

Installing and configuring an extended network license

Using an extended network license together with the corresponding dongle offers maximum flexibility for accessing your ArtemiS SUITE licenses. Besides issuing the licenses, this license model provides the useful feature of detaching licenses temporarily and using them without a network connection. Thus you can carry out measurements, even if your measurement computer is not connected to the network of the license server, e.g., for measurements in the interior of a moving vehicle.

This Application Note explains how to install and configure your extended network dongle:

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In order to use the extended network dongle, the installations described in the section “Required Software Installations” must be performed on the computer this dongle is physically connected to (called the “license server” in the following) and on the computers ArtemiS SUITE is to be used on (called “client computers” or “clients” in the following). The license server can be any physical computer¹ in the network the client computers are connected to. It must only be ensured that this computer is running as soon as a client requires a license. Unlike single user licenses and network licenses (net), extended network licenses (net+) are not stored on the dongle, but on the hard disk of the license server. The extended network licenses are permanently attached to the license server and after the installation only this computer, in connection with the corresponding dongle, can provide the licenses to clients. In order to use a different computer as the license server, the licenses must be transferred with the procedure described in the section “License transfer”. A license transfer may be necessary, even if not the complete license server but only single hardware components of this computer have to be exchanged.

¹ The installation of the licenses on a virtual server is not possible.

Required software installations

Installations on the license server

First, the dongle driver must be installed. You can download the installation file for the latest dongle driver in the HEAD acoustics Download Center², for example. If the license server is not only used for providing the licenses, but also for using ArtemiS SUITE locally, the corresponding ArtemiS SUITE software packages have to be installed in addition to the dongle driver.

In order to activate your licenses, you must execute the following steps:

1. Open the HTML user interface of the HEAD License CD (double-click on ***index.htm***) and select ***Installing a Net+ license*** in the navigation bar. Follow the indicated instructions by first disconnecting all dongles from your computer and afterwards installing the HEAD Licence Server, if this has not already been installed during ArtemiS SUITE installation.
2. Then start the tool ***HEAD Remote Update System*** and activate the function ***Installation of a new protection key*** in the window appearing afterwards (on the first tab ***Collect Status Information***).
3. Please click on ***Collect information*** in order to create a C2V file. The created c2v file together with your net+ dongle number has to be sent to the following email address: license-management@head-acoustics.de. Based on your C2V file, HEAD acoustics will create two V2C file specifically for your license server and for your net+ dongle, which contain all required information about your extended network licenses.
4. The V2C files created for you can be received and applied in two different ways:
 - a. If you received the V2C files as e-mail attachment, please proceed as follows: Connect the corresponding red-colored extended network dongle with the server and insert the HEAD License CD. Start the tool ***HEAD Remote Update System*** via `Driver\HASP DONGLE\Tools\HEAD Remote Update System.exe`. Please click on the second tab labeled ***Apply License File*** in the resulting window. Select the V2C files one after the other in the field ***Update File*** and start the update by clicking on ***Apply Update***.
 - b. If you wish to update your licenses by means of the HEAD Updater³, please proceed as follows: First of all connect the corresponding red-colored extended network dongle with the server and start the Updater via ***All Programs -> HEAD Updater*** afterwards. Your extended network dongle as well as the existing license updates are listed in the left part (***Licenses***) of the resulting window. In case that more recent license files are available, these files can be selected by clicking on the corresponding check box. Select the updates that are relevant for you and click ***Start updates/installation*** in order to apply them.

Now your ArtemiS SUITE licenses are available in the network as long as the license server is running.

Installations on the client computers

On each client computer, the dongle driver has to be installed, too. Afterwards ArtemiS SUITE and the desired additional applications (such as the HEAD Recorder) must be installed. This procedure also installs the License Detach tool you will need for temporarily detaching licenses.

² https://www.head-acoustics.de/eng/nvh_head_dongle_tools_software_download.php -> ***HASP dongle driver***

³ The software application HEAD Updater was developed in order to install or update your licenses and any HEAD acoustics programs on your computer in a quick and straightforward way. The installation files for the HEAD Updater are also available on the HEAD License CD.

Admin Control Center

Entering the URL <http://localhost:1947> in a web browser opens the user interface of the Admin Control Center.

The left column of this user interface lists the administration **Options**. These include a **Help** item, which opens the online help for using and configuring the dongle. In addition to this online help, the ArtemiS-specific procedures and the usage of the License Detach tool are also described in this Application Note.



Figure 1: Admin Control Center

Configuring the extended network licenses

To configure the extended network licenses, open the Admin Control Center in a web browser on the license server (<http://localhost:1947>⁴) and click on **Configuration** in the **Options**.

This opens the configuration menu containing six tabs, on which various settings for the dongle can be configured. For example, on the **Basic Settings** tab, you can enable password protection in order to restrict access to the Admin Control Center to authorized persons.

The **Access from Remote Clients** tab can be used to specify the computers in the network that are allowed to access the licenses on the network dongle. By default, all computers in the network are allowed to access the extended network licenses (see figure 2, **allow=all**).

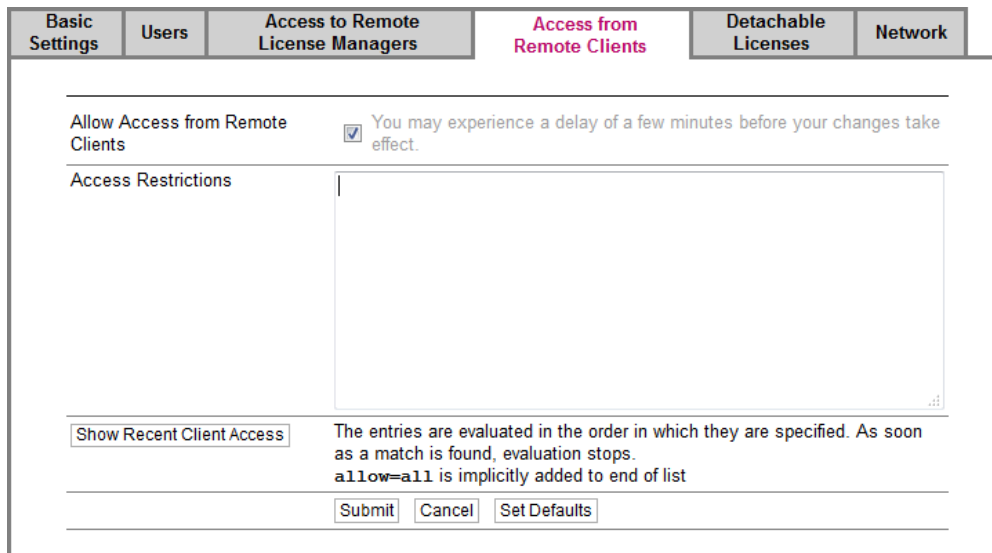


Figure 2: Configuration menu for the extended network dongle, *Access from Remote Clients* tab

You can also generally deny access for all computers (**deny=all**) and specify exceptions for certain computers only. This can be conveniently done via the **Show Recent Client Access** button. It opens a table listing all computers connected to the network. Next to each computer in this list there is an **allow** button and a **deny** button. The exceptions can be conveniently chosen via these buttons. See the online help of the Admin Control Center for a detailed description of the configuration syntax.

⁴ It is also possible to access the Admin Control Center of the extended network dongle from other computers within the network. To do so, replace the URL <http://localhost:1947> to be entered in the web browser by the following: http://IP_address_of_the_license_server:1947.

It can be useful to disable the option **Allow Access from Remote Clients** as long as the table of recent clients is being used for this selection, as otherwise the table will be updated constantly, which causes the order in which the computers are listed to change frequently. This can complicate the selection, especially if many computers exist in the network.

Figure 3 shows the **Detachable Licenses** tab. On this tab, you can specify whether other computers can “borrow” (detach) licenses from your license server to a client computer (**Enable Detaching of Licenses**). These licenses can then be used even if the client computer is not connected to the network.

Figure 3: Configuration menu for the extended network dongle, **Detachable Licenses** tab

Here you can also specify the maximum number of licenses that can be detached and the maximum detach period. Please note that all configuration changes must be confirmed with **Submit** in order to become effective.

The configuration possibilities described here are only a selection. These and all other settings are explained in detail in the online help of the Admin Control Center.

Once the configuration is completed, the licenses of the license server can be used by the authorized users and computers as long as they are connected to the network. In order to use the license detach function, this function must be enabled on the respective client computer via the Admin Control Center. To do so, proceed in the same way as for enabling the function on the license server.

If you have borrowed a license from the license server and you want to start it on a client computer that is no longer connected to the network with the license server, you need one of the black Time Dongles⁵, which must be connected to a USB port of the client computer. The Time Dongle serves as a clock for controlling the detaching period, whereas the actual license is contained in a file on the client computer.

To borrow and return ArtemiS SUITE licenses on a client computer, you can use the License Detach tool from HEAD acoustics. The following section describes how to use this tool.

⁵ These black Time Dongles are included with your extended network dongle. If the supplied amount of time dongles is not sufficient, further time dongles can be purchased. Even for using a Time Dongle, the dongle driver mentioned before has to be installed on the client computer.

Detaching extended network licenses with the *License Detach* tool

After configuring the extended network licenses so that detaching of licenses is allowed, you can use the License Detach tool from HEAD acoustics to initiate the detaching from the client computer. To start the License Detach tool, open the order *Program Files (x86)\HEAD License Detach* and double-click the application *HASPLicenseDetach.exe*. Please make sure that your computer is connected to the license server via the network.

This tool offers the possibility to borrow the required licenses from the license server (**Detach** button), to return detached licenses to the license server (**Cancel** button) and to install licenses borrowed by another computer on your own computer (**Attach** button, see figure 4).

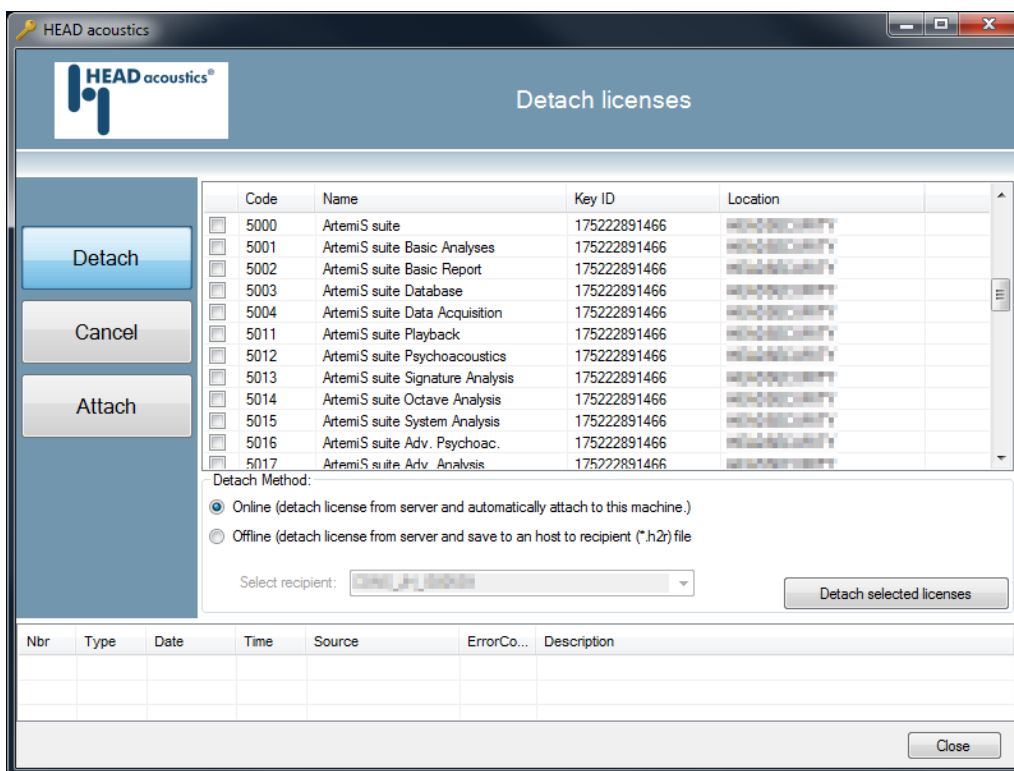


Figure 4: User interface of the License Detach tool

Once you click on the **Detach** button, a table appears, which lists the licenses available for detaching. Detaching licenses can happen in two different ways:

Online Detach Mode

Using this method you can detach licenses for the computer you are currently using, which must be connected to the license server via the network. Check the required licenses in the first column of the table and click on the **Detach selected licenses** button. A dialog appears where you can enter the date until which you wish to use the licenses – restricted by the time limit specified in the dongle configuration. Afterwards, you can use ArtemiS SUITE until the date you specified, even when your computer is no longer connected to the network with the license server. In order to use the detached license, you have to connect one of the black Time Dongles to a USB port of your client computer.

Offline Detach Mode

Using this method allows you to borrow licenses for another computer that is currently not connected to the network with the license server (offline). After enabling the **Offline** method, select the computer for which you wish to borrow the licenses from the list at the bottom of the window and click on the **Detach selected licenses** button. Afterwards you can specify the time period for which the licenses are to be detached. Furthermore, you need to specify a location for saving the license file with the extension .h2r. This file must then be sent or copied to the offline computer and installed there. In order to use the

detached license, you have to connect one of the black Time Dongles to a USB port of your client computer.

Please note that this license can only be applied to and used with the specified client computer. Therefore, the license, e.g., cannot be returned directly to the license server. Instead the license has to be applied to the client computer first, even if it is no longer needed.

To install this license file, start the License Detach tool on the offline computer and click on **Attach**. In the first line of the user interface, select the location of the license files, after which the borrowed licenses are listed in the table and can be installed on the computer by clicking on the **Attach selected updates** button.

In order to be included in the list of computers for which a license file can be created, an offline computer must have been connected to the network with the license server once. If this is not the case, an ID file with information about the offline computer can be created in the Admin Control Center on the offline computer via **Diagnostics** -> **Create ID File**. This file ensures that the license server knows the offline computer and includes it in the **Select recipient** list. To install the ID file on the license server, open the **Update/Attach** page in the Admin Control Center on the license server, open the ID file copied from the offline computer and click on **Apply File** (see figure 5).

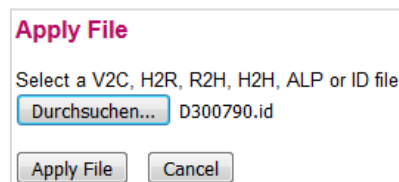


Figure 5: User interface of the Admin Control Center, **Update/Attach** page

Now the license server has all required information about the offline computer, so that licenses can now be detached for this computer as well.

Returning detached licenses earlier

The License Detach tool not only allows you to detach licenses, but also to return them, e.g., if you wish to return the detached licenses before the end of the specified detach period in order to make them available to other ArtemiS SUITE users as early as possible.

Usually licenses are automatically booked back at the end of the detach period, after which they cannot be used on the client computer any longer. To return a license earlier, open the License Detach tool on the client computer and click on the **Cancel** button.

In the table that is shown, select the licenses to be returned and click on the **Cancel selected licenses** button (see figure 6).

As soon as the licenses have been returned to the license server, they can be used by other client computers. Licenses can also be returned when the client computer is offline, i.e., not connected to the network with the license server. In this case, the cancellation function creates a file with the extension **.r2h** containing the required information for the server.

Just as described for the ID file in the previous section, this file can be transferred to the license server. Afterwards, the returned licenses are available in the network of the license server again.

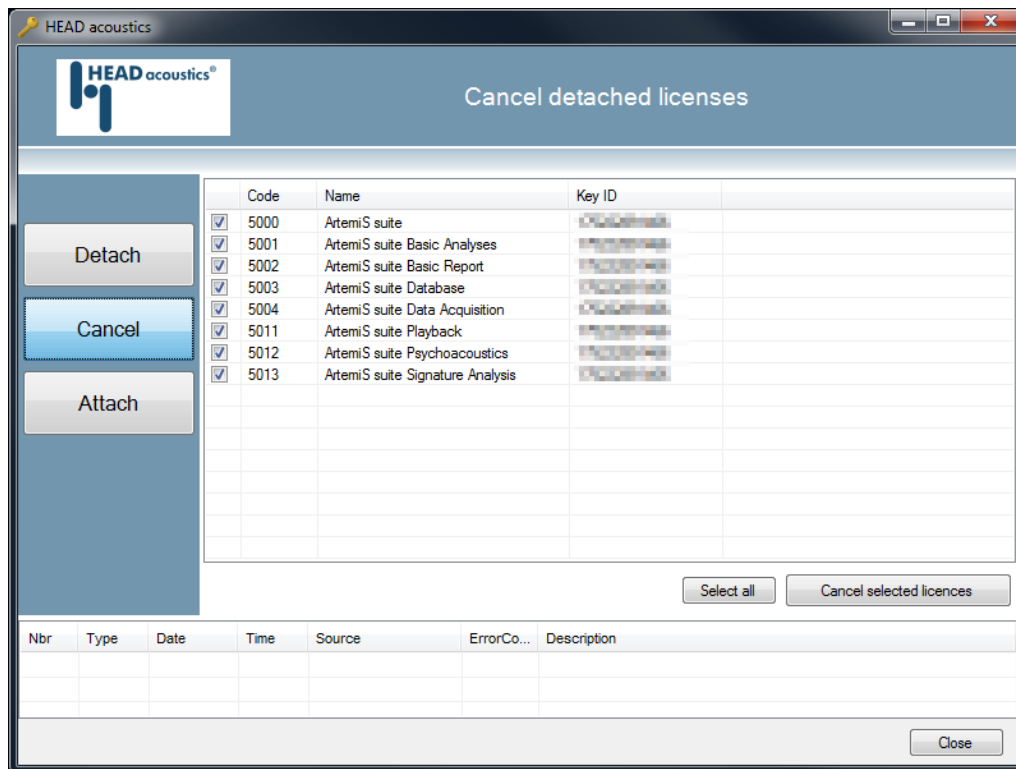


Figure 6: User interface of the License Detach tool, *Cancel detached licenses*

Using favorites in the license selection dialog

When ArtemiS SUITE⁶ is started, the license selection dialog shows which software modules the license server is currently offering. The user can then compile the modules required for the current task. In order to utilize the available licenses as efficiently as possible and to avoid having to compile frequently used module combinations again and again, you can use the favorites function in the license selection dialog. It allows you to define custom software packages with different ArtemiS SUITE Modules for different analysis tasks and to save them as favorites. This accelerates the selection process and ensures that users only borrow the modules they actually need, leaving the other modules available for other users.

Example

For a signal analysis accounting for the particular characteristics of human signal processing, you need analyses like Sharpness, Roughness or Relative Approach. After selecting the required modules (ASM 00, ASM 01, ASM 12 and ASM 16) in the license selection dialog, you can save the selection as a favorite by clicking on **Add current**, e.g., under the name **Psychoacoustics** (see figure 7).

⁶ In order for the license selection dialog to be displayed, the option **Show license selection dialog on startup** must be enabled. This option can be found in ArtemiS SUITE under **Tools -> Options -> Basic -> Application -> Licensing -> Show license selection dialog on startup**.

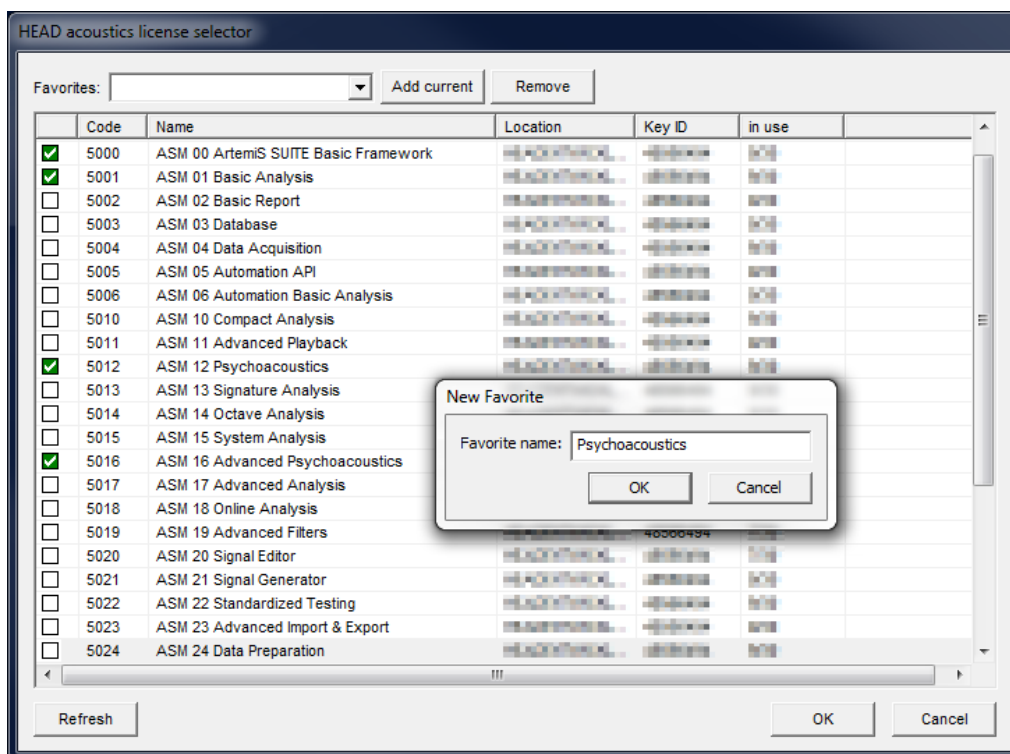




Figure 7: License selection dialog

For a different task, you may want to perform RPM-dependent analyses to be saved in standardized reports by means of User Documentation. After selecting the required modules (ASM 00, ASM 01, ASM 02, ASM 03 and ASM 13), you can save the selection, e.g., under the name **Reporting**. After saving various favorites, you can reload each selection quickly and easily from a drop-down list by clicking on the **Favorites** field.

If a module is currently not available, this is indicated by an  icon instead of .

You can also make your favorites list available to other users. To do so, copy the file *HASPLicenseSelector.xml*, which can be found at⁷

C:\Users\{user name}\AppData\Roaming\HEAD acoustics,

from the computer where you defined the favorites to the computer where you want the favorites to be available as well.

⁷ Perhaps you have to activate the displaying of hidden files and orders in the options of your Windows Explorer, so that you can open this file path.

License transfer

If you need to transfer your license to a new license server⁸, you can do so by following the steps described below. Please note that the procedure described here requires the latest HASP dongle driver⁹ and HEAD License Server on both the old and the new license server.

1. Start the **HEAD Remote Update System** on the new license server. If you have the latest HEAD License CD, start the application by double-clicking on *HEAD Remote Update System.exe* in the folder *Driver\HASP DONGLE\Tools*. Of course, you can also download the latest version of the applications from the HEAD acoustics Download Center¹⁰.

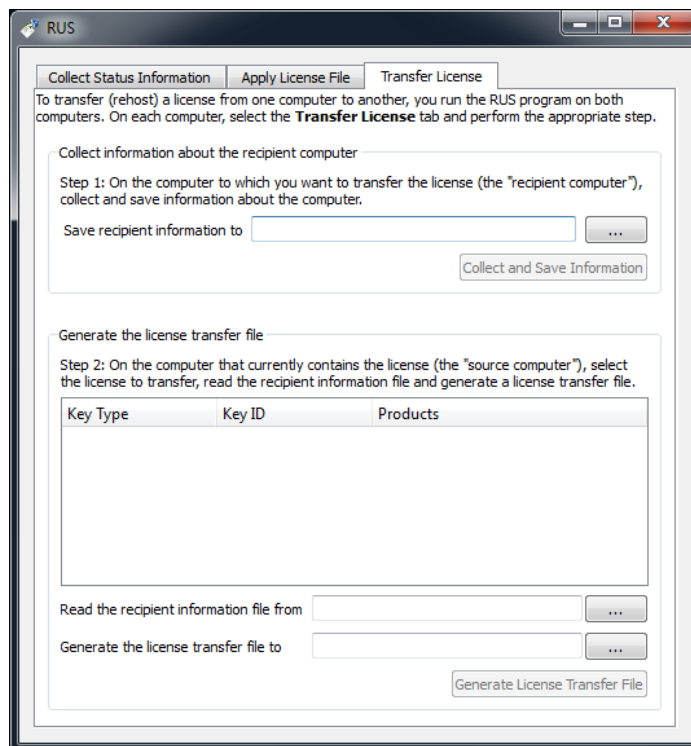


Figure 8: User interface of the HEAD Remote Update System (RUS)

2. Click on the **Transfer License** tab and perform Step 1 in the section **Collect information about the recipient computer**. Clicking on the button next to the **Save recipient information to** field allows you to select the path and file name for the ID file to be created.
3. Copy the resulting ID file to a folder on the old license server. To do so, open the *HEAD Remote Update System* on the old license server and perform the step **Generate the license transfer file** described on the **Transfer License** tab: First, click on the license to be transferred in the table. Afterwards, click on the button next to the **Read the recipient information file from...** field and select the ID file you created on the new license server. With the button next to the **Generate the license transfer file to...** field, you can specify the path and file name for the H2H file for transferring the license. Finally, start the license transfer with the **Generate License Transfer File** button.


⁸ If you have to exchange only single hardware components of the license server and not the complete computer, please contact our technical support (nvh-support@HEAD-acoustics.de), in order to check if a license transfer is needed for your particular case.

⁹ The installation file for the latest dongle driver can be downloaded, for example, from the HEAD acoustics Download Center: https://www.head-acoustics.de/eng/nvh_head_dongle_tools_software_download.php -> **HASP dongle driver**

¹⁰ https://www.head-acoustics.de/eng/nvh_head_dongle_tools_software_download.php

Caution: The H2H file created here contains your ArtemiS SUITE license! It must not be deleted under any circumstances, as you would lose your license in that case!

We recommend to firstly save the H2H file on the old license server locally. Afterwards you can copy the file for the transfer, e.g., to a USB stick. Always work with a copy and delete the original file on the old license server not before the license is successfully installed on the target computer.

4. Copy the created H2H file to the new license server and also connect the dongle to that computer.
5. Start the *HEAD Remote Update System* on the new license server one again. Click on the **Apply License File** tab and apply the transferred H2H file by selecting it via the  button next to the **Update File** field.

Your license is now transferred to the new license server and is available via the network as long as the new license server is running.

Right of overbooking

If your extended network licenses are under software maintenance (SMA), HEAD acoustics entitles you to use 20 % (rounded¹¹) of your purchased extended network software components for an additional period of time (30 days) per year (known as a “right of overbooking”) to accommodate periods where there are high levels of use. For this purpose, the additionally provided licenses are logged out from an internal HEAD acoustics license pool for the required period of time. In order to get an additional license, please send an e-mail to license-management@head-acoustics.de. This e-mail should include the ID file of the computer, on which the license is to be used, otherwise HEAD acoustics will not be in a position to generate an additional license for your computer. The generation of this ID file is described in the second paragraph on page 6.

Please note: The only person entitled to apply for additional licenses is the customer’s network administrator registered at HEAD acoustics.

You will receive a license file, which is to be installed on your computer by means of the License Detach Tool, as described in the first paragraph on page 6. In order to use (an) additional license(s), please make use of the black time dongle, which is included in the scope of delivery of the extended network licenses (net+).

If you have any questions regarding the installation of your extended network dongle, please contact us at the following e-mail: nvh-support@HEAD-acoustics.de.

¹¹ As a consequence of rounding, overbooking is not allowed if less than three extended network licenses are available. The right of overbooking is calculated for the base software and for the individual additional modules (ASMs) separately.