Fundamentals

MOBOTIX HUB Desk Client 2024 R1

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Introduction

What's new?

MOBOTIX HUB Desk Client 2024 R1

The document has been renamed from **Introduction to MOBOTIX HUB Desk Client** to **Fundamentals**. The new name reflects the new broader audience for this document and the latest content added with this release:

- Important MOBOTIX HUB VMS concepts

- Solving typical tasks

- Learning how to use MOBOTIX HUB Desk Client

All content about logging into MOBOTIX HUB Desk Client is now in **Deploying and logging in**.

MOBOTIX HUB Desk Client 2023 R2

The first version of this document.

MOBOTIX HUB Desk Client

MOBOTIX HUB Desk Client is a desktop application designed to help you manage and view video from the cameras connected to your MOBOTIX HUB VMS system. Through MOBOTIX HUB Desk Client, you can access live and recorded video and control cameras and connected devices. You can perform advanced searches to find video data and supported metadata stored on the server.

Available in multiple local languages, MOBOTIX HUB Desk Client has an adaptable user interface that can be optimized for individual operators' tasks and adjusted according to specific skills and authority levels.

Introduction
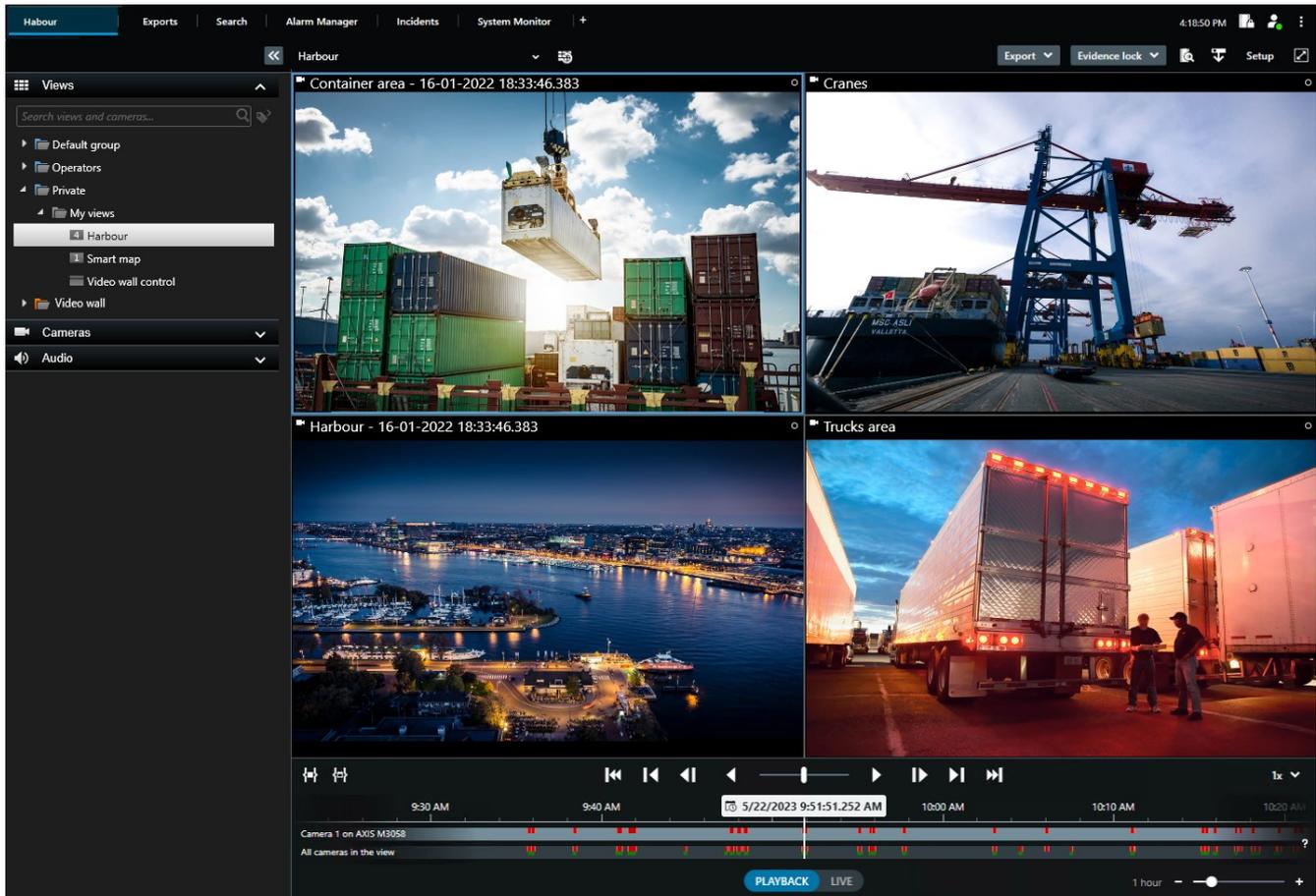
Important MOBOTIX HUB VMS concepts

Available functionality

About available functionality

Being able to log in and use MOBOTIX HUB Desk Client doesn't automatically give you access to the complete set of software features.

Why? Because what functionality in MOBOTIX HUB Desk Client is available for you depends on which:

- MOBOTIX HUB VMS product your organization has purchased

- MOBOTIX HUB extensions or other third-party solutions your organization has purchased

- User permissions your system administrator has given you

- Default values for MOBOTIX HUB Desk Client settings that your system administrator has defined for you or that you have defined yourself.

Your user permissions

MOBOTIX HUB Desk Client includes an extensive number of features. It is, among other things, the system administrator of your MOBOTIX HUB VMS system who controls if you have access to a given feature.

When the system administrator creates you as a user in the MOBOTIX HUB VMS system, you have, per default, no user permissions.

Usually, when you have no user permissions to a feature, all the user interface elements related to the feature are hidden in MOBOTIX HUB Desk Client. For example, if you don't have permission to export video, all **Export** buttons and the **Export** default tab are hidden.

The features each user can see and use in MOBOTIX HUB Desk Client can vary considerably, even within the same organization.

As an example, you can NOT have user permissions to:

- Log into MOBOTIX HUB Desk Client

- View alarms, live video, or recorded video

- Search for video

- Export video

- Enter setup mode

- Create shared views

- View video from specific cameras

- Apply bookmarks or evidence locks

User permissions can also vary depending on the time of day, day of the week, and a combination of multiple factors. An example can be that you can only view live video from a specific camera during work hours from Monday to Friday. Still, when you are at work, you can see all recorded video from the camera regardless of when the video was recorded.

With the video restriction feature, investigators can temporarily overrule your user permissions to the video from specific cameras for a certain time period.

Your organization's MOBOTIX HUB products and extensions

The features available in MOBOTIX HUB Desk Client also depend on the MOBOTIX HUB VMS product, MOBOTIX HUB extensions, and third-party solutions your organization has purchased.

There are multiple MOBOTIX HUB VMS products. The top MOBOTIX HUB VMS product includes the complete list of features, while the remaining MOBOTIX HUB VMS products have fewer features.

If your organization has purchased one of the top MOBOTIX HUB VMS products, they include one or more MOBOTIX HUB extensions. The extensions add functionality to MOBOTIX HUB Desk Client. Similarly, your organization can also have purchased other MOBOTIX HUB extensions or third-party solutions that add additional functionality to your MOBOTIX HUB Desk Client.

If you are curious, ask your system administrator about which MOBOTIX HUB VMS product and extensions your organization has, and visit the Product comparison chart to see the functionality set included with your organization's purchases.

Defined values of MOBOTIX HUB Desk Client settings

You can customize MOBOTIX HUB Desk Client in many ways.

Within the MOBOTIX HUB Desk Client settings, you can change parts of MOBOTIX HUB Desk Client's behavior and which functionality are available to you.

The system administrator might set default values for certain or all settings or delegate the configuration responsibility to you. You might have the right to modify the default values for specific settings, though in some cases, you are not allowed to make any changes.

You can change the settings anytime, but changing some settings may require you to restart MOBOTIX HUB Desk Client.

The settings you define are saved in your local user account on your computer.

Here are a few examples of MOBOTIX HUB Desk Client settings:

- Show/hide bounding boxes on video.
- Show/hide audio recordings on the timeline tracks in the main timeline.
- The default path for snapshots.
- Restore your views from last login.

You can find all MOBOTIX HUB Desk Client settings here:

- On the global toolbar, select the **Settings and more** menu, and then select **Settings**.

Views and view items

You view video in MOBOTIX HUB Desk Client by selecting and switching between views in live or playback mode.

Views resemble tables. In MOBOTIX HUB Desk Client, the cells in the table are called view items. A view can have from one to a hundred view items to display different content.

The content is often video from cameras, but it can also be maps, web pages, static images, text, hotspots, carousels, Matrix, or other types of content.
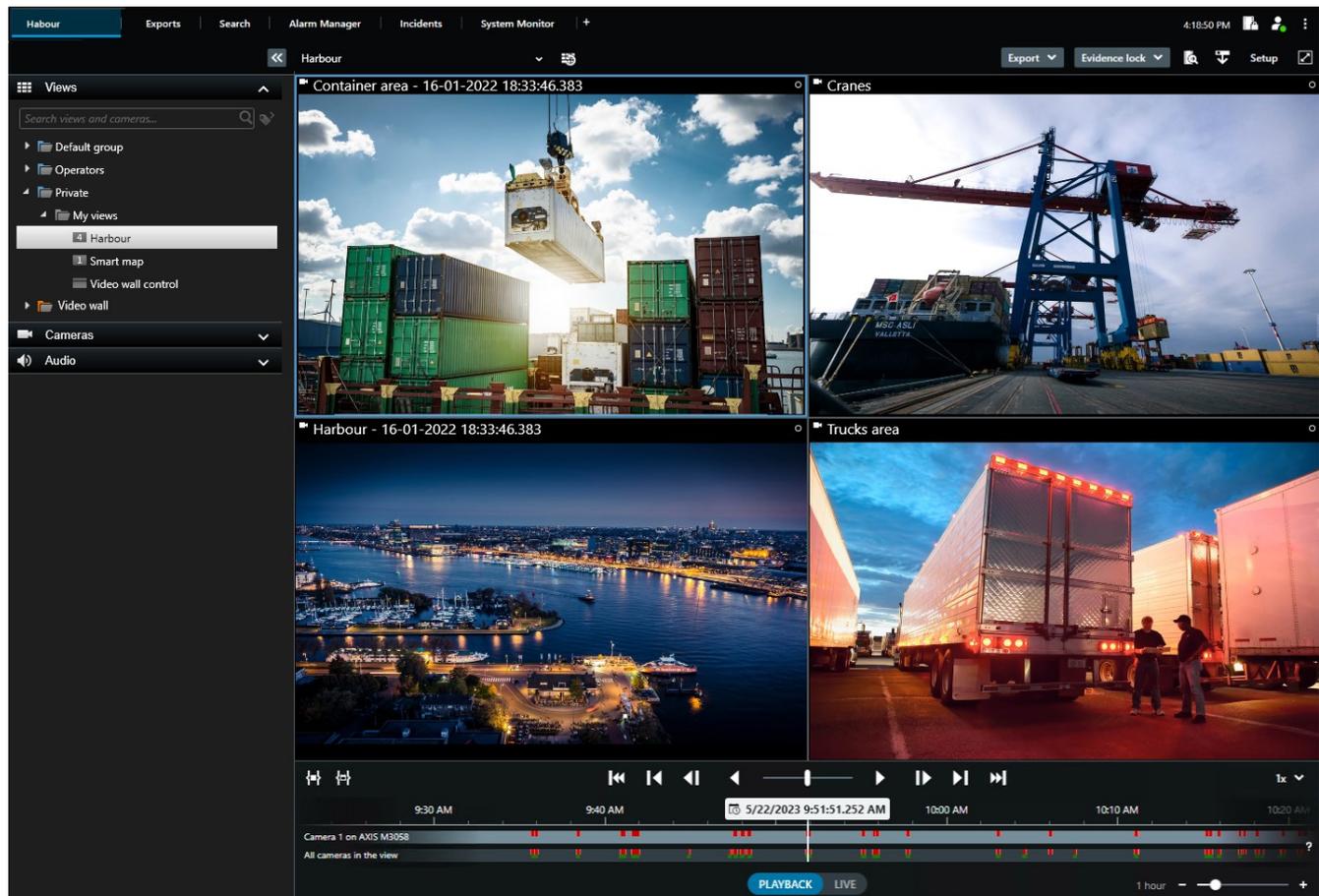
You can have as many views as you need and add the video from the same cameras or other content to as many views and view items as you want.

You can add the dewarped video from a fisheye camera to multiple view items to display different areas of the video in each view item. You can still move inside the video in a camera view item with digital zoom in both live and recorded video.

Views can be shared or private. A shared view is available to multiple users of MOBOTIX HUB Desk Client, while a private view is only available to the user who created it.

Typically, only a few people in an organization can create and edit shared views, such as your system administrator or MOBOTIX HUB Desk Client supervisor. You can always create private views if you have permission to setup mode.

You can also always drag new content from the default panes in to view items in an existing view. Your changes are, however, only temporary unless you have permission to edit the view and have entered setup mode first.

Creating views with content and video from cameras that cover different areas or for specific purposes or tasks is a good idea. For example, different views with all cameras covering:

- The reception area in building 1
- Parking area A
- All hallways in building 1
- All entrances to all your buildings
- The perimeter of your area

Content in view items

View items often contain video from cameras, enabling you to see what is going on, but you can also add other types of content to view items:

Content types	Purposes and benefits
Alarms	Share a list of prioritized alarms so MOBOTIX HUB Desk Client users can focus on and respond to alarm-related incidents.
Cameras	Show live video feeds or recorded video from cameras.
Carousels	Shows the live video from each camera in a camera group in rotation so you are aware of what is happening in your area.
Hotspots	See video in higher quality in the hotspot view item by selecting a camera in one of the other view items in the same view.
Maps and Smart Maps	Access your cameras and devices on the MOBOTIX HUB VMS system through a geographical map. The map improves the situational awareness in your area.
Matrix	You and your colleagues can send live video streams to each other to improve awareness of and collaboration around incidents.
Static images	For example, share a snapshot of a suspect or a diagram of emergency exits.
Text	For example, send a message, share instructions, or post a work schedule for security personnel.
HTML pages	Provide links, online instructions, or show company web pages.

If your organization uses any of the MOBOTIX HUB extensions, you can also add content related to these extensions:

Content types	Purposes and benefits
Access Monitor	Requires MOBOTIX HUB Access. Add access monitors to your views, for example, for a specific door.
LPR	Requires XProtect LPR. Add LPR cameras to your views.
Video Wall controls	Requires MOBOTIX HUB Video Wall. Push video from cameras and other types of content to your video walls.
Transact	Requires XProtect Transact. You can add metadata from, for example, point-of-sales systems to your views.

The live, playback, and setup modes

There are three modes in MOBOTIX HUB Desk Client:

- Live

- Playback

- Setup

The live and playback modes are for viewing live and recorded video. You switch between playback and live mode with the ` PLAYBACK   LIVE ` switch on the main timeline.

You can create and edit private and shared views when you are in setup mode. You can also, for example, configure PTZ preset positions, PTZ patrolling profiles, and Maps or Smart Maps.

You enter setup mode by selecting **Setup** on the workspace toolbar.
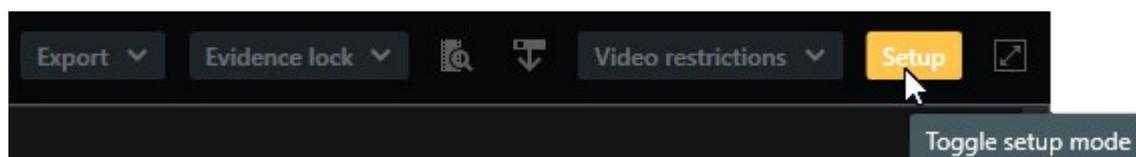
Rules

A simple way to describe what rules are is to say that rules are what make your life as an operator or investigator easier.

Your system administrator creates and defines rules that determine how MOBOTIX HUB Desk Client behaves.

Having the right rules for your tasks and your organization's needs is important. As a user of MOBOTIX HUB Desk Client, you can't create rules yourself, but you will often be the first person to identify the need for new rules.

Important MOBOTIX HUB VMS concepts

Well-defined rules help you focus on what is important, reduce your workload, increase your situational awareness, improve your response times, and improve internal communication in case of incidents.

For example, some rules create events and alarms automatically when an incident occurs. Other rules you activate manually through, for example, overlay buttons inside camera view items.

There are numerous possibilities for how your system administrator can create and define rules. Here are a few examples:

Rule example	Rule behavior example	Benefit examples for users of MOBOTIX HUB Desk Client
Start recording when something happens and stop recording when nothing is going on	The MOBOTIX HUB VMS only saves relevant recordings, for example, 30 seconds before someone opens a gate and 30 seconds after the gate is closed again.	With less recorded video, it is easier to find relevant recordings.
Improve the quality of the video shown in a view item when something happens	The MOBOTIX HUB VMS shows the video of the most important incidents in a higher quality. For example, when someone opens a door, the video from the camera surveying the door is shown in higher quality than otherwise in your view.	It is easier to identify the person entering a building.
Trigger events and alarms when something happens	The MOBOTIX HUB VMS notifies you when something specific happens. For example, when a car enters your area. How you are notified depends on the rule, but a few possible ways are: • Inside MOBOTIX HUB Desk Client: events and alarms in the alarms list, indications on maps, placing bookmarks, and many others. • Outside MOBOTIX HUB Desk Client: emails, text messages, activation of sirens, and many others.	You and your colleagues are notified when something happens.
Temporarily move a PTZ	The MOBOTIX HUB VMS moves a PTZ camera to cover an area where an incident occurs while zooming in for you to see details better. The PTZ camera returns to its initial position and	You and your colleagues are presented with the most relevant video and can react

camera to a specific position, zoom in on what is happening, and return the PTZ camera to its original position after a specified time period.	zoom level, giving you the overview again. An example: • A door opens, and the PTZ camera that usually surveys the entire reception area moves slightly and zooms somewhat into the area near the door. • The PTZ camera returns to its original position and zoom level after 30 seconds.	quickly.
Share live video in Matrix view items when something happens	The MOBOTIX HUB VMS sends live video showing an incident into a view item with Matrix content in one or more shared views. For example, when someone breaches the perimeter of your area.	You and your colleagues are made aware of an critical incident and can react quickly if you need to.
Switch cameras between day and night mode based on the time of day	The MOBOTIX HUB VMS switches between cameras' day/night mode in a specific camera group to display the best video quality.	Ensures you and your colleagues have the best quality live and recorded video.

Incidents, events, actions, and alarms

In MOBOTIX HUB VMS context, the terms incidents, events, actions, and alarms have different meanings, and they each play their part in rules.

Term	Explanation	Scenario
Incident	An incident is something that is happening in real life.	Someone opens a door. In this scenario, we call the door Door1.
Event	In MOBOTIX HUB VMS, an event is when a rule is defined to recognize an incident. Then, the real-life incident becomes an event in the MOBOTIX HUB VMS. The source of events can, among others,	The door sensor attached to Door1 registers that someone opens the door. A rule turns the registration into a Door1Opened event.

	come from motion in the video, external sensors, data received from other applications, and user input.	
Action	An action is when a rule in MOBOTIX HUB VMS is defined to use an event to make something happen in your MOBOTIX HUB VMS. The action can be to start recording, move a PTZ camera, share video from a camera as Matrix content, and much more.	When a rule registers the Door1Opened event, the rule triggers the MOBOTIX HUB VMS to start recording video from the camera near Door1 in a higher quality for two minutes.
Alarm	An alarm is when a rule in MOBOTIX HUB VMS is defined to use an event to notify relevant people that an incident has occurred. The notification can be through output devices, emails, text messages, and other means.	When a rule registers the Door1Opened event outside office hours, the rule activates a siren and sends a text message to the head of security.

You can find all events and alarms in the alarms list in MOBOTIX HUB Desk Client.

Bookmarks, evidence locks, and video restrictions

You can tag video sequences with bookmark, evidence lock, and video restriction tags. The benefits of each feature tag are different, so you apply them for different purposes.

Bookmarks

You use bookmarks to improve the sharing of video sequences internally and externally.

- Internally, because you can add additional information about these tagged sequences and you and your colleagues can search for them. This means that more can, for example, help handle incidents and investigations.

- Externally, because you can easily export the tagged video sequences.

Evidence locks

Tagging video sequences with evidence locks have the same benefits as bookmarks, but you also protect the tagged video sequences from being deleted for a defined duration.

Protecting video sequences from deletion is helpful if they are essential evidence in, for example, a court case or significant investigation, and you, therefore, need to keep these sequences longer than you usually would.

Video restrictions

Investigators can tag video sequences with video restriction tags to restrict access to the video sequences for a defined duration. Both in live and recorded video.

Investigators typically apply video restriction tags if the video is privacy sensitive, related to a high-profile incident, or both.

The following examples demonstrate reasons to restrict access to video temporarily:

- Prevent leaks to the media about the details of an incident.

- Keep the investigation and details of an incident to a few key investigators.

- Allow the police to conduct a thorough investigation in peace.

- Protect the privacy of people in the video.

You can simultaneously apply video restrictions and evidence locks to the video sequences

Maps and Smart Maps

In MOBOTIX HUB Desk Client, you find two map features designed to improve your situational awareness: Map and Smart Map.

With both map features, you can create a virtual presentation of the area you protect. You can place icons representing the different cameras and other devices added to your MOBOTIX HUB VMS system in the locations where the cameras and other devices are mounted.
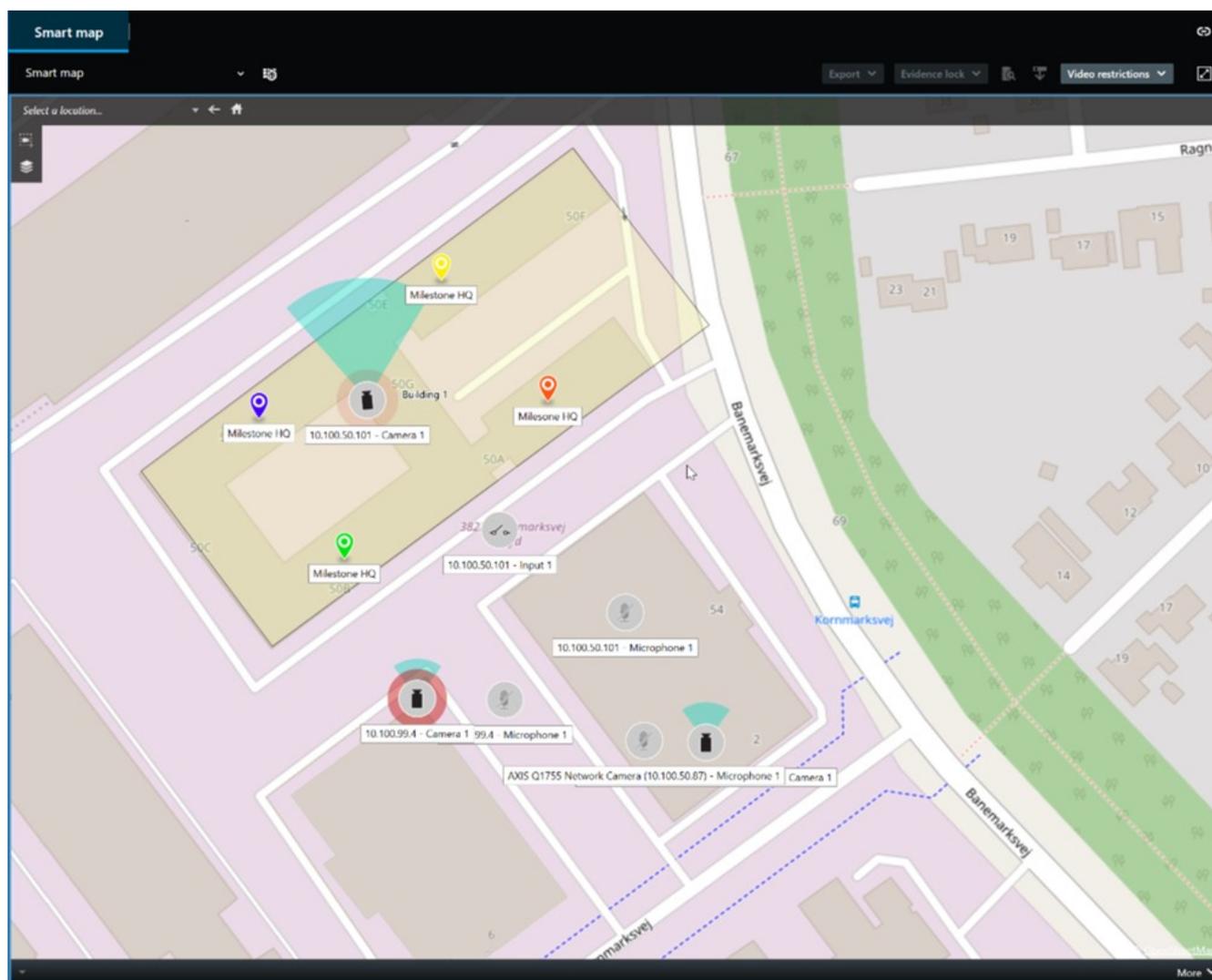
In MOBOTIX HUB Desk Client, you can interact with a camera or device by selecting the icon presenting the camera or device on the map.

If a rule registers an event or triggers an alarm, the icon representing the camera or device related to the event or alarm is highlighted. This helps you identify where an incident has happened in your area or buildings.

The Smart Map feature is more advanced than the Map feature. With the Map feature, you can only use still images to visualize your area and buildings.

With the Smart Map feature, you can combine geographic information systems like Google Maps, Bing Maps, and OpenStreetMap with still images and CAD drawings to accurately reflect the geography of your areas and floor plans of your buildings. This gives you a more exact overview of your cameras in one or multiple locations.

Bounding boxes

If you have cameras or integrations that can identify the whereabouts of objects and send metadata to your MOBOTIX HUB VMS, the MOBOTIX HUB VMS can place visual indicators called bounding boxes around the objects in the video.

The bounding boxes help you keep an eye on the whereabouts of important objects for your organization and business.

A bounding box is a rectangular border that encloses an object in a camera image in MOBOTIX HUB Desk Client. The default color of the box is yellow, but your system administrator can have selected a different color.

If you can enter setup mode, you can select to show or hide bounding boxes from individual cameras. If you can't enter setup mode and you can see bounding boxes, your MOBOTIX HUB system administrators have enabled them for you.

Privacy masks

Your system administrator can blur or cover areas in the field of view of a camera to protect private or public areas. For example, if a camera overlooks the windows of a private residence. In MOBOTIX HUB Desk Client, the areas with privacy masks are then covered in live, playback, and exports.

In this example, five windows in an adjacent building are covered by privacy masks.

If your system administrator has defined a privacy mask as liftable, you can lift the privacy mask temporarily in MOBOTIX HUB Desk Client if you have the required user permission to do so.

In this example, there are two types of privacy masks. The solid gray area is covered permanently, while the blurred area is a privacy mask you can lift.
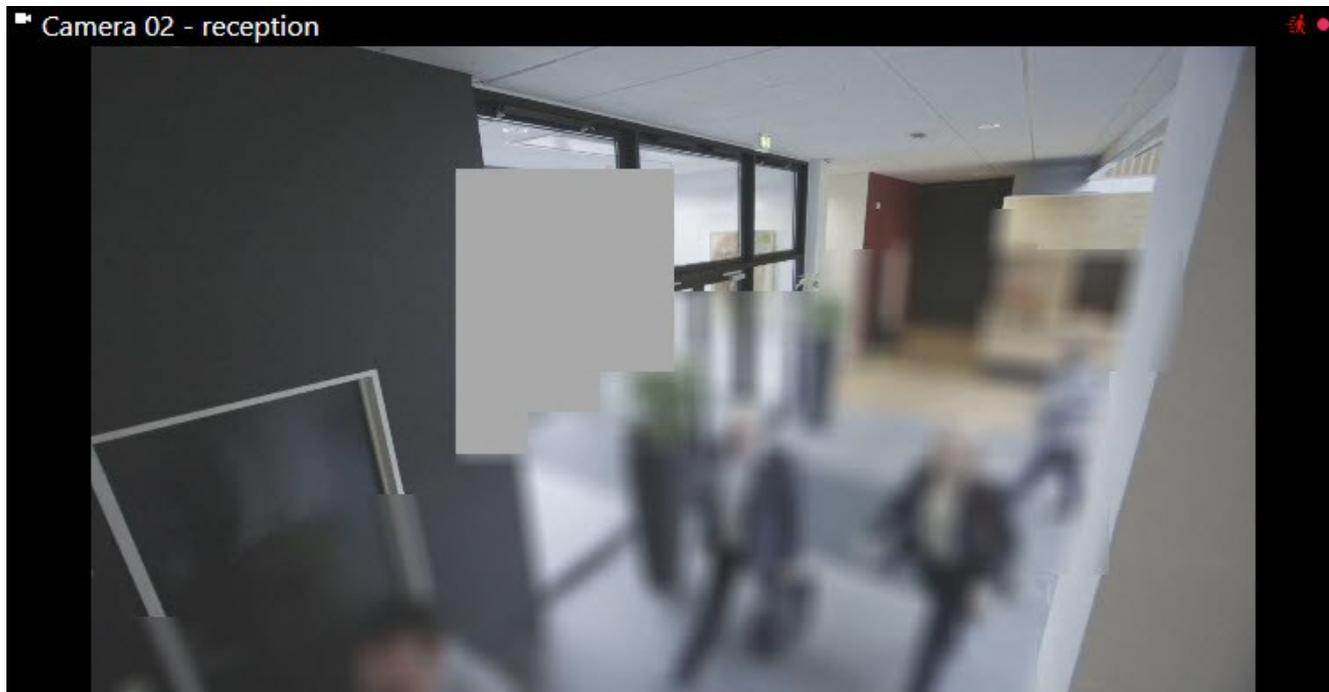
> ✎ When you export video, you can add additional privacy masks to the exported video.

Adaptive streaming and hardware acceleration

In MOBOTIX HUB Desk Client, there are two settings you can use to reduce the network load of sending video feeds and improve your computer's decoding capability and performance.

Adaptive streaming and playback

Your system administrator can configure cameras to send multiple video streams to MOBOTIX HUB Desk Client in different resolutions, and that several of these video streams are recorded. If that is the case, you can in MOBOTIX HUB Desk Client define to switch between which stream is shown in a camera view item to achieve best video quality versus bandwidth balance.

So, adaptive streaming is used when multiple live video streams from the same camera can be shown in the same view item. Adaptive playback is the same, just for playing back recorded video. The method enables MOBOTIX HUB Desk Client to automatically select the video streams with the best match in resolution to the streams requested by the view items.

Hardware acceleration

Hardware acceleration uses GPU resources to improve the decoding capability and performance of the computer running MOBOTIX HUB Desk Client. Hardware acceleration is beneficial when viewing multiple video streams with high frame rate and high resolution.

> You can't use all GPU resources for hardware acceleration. If in doubt, ask your supervisor or system administrator.

Solving typical tasks

Viewing video and working with views

Some of the most fundamental tasks for a user of MOBOTIX HUB Desk Client include:

- Viewing video from cameras

- Listening to audio from microphones

- Accessing other data from devices added to your MOBOTIX HUB VMS system.

Here are a few ways you can do these tasks.

Selecting views

You view video and other content by selecting different views. If there is audio, you can hear it. You select views:

- From the **Views** pane.

- From the views selection list in the workspace toolbar.

- Through keyboard shortcuts if you have assigned keyboard shortcuts to your views.
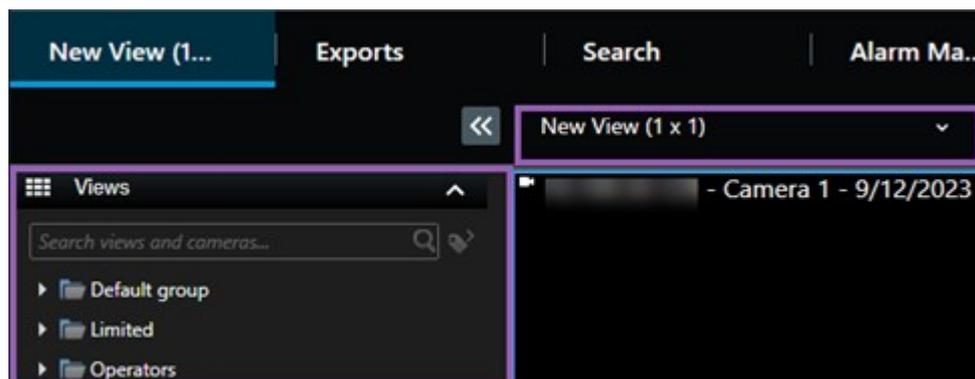
View items and content-related menus and overlay buttons

If you select a view item in a view, a menu related to the content in the view item is shown at the bottom of the view items.

For example, overlay buttons can give you quick access to pan or zoom in the video.

To view details in the content of a view item, you can double-click the view item to maximize it.

Navigating the video

On the main timeline, you can switch between viewing live and recorded video and go back and forth in the recorded video. You can also search for video or other content.

Multiple windows and tabs

To view video from multiple views simultaneously, you can send views to detached windows. You can also have multiple views tabs in all your open windows.

To restore all your windows and tabs the next time you log into MOBOTIX HUB Desk Client, remember to enable the setting for restoring them.

Navigating cameras

MOBOTIX HUB Desk Client has features for viewing live and recorded video, going back and forth in time in recorded video, zooming in on details in the video, and much more.

You can see and use different navigation features depending on several factors. They include:

- The type of camera
- The camera's capabilities
- If you are viewing video in live or playback mode
- Your user permissions

Zoom in and out

In live and playback mode, you can digitally zoom in and out on the video from any supported camera.
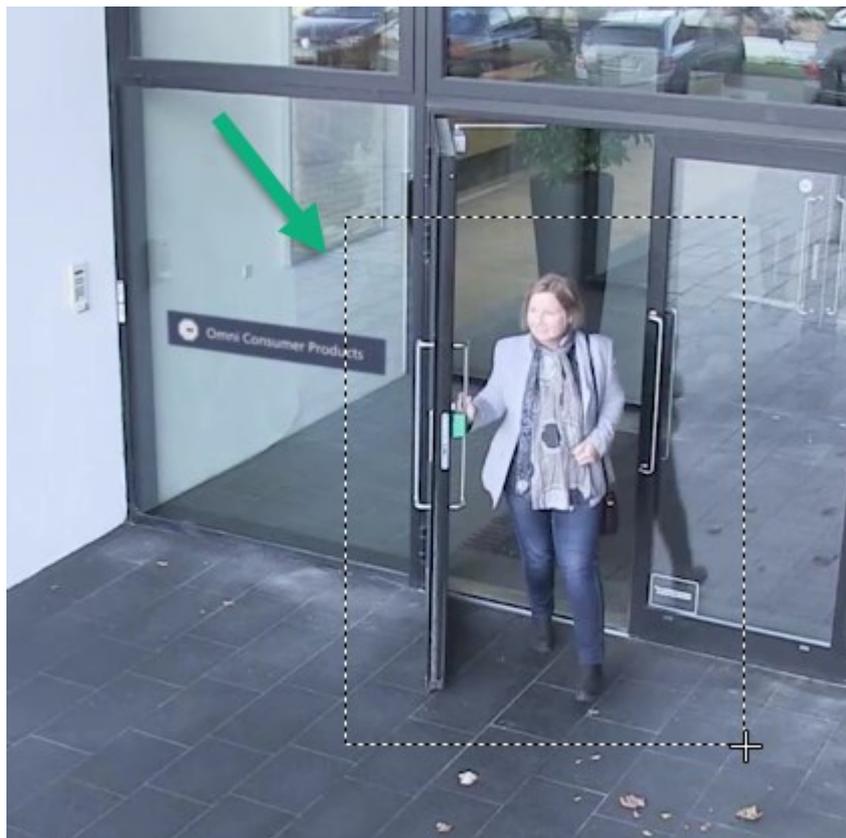
You can only use optical zoom in live video if the selected camera has movable camera lenses. If you zoom in or out optically, this also affects what is recorded.

PTZ (pan-tilt-zoom)

You can use digital PTZ in the video from any supported camera in live and playback mode.

In live video, you can physically move (pan, tilt, and zoom) the view direction and focal length of a PTZ camera. If you move a PTZ camera, this also affects what is recorded.

You can add the dewarped video from a fisheye camera to multiple view items to display different areas of the video in each view item. You can still move inside the video in a camera view item with digital zoom in both live and recorded video.

Time navigation

You can go back and forth in time in recorded video. To find video sequences, use the controls in the main timeline to change the time for all cameras' video in the view. You can also go back and forth in the recorded video displayed in a single camera view item. This is called independent playback.
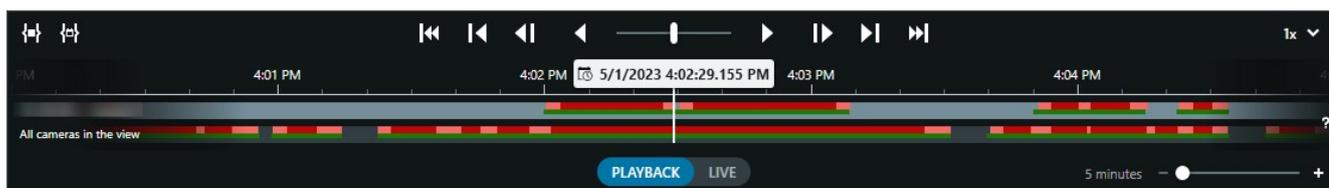
Patrolling

Through MOBOTIX HUB Desk Client and without leaving your office, you can manually patrol the buildings and areas you protect by turning the view angle of PTZ cameras in different directions and selecting different views.

If your system administrator has created rules for patrolling, you have dedicated views and view items set up for patrolling. The rule-based patrolling can include:

- PTZ cameras turning

- Cameras zooming in on areas

- The showing of video feeds from one camera after the other in carousel view items, for example, 20 seconds of video from each camera in a camera group.

Improving your situational awareness

MOBOTIX HUB Desk Client has many built-in features that facilitate your awareness of what is happening in the buildings and areas you protect.

Which features are available to you depends on your organization's MOBOTIX HUB VMS product and possible extensions, as well as your user permissions.

MOBOTIX HUB Access

With MOBOTIX HUB Access, you can integrate with access control systems and control who can enter your area and buildings from within MOBOTIX HUB Desk Client.

XProtect LPR

XProtect LPR identifies and captures license plate information from vehicles and combines it with the corresponding video. You can compare recognized number plates with predefined lists and initiate automated actions through rules. For example, issuing parking charges and opening gates to allow registered cars to enter an area.

Maps

With the two map features, Map and Smart Map, you can visualize the area and buildings you protect and the location of the cameras and other devices added to your MOBOTIX HUB VMS system.

Both map features can highlight cameras or devices when a rule creates an event or alarm associated with the camera or device. With this behavior, you instantly know where the incident has happened, enabling you to respond quickly and relevant to the situation.
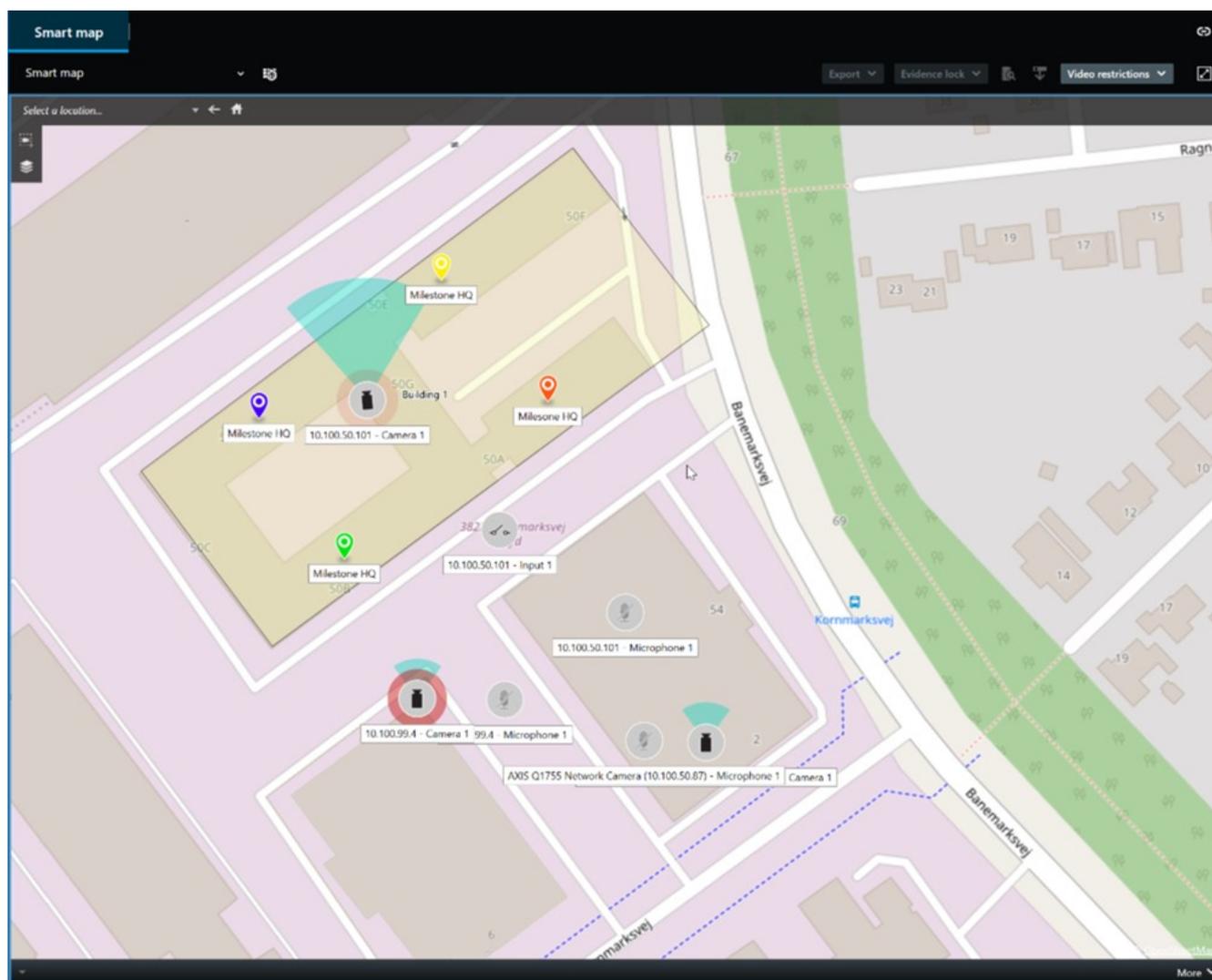
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- PTZ cameras turning

- Cameras zooming in on areas

- The showing of video feeds from one camera after the other in carousel view items, for example, 20 seconds of video from each camera in a camera group.

Matrix

The Matrix feature is handy when you discover an incident while viewing live video. With the Matrix feature, you and your colleagues can send live video streams to each other through shared views with view items containing Matrix content.

Rules defined by your system administrator can also trigger the sharing of Matrix content when different incidents occur.

Hotspot

The hotspot feature is a great situational awareness feature that, based on rules, can share live video of incidents with you.

Exactly when the shared video is shown in a hotspot view item depends entirely on the rules defined by your system administrator.

Compared with the Matrix features, the hotspot feature has the benefit that you can define that the view item with hotspot content shows the video in better quality than the video in the other view items. If you select a view with a large view item for the hotspot content, you and your colleagues can clearly see what is happening in the shared video.

Events and alarms

Rules create events and alarms. This behavior makes you aware of ongoing incidents and enables you to respond more quickly and targeted to the incidents.

Sharing video

About sharing video

Collaboration is important but also by nature difficult. That's why MOBOTIX HUB Desk Client has several features that facilitate collaboration with your colleagues and security personnel inside or outside your organization.

Which sharing feature is best depends on who you want to share the video with, the scenario, and your preference.

Sharing video with colleagues inside your organization

The following features are excellent choices for sharing video with your colleagues inside your organization

MOBOTIX HUB Video Wall

The MOBOTIX HUB Video Wall extension is designed explicitly for fulfilling organizations' needs for sharing video. It is ideal for control centers with multiple operators.

Matrix

The Matrix feature is handy when you discover an incident while viewing live video. With the Matrix feature, you and your colleagues can send live video streams to each other through shared views with view items containing Matrix content.

Rules defined by your system administrator can also trigger the sharing of Matrix content when different incidents occur.

Maps and alarms

Maps and alarms are both situational awareness and video sharing functionalities. However, sharing video is indirect because you have to select representations of cameras on the map or an alarm in the alarms list to view the video.

When a camera on the maps indicates that something has happened that needs your attention or an alarm appears on the alarms list, this is triggered by the rules defined by your system administrator.

Bookmarks, evidence locks, and search

You can search for bookmarks and evidence locks. A search is faster and more precise than using the various controls in the main timeline. Your search also finds all video sequences that are tagged with the same bookmark or evidence lock.

To improve sharing and collaboration, you can save a search as a public search. A saved public search is available for your colleagues so they can easily find the tagged video sequences.

Sharing video with security personnel outside your organization

The best option for sharing video about incidents with people outside your organization is to make an export with the relevant video sequences.

If it is a severe incident that needs to go to court, you would generate the export with digital signatures and keep a copy of the export yourself to ensure that you have the video available after the defined retention time for all video in your MOBOTIX HUB VMS system. If your MOBOTIX HUB VMS product supports evidence locks, you can also apply evidence locks on the video showing the incident.

Investigating and documenting incidents

Investigation and documentation of incidents

MOBOTIX HUB Desk Client has many built-in features that facilitate the investigation and documentation of incidents. There are also MOBOTIX HUB extensions explicitly developed for these purposes.

The features available to you depend on the MOBOTIX HUB VMS product, possible extensions, and your user permissions.

Which feature is best depends on the scenario and your preferences.

MOBOTIX HUB Incident Manager

MOBOTIX HUB extension developed for capturing video evidence and documenting and managing incidents. See .

Bookmarks, evidence locks, and searches

You can tag the video sequences showing an incident with bookmarks and evidence locks.

You can search for bookmarks and evidence locks. A search is faster and more precise than using the various controls in the main timeline. Your search also finds all video sequences that are tagged with the same bookmark or evidence lock.

To improve sharing and collaboration, you can save a search as a public search. A saved public search is available for your colleagues so they can easily find the tagged video sequences.

When you tag video with evidence locks, the tagged video sequences are not deleted after the retention time defined for all video sequences in your MOBOTIX HUB VMS system.

Events, alarms, and the alarms list

If you are viewing live video, keeping an eye on new events and alarms on the alarms list is a good idea. The events and alarms could be triggered by an incident you need to investigate. If you only view recorded video, open the alarms list a couple of times every day to check if there have been incidents that you need to investigate.

Export

Save video outside the MOBOTIX HUB VMS system and share the exported video with others.

Scenario: You discover an incident while watching live video

> ✏️ This example scenario only covers how to investigate and document incidents with built-in MOBOTIX HUB Desk Client features.

Let's say you discover an incident while watching live video or because an alarm is triggered. Let's also assume that you are not dispatched to deal with the incident on site. Then you would typically:

1. Call the security personnel handling with the situation on site.

2. Instantly start applying bookmarks to the relevant video sequences so you can easily share the video with colleagues and find the video sequences again through a search.

3. Continuously inform the security personnel on site about any developments in the incident.

4. Follow the cause or effect of the incident if it moves or spreads to new areas by switching to other view items or views, and add bookmarks to these video sequences, too.

When the incident has stopped, you would typically:

1. Search for your bookmarks.

2. Adjust the bookmarks' start and end times to ensure all video sequences covering the incident are included.

3. You would probably export the bookmarked video as documentation and share it with relevant security personnel inside or outside your organization.

4. As an alternative–or addition–to the export, you can apply evidence locks to the video sequences to ensure the video sequences are not deleted at the retention time defined for all video in your MOBOTIX HUB VMS system.

5. Gather testimonials from security personnel on site about how they experienced the incidents.

Scenario: You discover an incident after it happened

> ✏️ This example scenario only covers how to investigate and document incidents with built-in MOBOTIX HUB Desk Client features.

Let's say you meet up at work and discover that someone has vandalized your windows by throwing paint on them. You know there was no paint when you left the day before.

In this scenario, you would typically:

1. Find the views with the cameras covering the areas with the vandalized windows.

2. In playback mode, use the features on the main timeline to browse the video from the time you left the day before. If you have set up an alarm that would have been triggered by the incident, you could also look at your list of alarms.

3. Find the video showing the time when the windows were vandalized and bookmark it. Also, now you know how the persons entered and left your area. Find the video showing their movement around your area and bookmark it too.

4. You would probably export the bookmarked video as documentation and share it with relevant security personnel inside or outside your organization.

5. As an alternative–or addition–to the export, you can apply evidence locks to the video sequences to ensure the video sequences are not deleted at the retention time defined for all video in your MOBOTIX HUB VMS system.

Configuring MOBOTIX HUB Desk Client for all users

Your system administrator configures most of the MOBOTIX HUB VMS system, but there are still elements your MOBOTIX HUB Desk Client supervisor must configure for all users of MOBOTIX HUB Desk Client.

If you can enter setup mode and configure elements for all MOBOTIX HUB Desk Client users, you can define one or more of the following:

- Create and edit shared views

- Create view groups

- Add content to view items

- Define camera properties

  - Video buffering

  - Image quality

  - Frame rate

  - Title bar

- Define which video stream from a camera to show in a view item (adaptive streaming)

- Define carousels, hotspot, and Matrix content and their behavior

- Assign shortcut numbers to views

- Create web pages with links and scripts

- Create and edit maps

  - Place cameras and other devices on the maps

- Create overlay buttons

- Define MOBOTIX HUB Video Wall controls

Optimizing your computer's performance

There are a few elements that only the individual users of MOBOTIX HUB Desk Client can configure on their own computers with MOBOTIX HUB Desk Client.

Keyboard shortcut keys

In MOBOTIX HUB Desk Client, you can define several keyboard shortcut keys that can help you complete tasks faster. Here are a few examples:

- Open a new tab

- Take a snapshot

- Lift/reapply privacy masks

- Close all detached windows

- Activate outputs

- Zoom in/out

- Go to a specific preset position

- Activate the different controls in the main timeline

- Select a specific view.

Adaptive streaming and playback

If you enable the **Adaptive streaming** setting, you can reduce the network load when sending video streams across your network.

To check the status of the **Adaptive streaming** on your computer:

Open the **Settings and more** menu, select **Settings**, and then the **Advanced** tab to check if the **Adaptive streaming** setting is enabled on your computer. If not, enable it.

> To use adaptive streaming in live video, your system administrator must have configured cameras to send at least two live video streams in different resolutions to the MOBOTIX HUB VMS system. To use adaptive playback, at least two video streams in different resolutions are recorded. Also, your MOBOTIX HUB Desk Client supervisors have defined views using multiple streams.

Hardware acceleration

If you enable the **Hardware acceleration** setting, you can improve your computer's decoding capability and performance.

To check the setting for **Hardware acceleration** in your MOBOTIX HUB Desk Client:

Open the **Settings and more** menu, select **Settings**, and then the **Advanced** tab, to check if hardware acceleration is enabled on your computer. If not, enable it.

> Hardware acceleration uses GPU resources. If your computer doesn't have GPU resources, you can't use hardware acceleration.

> You can't use all GPU resources for hardware acceleration. If in doubt, ask your supervisor or system administrator.

Complying with privacy data laws

Your system administrator ensures that the MOBOTIX HUB VMS system complies with your country's privacy data laws.

But MOBOTIX HUB Desk Client users also play a part in keeping your organization compliant with the privacy data laws of your country.

Exported content

Make sure that you:

- Protect the exported files.

    - When exporting, select to protect the exported files with a password.

    - Safely store the exported files so unauthorized persons can't access them.

- Only share exported content with persons or organizations with a legitimate purpose.

- Only keep exported content for as long as it serves a purpose.

- During an export, apply additional privacy masks on the video to prevent recipients of export from viewing areas in the video that are irrelevant or private.

    > You can only apply additional privacy masks when you export in the MOBOTIX HUB format.

Evidence locks

Your system administrator has defined the durations for how long you can select to protect video and data with evidence locks.

But you must make sure that you:

- Select an evidence lock duration corresponding to how long you foresee that you need to keep the video or data.

- Remove evidence locks from video or data if you no longer need them as evidence.

Monitoring the health of your system

To know as soon as a camera or other component in your MOBOTIX HUB VMS system fails is essential for the uninterrupted protection of your areas and buildings.

On the **System Monitor** tab, you find a dashboard that displays the health of all your MOBOTIX HUB VMS system components. On the dashboard, you can instantly identify if, for example, a camera has stopped working and start rectifying the situation. You can also see if a component is overloaded, for example, if one of your recording servers is about to run out of disc space or memory.
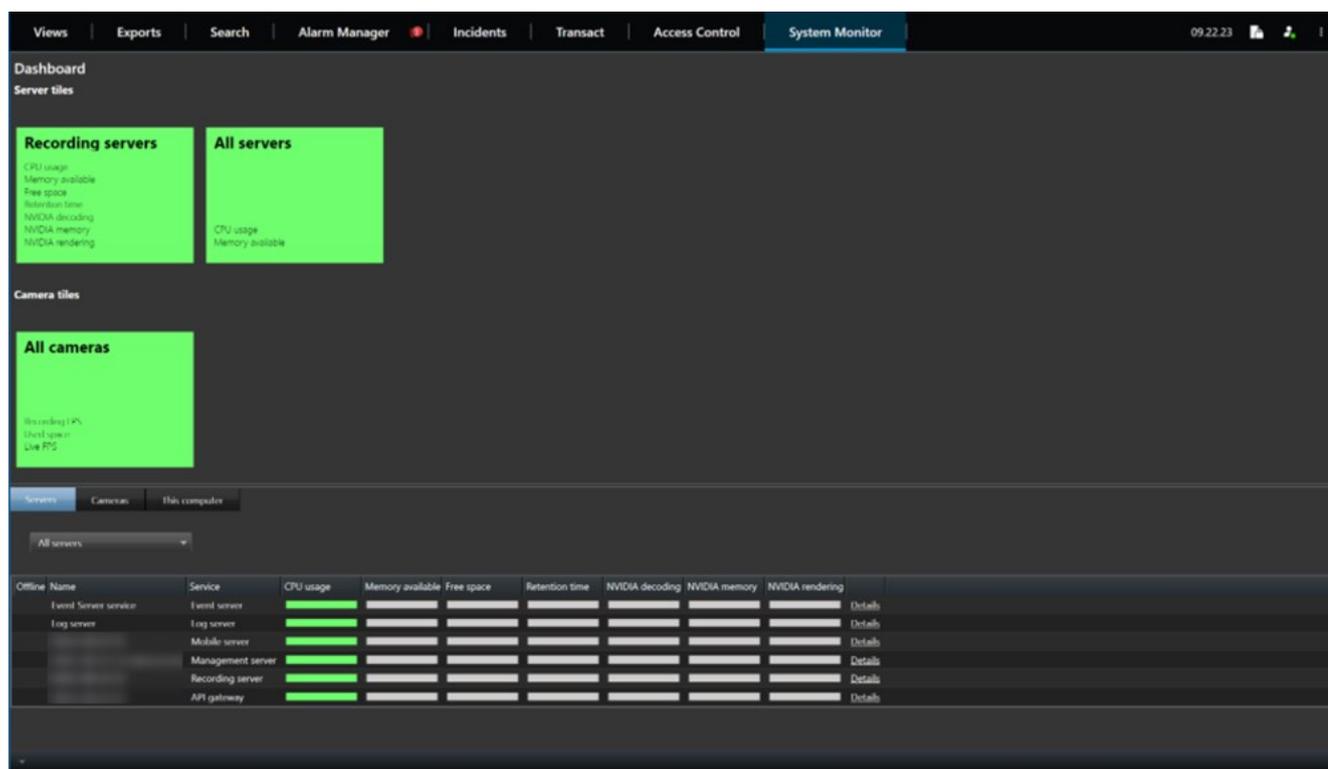
By default, there are tiles representing all **Recording servers**, **All servers**, and **All cameras**. You can customize these default tiles' monitoring parameters and create new ones. For example, you can create tiles representing single servers, cameras, camera groups, or server groups.

Understand the user interface

User interface overview

MOBOTIX HUB Desk Client is a desktop application designed to help you manage and view video from the cameras that are connected to your MOBOTIX HUB VMS system.

References in our documentation made to the positioning of user interface elements presume that you are using MOBOTIX HUB Desk Client with a left-to-right language layout.

From the MOBOTIX HUB Desk Client desktop app, you have access to workspaces and features such as:

1. Default tabs like **Views**, **Exports**, **Search**, **Alarm Manager**, and **System Monitor**, located in the upper-left corner of the MOBOTIX HUB Desk Client. See Default tabs on page 35.

2. Default panes for setting up views and cameras, located below the default tabs.

3. The global toolbar with access to **Evidence lock list**, **User profile**, and **Settings and more**, located in the upper-right corner.

4. The workspace toolbar with access to **Export**, **Evidence lock**, and **Setup**, located just below the global toolbar. The features in the workspace toolbar changes according to the selected tab.

5. Main timeline. The main timeline is available if you select the **Views** tab. It is located at the bottom of the window.
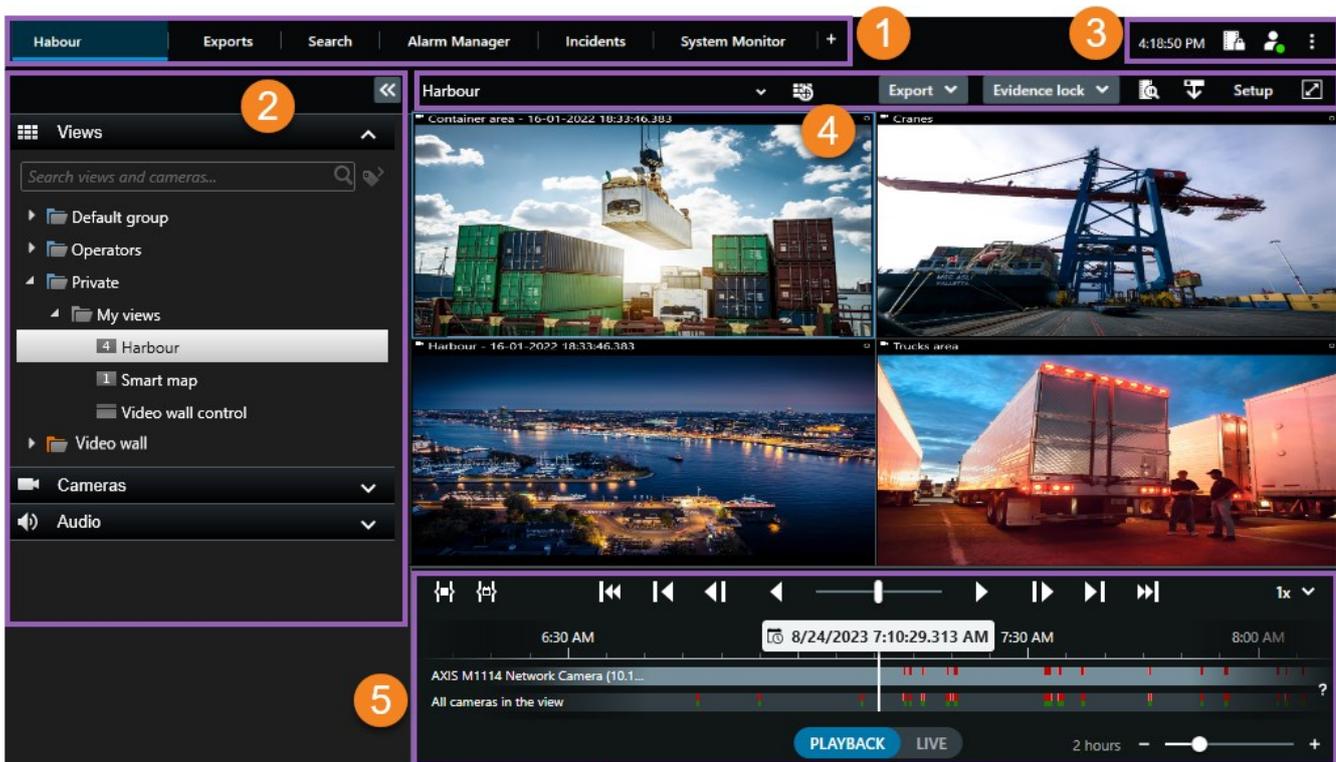
Default tabs

MOBOTIX HUB Desk Client comes with a set of default tabs for your daily tasks.

Some of the MOBOTIX HUB extensions have tabs that are specific to their functionality.

> If you can't see some of the default tabs, you don't have the permissions required to access them.

The main views tab

You can create as many tabs with views as you want in MOBOTIX HUB Desk Client's main window and in detached windows. Tabs with views are named after the selected view.

In live mode, you can view live video feeds, and work with audio, carousels, hotspots, Matrix, Smart Map, pan-tilt-zoom (PTZ) control, digital zoom, independent playback, and more.

In playback mode, you can investigate recorded video by playing it back. The main timeline gives you advanced features for browsing recorded video. You can also start searching from any camera or view, and document what you find by exporting evidence. To protect evidence from being deleted from the database, you can add evidence locks to your recorded video.

Additionally, you can:

- Listen to audio when connected to selected MOBOTIX HUB VMS systems

- If your MOBOTIX HUB VMS product supports Smart Map, you can access the cameras added to your MOBOTIX HUB VMS system in a geographical interface

- Use hotspots, digital zoom, or carousels, print images, and more

From live or playback mode, you can enter setup mode, where you can set up views for your cameras and other types of content.

The Exports tab

When you want to export video data, you add the relevant sequences to the **Export list**. For each sequence in the **Export list**, you can change the time span by selecting **Start time** and **End time**.

You can choose which formats to use for the export, and for each format, you can change the **Export settings**.

After you select **Export**, you specify an **Export name** and an **Export destination**. Then, you can create the export.

The exports that you create are stored in the folder that you specified in the **Create export** window > **Export destination** field.

The Search tab

On the **Search** tab you can search through all your recordings and apply filters to refine your search. For example, you can use filters to find vehicles, people, or recordings with motion detected in specific areas.

From the search results, multiple actions are available.

The Alarm Manager tab

On the **Alarm Manager** tab, you can view and respond to incidents or technical problems that have triggered an alarm. The tab displays an alarms list, an alarms preview, and any available maps.

The System Monitor tab

The color-coded tiles on the **System Monitor** tab provide an overview of the current state of the computer running MOBOTIX HUB Desk Client, your system servers, cameras, and additional devices.

- Green: **Normal** state. Everything is running normally

- Yellow: **Warning** state. At least one monitoring parameter is above the defined value for the **Normal** state

- Red: **Critical** state. At least one monitoring parameter is above the defined value for the **Normal** and **Warning** state

If a tile changes color and you want to identify the server or parameter that caused the change, select the tile. This opens an overview at the bottom of the screen. Select **Details** for information about why the state changed.

> If a tile displays a warning sign, a data collector for one of your monitored servers or cameras may not be running. If you place your mouse above the tile, the system shows you when it last collected data for the relevant tile.

Global toolbar

On the global toolbar, in the upper-right corner of the MOBOTIX HUB Desk Client, you have access to information about your MOBOTIX HUB Desk Client and how to change the settings. This includes:
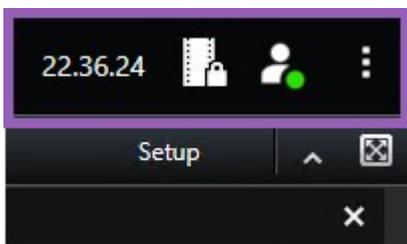
Time zone

Set up time zone.

Shortcut to evidence lock list

The **Evidence lock list** shows evidence locks you have created. You can sort, filter, and search the evidence locks list and see detailed information about each evidence lock.

User menu

On your **User menu**, you can see your **Login information**, and you can log out from the MOBOTIX HUB Desk Client. **Login information** contains information about the status of the MOBOTIX HUB VMS servers that your MOBOTIX HUB Desk Client is connected to.

> ✏️ A red circle on the **User menu** [icon] indicates that one or more servers are unavailable.

Select **Login information** to view the server status.

- Available servers are displayed in green.

- Unavailable servers are displayed in red. If servers are not available at the time you log in, you can't use cameras or features belonging to those servers. When you have viewed the status, the red button will stop flashing even if the server is still unavailable.

The number of servers you see reflects the number of servers retrievable from the MOBOTIX HUB VMS system at the time you logged in. Particularly if you connect to large hierarchies of servers, occasionally, more servers can become available after you log in. The server list is a static representation of server status. If a server is unavailable, it will display a reason in the **Status** field when you select it. To connect to the server, select **Load Server**. The server status for that server will then be updated. If a server continues to be unavailable for longer periods of time, contact your system administrator for advice.

Settings and more window:

The **Settings and more** window covers:
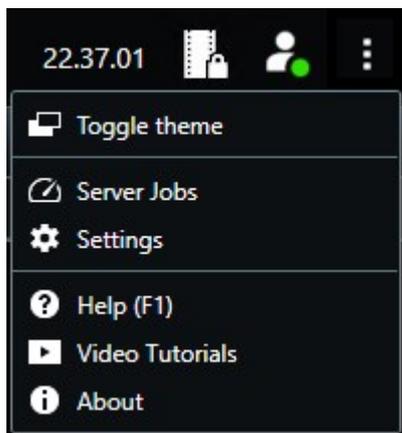
- **Toggle theme**—you can switch the MOBOTIX HUB Desk Client theme to dark or light.

- **Server jobs**—depending on your user permissions to retrieve data from interconnected hardware devices or cameras that support edge storage, you can view the server jobs created for each data retrieval request for these devices.

- **Settings**—you can configure MOBOTIX HUB Desk Client settings and behavior, joysticks, keyboard shortcuts, language, and more.

- **Help**—you can access the help system, play online video tutorials, or view version number and plug-in

information.

- **About**—information about the latest MOBOTIX HUB Desk Client plug-ins and versions.

Workspace toolbar

On the workspace toolbar in MOBOTIX HUB Desk Client, you have access to several important features that help you perform your daily tasks. These features include:

Feature	Description
Select view	Shortcut to the **Views** pane to the left.
Reload view	Select **Reload view** to restore your original view.
Export	Export video evidence.
Evidence lock	Create evidence lock to prevent evidence from being deleted. View evidence locks on video sequences.
Retrieve data	Retrieve recordings from interconnected hardware devices or cameras that support edge storage.
Setup	Enter setup mode.
Toggle full screen mode ▧	Toggle between full screen and a smaller window that you can adjust to the size you want.
Lift privacy masks	Users with sufficient user permissions can temporarily lift privacy masks[1].

Timelines

Several timelines

There are several timelines in MOBOTIX HUB Desk Client that you can use for going back and forth in your recordings.

The main timeline has the most features, but other less feature-rich timelines are available in specific contexts.

The timelines can look slightly different, but they have much in common.

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[1]A blurred or solid color that covers an area of the video in the camera view. The defined areas are blurred or covered in live, playback, hotspot, carousel, smart map, smart search, and export modes in the clients.

The main timeline

The main timeline displays an overview of time periods with recordings from cameras and other devices in your current view. The main timeline is available on the views tabs and has various controls you can use to navigate your recordings during investigations or to select recording sequences for export, protection with evidence locks, addition of bookmarks, or other.

Select a views tab and switch to playback mode to show all the timeline controls.

You can adjust how your timelines look and behave. Select which recording types and other elements to show on the timeline tracks. For example, would you like to show recorded audio and bookmarks? You can also select how to play back gaps between recordings. You can also hide the main timeline during inactivity to free as much of the display for viewing video in MOBOTIX HUB Desk Client.

The timeline tracks

- The upper timeline track shows the recording periods of the selected camera.

- The lower timeline track shows the recording periods of all the cameras in the view, including the selected camera.

If you have detached windows that are synced in time with the main window, recordings from cameras and devices in these windows are also shown on the lower timeline track.

Color legend

On the timeline track, the different types of recordings have different colors. The most important colors to know are:

- Light-red indicates recordings

- Red indicates recordings with motion

- Light green indicates recordings with outgoing audio

- Green indicates recordings with incoming audio

For a legend of all the colors currently shown on the timeline tracks, select the small question mark to the right of the timeline tracks.

Bookmarks

Timeline tracks show bookmarks with a blue bookmark icon . To view the bookmarked video, place your mouse over the icon.

Additional markers

If additional data sources are available in your MOBOTIX HUB VMS system, incidents from these sources are shown as markers in colors other than blue. The incidents can appear as pop-ups in the timeline tracks.

The vertical line

The vertical line shows the location of the playhead from where recordings are currently played back. This is called the main playback time, and the text above shows the exact date and time for the video currently played back. The main playback time applies to all the cameras in the view and any synchronized views unless you are viewing independent playback from some of the cameras. If there is no recorded video from one or more cameras in the view matching the main playback time, the last frame from the camera database before the main playback time is shown, but the frame is dimmed.

Navigating the recordings from the timeline

With the controls in the main timeline, you can go back and forth in your recordings in many ways. You can drag the timeline tracks to the right or left. If you press the CTRL key while dragging, the movement is slower.

You can use the timeline controls, the mouse scroll wheel, or select the date above the playhead to go to another time in your recordings.

The timeline controls

Controls	Description
PLAYBACK LIVE	Switch between playback or live mode.
[slider control]	Go back and forth in the video in different speeds. The further you drag the control to the sides, the faster the playback speed.
◀ ▶ ⏸	Play backward ◀ or forward ▶ in time. When you select one of the play buttons, the button turns into a pause button ⏸.
◀‖ ‖▶	Move to the frame just before ◀‖ or after ‖▶ the one currently viewed.
⏮ ⏭	Move to the start of the previous sequence ⏮ or the next sequence ⏭.
⏮⏮ ⏭⏭	Move to the first sequence ⏮⏮ or last sequence ⏭⏭ in the database.
⧘ ⧙	There are two ways of selecting a period of recordings for export, creation of evidence lock or other. **Select start and end time in timeline** ⧘: Select to switch the timeline and the view into selection mode. Select which view items to include and drag the time selection brackets on the timeline tracks to change the start and end time for the video sequences you want to select. **Select start and end time in calendar** ⧙: Select to specify the start and end date and time from a calendar. The timeline track jumps to the selected start time, and the time selection brackets surround the selected time period.
1x ⌄	Change the playback speed.
20 minutes − ⬤ +	Specify the timespan of the timeline tracks. Alternative: use **CTRL** + scroll wheel.

The context-specific timelines

There are several timelines that help you investigate and navigate your recordings in specific contexts.

These context-specific timelines often only have one timeline track and a few to none of the controls available in the main timeline. But when they have timeline controls, they work the same way as the ones on the main timeline.

Timeline	Available from	Purpose
Independent playback	All views tabs	While viewing live video, you can decide to view and go back and forth in the recordings from one of the cameras in your view.
Bookmark	All views tabs	If a sequence of recordings has a bookmark, you can easily find and go to this sequence.
Search	The **Search** tab	If you have searched for something on the **Search** tab, the search timeline gives you an overview of recordings matching your search. You can select the different found recordings to view them.
Export	The **Export** tab	If you have selected recordings for export, you can go back and forth in the selected recordings and change the start and end times of the export.

Extensions

Generally about extensions

MOBOTIX has developed various extensions. Extensions are products that extend the MOBOTIX HUB VMS products' functionality with additional specialized functionality.

As MOBOTIX HUB is an open platform, third-party extensions can also be integrated with your MOBOTIX HUB VMS system and add functionality to MOBOTIX HUB Desk Client.

> Available functionality depends on the system you are using. 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).

In MOBOTIX HUB Desk Client, access to functionality from extensions also depends on your user permissions.

MOBOTIX HUB Access

MOBOTIX HUB Access integrates events from one or more access control systems with the features of the MOBOTIX HUB video management software. You can use MOBOTIX HUB Access with access control systems from vendors that offer a vendor-specific plug-in for MOBOTIX HUB Access.

> If you have an **Access control** tab in MOBOTIX HUB Desk Client, you can access features from the MOBOTIX HUB Access extension.

The incidents registered by access control systems generate events in the MOBOTIX HUB VMS system.

- In live mode, you can monitor access control events in real time from the cameras associated with a door. In setup mode, you can customize your **Access monitor** view items with overlay buttons. In a map view item, you can drag access control units onto the map.

- On the **Access control** tab, you can view and investigate events, door states, or cardholders. You can search or filter on events and review any related footage. You can create a report of the events for exporting.

- When a person requests access and if your system is configured for it, a separate notification pops up with a list of related information next to the camera feed. You can trigger access control commands, such as locking and unlocking doors. Available commands depend on your system configuration.

MOBOTIX HUB Incident Manager

MOBOTIX HUB Incident Manager is an extension that enables organizations to document incidents and combine them with sequence evidence (video and, potentially, audio) from the MOBOTIX HUB VMS.

> ✎ If you have access to MOBOTIX HUB Incident Manager functionality in MOBOTIX HUB Desk Client, you can start an incident project under the **MIP plug-ins** pane and find existing incident projects on the **Incidents** tab. The presence of an **Incidents** tab alone doesn't indicate if you have access to the functionality offered by the MOBOTIX HUB Incident Manager extension.
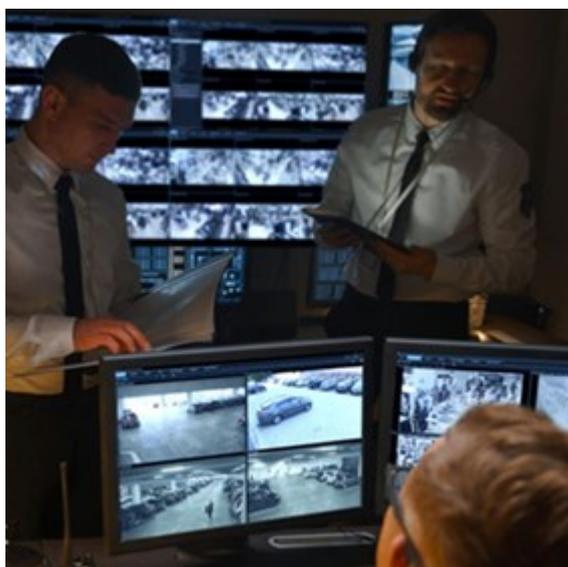
Users of MOBOTIX HUB Incident Manager can save all the incident information in incident projects. From the incident projects, they can track the status and activities of each incident. In this way, the users can manage incidents effectively and easily share strong incident evidence, both internally with colleagues and externally with authorities.

MOBOTIX HUB Incident Manager helps organizations gain an overview and understanding of the incidents happening in the areas they survey. This knowledge enables the organizations to implement steps to minimize the chance that similar incidents happen in the future.

In MOBOTIX HUB Management Client, the administrators of an organization's MOBOTIX HUB VMS can define the available incident properties in MOBOTIX HUB Incident Manager to the organizations' needs. The operators of MOBOTIX HUB Desk Client start, save, and manage incident projects and add various information to the incident projects. This includes free text, incident properties that the administrators have defined, and sequences from the MOBOTIX HUB VMS. For full traceability, the MOBOTIX HUB VMS logs when administrators define and edit incident properties and when operators create and update the incident projects.

The MOBOTIX HUB Incident Manager extension is compatible with:

- MOBOTIX HUB L5 version 2022 R2 and later

- MOBOTIX HUB L4, MOBOTIX HUB L3, and MOBOTIX HUB L2 version 2022 R3 or later

- MOBOTIX HUB Desk Client version 2022 R2 and later

See also the user manual for MOBOTIX HUB Incident Manager.

XProtect LPR

A MOBOTIX extension that is designed for recognizing license plates in cameras' video feed.

> If you have an **LPR** tab in MOBOTIX HUB Desk Client, you have access to features from the XProtect LPR extension.
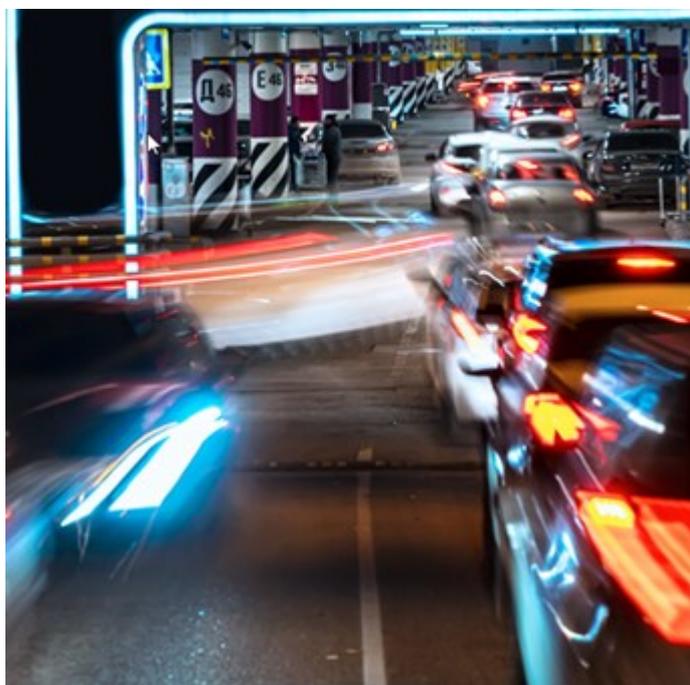
On the **LPR** tab, you can investigate LPR[1] events from all your LPR cameras and view the associated video recordings and license plate recognition data. Keep match lists updated and create reports.

The tab includes an LPR event list and an LPR camera preview. In the preview, you can view video associated with LPR event details. Below the preview, information about the license plate appears together with details from the match list and the license plate style that it is associated with.

You can filter the event list according to the period, country module, LPR camera, match list, or license plate style. Use the **Search registration number** field to search for a particular license plate registration number. By default, this list shows LPR events from the last hour.

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[1]Short for "license plate recognition".

You can specify and export a report of relevant events as PDF.

You can make updates to the existing match lists by using the **Match list** function.

MOBOTIX HUB Video Wall

MOBOTIX HUB Video Wall is an advanced extension that enables organizations to create video walls that meet their specific security demands. MOBOTIX HUB Video Wall provides an overview of all the video data in the MOBOTIX HUB VMS[1] system and supports any amount or combination of monitors.

> ✎ If your organization has the MOBOTIX HUB Video Wall extension, there is a video wall in your control room consisting of several physical displays. You can also send content to the video wall by selecting the camera's view item, then select **More** and **Send to Video Wall**.

MOBOTIX HUB Video Wall allows operators to view static video walls as defined by their system administrator with a fixed set of cameras and monitor layout. However, the video wall is also operator-driven in the sense that operators can control what is being displayed. This includes:

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[1]Short for "Video Management Software".

- Pushing cameras and other types of content to the video wall, for example images, text, alarms, and smart map

- Sending entire views to the monitors

- In the course of certain events, applying alternate presets[1]

Finally, display changes can be controlled by rules that automatically change the presets based on specific events or time schedules.

> 🖉 See also the separate MOBOTIX HUB Video Wall manual.

XProtect Transact

XProtect Transact is an extension to MOBOTIX's IP video surveillance solutions that lets you observe ongoing transactions and investigating transactions in the past. The transactions are linked with the digital surveillance video monitoring the transactions, for example to help you prove fraud or provide evidence against a perpetrator. There is a 1-to-1 relationship between the transaction lines and video images.

> 🖉 If you have a **Transact** tab in MOBOTIX HUB Desk Client, you have access to features from the XProtect Transact extension.

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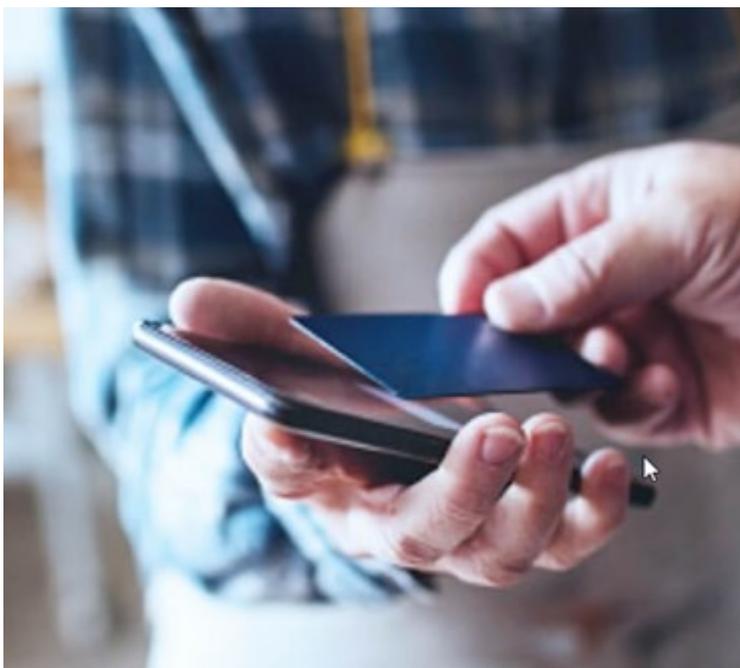
[1]A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

Extensions

The transaction data may originate from different types of transaction sources, typically point of sales (PoS) systems or automated teller machines (ATM). When selecting a transaction line, a video still frame from each of the associated cameras is displayed in a preview area that allows you to review the recordings. Below the preview area, the transaction associated with the selected line is displayed as a receipt.

Learning how to use MOBOTIX HUB Desk Client

Access to user assistance

In the MOBOTIX HUB Desk Client interface, pressing **F1** takes you to the relevant topic in the MOBOTIX HUB Desk Client user assistance. The user assistance topics are tailored to assist you with the task you're currently working on.

From MOBOTIX HUB Desk Client 2024 R1, the user assistance is not installed with the software, but you can install it separately.

If you haven't installed the user assistance, pressing **F1** displays a window with information about where to find and download the user assistance.

Additional help resources

If the MOBOTIX HUB Desk Client user assistance don't provide the information you need, contact your reseller.

MOBOTIX

Beyond**Human**Vision