongle as an local mass-storage device

To address the dongle in the USB communication as a fixed local mass-storage device (Mass Storage Device):

1. Check the status of the dongle via **CodeMeter Command Prompt**, **CodeMeter WebAdmin** or the file browser of the operating system.

No drive (HID) is assigned or removable media is displayed.



2. Call up the **CodeMeter Command Prompt cmu: Start -> Program Files -> CodeMeter -> Tools -> CodeMeter Command Prompt.**

If the dongle is currently configured as HID, then:

- ▶ Enter the following at the command prompt that has been started: `cmu32 /s <serial> --set-config-disk MsdCommunication`
The dongle is configured as mass storage.
- ▶ Remove the dongle and insert it again.
- ▶ Enter the following at the command prompt: `cmu32 /s <serial> --set-config-disk LocalDisk`
The dongle is configured as fixed local mass storage.

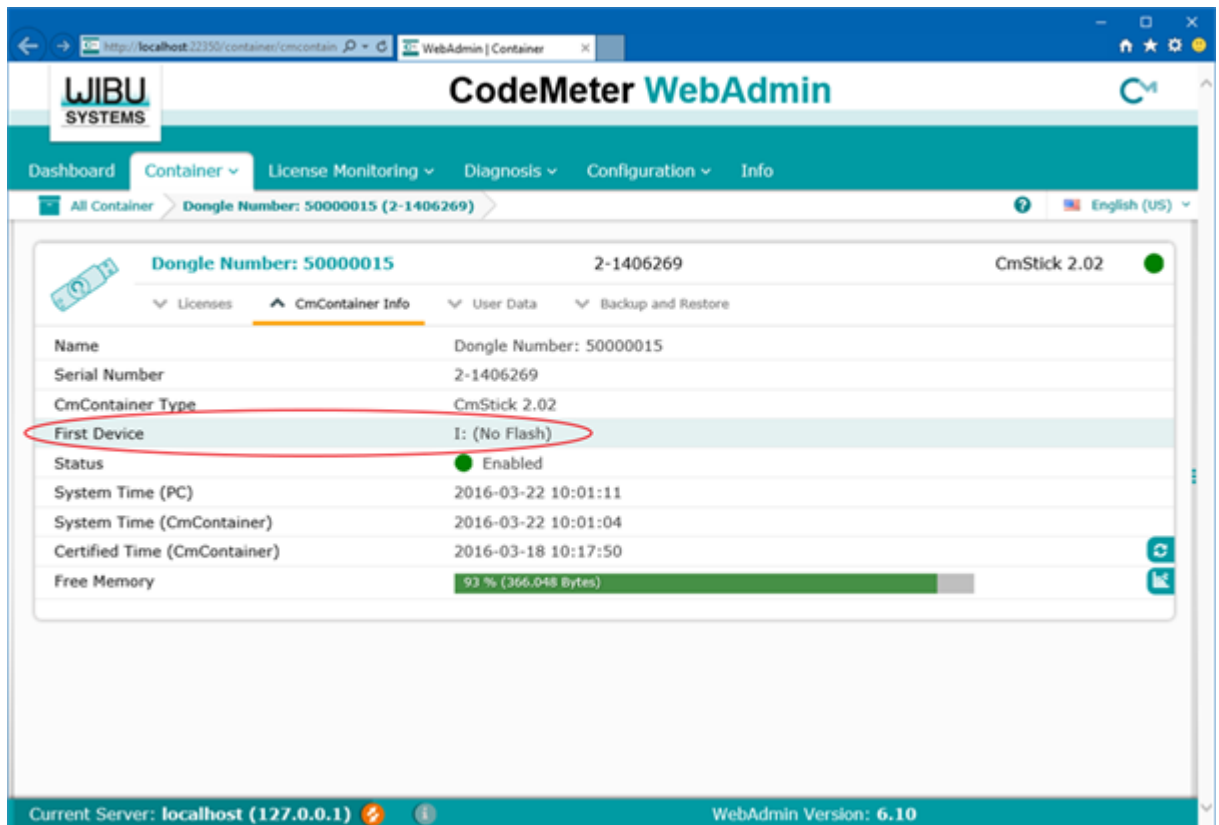
If the dongle is currently configured as removable media, then:

- ▶ Enter the following at the command prompt: `cmu32 /s <serial> --set-config-disk LocalDisk`
The dongle is configured as fixed local mass storage.

Note: For `<serial>`, enter the serial number of the stick.

3. Remove the dongle from the computer.
4. Reconnect the dongle to the computer.

In the **CodeMeter Command Prompt** and in the **CodeMeter WebAdmin**, the dongle is now displayed as mass storage, in the file browser of the operating system with the drive letter.

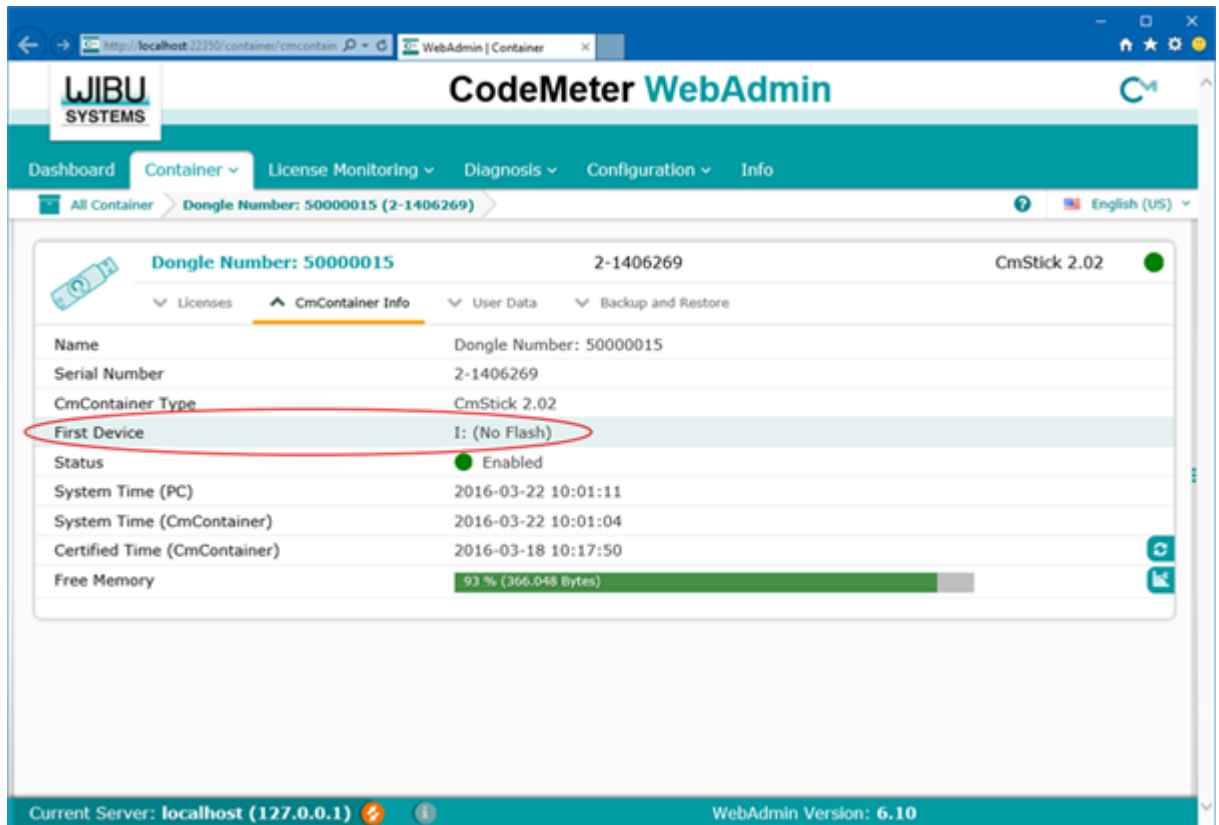


24.5.2 Configuring the dongle as HID

To address the dongle in the USB communication (Human Interface Device):

1. Check the status of the dongle via **CodeMeter Command Prompt**, **CodeMeter WebAdmin** or the file browser of the operating system.

2. Local mass storage or removable media is assigned, each with a drive letter.



3. Call up the **CodeMeter Command Prompt cmu: Start -> Program Files -> CodeMeter -> Tools -> CodeMeter Command Prompt.**

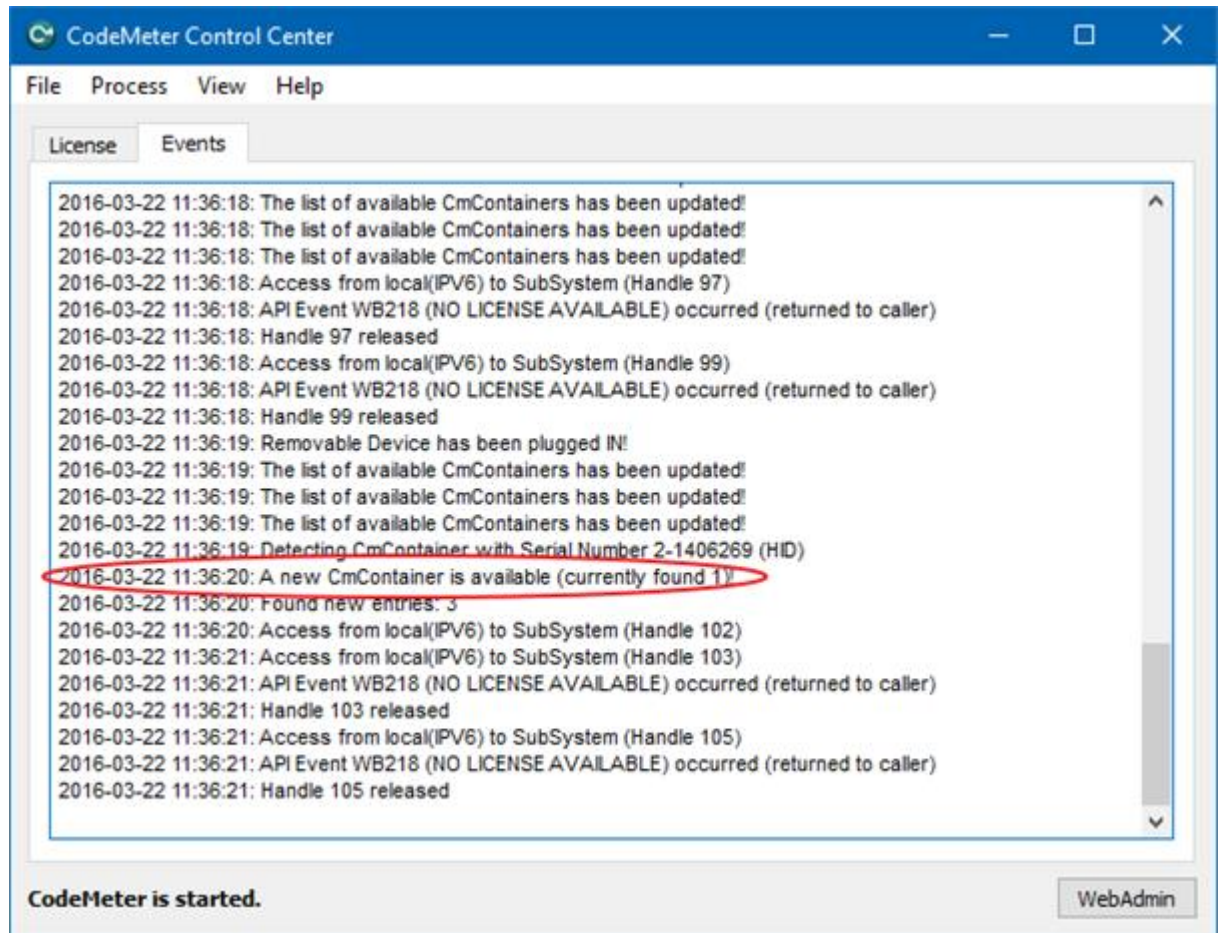
Enter the following at the command prompt that has been started: `cmu32 /s <serial> --set-config-disk HidCommunication`

The dongle is configured as HID.

Note: For `<serial>`, enter the serial number of the stick.

4. Remove the dongle from the computer.
5. Reconnect the dongle to the computer.

6. In the **CodeMeter Command Prompt** and in the **CodeMeter Control Center**, the dongle is now displayed as an HID without drive letter. It is no longer displayed in the file browser of the operating system.

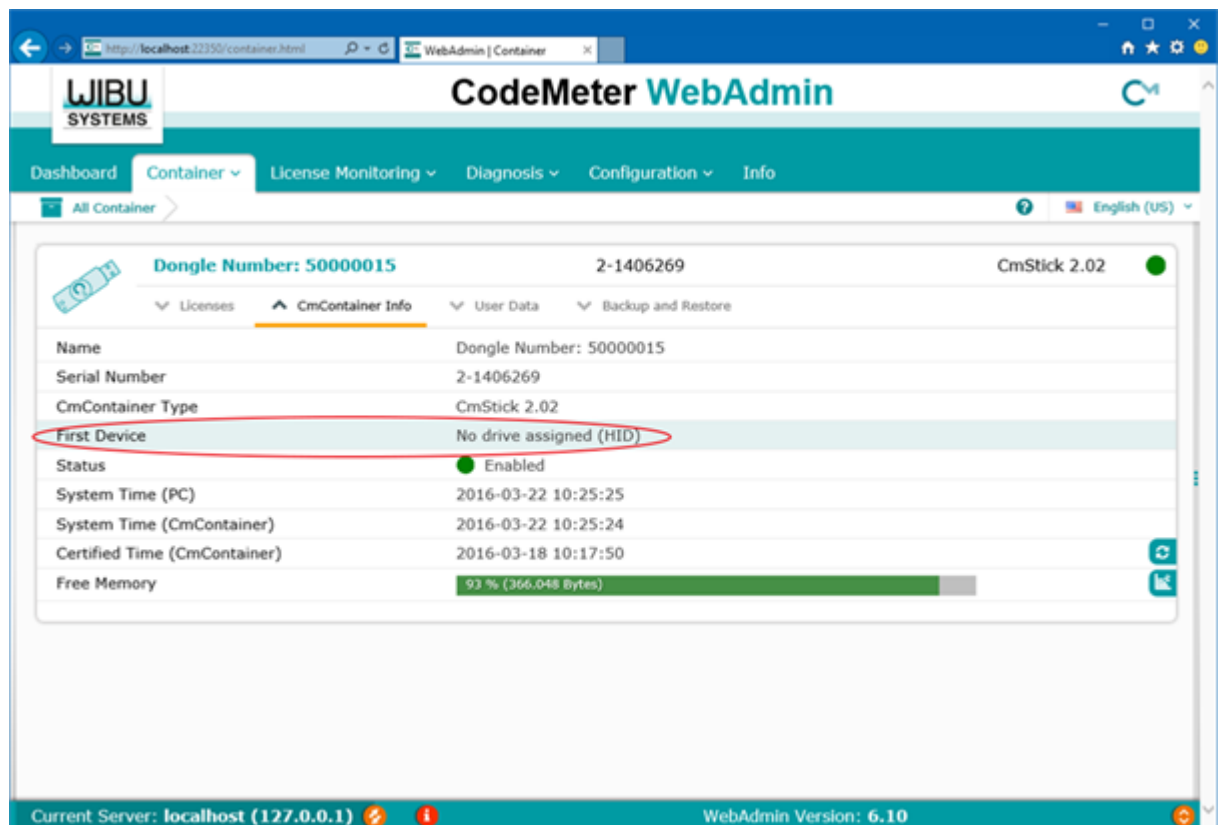


24.5.3 Configuring the dongle as removable media

To address the dongle in the USB communication as removable media:

1. Check the status of the dongle via **CodeMeter Command Prompt**, **CodeMeter WebAdmin** or the file browser of the operating system.

No drive (HID) is assigned or local mass storage with a fixed drive letter.



2. Call up the CodeMeter command line interface **cmu: Start -> Program Files -> CodeMeter -> Tools -> CodeMeter Command Prompt**.

If the dongle is currently configured as HID, then:

- ▶ Enter the following at the command prompt that has been started: `cmu32 /s <serial> --set-config-disk MsdCommunication`
The dongle is configured as mass storage in removable media form.

If the dongle is currently configured as local mass storage, then:

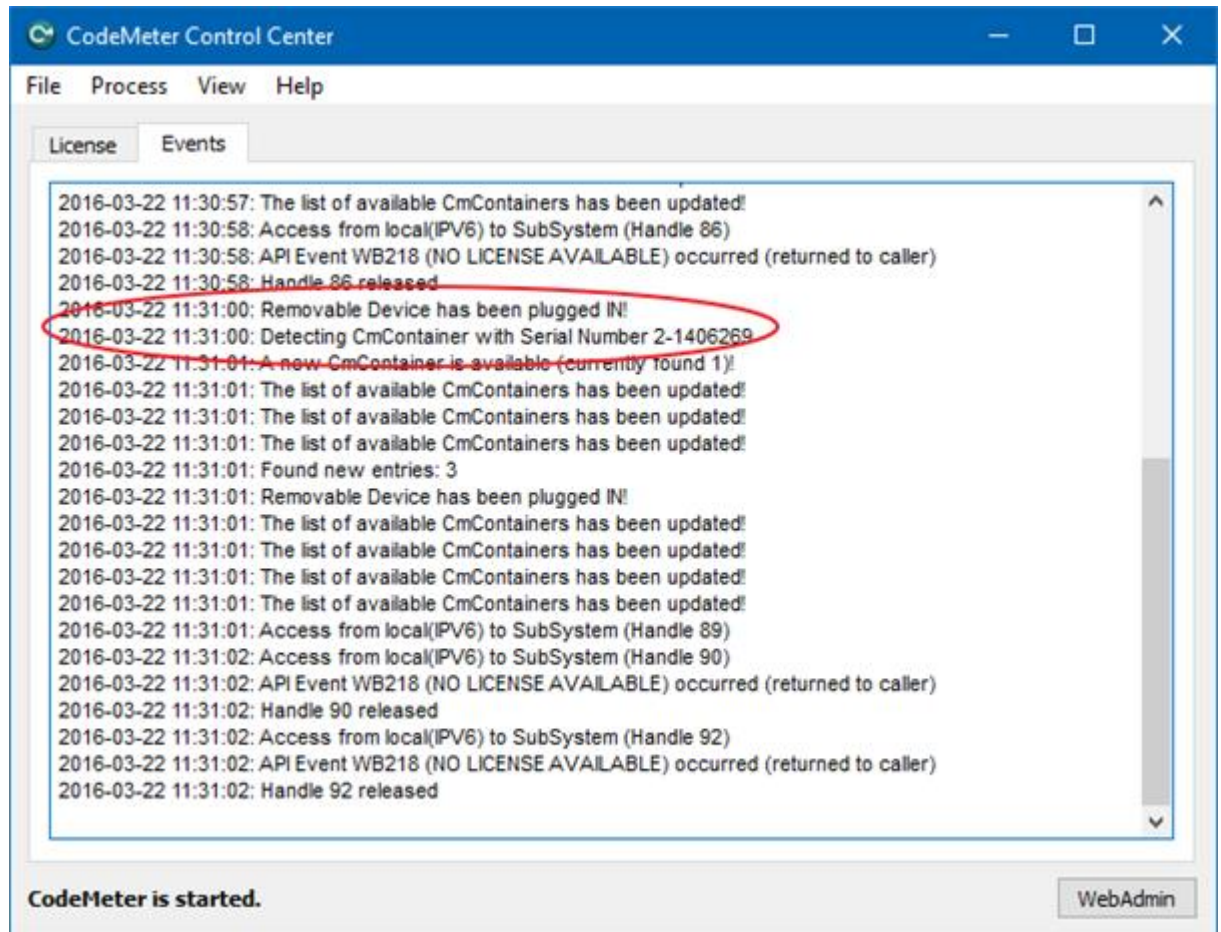
- ▶ Enter the following at the command prompt: `cmu32 /s <serial> --set-config-disk MsdCommunication`
The dongle is configured as removable media.

Note: For `<serial>`, enter the serial number of the stick.

3. Remove the dongle from the computer.
4. Reconnect the dongle to the computer.

In the **CodeMeter Command Prompt** and in the **CodeMeter Control Center**, the dongle is now displayed as removable media, in the file browser of the operating system with the drive

letter.



24.6 Troubleshooting

Error	Solution
zenon only runs in demo mode.	<p>Check using CodeMeter and/or License Manager:</p> <ul style="list-style-type: none"> ▶ Is the dongle connected and contactable via CodeMeter mechanisms (on page 137)? ▶ Is the license entered at the first position for the respective product? ▶ Has the license expired? ▶ Is the software dongle broken? ▶ Is the license assigned to another product on another computer? (http://localhost:22350/license_monitoring/sessions.html) (http://localhost:22350/license_monitoring/sessions.html)

Error	Solution
	html)
Dongle is not found.	<ul style="list-style-type: none"> ▶ Check the network settings. ▶ If the stick is in another domain, add it to the server search list (on page 135). ▶ Increase the UDP response time. ▶ If it is a virtual machine, then configure the stick as removable media (on page 137). Attention: Configuration as removable media can - depending on the computer configuration - also lead to a computer no longer booting. ▶ Configure the stick as HID (on page 140).
Error 410 (with SD cards)	The connection to the SD card is unstable. Use an external card reader.
Certified time cannot be updated.	<p>Please check:</p> <ul style="list-style-type: none"> ▶ Proxy settings, especially access data and Password ▶ List of time server under Settings -> time server for example: cmtime.codemeter.com, cmtime.codemeter.de, cmtime.codemeter.fr, cmtime.codemeter.us
<p>Error message when updating the license when applying a WibuCmRaU file:</p> <p>Error at updating the CmSticks x-xxxxxxx: This update can no longer be installed. The content of the CmStick has a newer version, error229.</p>	The update for this license has already been written to the dongle. The dongle is up-to-date.
<p>Windows operating system shows the message:</p> <p>Low Memory</p>	<p>The dongle is identified as local memory. In some cases, this can lead to the operating system giving the message "Insufficient memory".</p> <p>This message can be ignored.</p> <p>Alternatively, the dongle can also be configured as HID (on page 142). It thus no longer appears in the Windows drive list.</p>
Windows operating system no longer	This may happen if the dongle is identified as a fixed local

Error	Solution
shows symbol for the Recycle Bin.	network. Alternatively, the dongle can also be configured as HID (on page 142). It thus no longer appears in the Windows drive list.