ibaManagementStudio v2.0.0

New features

4/30/2024
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1 Windows operating system compatibility

⚠ **Important:** The following OS versions are no longer supported for ibaManagementStudio Agent:

- Windows 7 (x64, x86)
- Windows 8.1 (x64, x86)
- Windows 2012 Server (x64) and Windows 2012 Server R2 (x64)

With these changes, the supported Windows operating system versions are the following:

- Windows 10 (x64, x86: 'ibaManagementStudio Agent'-only)
- Windows 11 (x64)
- Windows 2016 Server (x64)
- Windows 2019 Server (x64)
- Windows 2022 Server (x64)

2   ibaManagementStudio+ license

A new licensing model is introduced in ibaManagementStudio Server version 2.0.0 called **ibaManagementStudio+**. Having this license with a valid expiration date gives the user the opportunity to unlock extra features in the ibaManagementStudio Server web client.

The following features require a valid ibaManagementStudio+ license in version 2.0.0:

- Software update functionality

- License update functionality

- Repository page

- Alarm view

- Dashboard

- License report

If the necessary ibaManagementStudio+ license is not available, the controls related to these features will be disabled. A message about the missing license will be shown when hovering over the disabled controls.

Information about the active ibaManagementStudio+ license can be found in the ibaManagementStudio Server web client on the page 'About'. If present, the ibaManagementStudio+ license is listed in the field 'License information'. The field 'License time limit' shows the expiration date of the ibaManagementStudio+ license.

The ibaManagementStudio Server status application shows the license information also in the section 'License' on the tab 'General':
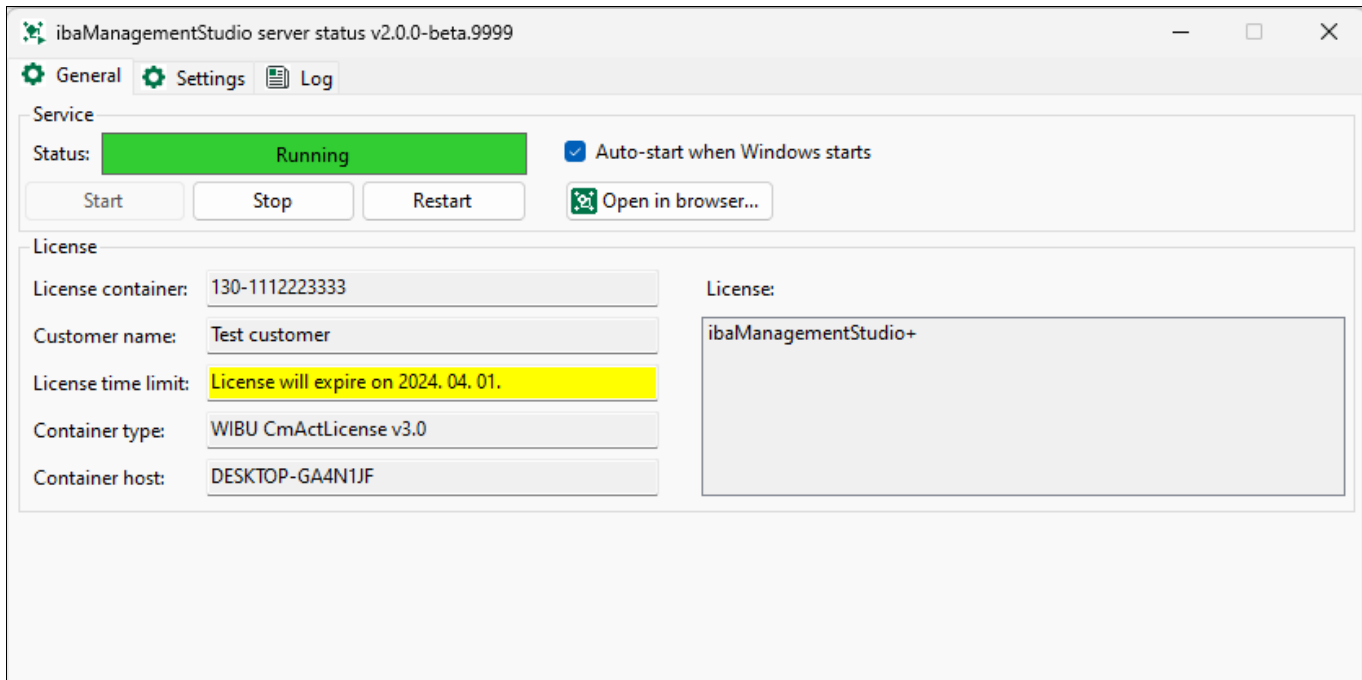
3   MARX license update

A MARX license update is possible via the ibaManagementStudio web client from version 2.0.0 (both ibaManagementStudio Agent and Server require this version) if remote actions are enabled for the system.

⚠ **Important:** A valid ibaManagementStudio+ license is required to perform a MARX license update.

On the tab 'License information' the user can start the manual update of a MARX dongle by clicking the button 'Browse':
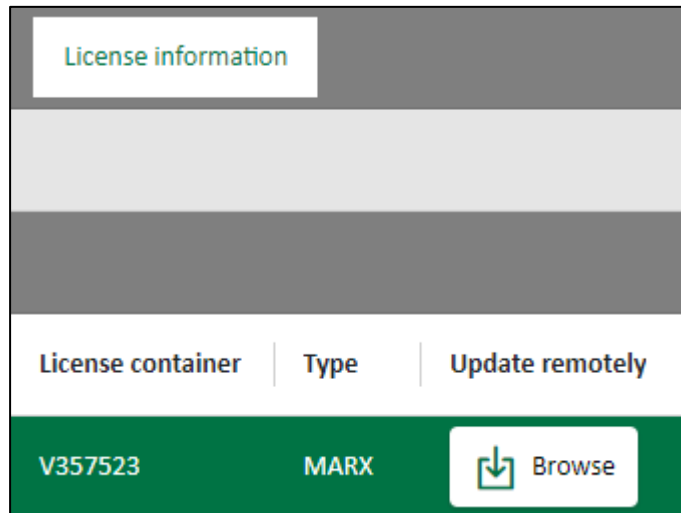
If a valid ibaManagementStudio+ license is not acquired, the button 'Browse' is disabled:
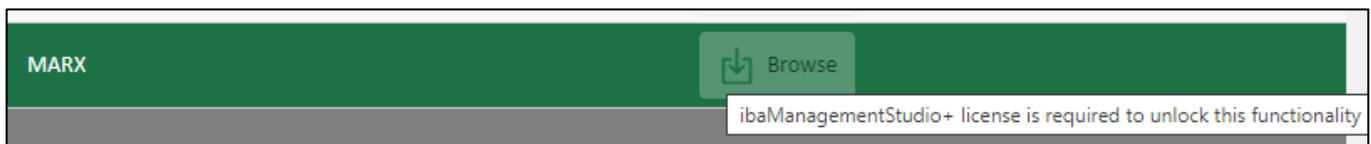
After clicking the button, a window pops up allowing the user to select and upload an upgrade file:
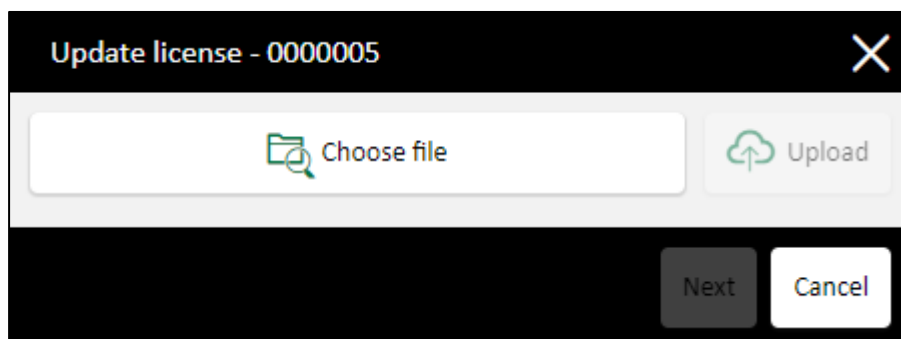
Once the user uploaded an ibaDongleUpgrade executable, a warning message is shown that the iba services' execution will temporarily stop:
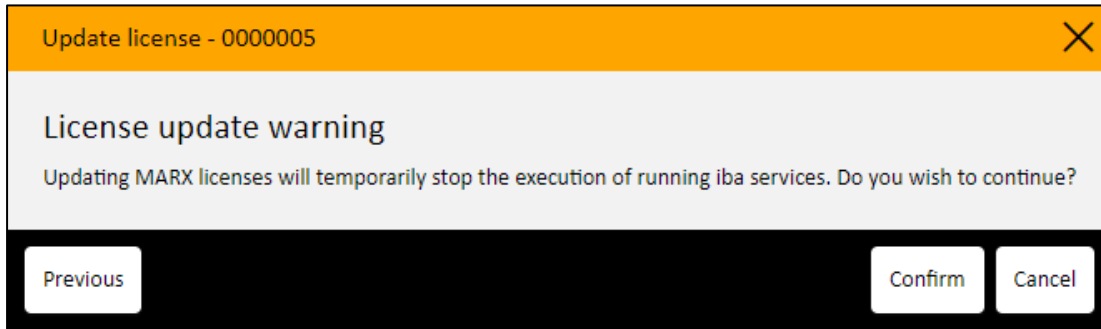
After confirmation, the user has to provide credentials under which the upgrade will be executed (similar to the remote software update process). Status feedback is shown in the web client while the ibaDongleUpgrade is running silently on the remote system.

⚠ **Important:** ibaManagementStudio only supports ibaDongleUpgrade v8.0.0 or higher.

⚠ **Important:** Certain MARX dongle upgrades produce confirmationfiles, that need to be sent to ibaSupport. Such dongle upgrades are not supported by the ibaManagementStudio.

⚠ **Important:** For a successful upgrade, the ibaManagementStudio relies on a fixed file name format of the ibaDongleUpgrade executables: **ibaDongleUpgrade_[dongle_id]_[YYYY_MM_DD].exe**, where **[dongle_id]** is the ID of the MARX dongle and **[YYYY_MM_DD]** the new dongle date. The ID of the MARX dongle can be found in ibaDongleViewer:
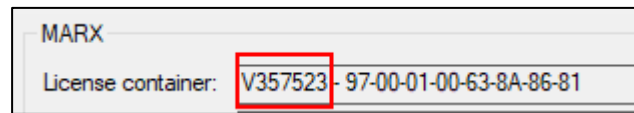
Note that the original file name of ibaDongleUpgrade executables follow this format by default.

There is a possibility to **search automatically for MARX updates in a specified folder**. The discovery will be triggered every 5 minutes. The folder can be set in the ibaManagementStudio Server status application via the input field 'MARX license updates' under the tab 'Settings':

The automated MARX dongle upgrade discovery alleviates the need for manual uploads. Once an upgrade is found for a certain system, the button 'Browse' will be replaced with a button 'Update'. The automatic discovery will also generate notifications that are shown in the web client. More information on these notifications can be found in the section 'License update notifications'.

4　WIBU license update

A WIBU license update is possible via the ibaManagementStudio web client from version 2.0.0 (both ibaManagementStudio Agent and Server require this version) if remote actions are enabled for the system.

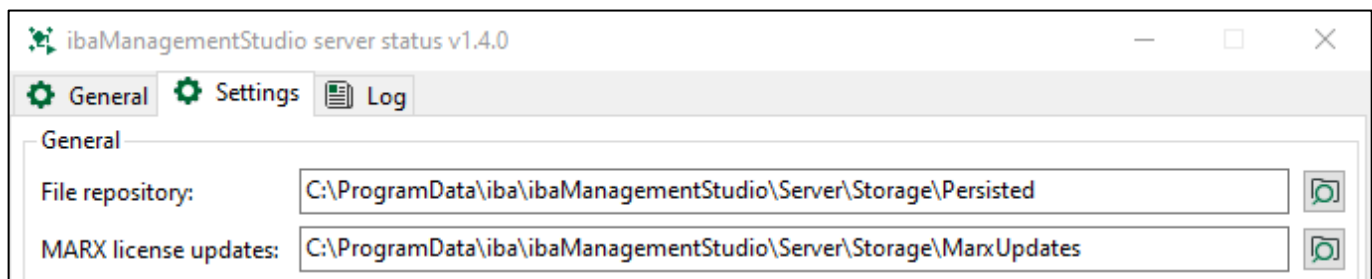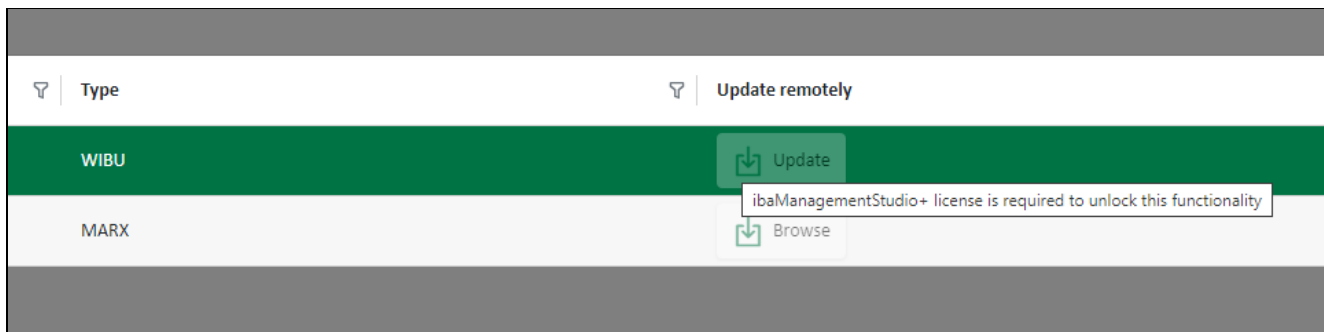⚠ **Important:** A valid ibaManagementStudio+ license is required to perform a WIBU license update.

If no valid ibaManagementStudio+ license is acquired, the update functionality and button will be disabled with a tooltip informing the user about the missing license:

The WIBU licensing system is based on the **activation** of license entries from a WIBU ticket on a selected CM container. Further in this document the expression 'WIBU license update' will refer to WIBU license activation.

The user can start the WIBU license update on the tab 'License information'. The button 'Update' will be available next to each CM container entry, and will be enabled all the time to update licenses. After clicking on the button 'Update', a warning is shown informing the user that running a WIBU license update can change the running state of iba software services. This warning must be confirmed in order to continue with the license update process:
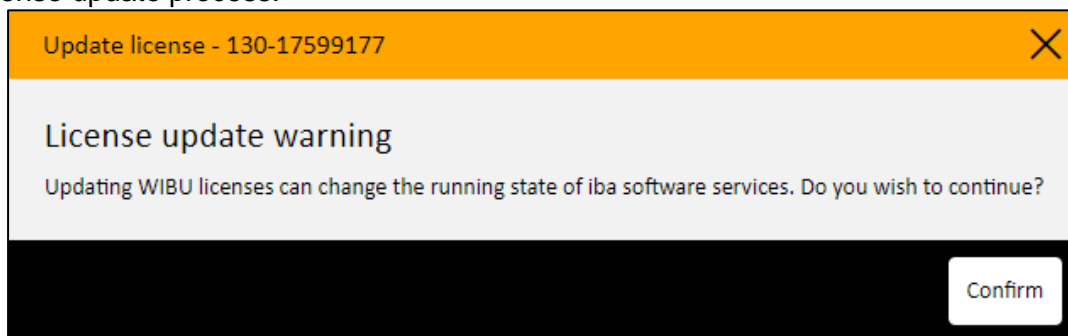
There are three workflows for WIBU license updates:

- **File-based license activation:** The ibaManagementStudio Server cannot reach the iba gateway for WIBU licenses. The licenses are updated via a multi-step process that requires user interaction.
- **Automatic license activation:** The ibaManagementStudio Server can reach the iba gateway for WIBU licenses. WIBU licenses can be activated automatically using the iba gateway in the background.
- **Apply 'Auto update'-licenses**: The ibaManagementStudio Server can reach the iba gateway for WIBU licenses. With this operation, the ibaManagementStudio Server checks for outstanding

WIBU license auto update, which can then be applied. More information on WIBU license auto updates can be found in the section Apply 'Auto update'-licenses.
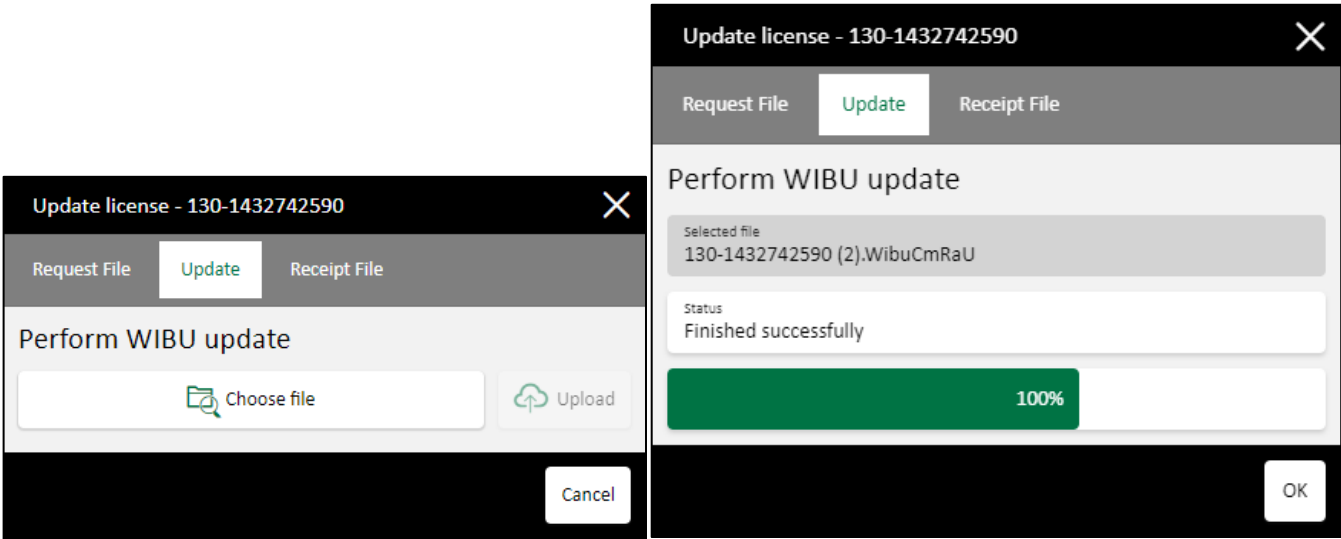
4.1 File-based license activation

If the gateway cannot be reached, clicking the button 'Update' will show a popup with 3 tabs:

- **Request file:** Download a WIBU request file via the ibaManagementStudio Agent to upload to the CodeMeter License Central WebDepot.

- **Update:** Upload a WIBU license update file, obtained from the CodeMeter License Central WebDepot, to the remote system and update the WIBU licenses via the ibaManagementStudio Agent.

- **Receipt file:** Download the WIBU license update receipt file to confirm the update in the CodeMeter License Central WebDepot.

The file-based license update starts by generating a WIBU request file (*.WIBUCmRaC) via the web client. In the CodeMeter License Central WebDepot, provide the WIBU license ticket ID and select the WIBU licenses that need to be activated. Choose for the file-based update and upload the generated request file.
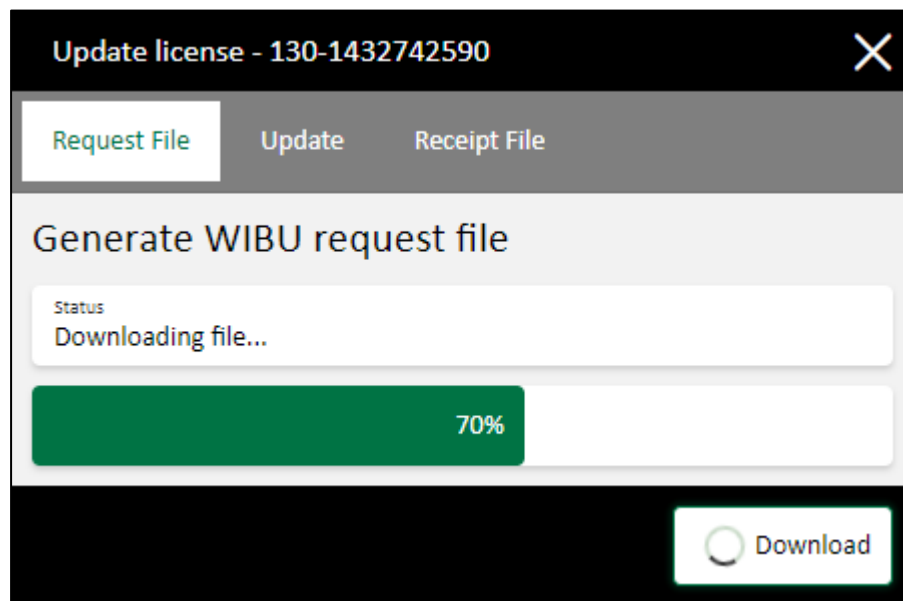
After uploading the request file, the license update file (*.WIBUCmRaU) can be downloaded from the CodeMeter License Central WebDepot. Upload this file to the ibaManagementStudio Agent on the tab 'Update' and perform the license update:

Finally, download the receipt file (*.WIBUCmRaC) on the tab 'Receipt file' and upload this to CodeMeter License Central WebDepot to confirm the update:
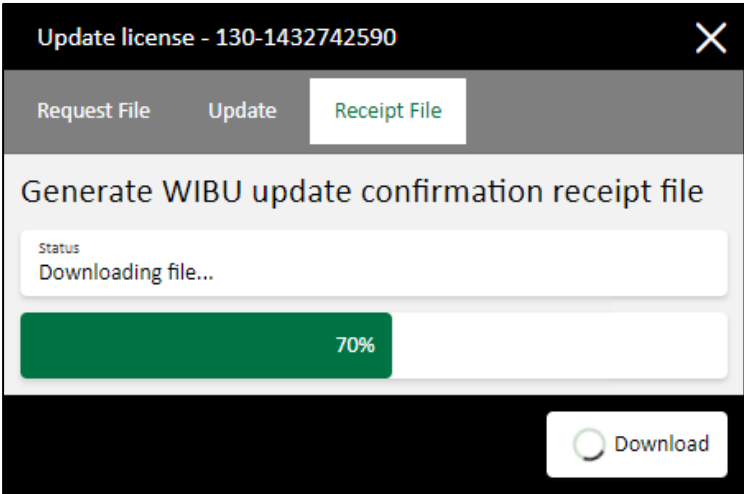
4.2   Automatic license activation

If the ibaManagementStudio can reach the iba gateway for WIBU licenses, the WIBU licenses on remote system can be updated automatically. The status of the iba gateway can be easily checked in the tooltip section of the 'License information' tab. It shows the status of the gateway and also the last time the status was updated.
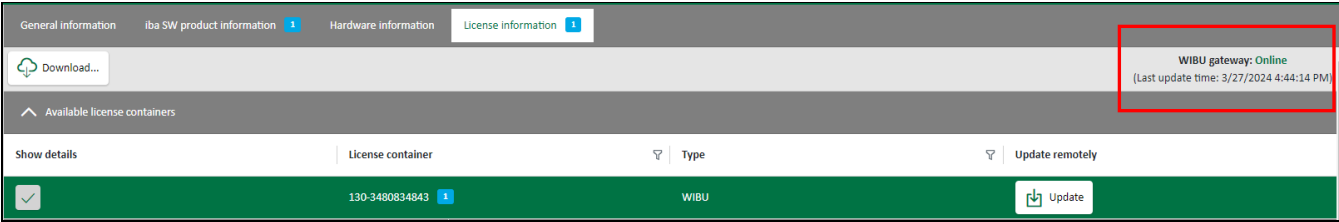
If the iba gateway is online, the WIBU license update related file transfers are hidden and no user interaction is required. To start the automatic update process, click the button 'Update' on the tab 'License information'. A popup will be shown that lists the associated WIBU tickets for the selected container. The associated tickets are tickets that were previously used to update WIBU licenses on this container. This information is stored by the ibaManagementStudio Server.
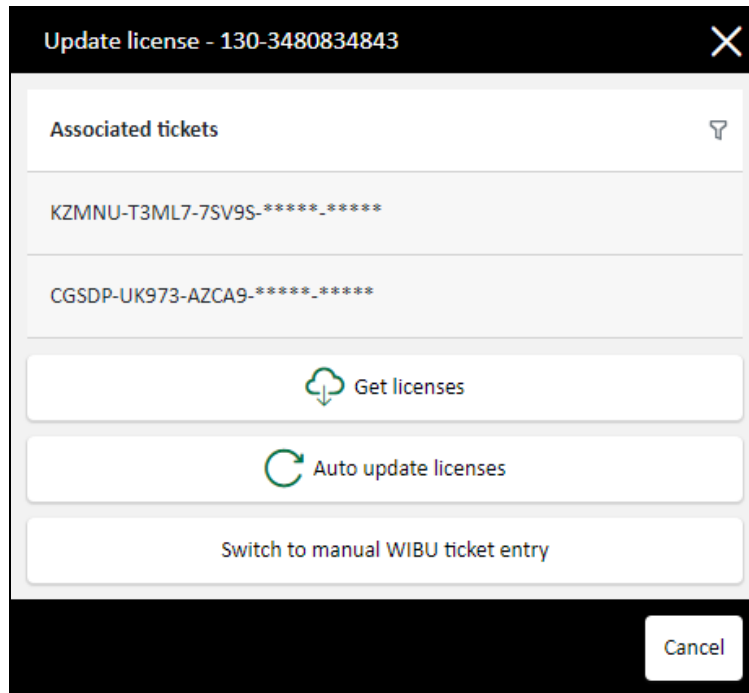

By clicking on 'Switch to manual WIBU ticket entry', users can enter a different WIBU ticket ID.
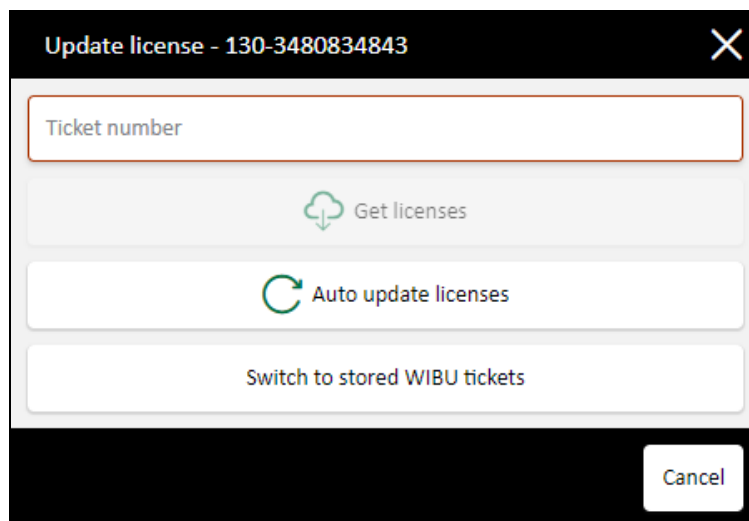

Clicking on 'Get licenses' results in the ibaManagementStudio Server querying the gateway for the licenses in either the associated tickets or the manually entered ticket. In the checkbox list, the user can select the tickets from which licenses should be activated. Note that it is only possible to select tickets. This means that either all or no licenses from a ticket can be activated. The activation of individual license entries is not supported.
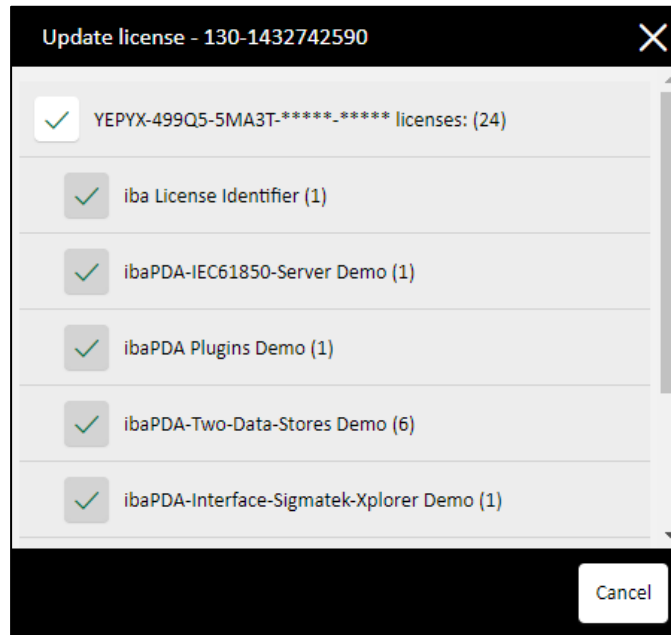
While uncommon, it can be the case that certain WIBU license orders are linked to a specific WIBU container. Licenses from such orders are referred to as 'Auto update'-licenses. 'Auto update'-licenses will always be applied, regardless of the WIBU action and/or the selected ticket number. In case the ibaManagementStudio Server detects the existence of 'Auto update'-licenses, they are also listed and marked with the tag '[Auto update]'. It is also possible to apply these 'Auto update'-licenses without activating any available licenses. See Apply 'Auto update'-licenses section.
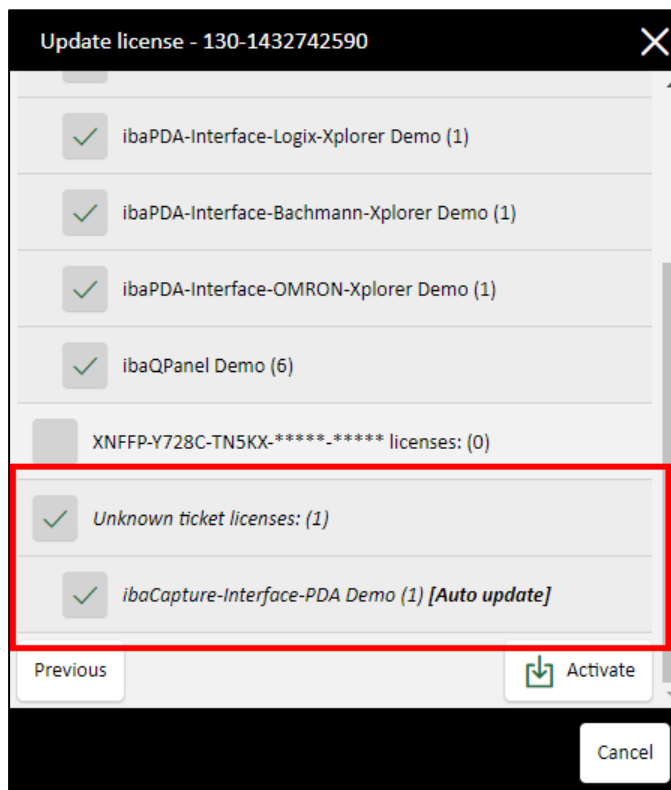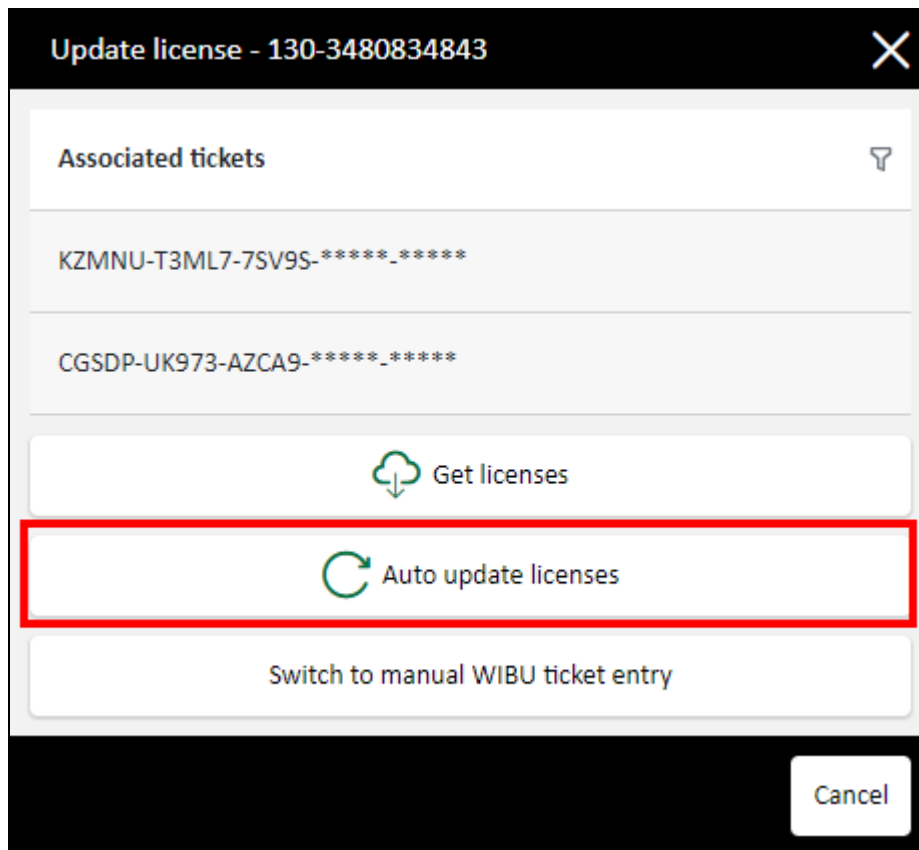
After clicking on the button 'Activate', the licenses are activated. In the background, the same steps as for the file-based update are performed via the gateway. If a previously unknown WIBU license ticket was used, it will be stored by the ibaManagementStudio Server and included in the list of associated tickets during future updates.
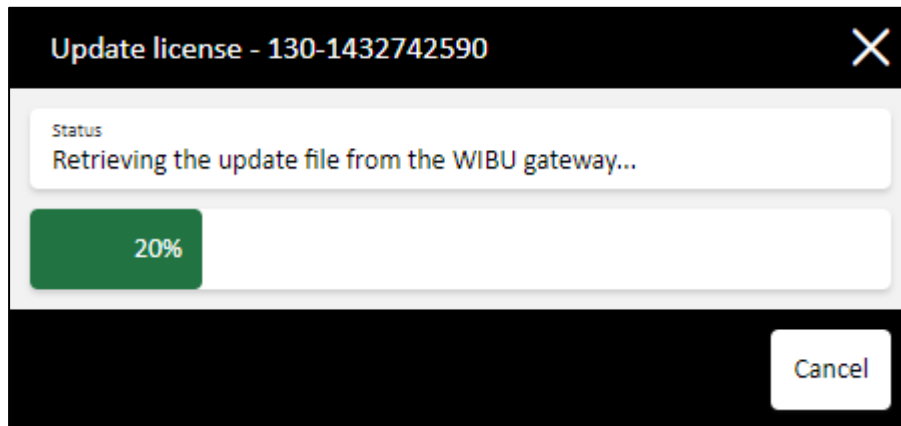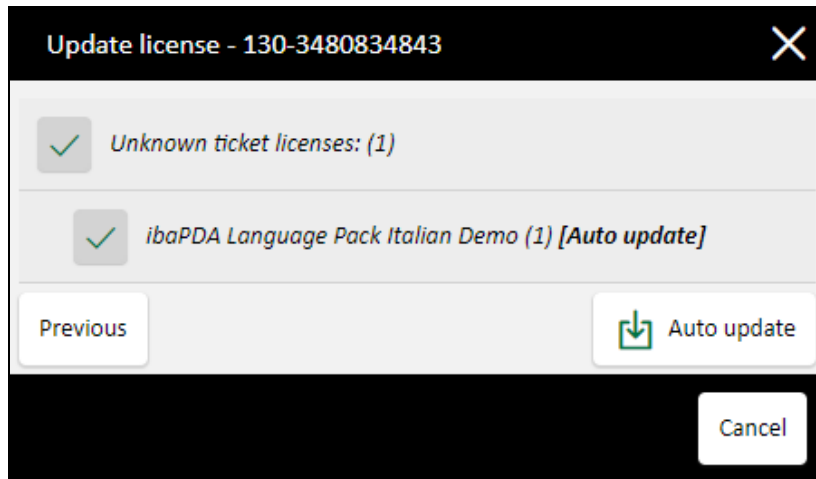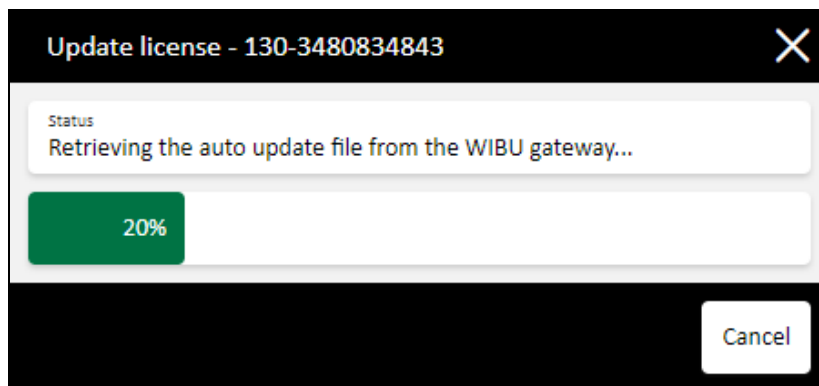

4.3 Apply 'Auto update'-licenses

WIBU license entries can be linked to a specific CM container. Any outstanding changes for such entries are referred to by WIBU as auto updates. They are always applied, even when (de)activating entries from different tickets. To check for available auto updates, click the button 'Update' on the corresponding CM container, and after confirming the warning popup, click the button 'Auto update licenses':

After clicking on the button, the available 'auto update'-license entries will be shown if there are any:

In the picture above there is an 'auto update' for available for one license entry. The ibaManagementStudio Server will apply the changes via the iba gateway when clicking on the button 'Auto update':

## 4.4 Automatic apply for 'auto update'-licenses

The ibaManagementStudio Server provides the option to periodically check for outstanding WIBU license auto updates and apply them. The check runs every 24 hours for all online ibaManagementStudio Agents.

⚠ **Important:** This feature is disabled by default.

To enable this feature, on the page 'Settings/Server configuration', toggle the button 'Auto update WIBU licenses':
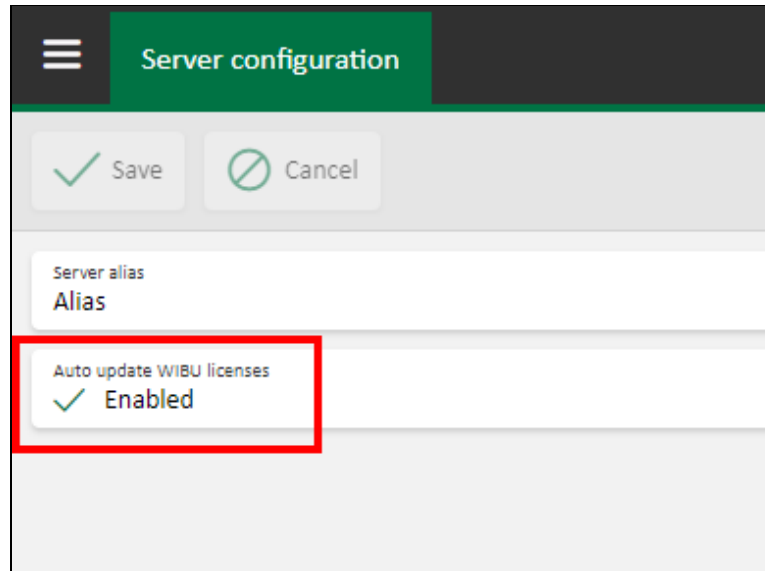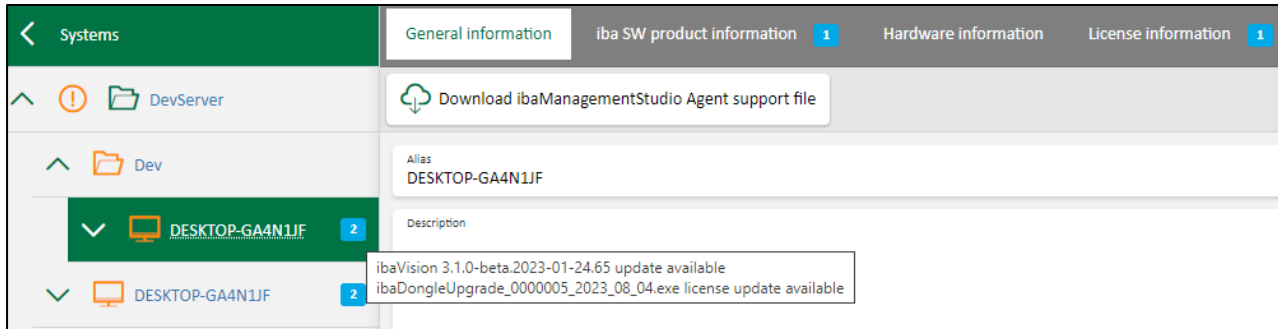

If no valid ibaManagementStudio+ license can be acquired, this button will be disabled and, regardless of the button's state, the periodic check will not be executed. A tooltip informs the user about the missing license:
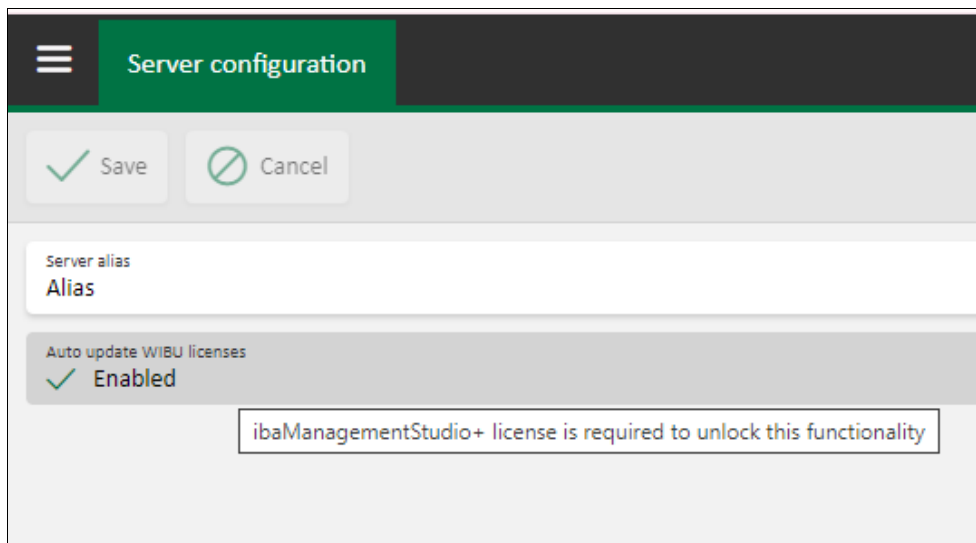
5   License update notifications

Similar to the software update notifications, the web client shows notifications for available license updates. In the tree view, the number in the badges represents the total of software and license updates for a system. On the tab headers, the notification count is split up.
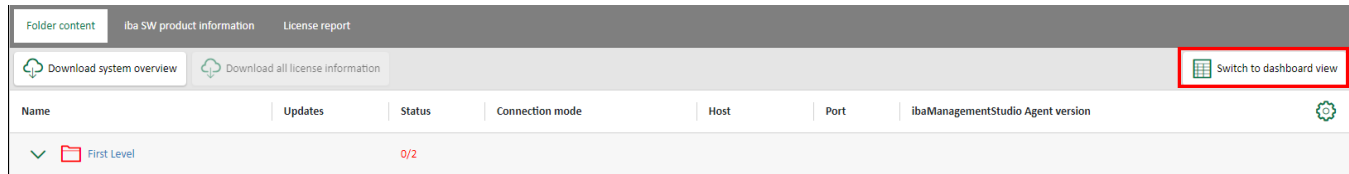

⚠ **Important**: A valid ibaManagementStudio+ license is required to show license update notifications.

⚠ **Important:** MARX license upgrade notifications are based on the upgrade executables discovered in the respective repository.

⚠ **Important:** MARX license upgrade notifications are only generated for upgrades with a dongle date more recent than the last applied dongle upgrade.

⚠ **Important:** WIBU license update notifications can only be generated if the iba gateway for WIBU licenses can be reached.

⚠ **Important:** WIBU license update notifications are only generated if there are known associated tickets for a WIBU container or if there are outstanding auto updates for that container.
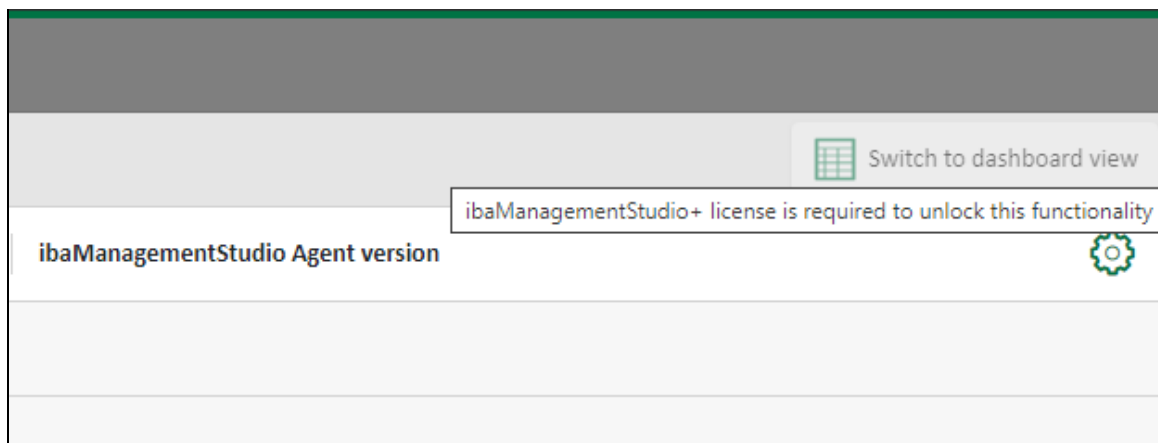
6 Dashboard view

On the tab 'Folder content' on a folder page, a new button was introduced with the name of 'Switch to dashboard view'.

⚠ **Important:** A valid ibaManagementStudio+ license is required to use the dashboard view.

If no valid ibaManagementStudio+ license could be acquired, the button will be disabled; the feature cannot be used; and a tooltip informs the user about the missing license.

When clicking on this button, the current folder-based grid view switches to a system-based dashboard view, where only the systems are listed (including all the systems from subfolders). The systems will be rendered in a grid view, summarizing the most important information and metrics about the system, such as the following:

- Name of the system with warnings/errors

- Closest expiring, or already expired EUP date

- Closest expiring, or already expired licenses (both MARX and WIBU)

- Software update notifications

- License update notifications

- Current CPU usage metric of the system

- Current RAM usage metric of the system

Certain columns in the grid view are hidden by default, but also can be set to be visible using the grid settings gear icon:

- Description

- Connection mode

- Host
- Port
- ibaManagementStudio Agent version

The systems inside the grid will be rendered using a paging mechanism. The page size is set to 10 by default, but it can be changed to 5, 10, 25 or 50 using the dropdown.

If any update happens in the background on any of the visible systems (e.g., license update, connection status change, a new SW update becomes available), the dashboard will be updated automatically with the most recent data.

6.1 Column 'Name'

The name column values behave the same as the navigation tree nodes. When hovering over a system name, the error/warning of the corresponding system is shown in a tooltip:

6.2 Columns 'EUP date' and 'License time limit'

Both columns show the expired or nearest expiration date (if such a date is applicable for that system). The date value will be colored red when expired. For the column 'License time limit', this is the nearest expiration (or expired) date from both MARX and WIBU containers. If multiple licenses expire on the same day, a badge containing the number of licenses will be shown. Hovering over this will result in tooltip being shown with a list of the expiring licenses. Clicking on the cell values of either columns will navigate the user to the corresponding system's details tab 'License information'.
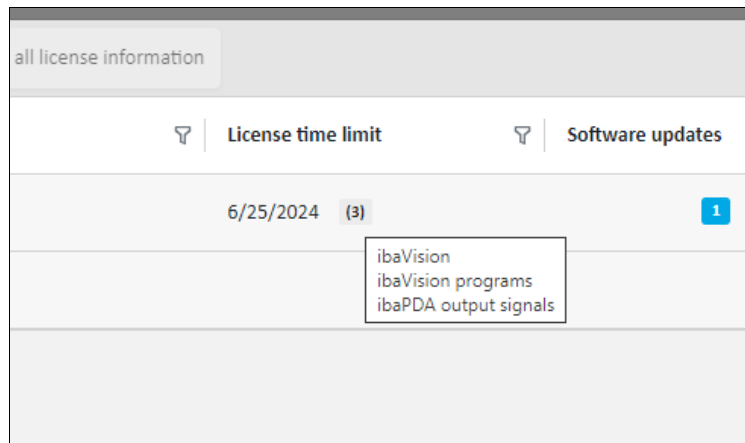
6.3 Columns 'Software updates' and 'License updates'

Clicking on the badges in the columns 'Software updates' and 'License updates' will navigate the user to the corresponding system's tabs 'iba SW product information' or 'License information' respectively.

6.4 Columns 'CPU' and 'RAM'

The metrics 'CPU' and 'RAM' are showing the live CPU and memory consumption of the systems. The shown values refresh automatically every 5 seconds for smaller grid page size. Due to performance considerations, if the page size is set bigger than 10, the refresh rate increases to 30 seconds. As an optimization, the values are only refreshed for visible systems and if the columns are visible. Clicking on the cell values of either column navigates the user to the corresponding system's tab 'Hardware information'. Hovering over a RAM value shows the absolute RAM usage:
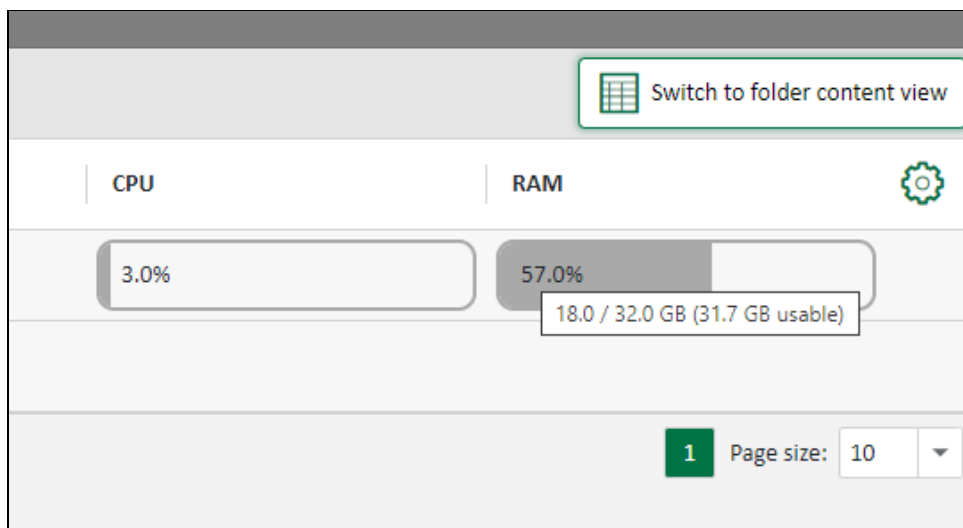
7   Alarm view

A new page, named 'Alarm', is introduced. On this page all systems are listed that are offline or have a warning. The alarm page is the new landing page when logging into the ibaManagementStudio Server web client (if a valid ibaManagementStudio+ license is acquired).

⚠ **Important:** A valid ibaManagementStudio+ license is required to use the alarm view.

If no valid ibaManagementStudio+ license could be acquired, the new menu entry will not be enabled, the feature cannot be used, and a tooltip informs the user about the missing license.
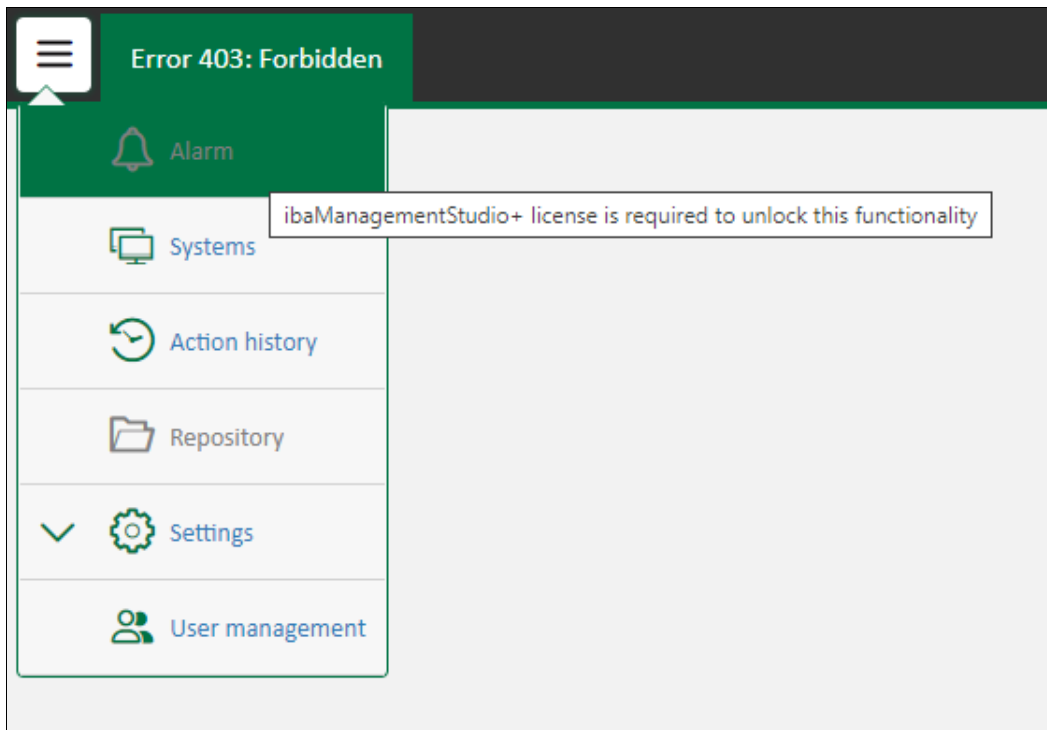
The alarm page is split up in 2 categories 'Offline systems' and 'System warnings', that list respectively (and as their name reveals), offline systems and systems with a warning. Next to the accordion header is the total number of systems for this category.

⚠ **Important:** This page lists only systems that require attention. To obtain a leaner and more focused page content, the configured system folder structure is not applied on this page.

The grid contents are updated automatically. Systems will (dis)appear if their status changes. The grids show the same content as the dashboard view. For detailed information about the dashboard view, see the Dashboard view section.

8 Action history

The page 'Action history' is introduced which contains information about system actions performed via the web client. The page can be accessed via the main navigation menu:
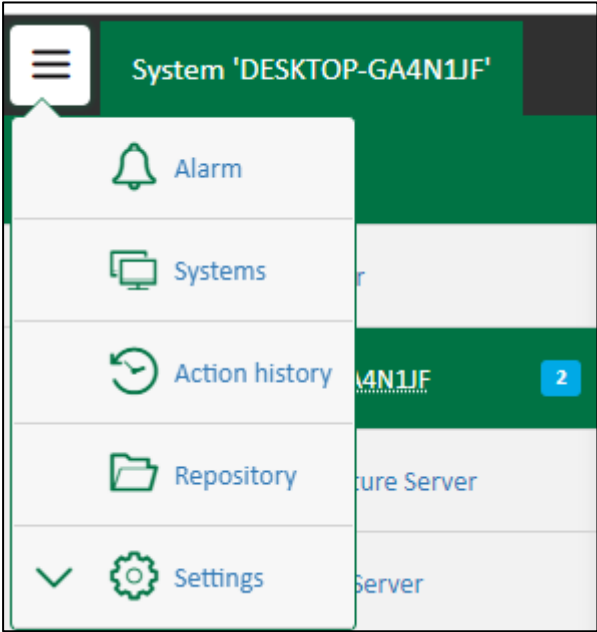
Currently, the page contains historical data about the performed license and software updates. It shows the user who performed the action, on which system it was performed, the start and end date and the action message.

The following example shows some actions about software updates:

System	User	Start timestamp	End timestamp	Action
DESKTOP-GA4N1JF	admin	1/11/2024 12:56:40 PM	1/11/2024 12:57:06 PM	Aborted SW update (file: ibaPDASetup_v8.4.0 BETA_2023_05_25.exe, previous version: 8.3.0)
DESKTOP-GA4N1JF	admin	1/11/2024 12:50:14 PM	1/11/2024 12:50:36 PM	Aborted SW update (file: ibaPDASetup_v8.4.0 BETA_2023_05_25.exe, previous version: 8.3.0)
DESKTOP-GA4N1JF	admin	1/5/2024 3:44:54 PM	1/5/2024 3:45:39 PM	Successful SW update (file: ibaAnalyzerSetup_x64_v8.1.0.exe, previous version: 7.3.6)
DESKTOP-GA4N1JF	admin	12/1/2023 10:38:27 AM	12/1/2023 10:38:31 AM	Aborted SW update (file: ibaAnalyzerSetup_x64_v8.0.2.exe, previous version: 7.3.6)
DESKTOP-GA4N1JF	admin	12/1/2023 10:38:18 AM	12/1/2023 10:38:19 AM	Unsuccessful SW update (file: ibaAnalyzerSetup_x64_v8.0.2.exe, previous version: 7.3.6)

⚠ **Important:** The action history page requires administrator privileges.

⚠ **Important:** The action history page shows only the latest 300 action entries.

In addition to the separate action history page, you will find the system-specific action history in the tab 'General information' on a system's page. The same information is shown as on the separate page:

| User	Start timestamp ↓	End timestamp	Action
admin	3/27/2024 5:41:34 PM	3/27/2024 5:41:35 PM	Successful WIBU license auto update (130-3480834843)
admin	3/14/2024 4:05:55 PM	3/14/2024 4:05:57 PM	Successful WIBU license auto update (130-3480834843)
admin	3/14/2024 10:11:32 AM	3/14/2024 10:11:33 AM	Successful WIBU license auto update (130-3480834843)
admin	3/14/2024 10:09:46 AM	3/14/2024 10:09:48 AM	Successful WIBU license auto update (130-3480834843)
admin	3/14/2024 9:55:00 AM	3/14/2024 9:55:01 AM	Successful WIBU license auto update (130-3480834843)
admin	3/14/2024 9:52:48 AM	3/14/2024 9:52:49 AM	Failed WIBU license auto update (130-3480834843)
admin	3/14/2024 9:47:10 AM	3/14/2024 9:47:11 AM	Failed WIBU license auto update (130-3480834843)
admin	3/7/2024 9:06:32 AM	3/7/2024 9:06:33 AM	Successful WIBU license auto update (130-3480834843)
admin	3/6/2024 4:05:30 PM	3/6/2024 4:05:31 PM	Successful WIBU license auto update (130-3480834843)
admin	3/6/2024 4:04:13 PM	3/6/2024 4:04:15 PM	Successful WIBU license update (130-3480834843)
admin	3/6/2024 3:40:51 PM	3/6/2024 3:40:52 PM	Successful WIBU license auto update (130-3480834843)
admin	3/6/2024 3:27:51 PM	3/6/2024 3:27:53 PM	Successful WIBU license auto update (130-3480834843)
admin	3/6/2024 3:27:00 PM	3/6/2024 3:27:01 PM	Successful WIBU license update (130-3480834843)

⚠ **Important:** The user column is only shown if the logged in user has administrator privileges.

9   License report

A new license report tab is added to the folder page.

⚠   **Important:** A valid ibaManagementStudio+ license is required to see the contents of the license report tab.

If the license report tab is opened without an active ibaManagementStudio+ license, it will not show any license information. Instead, a message will be shown notifying the user about the missing license:
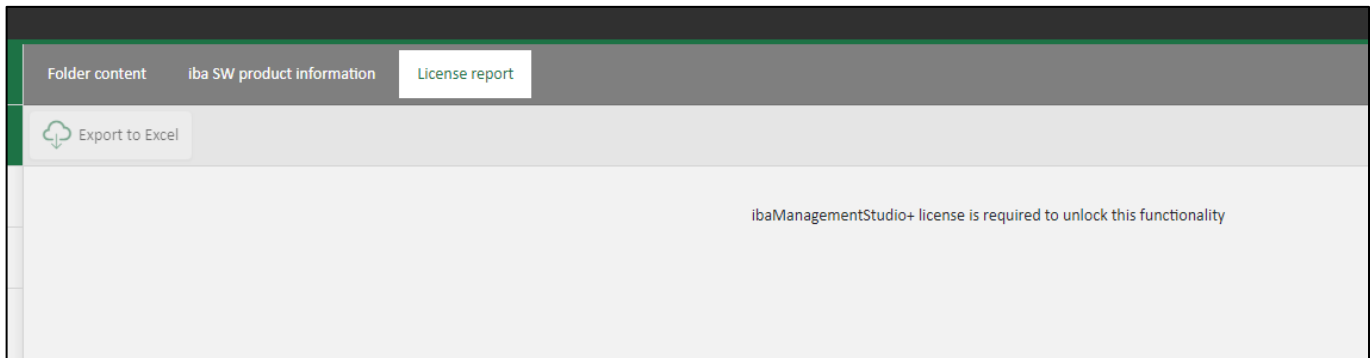
The license report grid contains all license information from the systems present in the folder (including the systems from subfolders). This allows the user to check all the license containers and their entries (license names, time limits and quantities) in one grid. The user can perform filtering and search on a column level.

The following columns are shown in the grid:

- *Location*: location of the license (a concatenation of the system name, container ID and license type)
- *License*: license name
- *Time limit*: expiration date
- *Quantity*: for quantized licenses
- *Demo*: whether it is a demo license or not

There are two different (group-based) layouts for the user to choose from. The groups can be collapsed with the small arrow next to group entries:

The layout can be changed with the button 'Toggle grouping' on the top right corner of the tab:
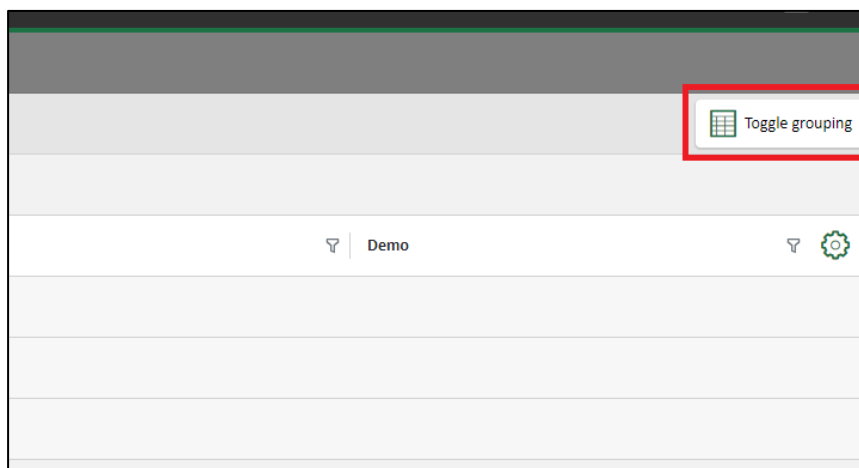
The default layout is **grouped by location,** which means that all the license entries belonging to the same location are shown in the same location group. This is useful when the user wants to know which system has which type of licenses:

The second layout is **grouped by license**, which means that all the locations that have a particular license entry are shown in the same license group. This allows the user to quickly find out which containers contain a certain license type:

In addition, the filtered data and groups can be exported into an Excel file (an .xlsx file) by clicking the button 'Export to Excel':

10 Miscellaneous

- All the grids (except tree grids) are extended with sort, filter and search functionality.
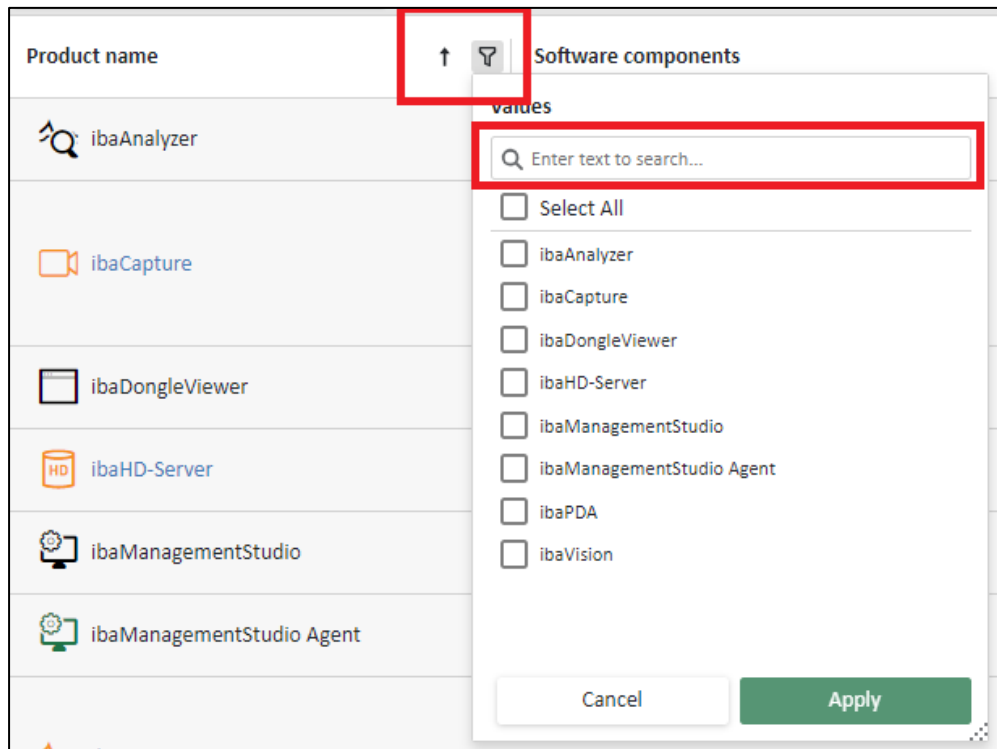
- The menu item to access the page 'Server configuration' page is moved under the menu item 'Settings'.
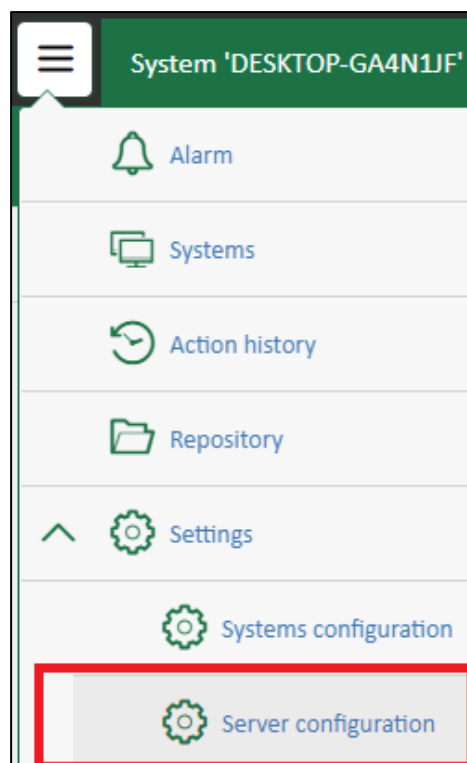
- In addition to the generation via the status application, the ibaManagementStudio Server support file can also be downloaded on the page 'Server configuration' in the web client.
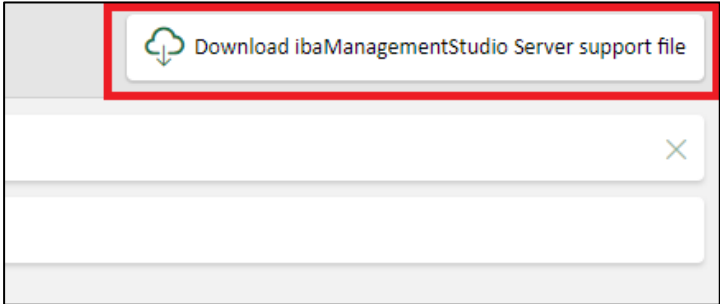
- The following products can be updated remotely (requires ibaManagementStudio Agent version 2.0.0):
  - ibaAnalyzer
  - ibaCMC Server
  - ibaDatCoordinator
  - ibaDaVIS
  - ibaDongleViewer
  - ibaLicenseService-V2

- Time period data storage information is shown on the ibaPDA data stores tab. Time periods are visible in a separate grid after an ibaHD-Server timebased data store is selected.

Timebased data store

Data store Name			Status	File name		Recording time		Free space
Data store 1			Recording	C:\dat\pda045.dat		66s		463909MB

ibaHD-Server timebased data store

Data store Name		Status		Store address		Connected		Throughput	Memory buffer Fill level	File buffer Fill level	Unprocessed level
ibaHD data store 1		Recording		DESKTOP-GA4N1JF\HD time st...	✕			0 bit/s	22.0%	0.0%	0.0%
ibaHD data store 2		Recording		DESKTOP-GA4N1JF\HD time st...	✕			0 bit/s	0.0%	0.0%	0.0%

Time periods

Time period Name		Status		WriteMode		Active		Connected		Active Name		Recording time	Last closed Name		Start		End	
Time period 111		Recording		Exclusive		✓		✕		pda23		26s							

- The OPC UA server tab is introduced on the ibaHD-Server product page, which shows information about the OPC UA Server. This functionality requires ibaHD-Server version 3.3.0 or higher.

- ibaHD-Server (ultra) time period license usage counters are shown in the tab 'General' on the ibaHD-Server product page.
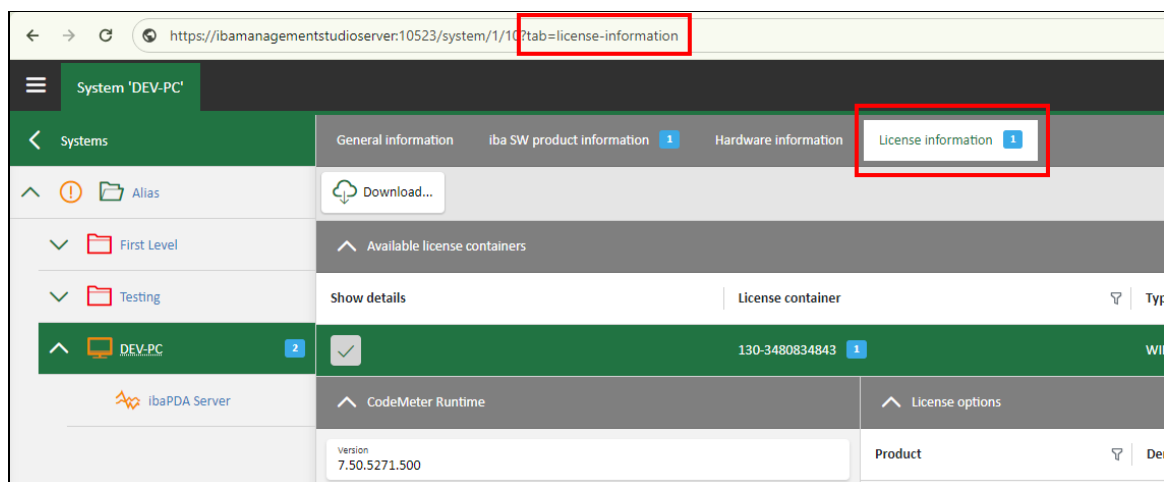
- The ibaManagementStudio Server supports the automatic transfer of product installers from a dedicated import to the repository. This import folder can be configured in the status application. The default import folder is 'C:\ProgramData\iba\ibaManagementStudio\Server\Storage\Import'.

  ⚠ **Important:** Only the latest installer versions will be imported.
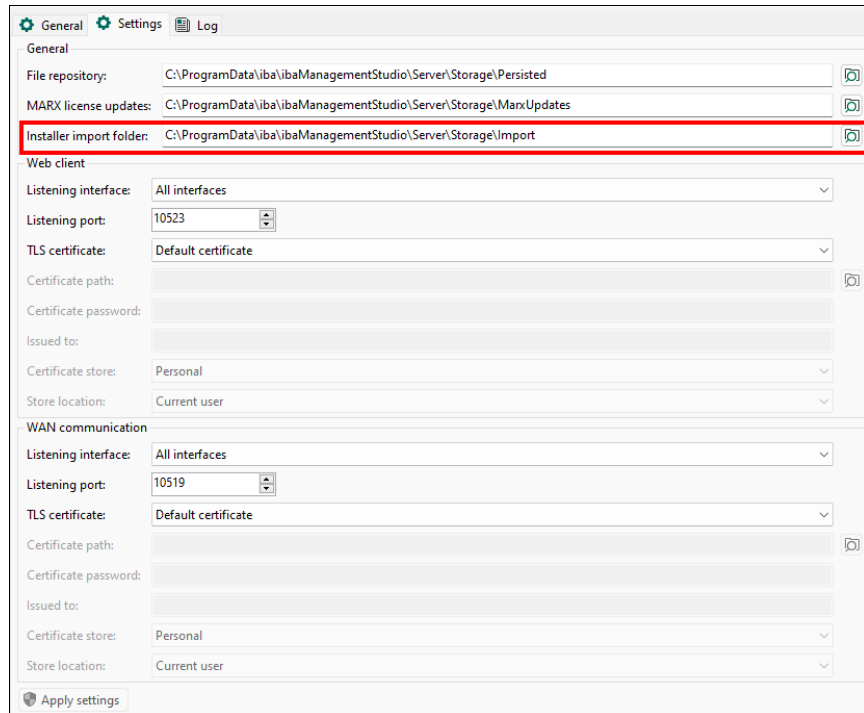
- Clicking on notification badges in the web client navigates the user to the relevant page/tab. For example, clicking on a software update notification badge navigates users to the tab 'iba SW product information' of the corresponding system. Tab navigation is based on URL query string extensions.

- The ibaManagementStudio Server creates backups of the database after every configuration change. The backup folder is 'C:\ProgramData\iba\ibaManagementStudio\Server\Backup'.

  - ⚠ **Important:** These backups should not be confused with exports (which is not supported in the ibaManagementStudio Server). The backup files are only useful for **support cases**.
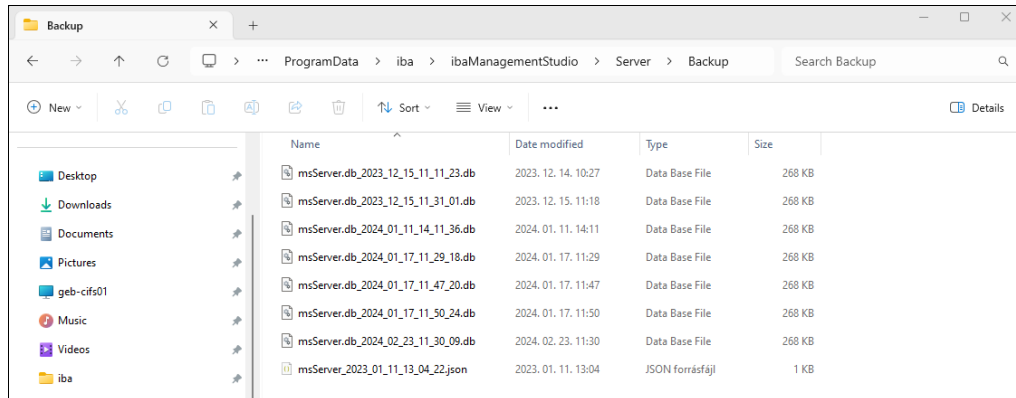
- Removing the ID field from the ibaManagementStudio Agent configuration JSON will force a new ID to be generated on the subsequent service start. As every ibaManagementStudio Agent service requires a unique ID, this feature is useful when creating a base image from which multiple virtual machine instances (and thus multiple ibaManagementStudio Agent instances) will be created.