User manual

MOBOTIX HUB Web Client 2022 R3

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Overview

MOBOTIX HUB Web Client

Use MOBOTIX HUB Web Client to:

- View live video and video recordings in your web browser.

- Add bookmarks to live videos and video recordings.

- Play incoming and outgoing audio in live video and video recordings.

    - Use the push-to-talk (PTT) feature while you are watching live video from one camera.

    - Broadcast audio to multiple cameras in live mode.

    - Play back incoming and outgoing audio in playback mode.

- Create investigations.

- Download video exports with or without recorded incoming and outgoing audio.

- Activate actions that trigger events in your video surveillance system.

- View videos for alarms that are triggered by various events.

What's new?

In MOBOTIX HUB Web Client 2022 R3

Log in with an external IDP:

- You can log in to MOBOTIX HUB Web Client with an external IDP. With this alternative login method you can be authorized to access the app without the required login credentials of a basic user or a Windows user. For more information, see External IDP and MOBOTIX HUB Web Client (explained) auf Seite 11.

Login screen:

- The **Login** screen has a new and simplified user interface. For more information, see Logging in auf Seite 16.

A new left-hand pane menu:

- The left-hand pane menu is collapsible and resizable.

- The new search functionality filters out the irrelevant items from the tree-structured lists of views and highlights the matches.

- In the **Views** pane, the **All cameras**, **Private**, and **Public** view folders have tree-structured lists of folders and subfolders with views inside. From there, you can navigate to different views and view video from one camera or multiple cameras.

- In the **Cameras** pane, the camera groups and the related devices have tree-structured lists of folders and subfolders with camera groups inside. From there, you can also view video from one camera in live or playback mode.

Overview

- To use the entire screen of your computer when presenting cameras in a view, you can open the renewed **Grid** view.

- If you are on the **Live** tab and navigate to a specific group of cameras or a view and then go to another screen or log out, when you log in again and return to the **Live** tab, you can see the same group of cameras or view.

For more information, see Home page overview auf Seite 19, Navigate to camera auf Seite 22 and Viewing live video (explained) auf Seite 24.

In MOBOTIX HUB Web Client 2022 R2

Top menu bar:

- On the **Home** page, you can find all functional tabs grouped on the left-hand side of the top menu bar. The user menu and the **More** menu are on the right-hand side of the top menu bar (see Home page overview auf Seite 19).

Audio:

- On the **Live** tab, when you view live video or play a video recording with audio from a specific camera and then you navigate to another tab, the audio automatically starts when you return to the **Live** tab and continue playing the video from that camera.

In MOBOTIX HUB Web Client 2022 R1

Bookmarks:

- To find a specific bookmark, you can search and use filtering. There are three options for filtering bookmarks:
    - You can enter a keyword from the headline or description of the bookmark or enter the complete bookmark ID.
    - You can select specific cameras.
    - You can select a predefined time interval. You can also customize the time interval that you want to apply as a filter.
- If there is audio, you can listen to it in the video sequences that you have bookmarked.

Direct streaming:

- The feature is also available in MOBOTIX HUB L3 and MOBOTIX HUB L2.

Adaptive streaming:

- The feature is also available in MOBOTIX HUB L3 and MOBOTIX HUB L2.

Requirements and considerations

Requirements for listening to incoming audio

To listen to incoming audio from your cameras, you must have:

- A microphone attached to a camera.

> 🖉 When a camera in your surveillance system has a microphone attached, you can play audio without any additional settings needed. The audio icon on the camera toolbar shows whether the audio feature is available.

- Sufficient user permissions.

> 🖉 Access to the incoming audio feature may be restricted depending on your user permissions. Ask your system administrator if in doubt.

Requirements for using push-to-talk

To use the push-to-talk (PTT) feature in your VMS, you must have:

- Cameras that have speakers attached.

- Microphones that are attached to your computer.

> 🖉 You must allow the internet browser to have access to your PC microphones.

- Sufficient user permissions.

> 🖉 Access to the push-to-talk (PTT) feature may be restricted depending on your user permissions. Ask your system administrator if in doubt.

- Secure internet connection (HTTPS).

Requirements for direct streaming

MOBOTIX HUB Web Client supports direct streaming in live mode.

You can use direct streaming to monitor more than 100 concurrent live video streams at Full HD 30 FPS. To use this feature, you must:

Requirements and considerations

- Use cameras that support the H.264 codec.

- Enable the direct streaming feature in MOBOTIX HUB Web Client (see Settings auf Seite 9).

Weitere Informationen finden Sie im Administratorhandbuch für MOBOTIX HUB VMS.

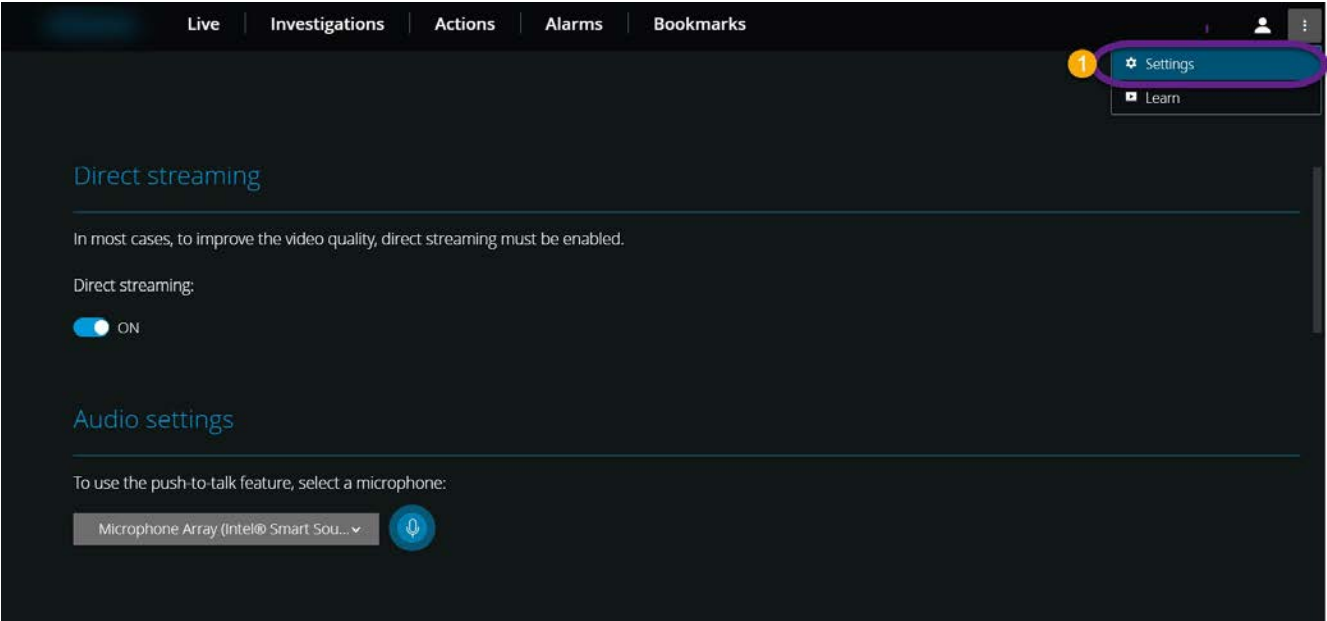# Configuration

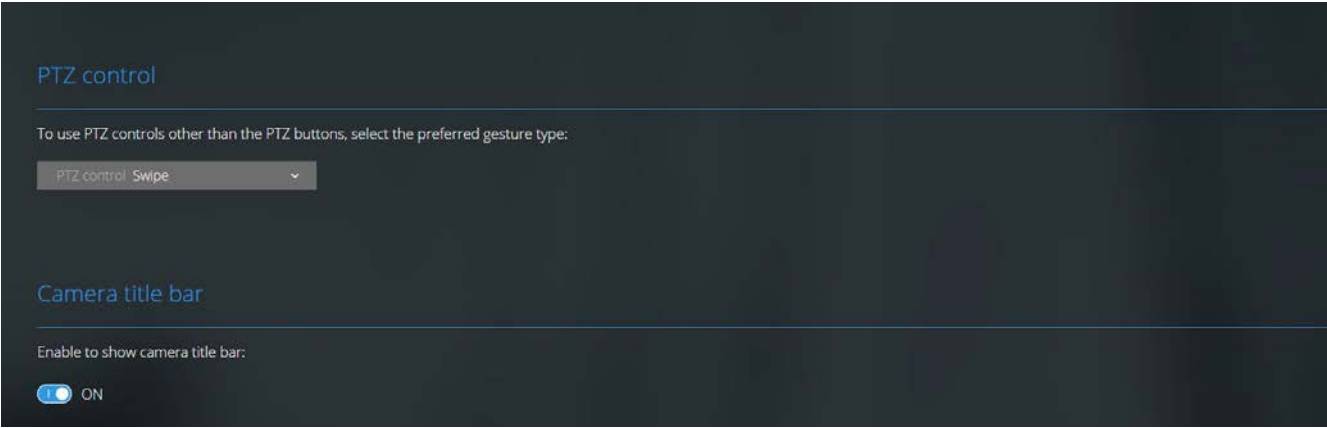## Settings

	"How can I make sure that MOBOTIX HUB Web Client runs as smoothly as possible? Also, I want another way to move my PTZ cameras."

On the top menu bar, click the **More** menu, then select **Settings** ❶:

- **Direct streaming** - Enable the direct streaming feature. The feature is enabled by default (see Direct streaming (explained) auf Seite 10).

- **Audio settings** - Select the microphone that MOBOTIX HUB Web Client will use for the push-to-talk (PTT) feature. A pulsating push-to-talk icon means that the associated audio device is ready for use.

- **PTZ control** - Select the preferred gesture for PTZ control when PTZ buttons are not active (see PTZ control auf Seite 62).

- **Camera title bar** - Enable this setting to show your cameras' title bar.

- **Video diagnostics overlay** - Enable this setting to view the FPS (frames per second), the codec, the resolution, and the type of streaming of the video stream in the selected view. This feature displays the information as an overlay to the video and can help troubleshoot MOBOTIX HUB Web Client issues related to the video stream and to local performance issues.

Direct streaming (explained)

MOBOTIX HUB Mobile unterstützt das direkte Streaming im Live-Modus.

Direct Streaming ist eine Video-Streaming-Technologie, bei der Videoaufzeichnungen von einem MOBOTIX HUB-System auf Clients direkt im Codec H.264 übertragen werden, das von den meisten modernen IP-Kameras unterstützt wird. Für Direct Streaming ist kein Transcoding erforderlich, so dass das MOBOTIX HUB-System teilweise entlastet wird.

Die Direct-Streaming-Technologie steht im Gegensatz zur Einstellung für Transcoding in MOBOTIX HUB, bei dem ein MOBOTIX HUB-System Videoaufzeichnungen von dem Codec, welches die Kamera verwendet, in JPEG-Dateien umwandelt. Die Aktivierung dieser Funktion führt zu einer geringeren CPU-Auslastung bei gleicher Konfiguration der Kameras und Videostreams. Direct Streaming erhöht auch die Leistung für dieselbe Hardware – bis zu fünfmal so viele gleichzeitige Videostreams Vergleich zum Transcoding.

In MOBOTIX HUB Web Client, you can use direct streaming in both the single-camera view and the grid view.

The video stream falls back from direct streaming to transcoding if:

- The direct streaming feature has been disabled in Management Client, or the requirements have not been fulfilled (see Requirements for direct streaming auf Seite 7).

- The codec of the streaming camera is different than H.264.

- The video cannot start playing for more than ten seconds.

- The frame rate of the streaming camera is set to **one** frame per second (1 FPS).

- The connection with the server or with the camera has been lost.

- You use the privacy masking feature during live video.

Adaptive streaming (explained)

MOBOTIX HUB Mobile unterstützt adaptives Streaming im Live-Modus.

Adaptives Streaming ist nützlich, wenn Sie mehrere Live-Videostreams in derselben Kameraansicht betrachten. Die Funktion optimiert die Leistung das MOBOTIX HUB Mobile-Servers und verbessert die Dekodierfähigkeit und -leistung von Geräten, auf denen MOBOTIX HUB Mobile-Client und MOBOTIX HUB Web Client laufen.

Um adaptives Streaming zu nutzen, müssen in Ihren Kameras mehrere Streams mit unterschiedlicher Auflösung definiert sein. In diesem Fall erlaubt Ihnen die Funktion:

- Die Videoqualität zu optimieren - hierzu wird der Stream mit der geringsten verfügbaren Auflösung ausgewählt, die der geforderten Auflösung entspricht oder darüber liegt.

- Serverleistung optimieren - hierbei wird die geforderte Auflösung abgesenkt und dann der Stream mit der geringsten verfügbaren Auflösung ausgewählt, die der reduzierten Auflösung entspricht oder darüber liegt.

- Optimierung der Auflösung für geringe Bandbreiten - hierbei wird der Stream mit der geringsten verfügbaren Auflösung ausgewählt (dies wird bei Verwendung von 3G oder instabilem Netz empfohlen).

> Beim Zoomen ist der geforderte Live-Videostream stets derjenige mit der höchsten verfügbaren Auflösung.

> Die Nutzung der Bandbreite wird oft gesenkt, wenn die Auflösung der angeforderten Streams reduziert wird. Die Ausnutzung der Bandbreite ist außerdem abhängig von weiteren Einstellungen in der Konfiguration der angegebenen Streams.

Weitere Informationen finden Sie im Administratorhandbuch für MOBOTIX HUB VMS.

External IDP and MOBOTIX HUB Web Client (explained)

MOBOTIX HUB Web Client supports login with an external IDP.

IDP ist ein Akronym für Identity Provider. Ein externer IDP ist eine externe Anwendung und ein Dienst, in dem Sie Angaben zur Identität der Benutzer speichern und verwalten und Dienste zur Benutzerauthentifizierung für andere Systeme bereitstellen können. Sie können einen externen IDP mit dem MOBOTIX HUB VMS verknüpfen.

You can log in to MOBOTIX HUB Web Client via an external IDP with MOBOTIX HUB 2022 R3 and later.

> To log in with an external IDP to MOBOTIX HUB Web Client, you must use an HTTPS connection.

For more information, see the topic about the login with an external IDP in the administrator manual about the MOBOTIX HUB VMS.

Managing camera recordings (explained)

To manage your camera video and audio recordings, you have the following options:

- On the **Live** tab, you can:

  - Play back a recording from a specific camera.

  - Play back incoming and outgoing audio in video recordings (see).

  - Specify the time of the recording that you want to play back. The specified time applies to the camera that you have selected.

- On the **Investigations** tab, you can:

  - Play back or investigate recordings from one or multiple cameras.

    > In the investigation mode, when you want to play back recordings without creating an investigation, you can always play back, simultaneously, recordings from all cameras in the current view.

  - Play back incoming and outgoing audio in video recordings or investigations.

  - Specify the time of the recordings that you want to play back or investigate. The specified time applies to all cameras included in the specific view or added to your investigation.

  - You can specify a time span for your recordings and configure their exact start and end dates and hours.

  - You can manage your saved investigations: update their state, edit their configuration by adding or removing cameras, delete investigations, or export and download video recordings.

> To ensure that the recordings are stored for the right amount of time in the system database, set the retention time to match your needs (see Retention time and storage of recordings and investigations (explained) auf Seite 12).

Retention time and storage of recordings and investigations (explained)

The retention time of video recordings is a setting in MOBOTIX HUB Management Client that defines how long the recordings are stored in the system database. By default, the retention time period is seven days. If you want to change the retention time or the maximum database size, contact your system administrator. When the retention time expires, the recordings are deleted.

On the **Live** tab and the **Investigations** tab, you can play back video recordings not older than the number of days defined in the retention time settings.

If you want to prevent your recordings from being deleted, you must create an investigation on the **Investigations** tab. When you create this investigation, you can play back, export, and download the videos even if the recordings have been deleted from the system database.

In MOBOTIX HUB Management Client, the system administrator can also enable a setting for the investigation retention time that defines how long the investigations are stored on the mobile server. By default, the retention time period is seven days. When you enable this setting, all investigations that have been created before the retention time period are deleted.

To prevent your investigations from being deleted, you can prepare video exports and download the investigations on your computer.

Listening to incoming audio (explained)

MOBOTIX HUB Web Client supports incoming audio when you:

- View live video (see Viewing live video (explained) auf Seite 24).

- Play back video recordings (see Managing camera recordings (explained) auf Seite 11).

Incoming audio is also available in:

- Investigations (see Cameras in your investigation area (explained) auf Seite 48).

- Video exports (see Prepare video export and download auf Seite 57).

- Alarms (see View alarms auf Seite 60).

- Actions (see Activate actions auf Seite 61).

- Bookmarks (see Bookmarks (usage) auf Seite 27).

Push-to-talk (explained)

The push-to-talk feature allows you to communicate from a PC microphone through the VMS system with people near one camera or to start broadcasting audio to multiple video cameras with audio equipment. You can also listen to the recorded conversations in playback mode or include the two-way audio recordings in the audio package when preparing video exports.

MOBOTIX HUB Web Client supports the push-to-talk (PTT) feature:

- While you are watching live video from one camera or multiple cameras (see Viewing live video (explained) auf Seite 24).

- When you play the recorded outgoing audio in video recordings (see Playing back audio in video recordings (explained) auf Seite 42).

- In investigations and video exports.

- In actions (see Activate actions auf Seite 61).

- In alarms (see View alarms auf Seite 60).

> You must allow your internet browser to have access to your PC microphones (see Requirements for using push-to-talk auf Seite 7).

When the push-to-talk (PTT) feature is available for use, you will see the **Push-to-talk** button on the camera toolbar. Its icon has the following states:

Icon	Description
(Available)	In live mode, it shows that the push-to-talk (PTT) feature is available and that you fulfilled the necessary requirements for using it. Click and hold to start using push-to-talk. Release the

Icon	Description
	button to end transmitting audio.
(Active)	In live mode, it shows that you are currently using the push-to-talk (PTT) feature. The PC microphone and the speaker of the video camera are in an active state. The blue pulsating circle indicates the sound level.
(Disabled)	In live mode, it shows that: • The push-to-talk (PTT) feature is available, but you did not fulfill the necessary requirements for using it (see Requirements for using push-to-talk auf Seite 7). • The camera speaker is disabled. • The hardware device is disabled.
All sources	In playback mode, it shows that you can listen to two-way audio while playing back a video recording and that you can select the audio source that you want to listen to (see Playing back audio in video recordings (explained) auf Seite 42).

Rules for interrupting push-to-talk in live mode

Based on the level of your user permissions (Administrators or Operators), there are two rules for interrupting a push-to-talk session in live mode:

• Users with the same level of user permissions cannot interrupt each other.

• Users with a lower level of user permissions (Operators) cannot interrupt users with a higher level of user permissions (Administrators).

Digital zoom vs. optical zoom (explained)

When you use the digital zoom:

• The quality of the image gets lower. What you see is pixelated and less clear.

• The quality of the recording does not change.

• The zoom level of the recording does not change.

When you use the optical zoom (only for cameras that support optical zoom):

Configuration

- The quality of the image that you see does not change.

- The quality of the recording does not change.

- If you use the optical zoom on your camera while recording, the zoom levels used will be reflected in your recording.

Operation

Logging in

First-time login

> ⚠️ MOBOTIX recommends that you use a secure connection when you manage your user credentials.

1. In the address bar of your web browser, enter the internet address that your system administrator has given you. Example: **http://1.2.3.4:8081** or **https://1.2.3.4:8082**. The login page is displayed.

2. (Optional) To change languages, click the default language ➊ in the upper right-hand corner.

3. Select one of these authentication methods ❷:

    - **Basic user** - Select this option to log in as a basic user. Basic users are defined by your system administrator in MOBOTIX HUB Management Client. To log in as a basic user, you must change your temporary password first:

        1. In the **User name** and **Password** fields, enter the login credentials that your system administrator has given you.

        2. Click **Log in**. The **Change password** dialog box appears.

        3. Click **Continue** to open a new browser window.

        4. Follow the instructions in the **Set a new password** wizard and save your new password.

        5. After you have saved your changes, close the current browser window and log in to MOBOTIX HUB Web Client using your new password.

        > ✎ If your system administrator forces you to change your password on the next login, follow the steps listed above to log in.
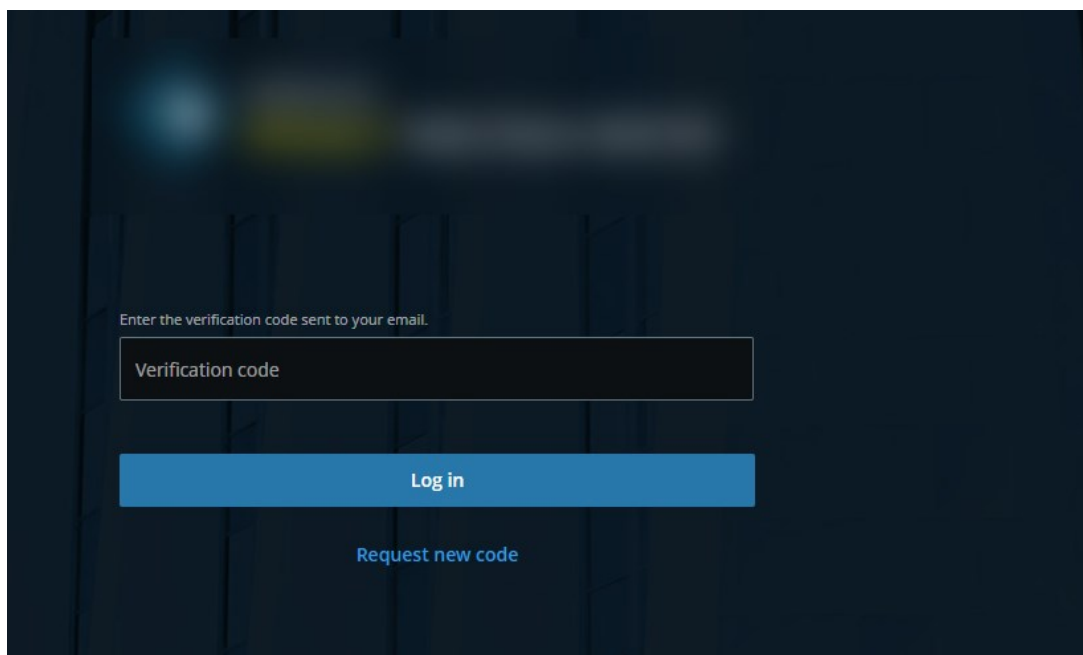
    - **Windows user** - Select this option to log in with your Windows user credentials.

        1. In the **Domain\User name** and **Password** fields, enter your Windows user credentials.

        > ✎ Windows user credentials are specific to a machine or a domain.

        2. Click **Log in**.

- **Log in with Name of an external IDP** ❹ - Select this option to log in with an external IDP. For more information, see External IDP and MOBOTIX HUB Web Client (explained) auf Seite 11.

- (Optional) If your system administrator has set up two-step verification for your user account, you are asked for a verification code, which the system sends to your email address. You must use this verification method on each login. If in doubt, ask your system administrator for the email address.

  1. Open your email program and make a note of the numbers.

  2. Enter the code on the MOBOTIX HUB Web Client login page and tap **Log in**.

  Enter the verification code sent to your email.

  > Verification code

  > **Log in**

  > **Request new code**

> If you do not use the verification code within a specific period of time (the default period of time is five minutes), the verification code times out. You can then request a new code on the screen where you enter the code.

> If you exceed the number of allowed code entry attempts (the default number is three), you will be blocked from making more attempts. In that case, you must log out of MOBOTIX HUB Web Client and log in again.

> When you are logged in to MOBOTIX HUB Web Client and leave the browser tab inactive for a period of time longer than five minutes, your session will time out, and you will be logged out from the application automatically.

Change password

> ✎ To be able to manage your user credentials, you must use MOBOTIX HUB VMS 2021 R1 or later.

Changing your password often increases the security of your MOBOTIX HUB VMS system. If you choose to log in as a basic user, you can change your password whenever you want to. In contrast, if you choose the Windows authentication method, only your system administrator can change your password.

To change your password, go to the login page of MOBOTIX HUB Web Client:

1. Select **Basic user**.

2. Click the **Change password** link ❸ to open a new browser window.

3. Follow the instructions in the **Set a new password** wizard and save your new password.

4. After you have saved your changes successfully, close the current browser window and log in to MOBOTIX HUB Web Client using your new password.

> ✔ If you have forgotten your current password, you must contact your system administrator. The system administrator will force you to change your password on your next login.

> ✔ If you have made many unsuccessful login attempts, your account will be locked out. You can either wait for the lockout time to expire or contact your system administrator. The administrator can enable your account again and, in addition, may force you to change your password on the next login.

Home page overview

On the top menu bar, you can use these tabs to do the following:

Item in menu	What can I do with it?
MOBOTIX logo	Click to return to the Home page of MOBOTIX HUB

Item in menu	What can I do with it?
	Web Client.
Live	• Click to return to your last position in the view structure. • View live video (see Viewing live video (explained) auf Seite 24). • Play back recordings from one camera (see Play back recordings from one camera auf Seite 40).
Investigations	Play back recordings from multiple cameras (see Recordings from multiple cameras (explained) auf Seite 44 and Prepare video export and download auf Seite 57).
Actions	Activate actions, for example, to open doors (see Activate actions auf Seite 61).
Alarms	View alarms from all cameras (see View alarms auf Seite 60).
Bookmarks	View the list of bookmarks (see Bookmarks (usage) auf Seite 27).
User menu 👤	If you want to exit MOBOTIX HUB Web Client, click 👤, then select **Log out**.
More menu ⋮	Click the **More** menu to: • Select **Settings** and customize MOBOTIX HUB Web Client (see Settings auf Seite 9). • Select **Learn** and read more about MOBOTIX HUB Web Client.

Operation
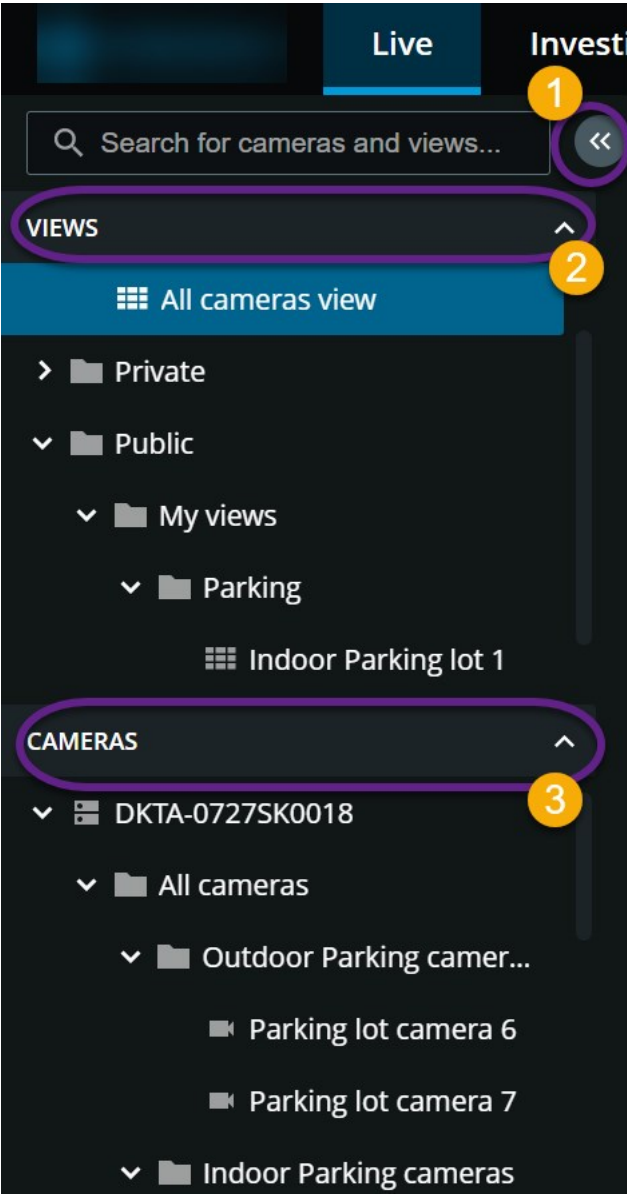
The left-hand pane menu is collapsible ❶. You can also adjust the pane borders. In the menu, you can navigate to these pane sections to do the following:

Item in menu	What can I do with it?
Search for cameras and views 🔍	Find a folder, view, or camera. You can filter out the irrelevant items from the tree-structured list of views. The relevant matches are highlighted (see Search for camera auf Seite 22).
Views ❷	View videos from one camera or multiple cameras in live or

Item in menu	What can I do with it?
	playback mode. The **Views** pane has a **Show / Hide** option. The **All cameras**, **Private** and **Public** folders have tree-structured lists of subfolders with views.
Cameras ❸	View videos from one camera in live or playback mode. The **Cameras** pane has a **Show / Hide** option. The camera groups and the related devices are organized in tree-structured lists of folders with cameras.

Search for camera

On the **Live** tab, in the left-hand pane menu:

1. Navigate to the **Search for cameras and views** field.

2. Start entering the name of a folder, view, or camera. Results show up as you enter text. You can filter out the irrelevant items from the tree-structured lists of views. The relevant matches are highlighted.

3. Click a camera for more options on live video (see).

> ✅ Enter **ptz** to find all your PTZ cameras. Enter **audio** to find all your cameras that have microphones attached. Enter **ptt** to find all your cameras that have speakers.

> ✏️ When you click the empty search field, you can view your last seven search matches in the **Recent searches** list.

Navigate to camera

You can navigate to a camera from the left-hand pane menu. The menu is expandable and collapsible ❶ and has **Views** and **Cameras** sections. You can also adjust the pane borders. The pane sections have tree-structured lists of folders and subfolders.
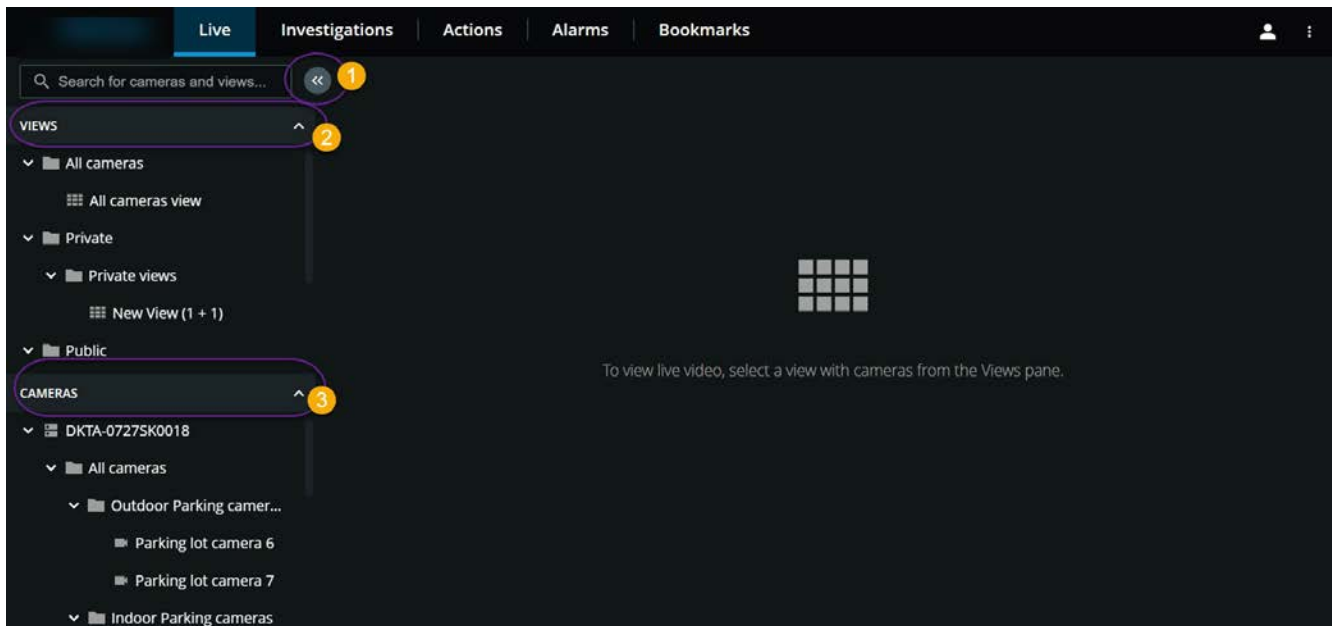
- In the **Views** pane section ❷, navigate to a folder, then click a subfolder to see your views.

  - In a view ❹, see live video from every camera in that view. Also, see which cameras have microphones and speakers attached.
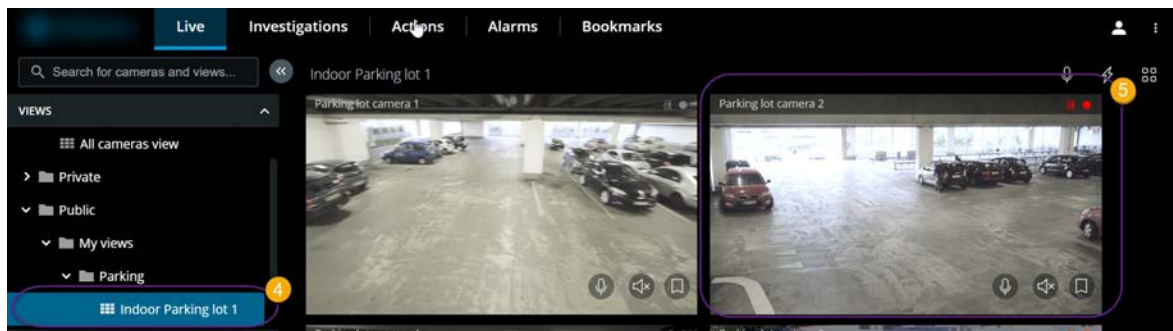
  - Click a camera ❺ to view live video or to play back recordings from that camera (see Play back

- In the **Cameras** pane section ❸, select a camera view to view videos in live or playback mode.
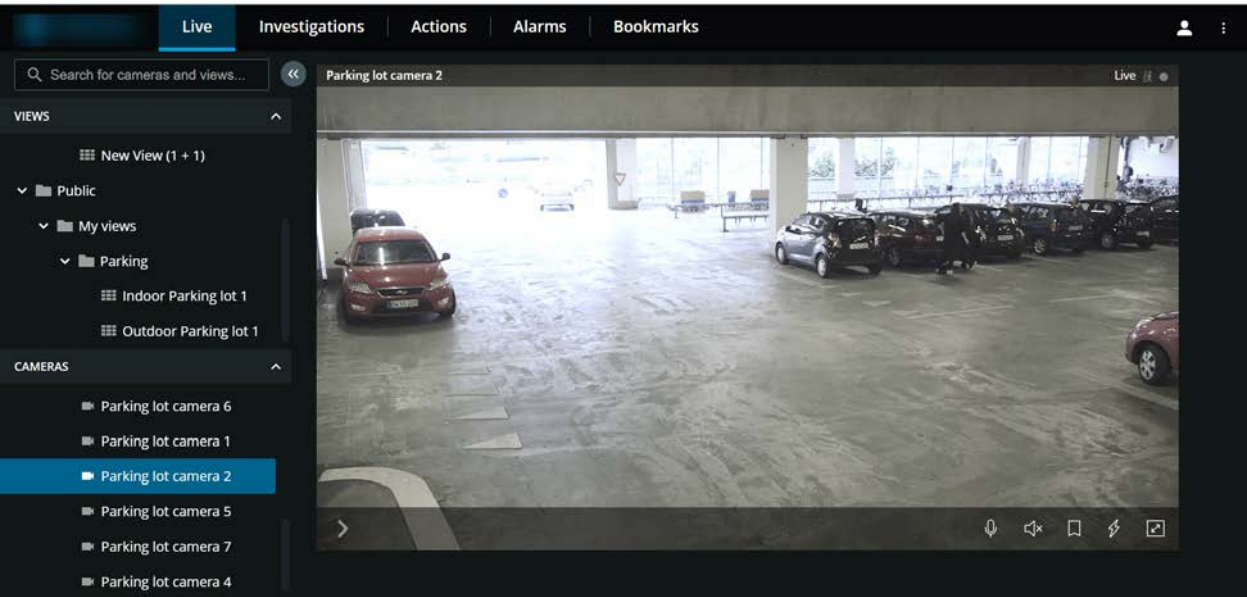
Viewing live video (explained)

	"What can I do with live video? And what are the red and green circles in the upper-right corner of the video?"

Viewing live video from one camera

On the **Live** tab, navigate to a folder with views and click a camera in the relevant view.

Operation
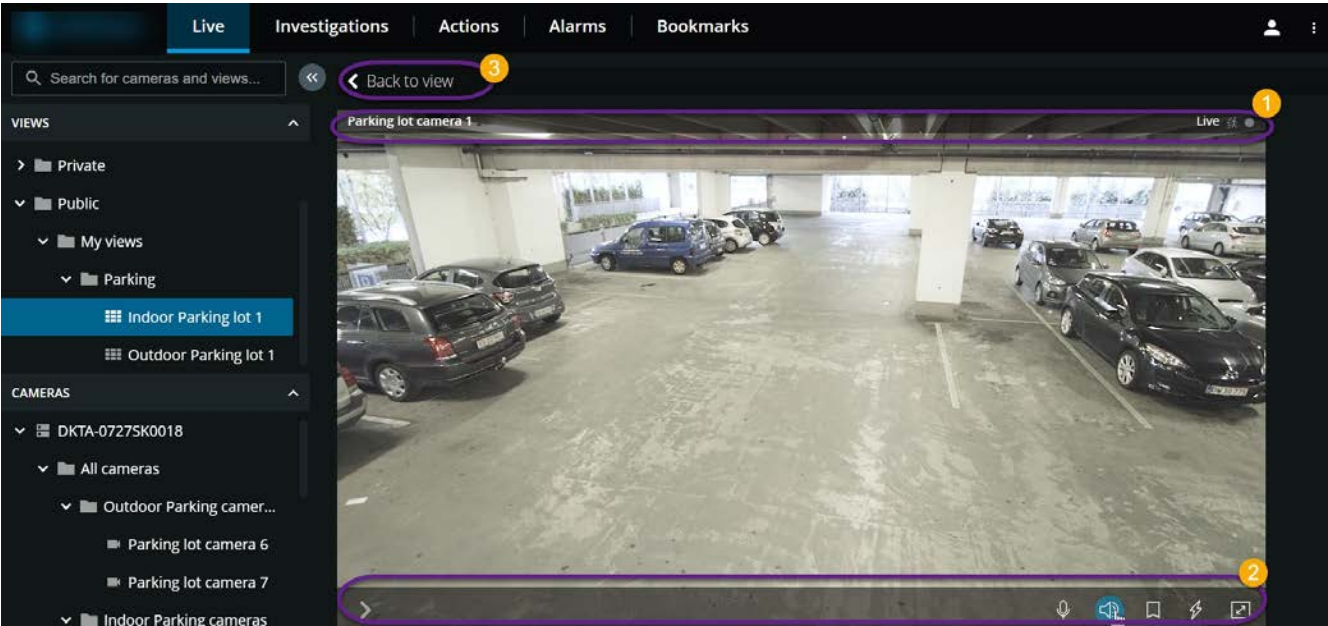
In the camera title bar ❶:

- See the name of the camera.

- Check if the video that you are seeing is in live or playback mode.

- Check if the camera is detecting motion, recording video, or both.

Symbol	Is motion being detected?	Is the video being recorded?
	⊗	⊗
	✓	⊗
	⊗	✓
	✓	✓

On the camera toolbar ❷:

Operation

Item	What can I do with it?
>	Pause live video and play back recorded video (see Play back recordings from one camera auf Seite 40).
✛	Move and zoom your PTZ camera (Only for PTZ cameras).
≔	Move your PTZ camera to a PTZ preset position that you specified in MOBOTIX HUB Desk Client (Only for PTZ cameras with presets).
🔇 🔊	Start or stop listening to incoming audio (see Requirements for listening to incoming audio auf Seite 7).
🎤 🎤	Click and hold to start push-to-talk to one camera. Release the icon to end transmitting audio (see Requirements for using push-to-talk auf Seite 7).
🔖	Add a bookmark to a live video to quickly locate relevant video sequences (see Add or edit bookmarks auf Seite 30).
⚡	View all actions for the camera. Select and activate an action.
⛶	Enter full screen. Click again or press **Esc** to exit full screen.

To go back to the view with all cameras, click **Back to view** ❸:

Viewing live video from multiple cameras

On the **Live** tab, navigate to a folder with views and click the relevant view.
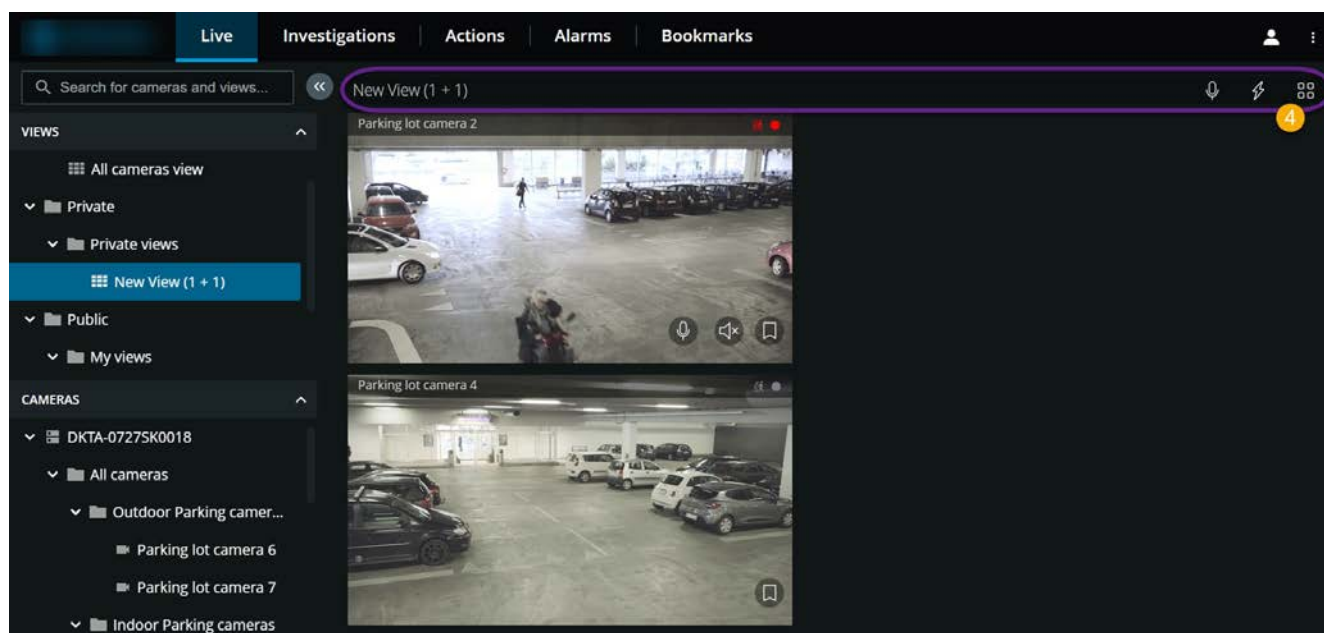
In the view of multiple cameras:

- See live video from all cameras in the view.

- See which of the cameras have microphones attached.

- See which of the cameras have speakers.

- Click a camera to view live video from that camera only.

On the view toolbar ❹:

- Click and hold [mic icon] to start broadcasting audio to all the cameras in the view that have audio equipment.

- Click [action icon] to view all actions for all cameras in the view. Select and activate an action.

- If you want to use the entire screen of your computer when presenting cameras in a view, click [grid icon] to open the **Grid** view.

If you are on the **Live** tab and navigate to a specific group of cameras or a view and then go to another screen or log out, when you log in again and return to the **Live** tab, you can see the same group of cameras or view.

Bookmarks (usage)

This feature is only available in certain MOBOTIX HUB VMS products. See the complete feature list, which is available on the product overview page on the MOBOTIX website (https://www.mobotix.com/en/products/vms/mobotixhub).

Bookmarks allow you to quickly locate relevant video sequences. You can use the feature in both live mode (see Viewing live video (explained) auf Seite 24) and playback mode (see Play back recordings from one camera auf Seite 40).

Bookmarks (explained)

A bookmark is, essentially, a small video clip. When you bookmark an incident, the system automatically assigns it an ID and adds the user who created the bookmark.

A bookmark video clip typically contains video from a few seconds before and a few seconds after the bookmarked incident (the time interval is specified by the system administrator) to ensure that the incident is recorded, regardless of any delays.

> Depending on your user permissions, you may not be able to add bookmarks from certain cameras due to restrictions. You may be able to view bookmarks even if you cannot add them, and the other way around.

View the bookmark details or play the bookmark video clip

In MOBOTIX HUB Web Client, you can create detailed bookmarks to make it easier to locate the bookmarks after you have created them. You can also listen to audio in your bookmark video clips.

To view the details of the bookmark that you have added and to play the bookmark video clip:

1. On the **Home** page, click **Bookmarks** ❶ to open the bookmarks list.

2. From the **Bookmarks** list ❷, select **All bookmarks** to open the complete list of bookmarks created by all users or **My bookmarks** to open the list of bookmarks that only shows those bookmarks that you have created yourself.
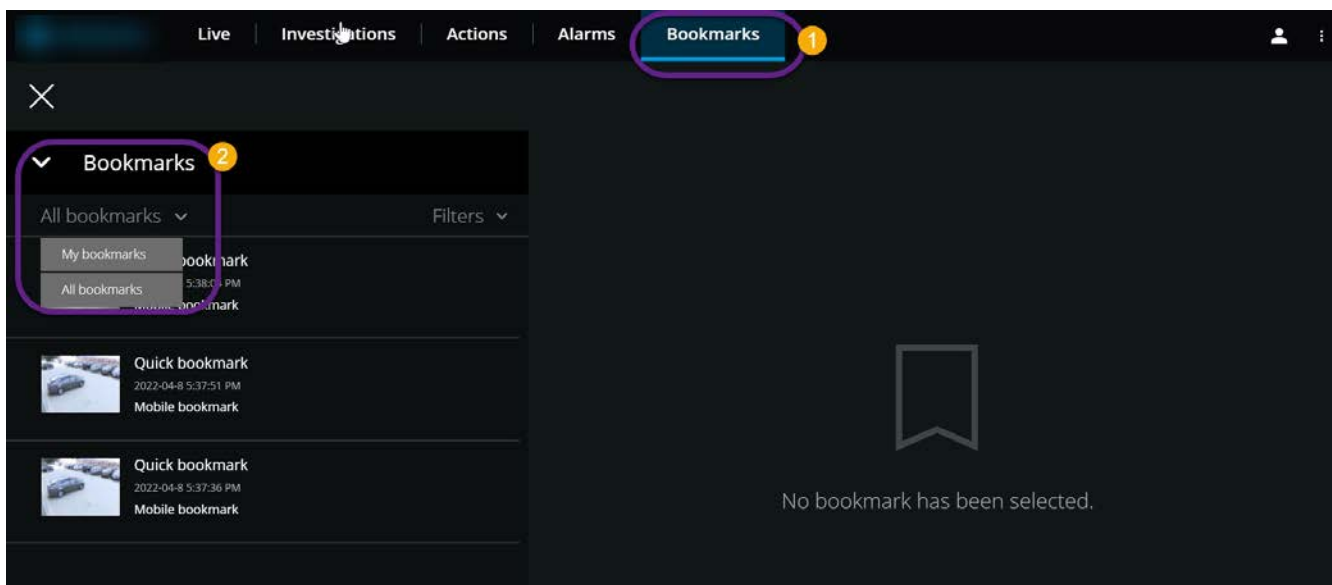
3. Navigate to the bookmark that you want to view, then click on it. The pane with the bookmark details is displayed.

4. Optional. If the list of bookmarks is too long, click **Load more** and repeat step 3.

5. On the timeline bar ➊, click [▶] to play the bookmark video clip forward ➋ or [◀] to play the video clip backward. In the bottom-right corner ➌, from the **Playback speed** list, you can select a specific speed for the video playback. In the bottom-left corner ➍, you can drag the slider to define a specific time span for the bookmark video clip.
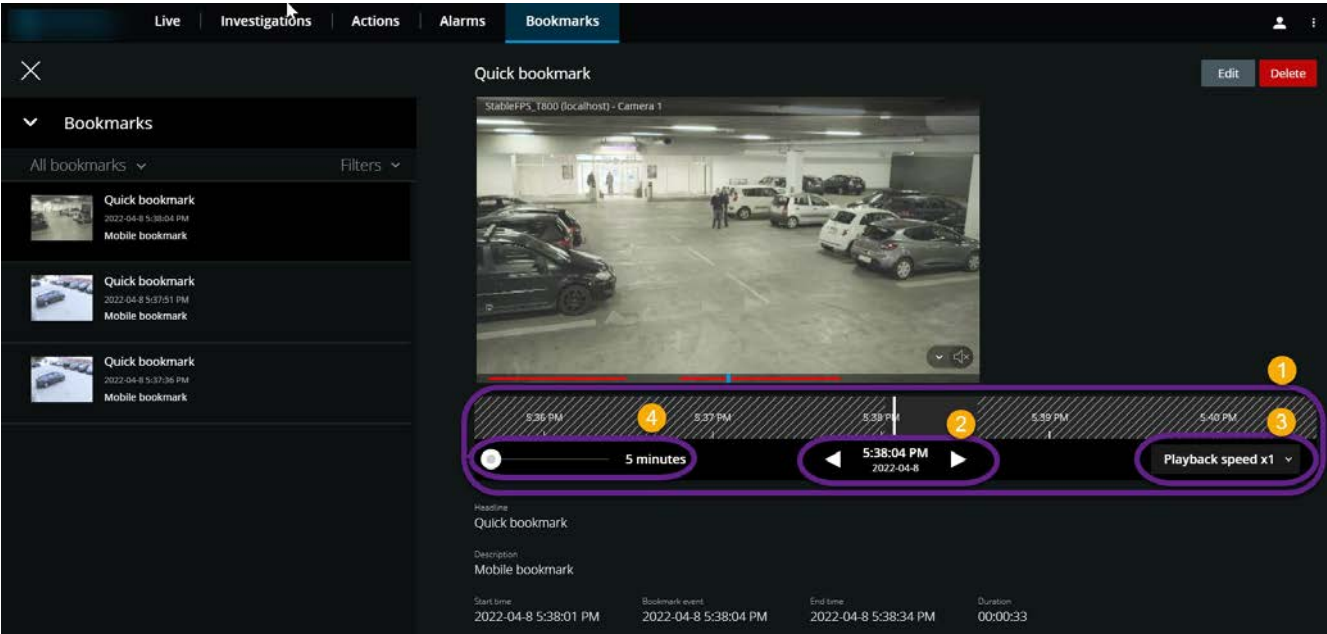
6. View the detailed bookmark information.

Name	Description
Headline	The headline of the bookmark that must contain a maximum of 50 characters. The field is required.
Description	The additional description of the bookmark. The field is optional.
Start time	The suggested start time of the bookmark clip is a number of seconds before the time of the bookmark event. The start time is specified by the system administrator.
Bookmark event	The time in the video clip that shows when the bookmark event was triggered.
End time	The suggested end time of the bookmark clip is a number of seconds after the time of the bookmark event. The end time is specified by the system administrator.
Duration	The duration of the bookmark video clip.
Camera name	The name of the camera that streams the bookmark video clip.
Bookmark ID	A unique ID number that is assigned to the bookmark automatically.
Added by	The user who has created the bookmark.

Add or edit bookmarks

You can add bookmarks to live videos and video recordings.

Steps to add bookmarks to videos in live mode:
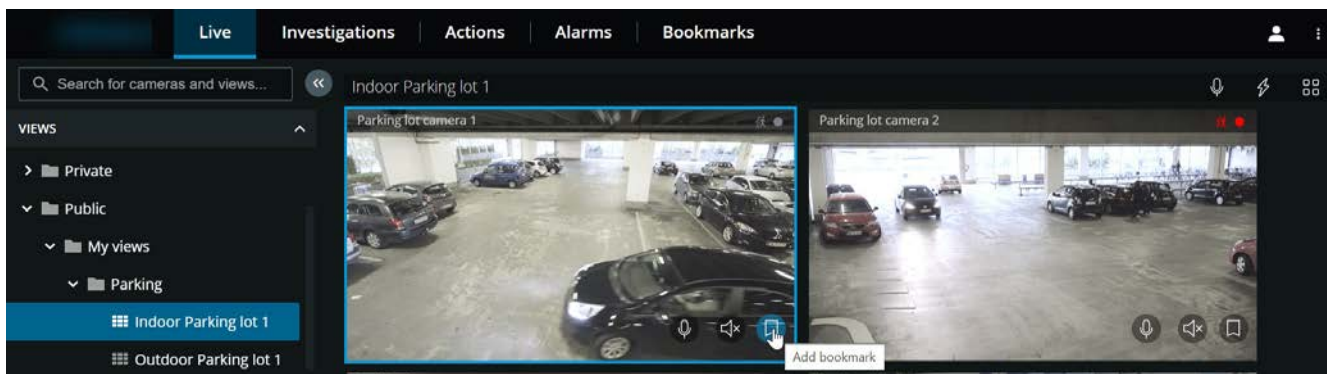
1. On the **Home** page, select a camera view, then select the required camera in the view.

2. Click ▯ . The bookmark is added with the name **Quick bookmark** assigned by the system automatically.

Steps to add bookmarks to videos in playback mode:
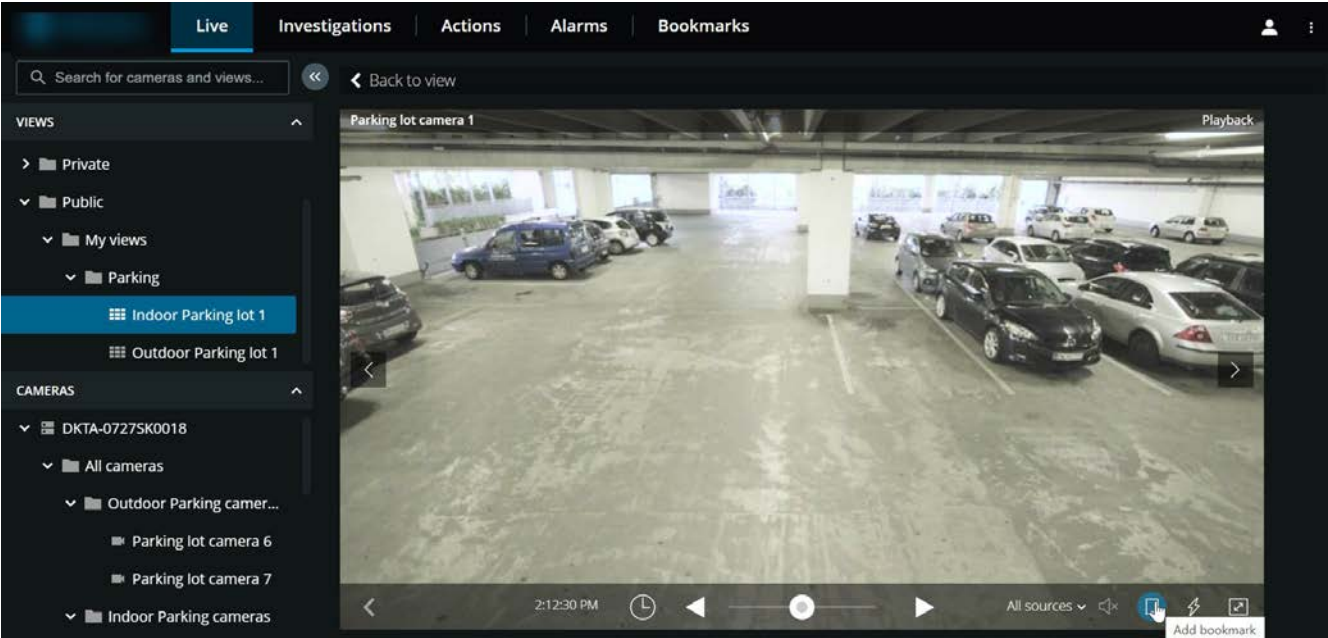
1. On the **Home** page, select a camera view, then select the required camera in the view.

2. Click ▷ to switch to playback mode.

3. On the playback control bar, click ▯ . The **Add bookmark** window is displayed.

4. In the **Headline** field, enter a name for the bookmark.

5. Optional. In the **Description** field, describe the incident.

6. Optional. Although the time of the bookmark event and the start and end time of the video clip is specified by the system administrator, you can adjust these settings. To adjust the time, drag the indicators on the timeline bar.

7. Click **Add.**

Steps to edit bookmarks

1. On the **Home** page, click **Bookmarks** to open the bookmarks list.

2. From the **Bookmarks** list, select **All bookmarks** to open the complete list of bookmarks created by all users or **My bookmarks** to open the list of bookmarks that only shows those bookmarks that you have created yourself.

3. Navigate to the bookmark that you want to edit, then click on it. The pane with the bookmark details is displayed.

4. In the upper-right corner, click **Edit**. The **Edit bookmark** window is displayed.
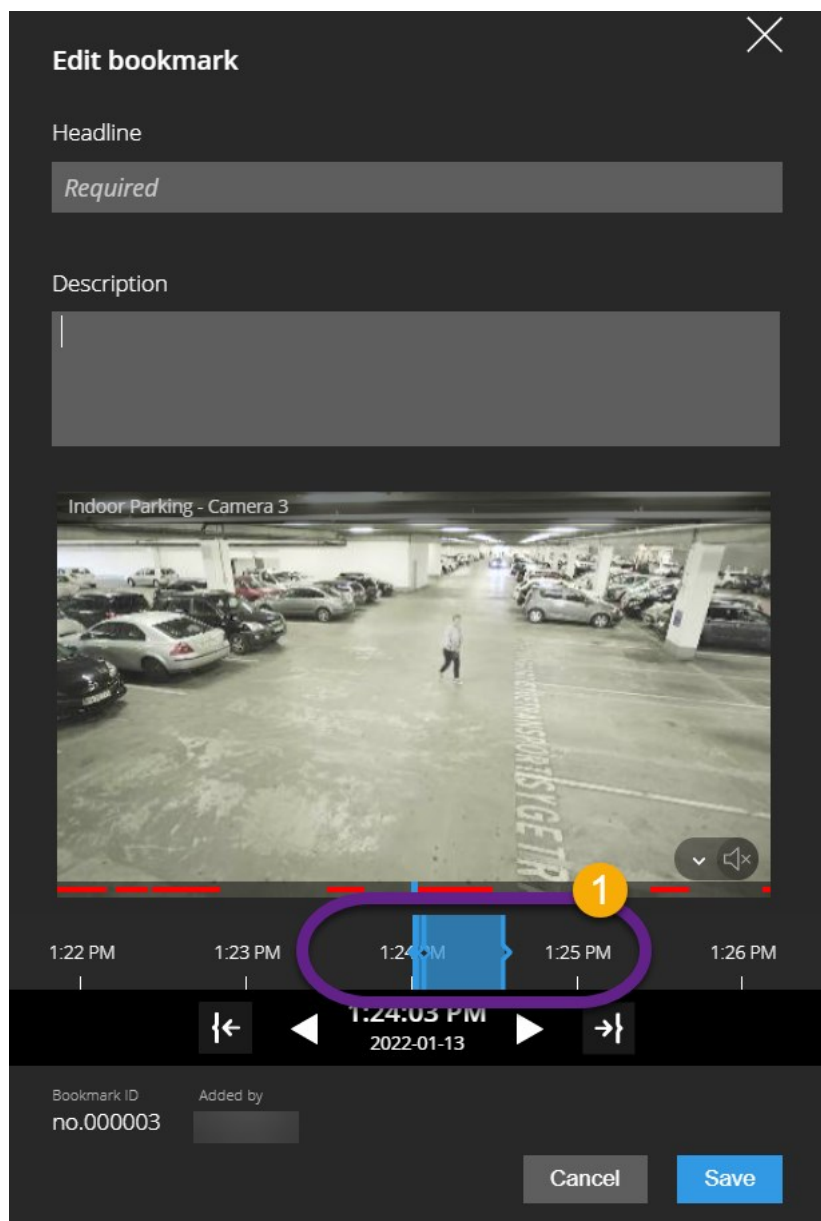
5. Enter your changes in the **Headline** field or in the **Description** field, or adjust the time of the bookmark clip by dragging the indicators ❶ on the timeline bar.

6. Click **Save**.

Delete bookmarks

Depending on your user permissions, you can delete bookmarks created by yourself or others. If you delete a bookmark, it is removed from the database, and you can no longer access it.

Steps to delete bookmarks:

1. On the **Home** page, click **Bookmarks** to open the bookmarks list.

2. From the **Bookmarks** list, select **All bookmarks** to open the complete list of bookmarks created by all users or **My bookmarks** to open the list of bookmarks that only shows those bookmarks that you have created yourself.

3. Navigate to the bookmark that you want to edit, then click on it. The pane with the bookmark details is displayed.

4. In the upper-right corner, click **Delete**.

5. On the confirmation message, click **Delete**.

Filter your bookmarks
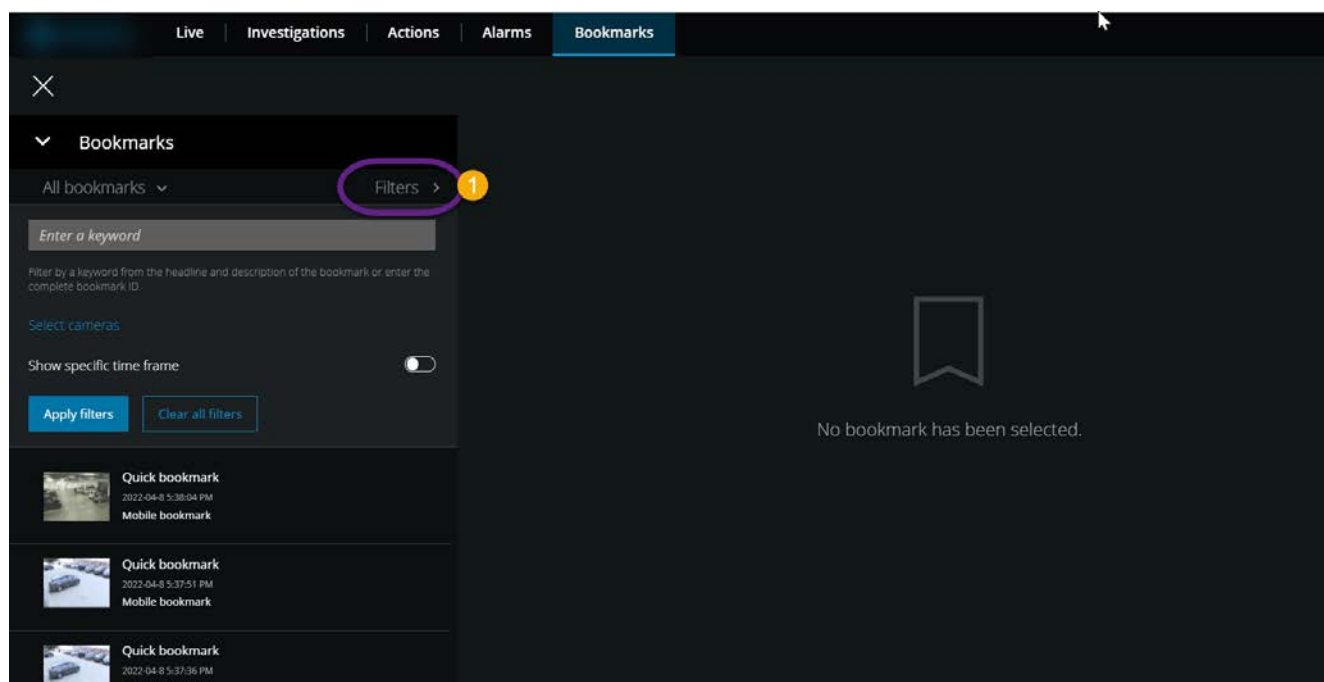
To find a specific bookmark, you can search and use filtering ❶. There are three options for filtering bookmarks:

- You can enter a keyword from the headline, the description, or the complete ID of the bookmark.

- You can select specific cameras.

- You can select a predefined time interval. You can also customize the time interval that you want to apply as a filter.

Steps to filter bookmarks by a keyword

1. On the **Bookmarks** tab, expand the **Filters** list.

2. In the **Enter a keyword** field, enter a keyword from the headline or description of the bookmark or enter the complete bookmark ID.

3. To apply the filter, click **Apply filters**.

4. Optional. To undo your filter selection, click **Clear all filters**.

Operation

Steps to filter bookmarks by selected cameras
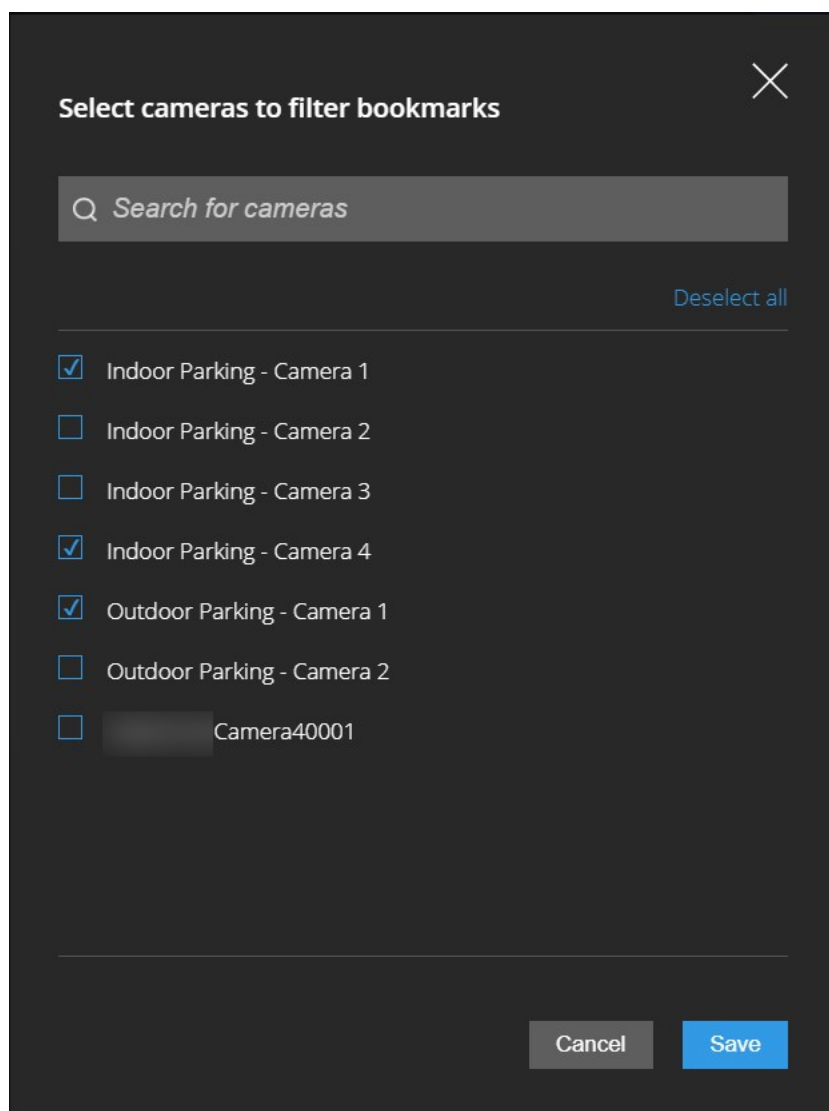
1. On the **Bookmarks** tab, expand the **Filters** list.

2. Click **Select cameras**. The **Select cameras to filter bookmarks** window opens, and the list of all available cameras is displayed.

3. Optional. To quickly find specific cameras, use the **Search for cameras** option.

4. From the camera list, select the cameras that you want to apply as a filter.

5. Optional. To undo your selection, deselect the check box of each camera or click **Deselect all**.

6. To save your selection, click **Save**.

7. To apply the selected cameras as a filter, click **Apply filters**.

8. Optional. To undo your filter selection, click **Clear all filters**.

Steps to filter bookmarks by predefined or custom time intervals

You can filter the list of your bookmarks by using a specific time frame with predefined or custom time intervals between the start time and the end time of the video sequences that you have bookmarked. The default duration of the time frame is set to **2 hours**.
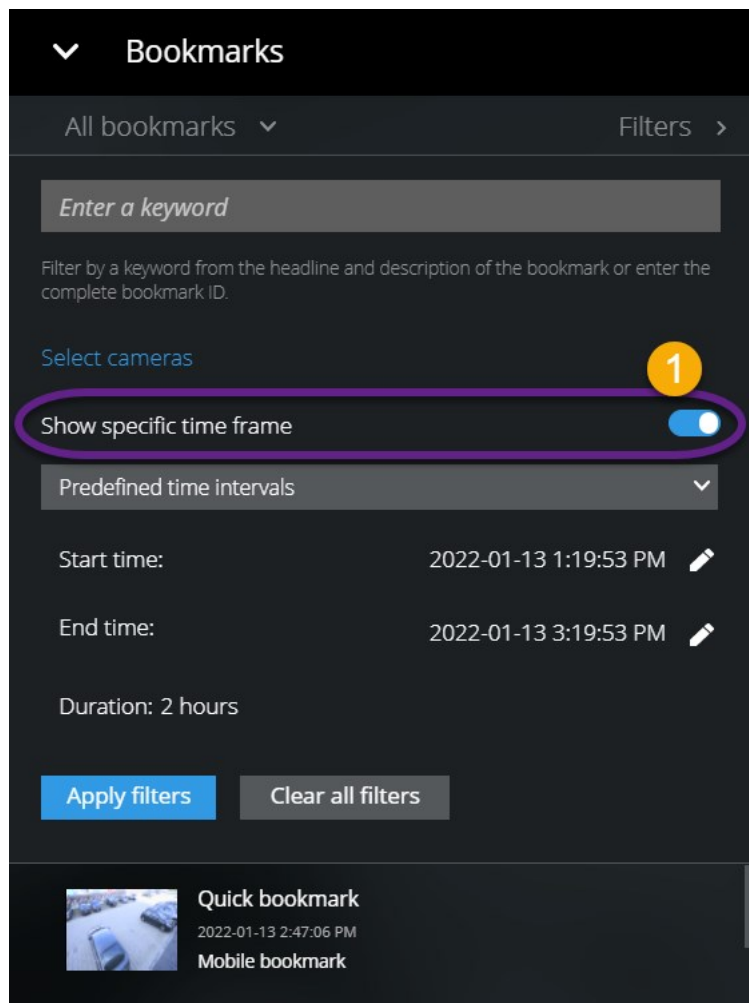
1. On the **Bookmarks** tab, expand the **Filters** list.

2. Enable the **Show specific time frame** setting ❶.

3. Expand the list of **Predefined time intervals** ❷, then select one of the following options:

    - **Last 2 hours**

    - **Last 12 hours**

    - **Last 6 hours**

    - **Last 24 hours**

    - **Yesterday**

    - **Last 7 days**

Operation
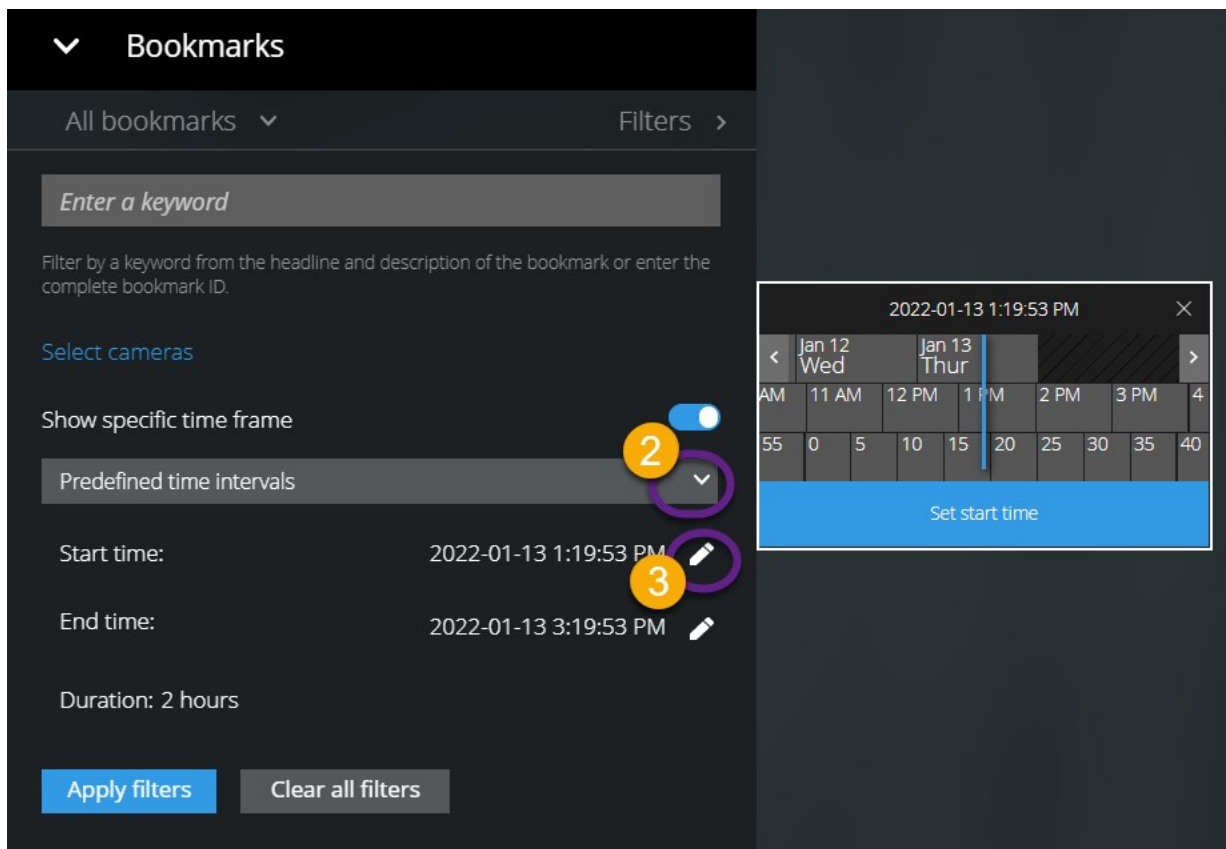
4. Optional. To customize the time interval between the start time and the end time of the video sequence that you have bookmarked, select to open the time picker and set a custom start time or end time.

5. To apply the filter, click **Apply filters**.

6. Optional. To undo your filter selection, click **Clear all filters**.

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Listen to incoming audio in live video
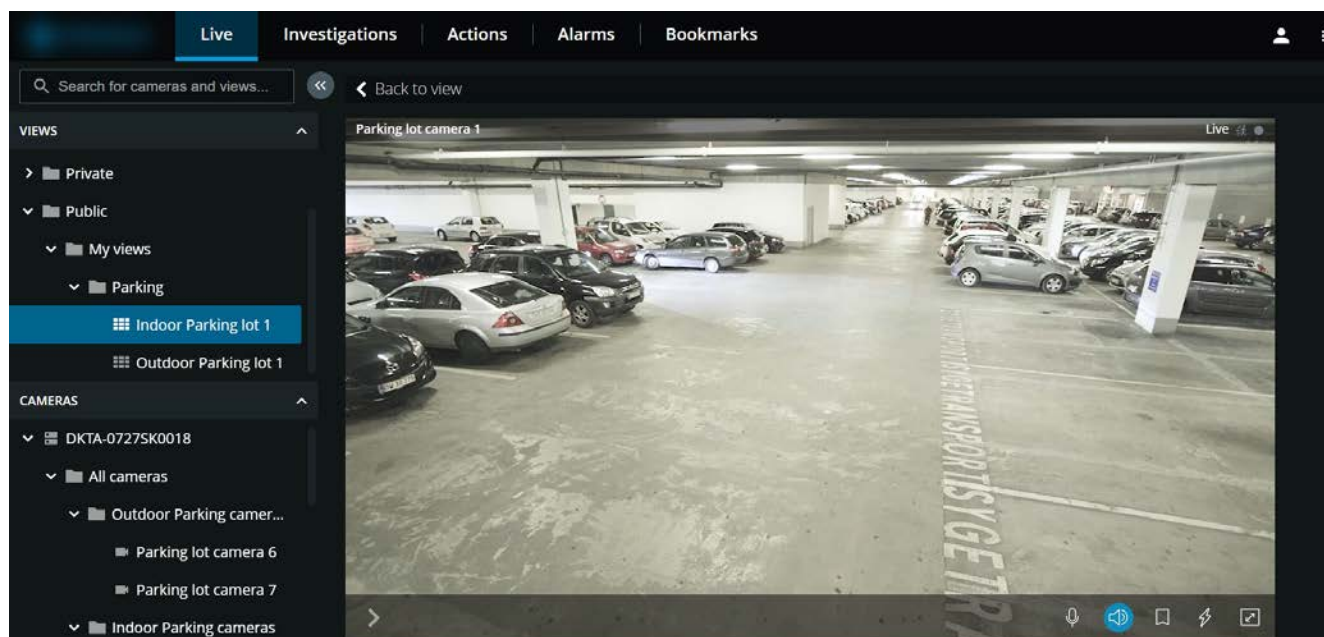
On the **Live** tab:

1. Find and click a camera that has a microphone attached.

2. On the camera toolbar, click ![icon] to start playing audio.

   By default, the audio is muted.

All cameras on the thumbnail strip have an audio icon ![icon] on their toolbar if the cameras have microphones attached.

> ✎ You can play the incoming live audio from microphones attached to cameras even when there is no live video streaming from these cameras.

Use push-to-talk in live video from one camera
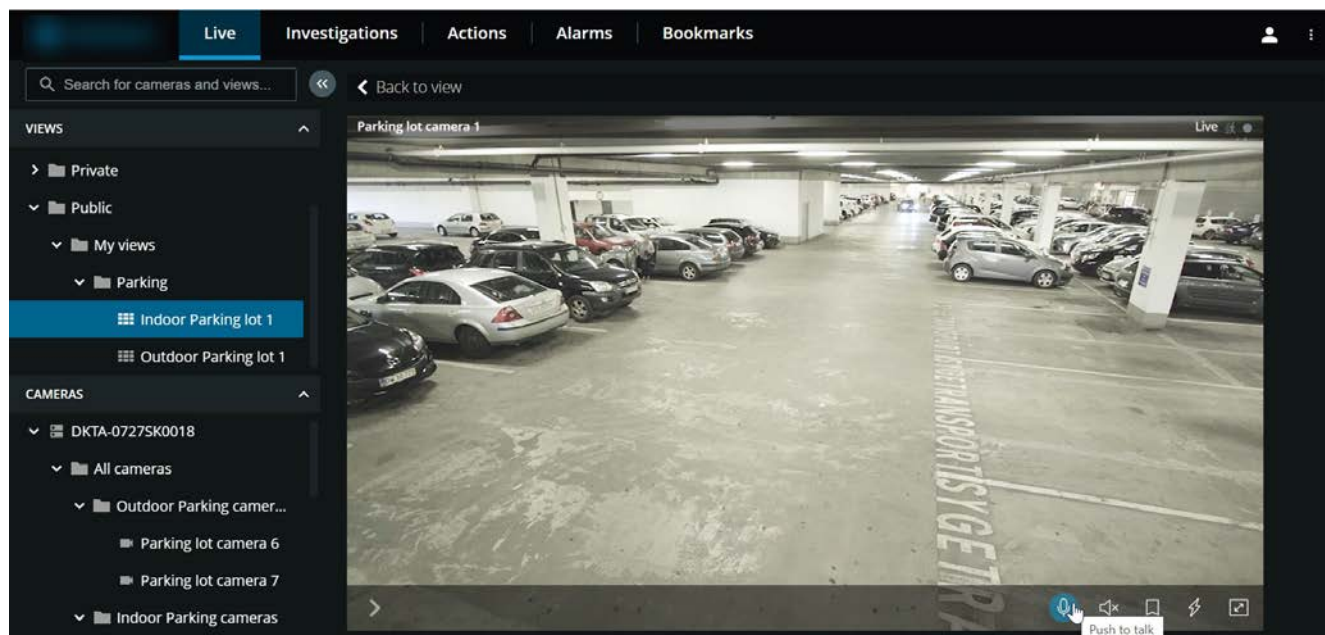
On the **Live** tab:

1. Find and click a camera that has a speaker attached.

2. On the camera toolbar, click and hold [icon] to start using push-to-talk.

3. Release [icon] when you want to end transmitting audio.

All cameras on the thumbnail strip have a push-to-talk (PTT) icon [icon] on their toolbar if the cameras have speakers.

Broadcast audio to multiple cameras in live video
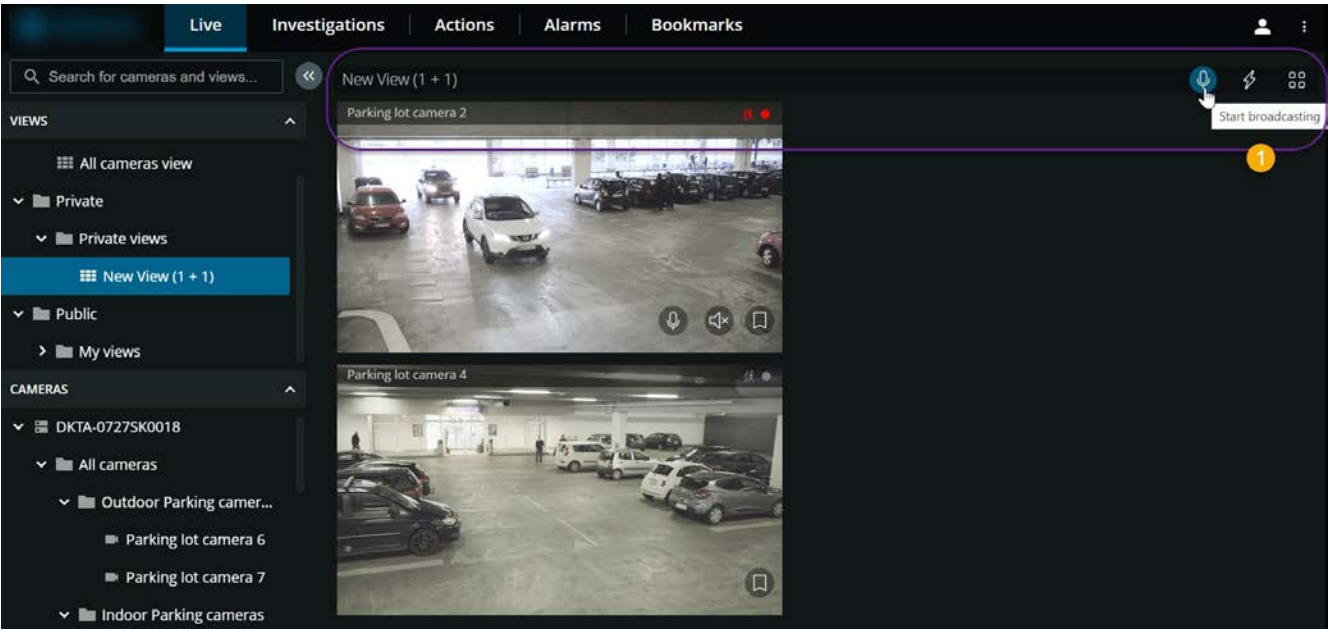
On the **Live** tab:

1. Select a view.

2. On the view toolbar ❶, click and hold 🎤 to start broadcasting audio to all the cameras in the view that have speakers.

3. Release 🎤 when you want to end broadcasting audio.

Play back recordings from one camera

👤	*"I've just spotted something on Camera 1. I want to pause live video and have a quick look at what happened."*

You can play back a recording from one camera on both the **Live** tab and the **Investigations** tab.

Operation
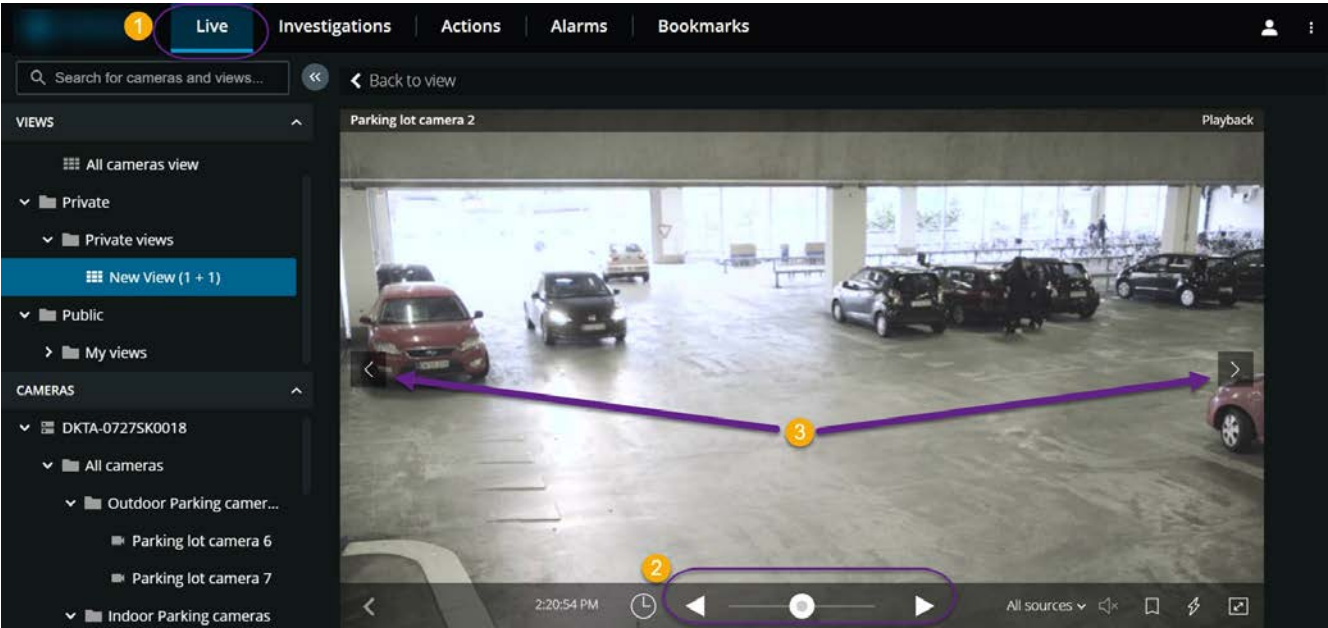
On the **Live** tab ❶:

1. Find and click a camera.

2. On the camera toolbar, click [>] to pause live video.

   The playback control bar appears.

On the playback control bar ❷:

Item	What can I do with it?
	Drag to the left to fast backward or to the right to fast forward. By default, when the shuttle is placed in the middle, the playback speed is normal.
	Play the video backward or forward.
	See the previous or next image ❸.
	Click to open the time picker > Specify a date and time in the past to play back the video.
	See when the recording has been made.

Operation

Item	What can I do with it?
🔇 🔊	Start or stop playing audio with the video recording (see Requirements for listening to incoming audio auf Seite 7).
All sources ⌄ 🔇	Select the audio source that you want to listen to when the video recording is with two-way audio (see Requirements for using push-to-talk auf Seite 7, Playing back audio in video recordings (explained) auf Seite 42).
🔖	Add a bookmark to a recorded video to quickly locate relevant video sequences (see Add or edit bookmarks auf Seite 30).

On the **Investigations** tab:

If you want to play back a recording from one camera, but you have more than one camera in the selected group, you can remove the unnecessary cameras. To do this, follow these steps in Remove unnecessary cameras from video playback auf Seite 48.

To play back recordings from one camera:

1. On the camera timeline bar, specify the time for the video playback.

2. Click ◀ or ▶ to play back the video backward or forward.

3. Optional. Click 🔇 to start or 🔊 to stop playing incoming audio when you play the video recording forward at normal speed (for cameras that have microphones attached).

4. Optional. Click 🔇 to start or 🔊 to stop playing audio (for cameras that have microphones and speakers attached). Select the audio source that you want to listen to when the video recording is with two-way audio (see Playing back audio in video recordings (explained) auf Seite 42).

> ✅ For a bigger view, hover over the camera that you want to expand and click ⤢ in the upper right-hand corner or click the camera thumbnail itself. Press **Esc** or click ⤡ in the upper-right corner to return to the default view.
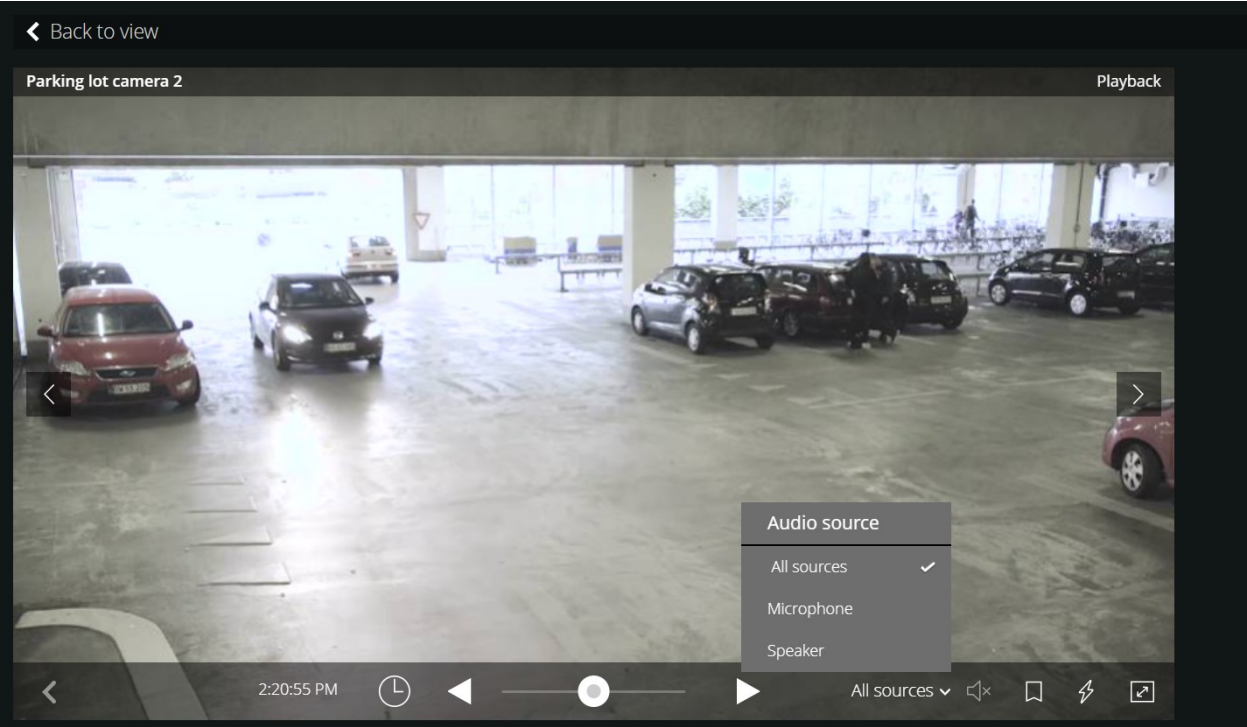
Playing back audio in video recordings (explained)

In MOBOTIX HUB Web Client, you can:

- Play back audio from camera recordings in live mode.
- Play back audio from camera recordings in investigation mode.

On the camera toolbar:

- To listen to the recorded incoming audio, click 🔈ˣ to start playing the audio while playing back the video recording.

- To listen to the recorded incoming audio and outgoing audio, click ![icon] to start playing the audio. From the **Audio source** list, select the audio device that you want to listen to while playing back the video recording. The options are:

  - **All sources** (default) - listen to both the recorded incoming and the outgoing audio

  - **Microphone** - listen to the incoming audio only

 - **Speaker** - listen to the outgoing audio only
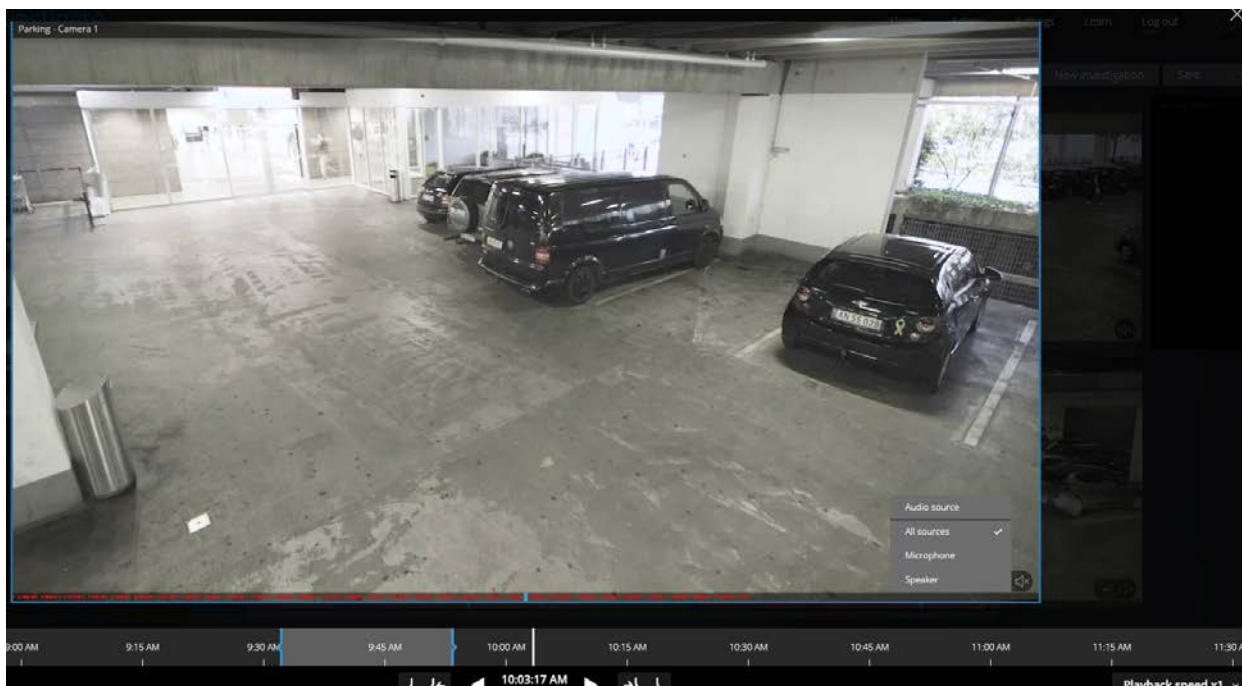
> ✎ You can play back audio only when there is a video recording, and you play the recording forward at normal speed.

Recordings from multiple cameras (explained)

On the **Investigations** tab, you can play back recordings without creating an investigation.

At the bottom of the camera view window, a red sequence line ❶ indicates the time snippets where you can find video recordings.
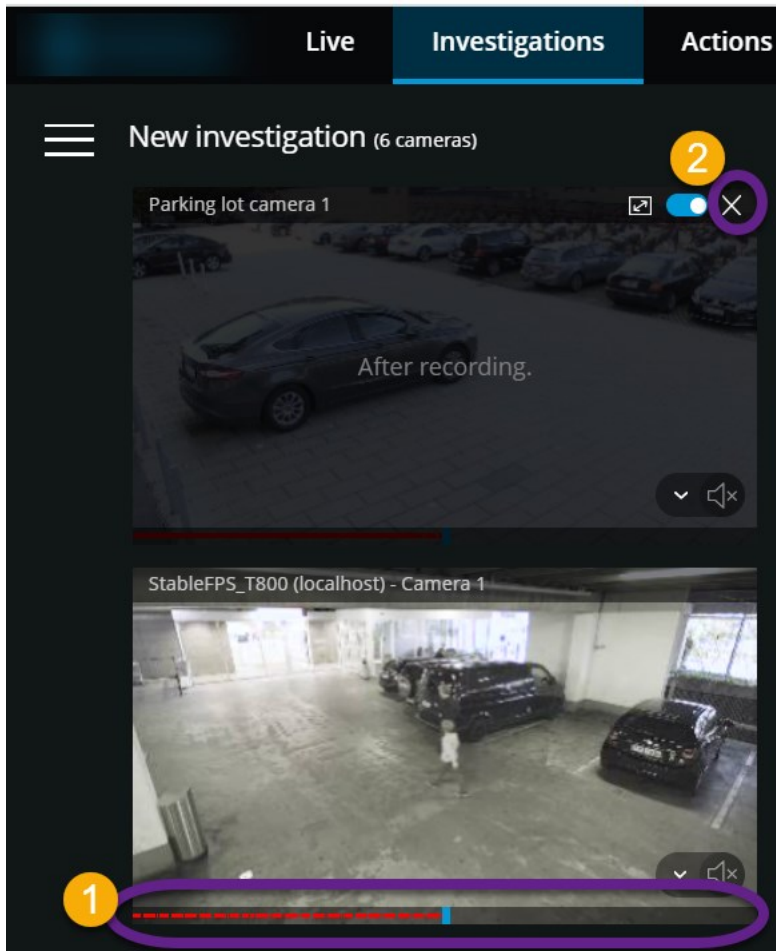
In this mode, you can:

- Choose the cameras that you want to play back and remove those that do not have recordings for the specified time ❷ (see Remove unnecessary cameras from video playback auf Seite 48).

- Specify the time of the recordings that you want to play back (see Specify time for video playback auf Seite 45).

- Specify the time span of the recordings (see Using the investigation timeline (explained) auf Seite 49).

- Play back the recordings from all cameras in the selected camera group at the same time.

- Start or stop playing audio with the video recording from a specific camera in the selected camera group (see Playing back audio in video recordings (explained) auf Seite 42).

Specify time for video playback

👤	*"I need to go back to an exact time and see footage around that time."*

To play back video from a specific point in time, use the time picker. You can find the time picker on both the **Live** tab and the **Investigations** tab.

On the **Live** tab:

1. Find and click a camera.

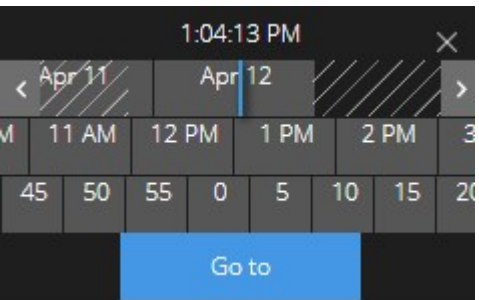2. On the camera toolbar, click ![>] to pause live video.

   The playback control bar appears.

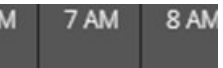3. On the playback control bar, click ![clock] to open the time picker.

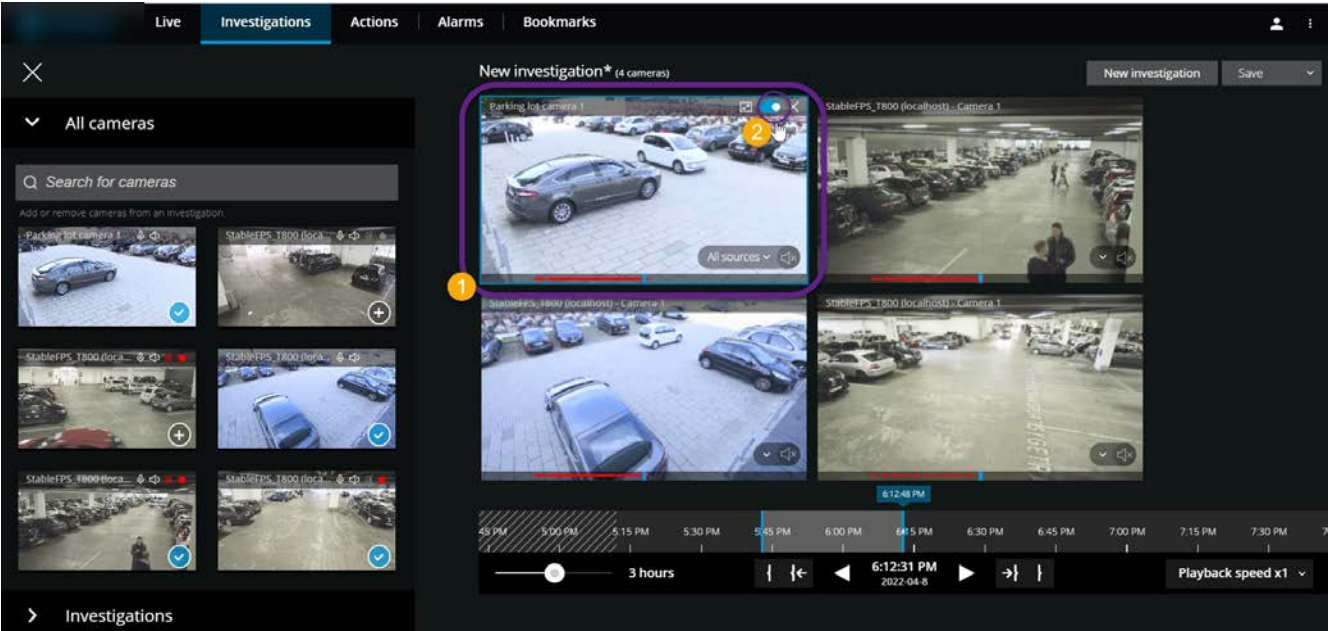On the **Investigations** tab:

1. On the timeline bar, click ![9:33:08 AM 2/08/2017] to open the time picker.

> ✓ You can click and drag the time picker to change its position on the screen.

Item	What can I do with it?
	See the previous or next image (Only for the time picker on the **Live** tab).
	Move one week backward or forward.
	To specify the day, drag the days' scroller to the left or to the right. The blue time indicator marks the selected date.
	To specify the hour, drag the hours' scroller to the left or to the right. The blue time indicator marks the selected hour.
	To specify the minute, drag the minutes' scroller to the left or to the right. The blue time indicator marks the selected minute.
Go to	Click to play back the video from the specified time on.
Live	Click to return to live video (Only for the time picker on the **Investigations** tab).

Turn playback on or off

On the **Investigations** tab, in an investigation:

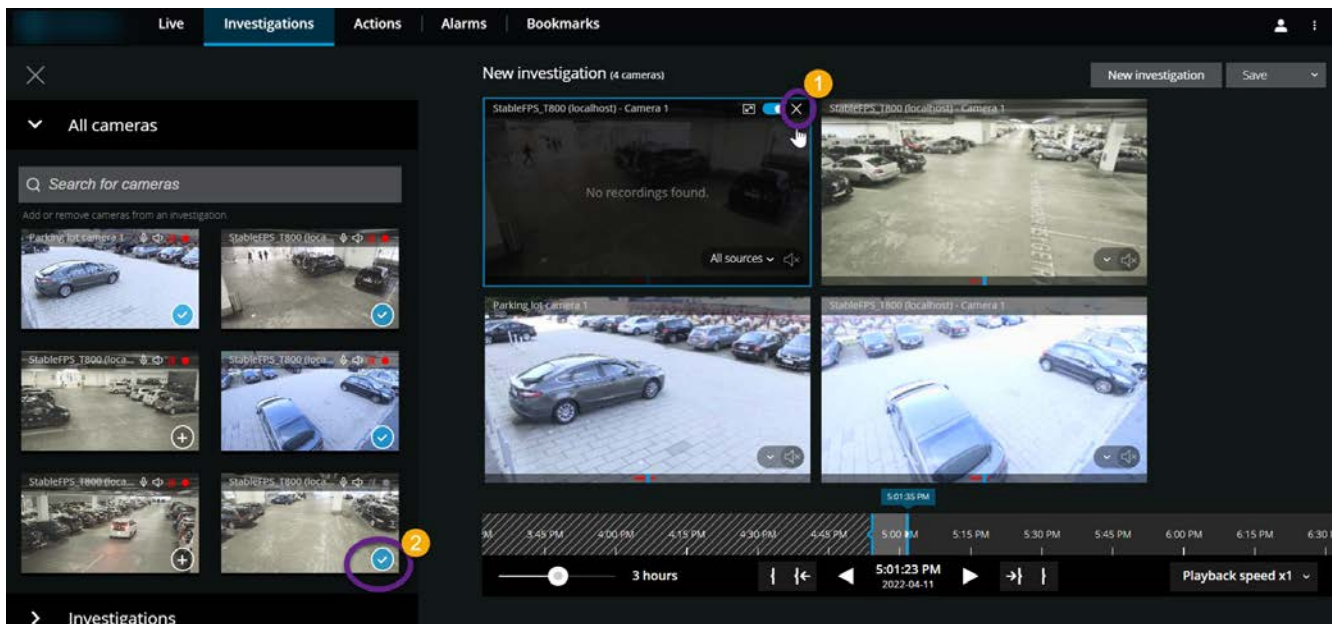1. Place the cursor over the camera ➊ that you want to enable or disable playback for.

2. In the upper-right corner of the video ➋, click ⬛ to turn playback off or on.

Remove unnecessary cameras from video playback

> *"Before I play back the video, I want to remove the cameras that don't contain any recordings within the time span that I've specified. How can I do that?"*

On the **Investigations** tab, you can remove the unnecessary cameras from a camera group if you:

- Hover over the camera ➊ and then, in the upper right-hand corner, click ❎.

- On the side panel, click ✅.

- On the side panel, double-click the camera that you want to remove.

Cameras in your investigation area (explained)

When you view a group of cameras in live mode and then switch to investigation mode, the same group of cameras shows up in your investigation area.

> On the **Investigations** tab, you can only see the unique cameras in the view or group. The duplicate cameras do not show up in your investigation area.

Examples:

- You are in your **Private** folder on the **Live** tab. When you click the **Investigations** tab, all cameras in the **Private** folder show up in your investigation area.

- You are in the **All cameras** folder on the **Live** tab. When you click the **Investigations** tab, all cameras in your system show up in your investigation area.

To start playing incoming and outgoing audio in an investigation that you have created, you must:

- Add cameras that have audio devices (microphones and speakers) attached (see Requirements for listening to incoming audio auf Seite 7 and Requirements for using push-to-talk auf Seite 7).

- Play the video recordings forward at normal speed (see Playing back audio in video recordings (explained) auf Seite 42).

Using the investigation timeline (explained)

In an investigation, on the timeline bar, you can specify:

- The time of the recording that you want to investigate

- A time span for your investigation.
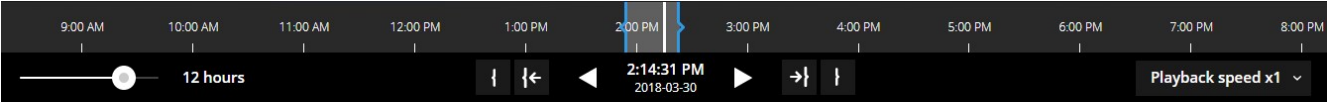
Item	What can I do with it?
	To change the time of the recording, drag the timeline scroller to the left or to the right. The white time indicator in the middle of the timeline scroller marks the selected time.
	Play the video backward or forward.
	• See when the video playback has been made.

Item	What can I do with it?
	• Click on this area of the timeline bar to open the time picker. You can use the time picker to select the time of the recording that you want to investigate or download (see Specify time for video playback auf Seite 45). ✓ You can click and drag the time picker to change its position on the screen.
	Click and drag the blue time span markers to specify the start and end time of the recording that you want to investigate or download.
	Align the start or end time of your investigation with the selected time.
	Align the selected time with the start or end time of your investigation.
	In the bottom-right corner of the timeline bar, from the **Playback speed** list, select a specific speed for the video playback. The default value is **x1**.
	In the bottom-left corner of the timeline bar, drag the slider to change the time span. This option lets you define a precise time span for playing back or downloading the video.

Create investigations from one or more cameras

> *"I need to investigate recordings from all our office cameras from around 9:30 yesterday morning, and I want to keep the recordings for a month."*

You must create an investigation when:

- You want to store video recordings for a period that is longer than the retention time so that you can play back the recordings as many times as you want, even if they have already been deleted from the system database.

> ✏️ By default, the retention time for video recordings in the system database is seven days. If enabled, the retention time for investigations on the mobile server is also seven days by default (see Retention time and storage of recordings and investigations (explained) auf Seite 12).

- You want to export the recordings, download and share them with authorities at a later stage.
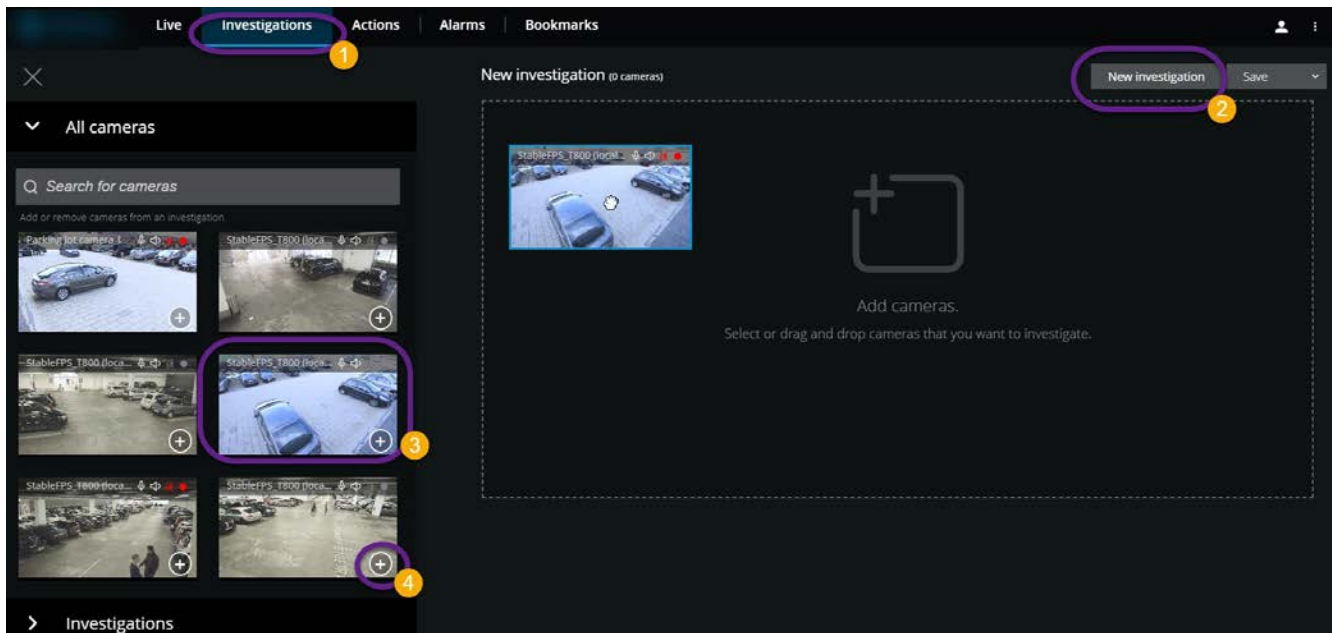
On the **Investigations** tab ❶:

1. Click **New investigation** ❷.

   The side panel opens to the left.

2. In the side panel, under **All cameras**, you can browse and search for cameras that you want to investigate.

3. You can add one or more cameras if you:

   - Click, drag, and drop every camera ❸ that you want to investigate into the **New investigation** area

   - Click ⊕ in the bottom-right corner of each camera ❹ that you want to add

4. Double-click on the camera that you want to add

> ✎ You can add up to 18 cameras to an investigation. If the view of cameras that you want to investigate contains a higher number of cameras, you have two options:
>
> - Select **Add cameras** to add the first 18 cameras to your investigation.
>
> - Select **Open blank investigation** to customize which cameras to add to your investigation.

5. Use the time picker to specify the time of the recording that you want to investigate.

   The selected time applies to all cameras that you have added to your new investigation (see Specify time for video playback auf Seite 45).

6. Use the timeline bar to specify the time span of the recording that you want to play back.

   The selected time span applies to all cameras that you have added to your new investigation (see Using the investigation timeline (explained) auf Seite 49).

7. From the **Save** list, select **Save as**.

   The **Save your investigation** form opens.

8. In the **Investigation name** field, enter a name for your new investigation.

9. Click **OK**.

   The new investigation configuration is saved.

> ✅ For a bigger view, hover over the camera that you want to expand and click ⤢ in the upper-right corner or click the camera thumbnail itself. Press **Esc** or click ⤡ in the upper-right corner to return to the default view.

Add a camera to existing investigation

| 👤	*"I want to add more cameras to an existing investigation. How can I do that?"*

On the **Investigations** tab, click ☰ to open the side panel.

1. In the side panel, click **Investigations**.

2. Navigate to the investigation that you want to add more cameras to and click on the name of the investigation.

3. In the side panel, click **All cameras**. All available cameras appear as thumbnails in the **All cameras** area.
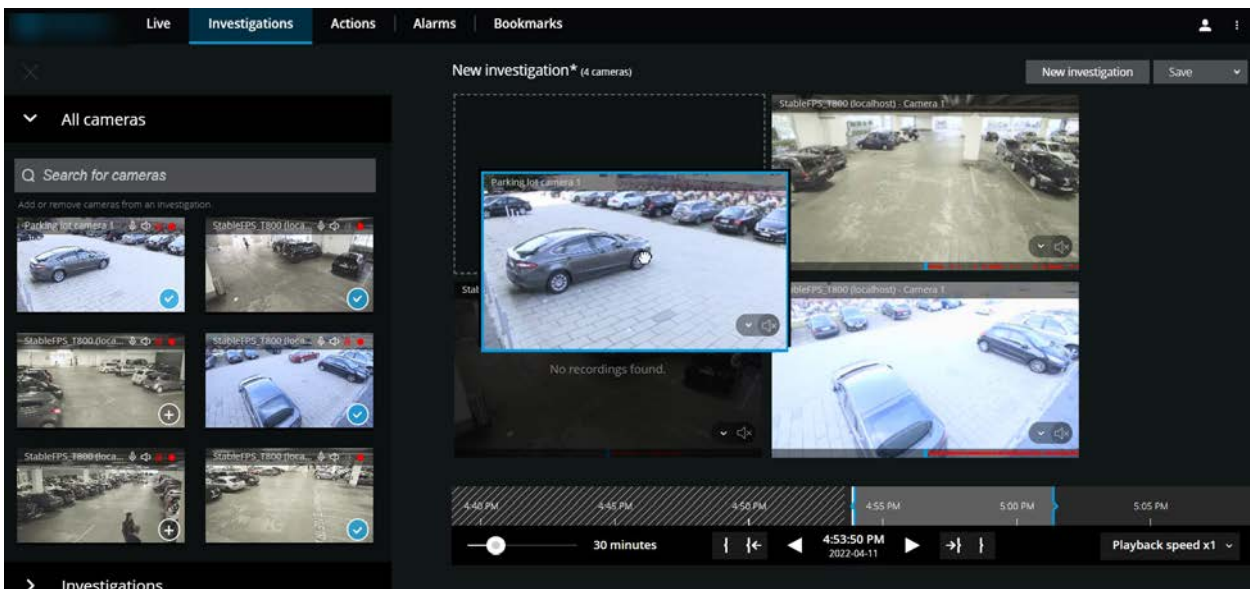
4. Navigate to the camera that you want to add and:

- Click, drag, and drop the camera **❶** into the investigation area.

- Click ⊕ in the bottom-right corner of each camera **❷**.

- Double-click on the camera that you want to add.
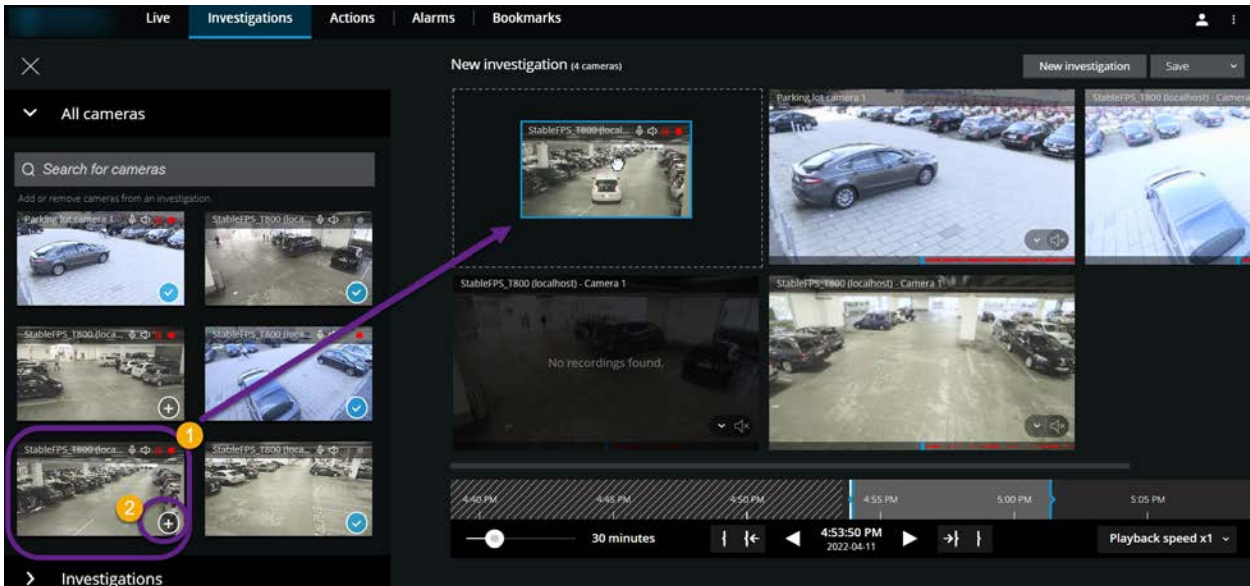
1. (Optional) To reorder the cameras in the investigation, click, drag, and drop the camera that you want to move.

✅ You can search for a certain camera by name in the **Search all cameras** field.
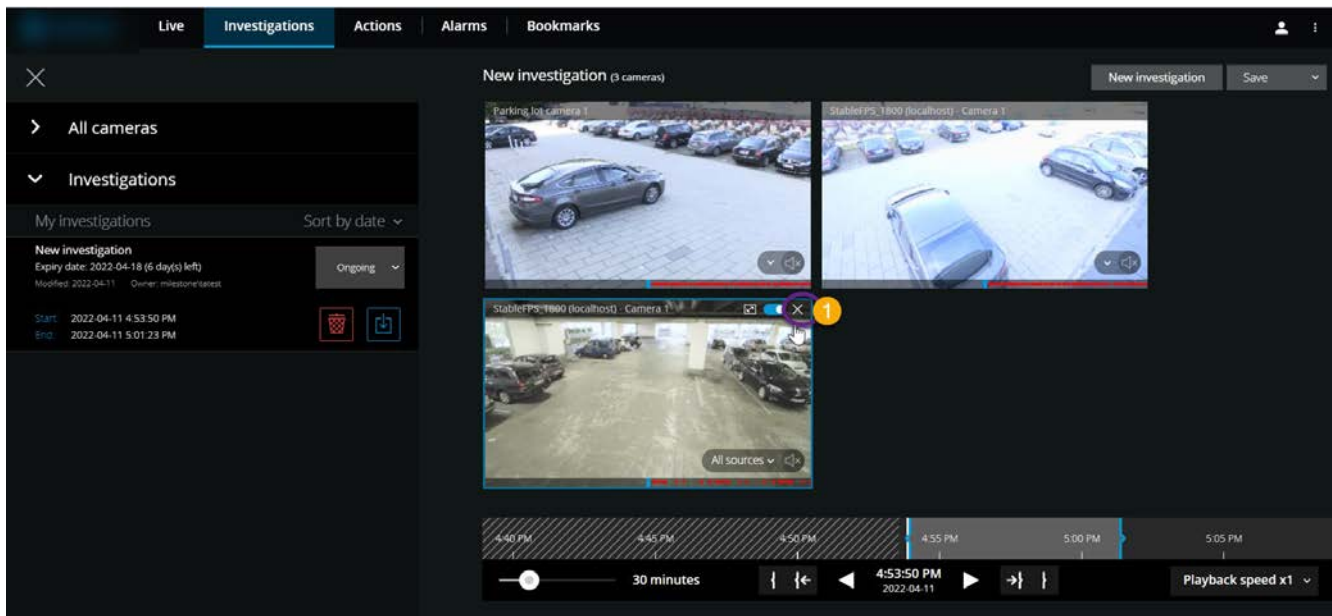
> ✎ If the check box in the bottom-right corner is selected ☑, the camera has already been added.

5. Click **Save**.

6. In the drop-down list, select **Save**.

Remove a camera from existing investigation

> *"I'm about to download these videos, but Camera 1 has no relevant footage. How do I take it out of my investigation?"*

On the **Investigations** tab, in an existing investigation:

1. Hover over the camera that you want to remove from the investigation.

2. Click ✕ in the upper-right corner ❶ to remove the camera from the investigation.

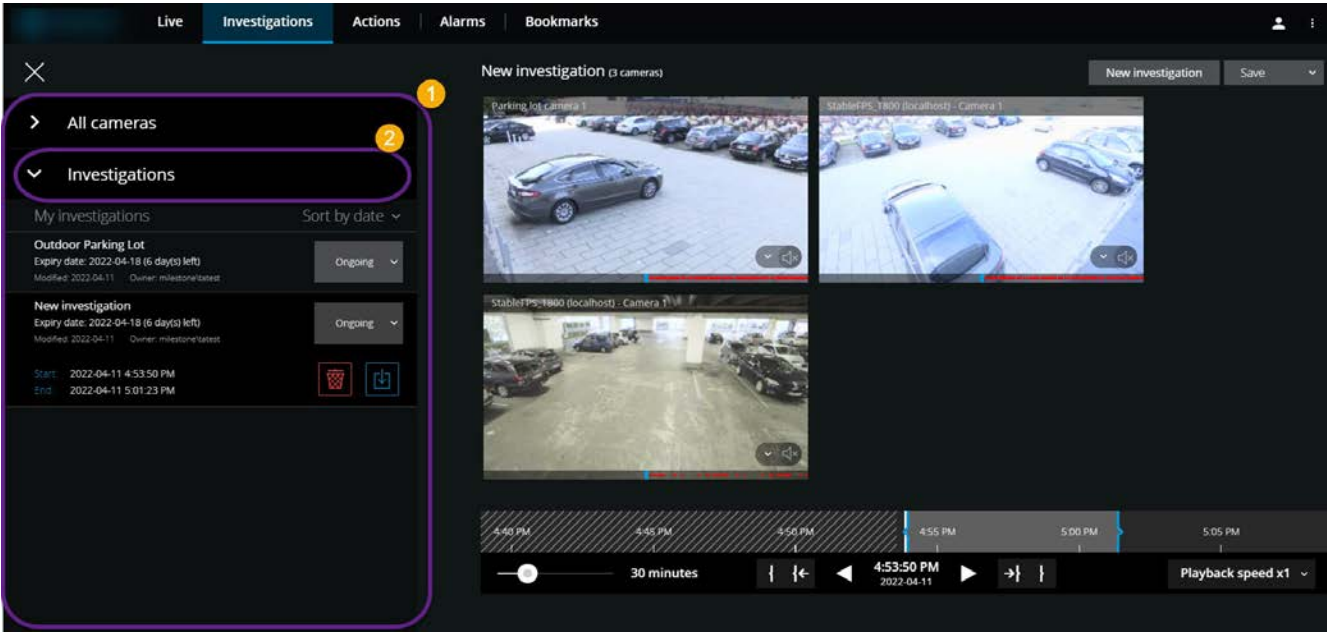3. Click **Save**.

4. In the drop-down list, select **Save**.

You can also remove a camera from your investigation by opening the camera group view under **All cameras** (see Remove unnecessary cameras from video playback auf Seite 48).

Operation

Update or delete your investigation

	"I want to update the name and the state of an existing investigation and delete another investigation. How can I do that?"

On the **Investigations** tab, click [icon] to open the side panel.

In the side panel ❶:

1. Click **Investigations** ❷ to see all your investigations.

2. In the **My investigations** list, navigate to and click the investigation that you want to update or delete.

Item	What can I do with it?
[name of investigation]	Click to edit the name of the existing investigation.
Expiry date	See the expiry date of the investigation when the retention time of investigations is enabled.

Item	What can I do with it?
🗑	Delete the investigation.
⤓	Prepare and download investigations in a selected video format (see Prepare video export and download auf Seite 57).
Ongoing ⌄	Manually set your investigation state to **Ongoing** or **Completed**.
	Sort your investigations by: • **Date**. See your most recent investigations at the top of your list. • **State**. See your ongoing investigations first, and your completed investigations last on your list.

> When you open an investigation and replace an audio device attached to a camera that you have already included in that investigation, the system will play the audio from the previously attached audio device. To complete the update and start playing the audio from the new audio device, restart the MOBOTIX HUB Web Client first, then click **Save** to update this investigation (Only for cameras that have microphones or speakers attached).

Prepare video export and download

	"I want to download my investigation and show it to my security officer later. What do I do?"

In MOBOTIX HUB Web Client, the available video formats are:

Format	Description
AVI package	A standard file format supported by most media players. Choose this if in doubt.

Operation

Format	Description
MOBOTIX HUB package	You can only view the MOBOTIX HUB format with the MOBOTIX HUB Desk Client – Player. The MOBOTIX HUB Desk Client – Player application is not included with the exported data. You can only include the application when exporting the MOBOTIX HUB format from MOBOTIX HUB Desk Client.
MKV package	The recording camera chooses the codec to use. You can only play the video if you have the necessary codecs installed.

Your system administrator specifies which formats are available to you. For security reasons, all formats are disabled by default in the mobile server.

In MOBOTIX HUB Web Client, the exports have the following settings:

- Re-export is prevented in any video format
- (Optional) Exports can be password-protected
- 256-bit AES encryption
- Digital signatures are added.

For more information about supported security-related features in clients, see the complete feature list, which is available on the product overview page on the MOBOTIX website (https://www.mobotix.com/en/products/vms/mobotixhub).

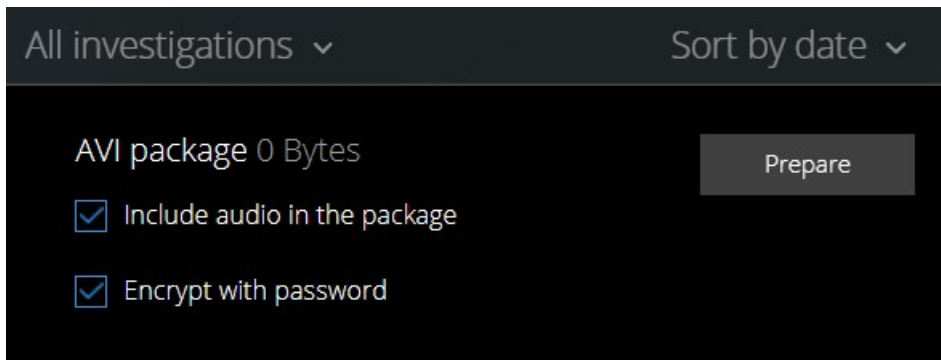**Steps to prepare video exports and download**

You must have specific user permissions to prepare a video export and download video. Follow your company policy when sharing video evidence.

On the **Investigations** tab:

1. Click ☰.
2. Open your **Investigations**.
3. Click the investigation that you want to download.

4. Click ⬆.

5. (Optional) To prepare a video export package with audio included, select the **Include audio in the package** check box. By default, the check box is cleared.

6. (Optional) To encrypt your video export package, select the **Encrypt with password** check box. By default, the check box is cleared.


7. Click **Prepare** to download the video in the format that you need.

> ✏️ You can prepare a video export and download it later. In the prepared export, the video recordings may differ in number compared to the number of cameras that you have added to the investigation. The reason is that some cameras may not have existing recordings within the time span that you have specified.

8. (Optional) In the dialog box, create a password to encrypt the export and click **Set**. The password is applied to the current package export only.

9. Click **Download** ❶ to download the prepared video export. You will find your downloaded files in the download folder of your web browser.
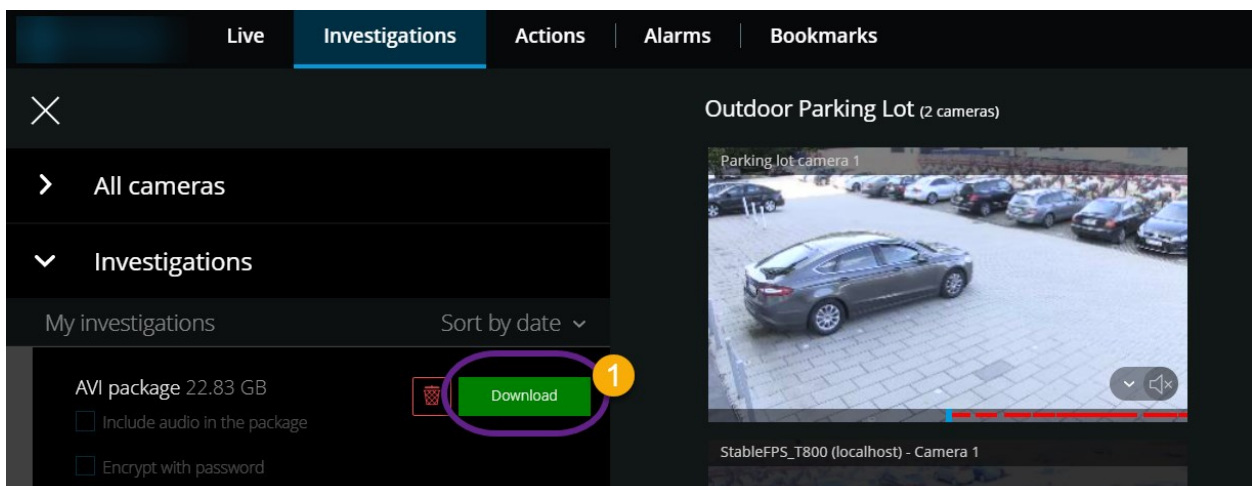
Sharing MOBOTIX HUB Web Client page (explained)

"My colleague sits in a different office. What's the fastest way I can show her exactly what I'm looking at in my MOBOTIX HUB Web Client?"

Every page of your MOBOTIX HUB Web Client has its own internet address ❶. You can share the address with other users. When users go to the address in a web browser and log in, they see the page that you shared with them.

View alarms

"Camera 3 detected motion at around 4:00 PM and sent me an alarm. It looks like a burglary. I want to see what exactly happened and show the video to my security officer."
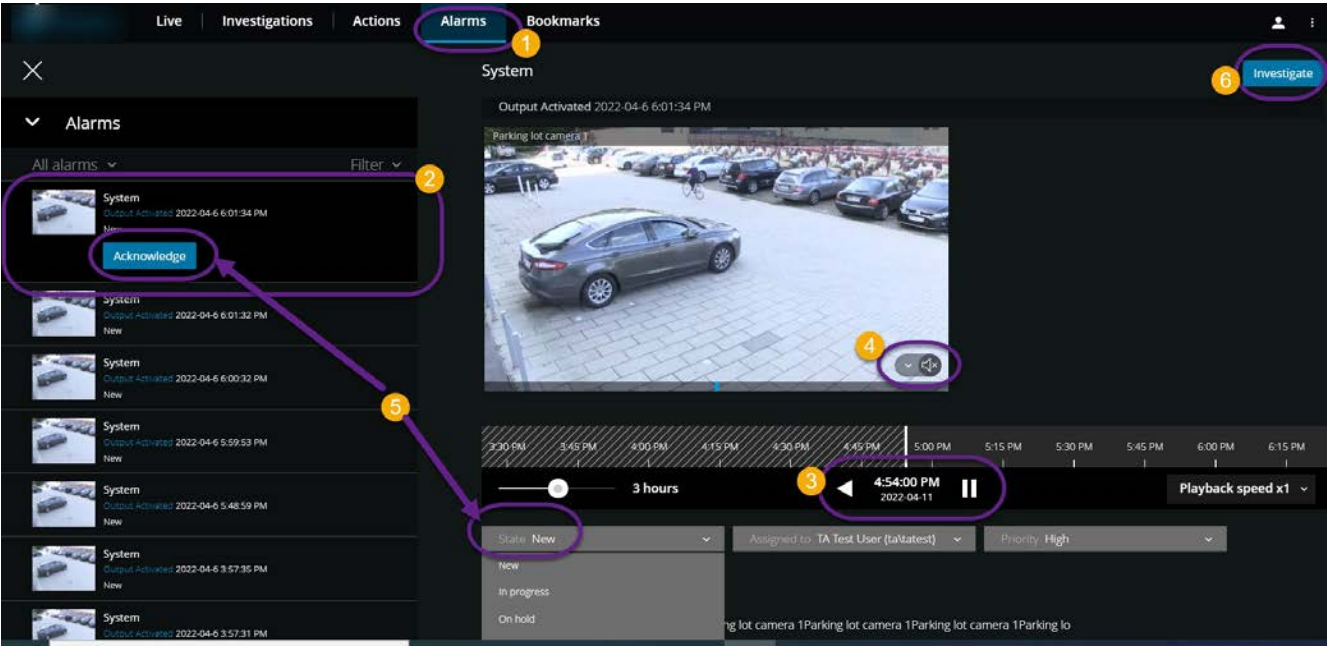
On the **Alarms** tab ❶:

1. Find and click the alarm ➋ that you want to view the video for. From the **Filter** list, you can filter the alarms by states and priorities.

2. Play the video backward or forward and check when the image that you are seeing was taken ➌.

3. Start or stop playing audio for the video playback when you play it forward at normal speed ➍ (see Playing back audio in video recordings (explained) auf Seite 42).

4. Change the state of the alarm by clicking the **Acknowledge** button or by selecting another alarm state option from the list ➎.

5. To save the video for later or share it with others, click **Investigate** ➏.

6. Follow the steps in Prepare video export and download auf Seite 57.

What else can trigger alarms?

- A camera stops working.

- A pane of glass gets shattered or broken.

- A locker gets broken into.

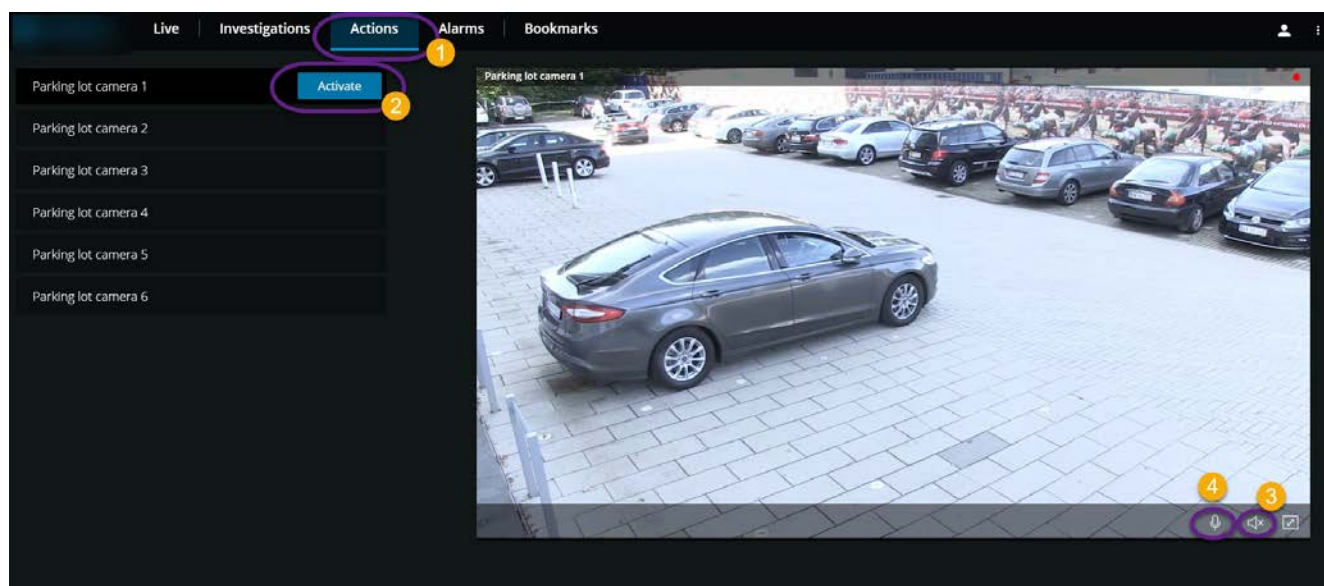- A blacklisted license plate is seen on camera.

> To view alarms, ask your system administrator to set up alarms and to give you sufficient user permissions.

Activate actions

"I want to open the front door to our visitors at the push of a button."

You can activate actions which trigger events in your video surveillance system. For example, when you open the front door (action), Camera 3 starts recording video (event).

On the **Actions** ❶ tab:

1. Find the action that you want to activate.

2. Click **Activate** ❷, and, for example, the front door opens.

3. Optional. Start or stop listening to live incoming audio ❸ (Only for cameras that have microphones attached).

4. Optional. Click and hold 🎤 to start push-to-talk. Release the icon 🎤 to end transmitting audio ❹ (Only for cameras that have speakers).

You can also activate actions on the **Live** tab when you view a live video (see).

What are some examples of actions?

- Open and close doors.
- Turn lights on and off.
- Activate and deactivate sirens.

> ✏️ To view and activate actions, ask your system administrator to set up actions and to give you sufficient user permissions.

PTZ control

Choose how to move your pan-tilt-zoom (PTZ) camera by using your mouse.
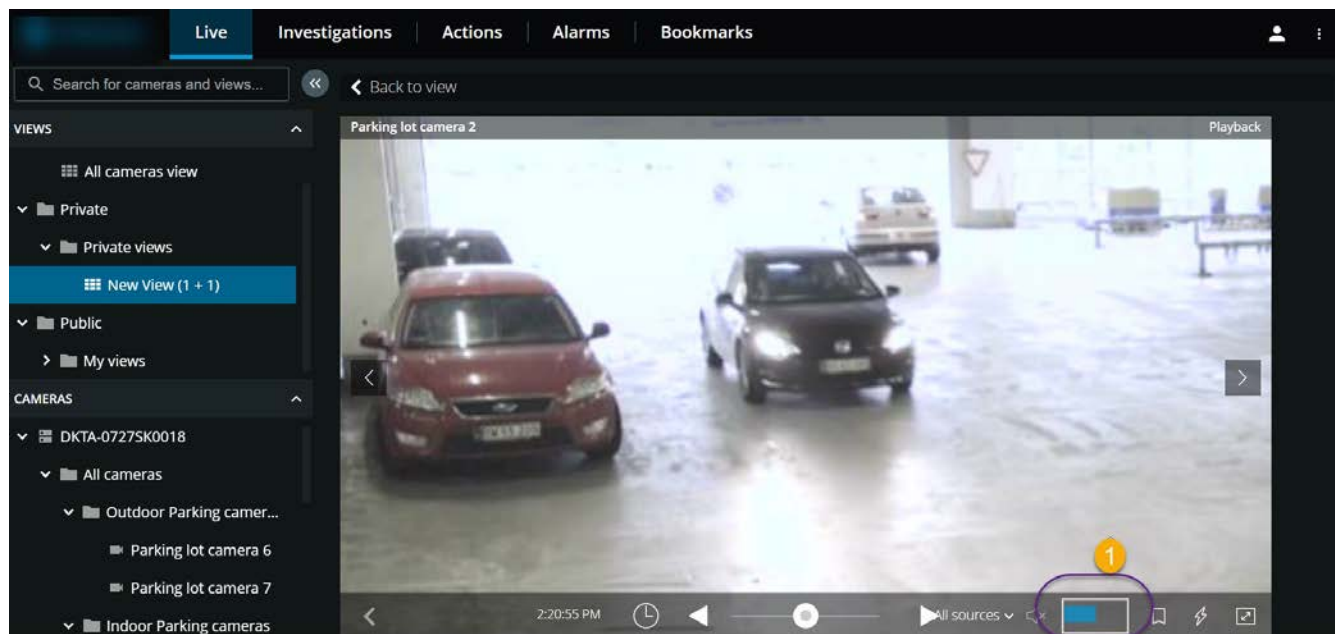
Swipe:

Operation

1. Place your cursor over the video.

2. Click and hold down your left mouse button.

3. Drag your mouse, then release your left mouse button.

Tap and hold:

1. Place your cursor over the video.

2. Click and hold down your left mouse button.

   Or: Click and drag your mouse around.

Use digital zoom

1. On the **Live** tab, find and click a camera.

2. Place your cursor over the video.

3. Double-click and scroll with your mouse to zoom in or out.

4. When zoomed in, click and drag your cursor to your area of interest. The zoom area indicator ❶ helps you navigate directions.

Use optical zoom (for cameras that support optical zoom)

1. On the **Live** tab, find and click a PTZ camera.

2. Place your cursor over the video.

3. Scroll with your mouse to zoom in or out.

   Or: Click then to zoom.

   > If you use the optical zoom on your camera while recording, the zoom levels used will be reflected in your recording.

See how to move your pan-tilt-zoom (PTZ) camera using your mouse in the PTZ control section (see PTZ control auf Seite 62).

Upgrade

Update MOBOTIX HUB Web Client

To work with the latest version of MOBOTIX HUB Web Client, ask your system administrator to update the MOBOTIX HUB Mobile Server service.

MOBOTIX

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