MxManagementCenter

A New Milestone in Video Management

V1.2_EN_06/2016

www.mobotix.com

Innovations – Made in Germany

The German company MOBOTIX AG is known as the leading pioneer in network camera technology and its decentralized concept has made high-resolution video systems cost-efficient.

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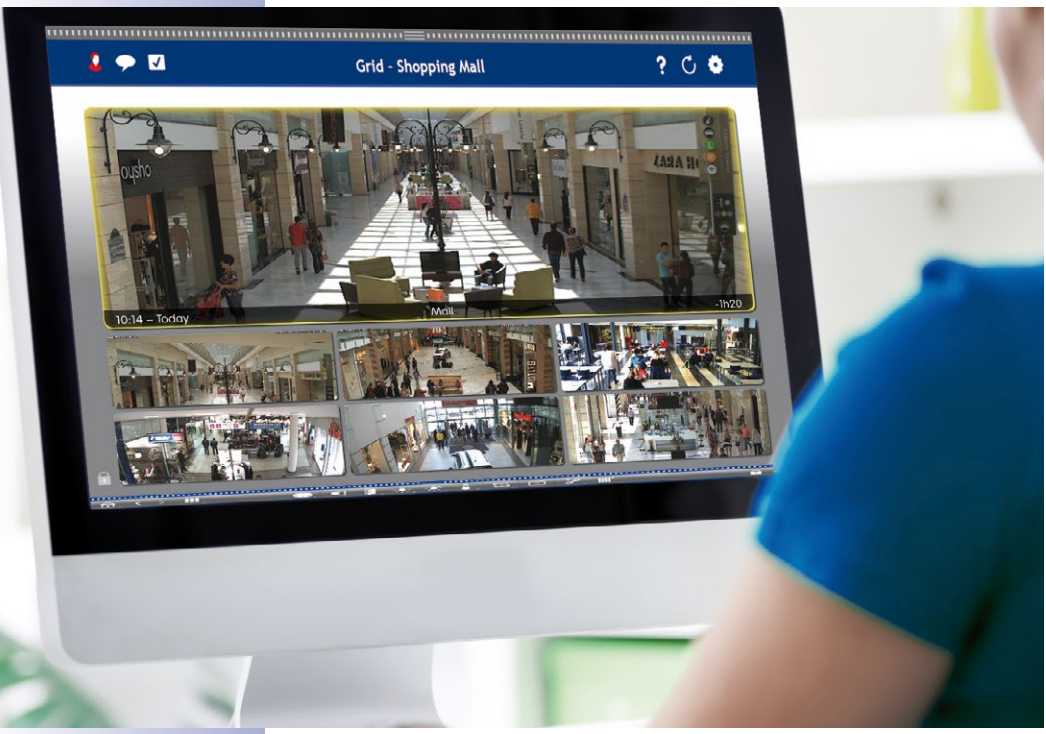

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1 Basics

1.1 General Structure of the Views

Camera Bar/Camera Group Bar
Selection of all cameras or camera groups with sorting functions, switching between cameras and groups

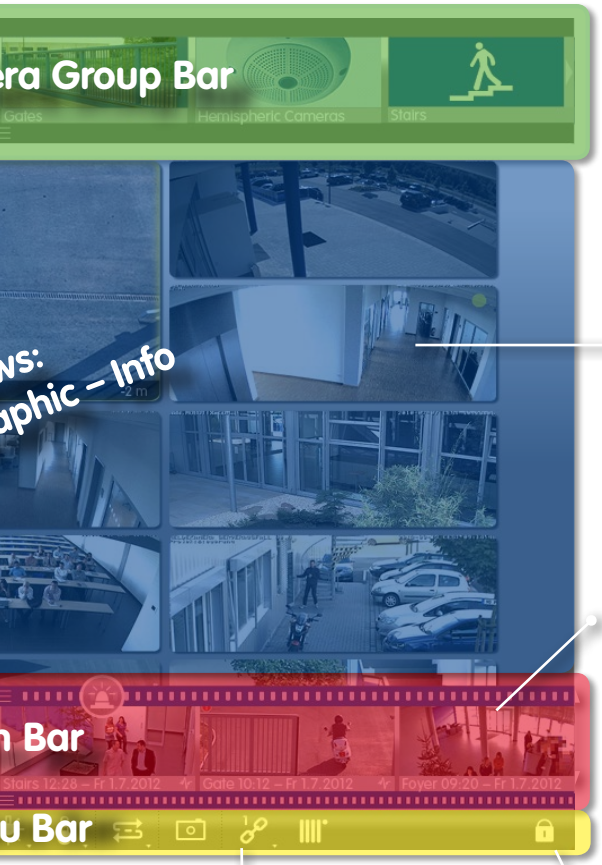
Home View

View History
Forward/backward

Context-Sensitive Selection of Views

Camera and Camera Group Management

Function and Control Buttons



Camera Display Area
Single, groups as grid or graphic view

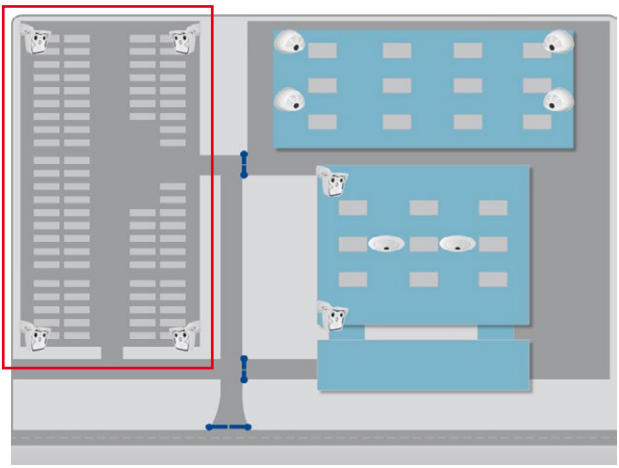
Alarm Bar
Chronological list of all event recordings

Hyperlink Function
Execution of pre-defined functions, such as home automation control via HTTP requests/MxMessages or display of weather station website

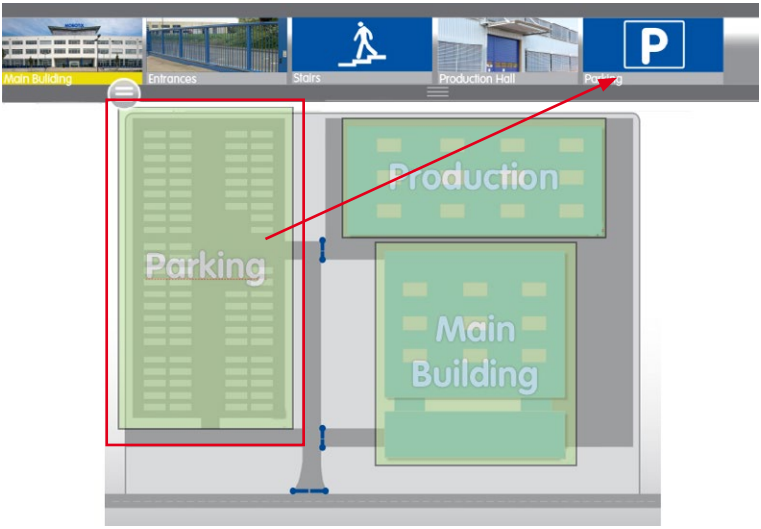
Edit Mode
For Grid, Graphic and Info views

1.2 Camera Groups

A surveillance area is divided into different areas, which contain the cameras.

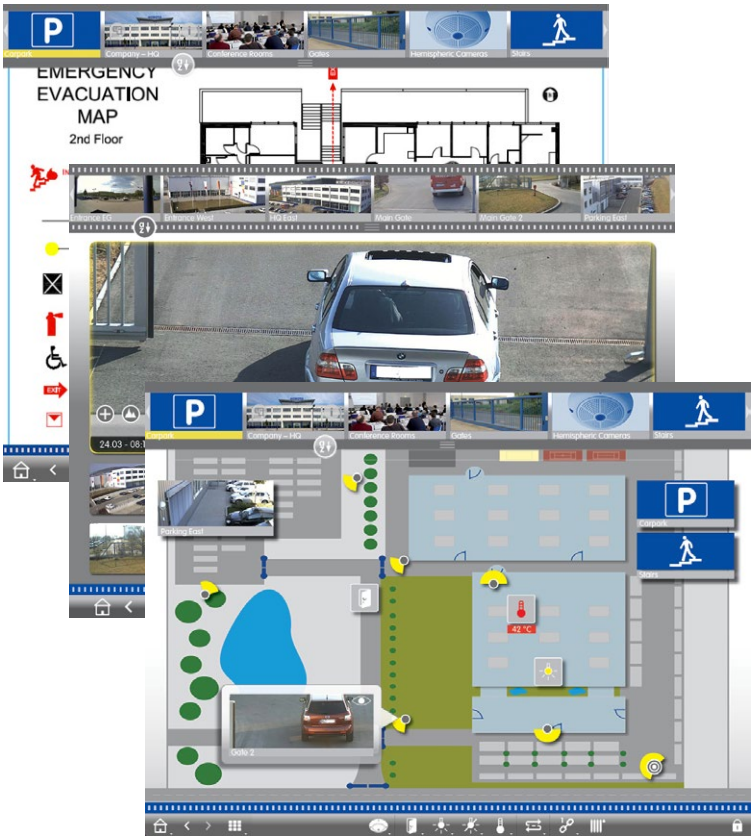


The cameras of these areas are combined into group views. They always provide an overview that allows you to quickly grasp the current situation.



This simplifies navigation and – in case of an alarm, you are quicker to access the relevant cameras.

The easily customized Graphic, Grid and Info views are available for displaying the camera groups:



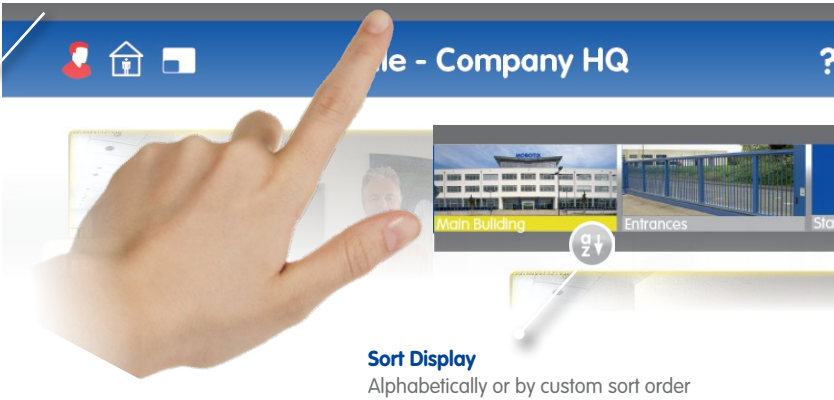
Info View

Grid View

Graphic View

1.3 Camera Group Bar and Camera Bar

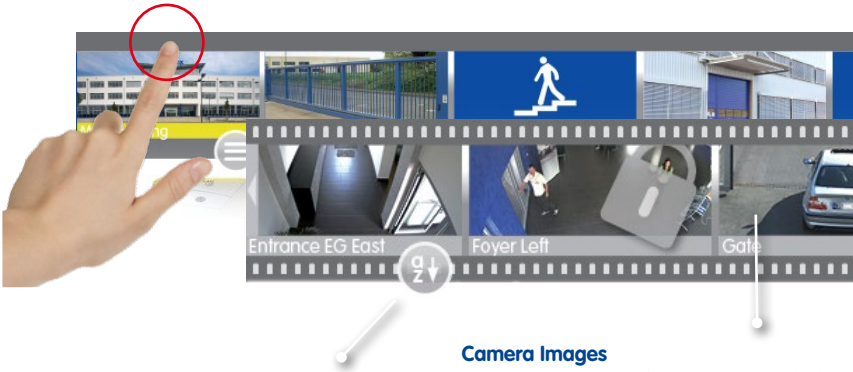
Quick selection of camera groups or individual cameras and fast switching between views.



Show Bars
Click/tap on the frame border to open the group bar or the camera bar

Sort Display
Alphabetically or by custom sort order

Switch from Group Bar to Camera Bar
Click/tap on the upper frame border



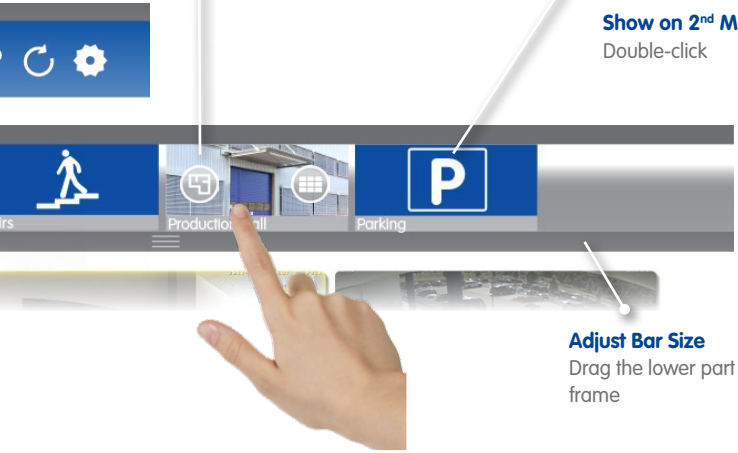
Sort Display
Alphabetically, by IP address or custom sort order

Camera Images
Camera images are reference images, which are created when adding the cameras. This allows identifying the cameras independent of the current illumination of the area.

Switch View
Mouse-over shows these icons:
Graphic view
Grid view

Select Group
Single click or drag&drop into display area

Show on 2nd Monitor
Double-click



Adjust Bar Size
Drag the lower part of the frame

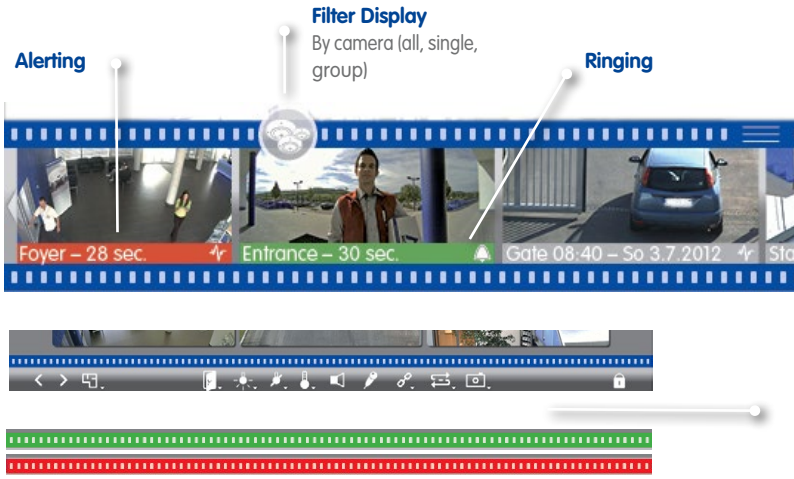
Select Camera
Single click or drag&drop into display area

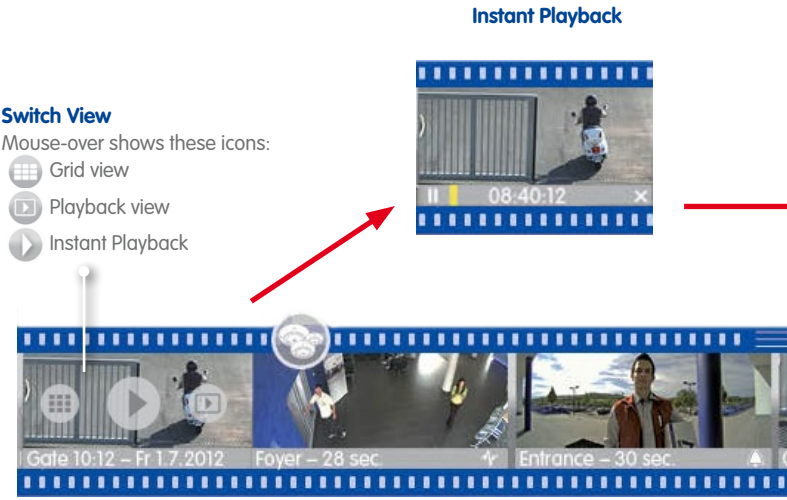
Show on 2nd Monitor
Double-click

Switch View
Mouse-over shows these icons:
Live view
Playback view

1.4 Alarm Bar

Indicates if events lead to an alarm or if visitors rang the doorbell – regardless of whether or not the bar is hidden at the moment.



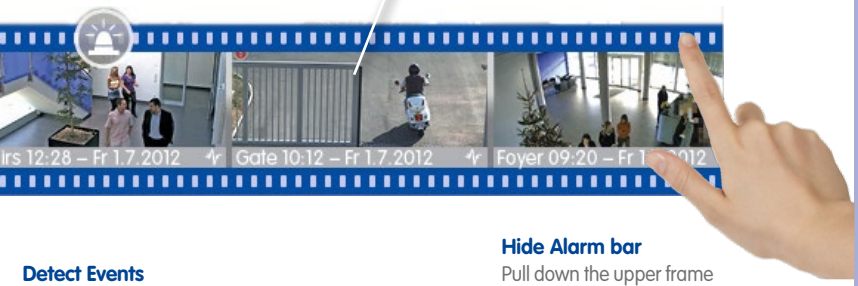


Alarm Bar

Filter Display
By event type

Show Alarm Image Maximized in Window
Single click

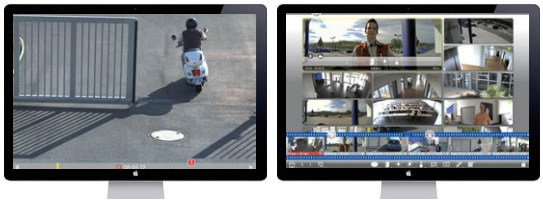
Show Live Image on 2nd Monitor
Double-click



Hide Alarm bar
Pull down the upper frame border

Detect Events
New alarms are displayed even if the bar is hidden: Bar turns red (alarm) or green (ringing)

Show on 2nd Monitor
Double-click opens Instant Playback on 2nd monitor



1.5 Grid View

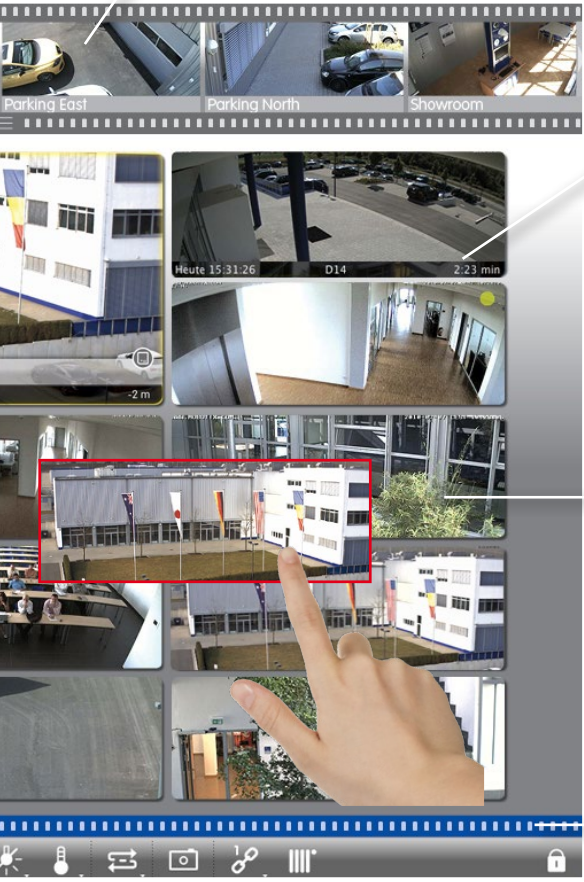
Focus Window
Drag&drop cameras from the grid or the camera bar into the focus window.

Switching and Control Functions
For camera in focus window

Show Maximized Within Window
Single click on a camera image

Show on 2nd Monitor
Double-click

Camera/Group Bar



Alarm Info Bar
Mouse-over displays bar, shows the last 25 alarm images (when moving the mouse pointer over the bar)

Live Images
of the cameras in this group

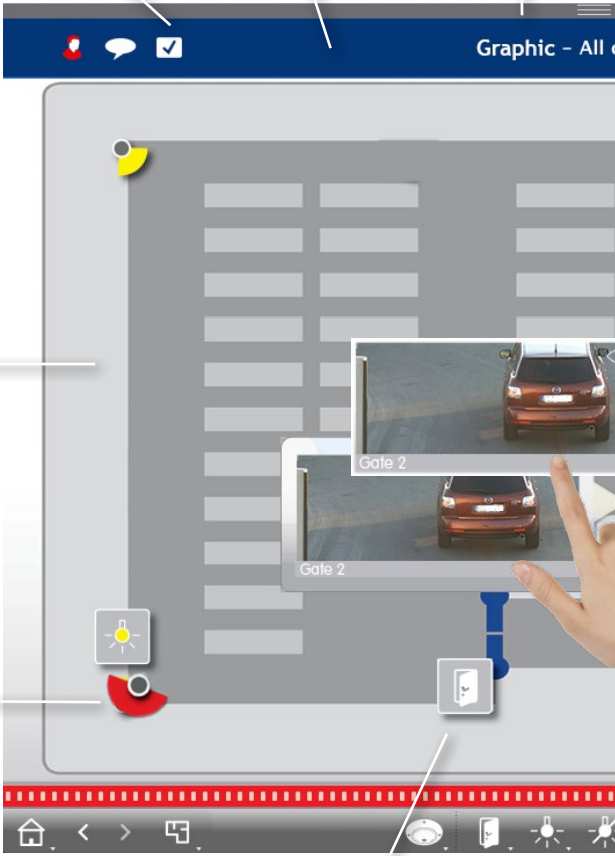
Alarm Bar (Hidden)

1.6 Graphic View

Bandwidth
Temporary adjustment of the displayed image size/quality

Header Bar

Camera/Group Bar (hidden)



Ground/Floor Plan
Cameras can be positioned on ground/floor plans as in reality.

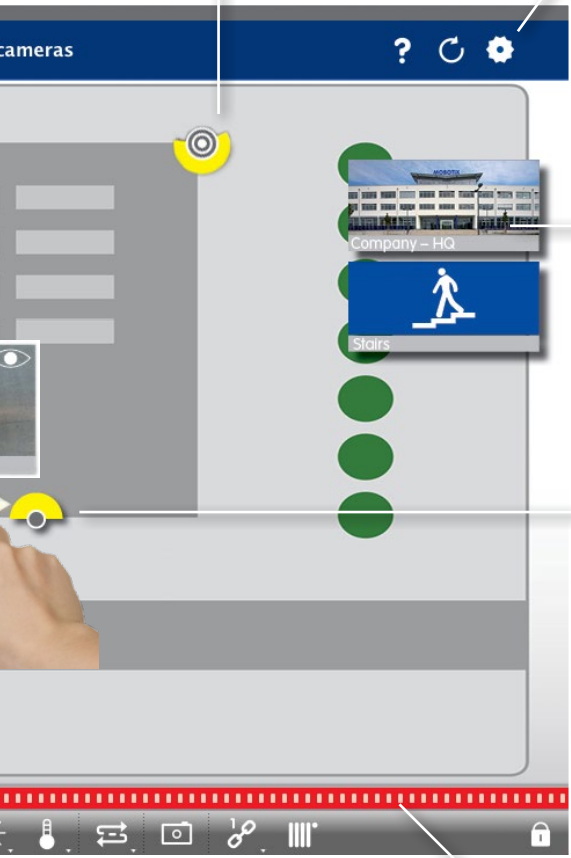
Camera Icons
With adjustable angles of view, change color to red or green upon detecting alarms.

Switching Functions
Use icons to switch functions, such as opening a door. Also shows the status: Door is still open.

Graphic View

Multiple Cameras
Represents several cameras on one spot, e.g., on a pole.

Environments/Projects
Set up several environments for accessing the cameras from separate locations with different bandwidths and allows saving/loading projects.



Camera Groups
Click/tap on icon to open the corresponding Graphic view.

Temporarily Show Live Image
By mouse-over, drag&drop onto plan to make image stick temporarily.

Alarm Bar (Hidden)
Red indicates: A camera has detected an alarm.

1.7 Working With Different Network Environments

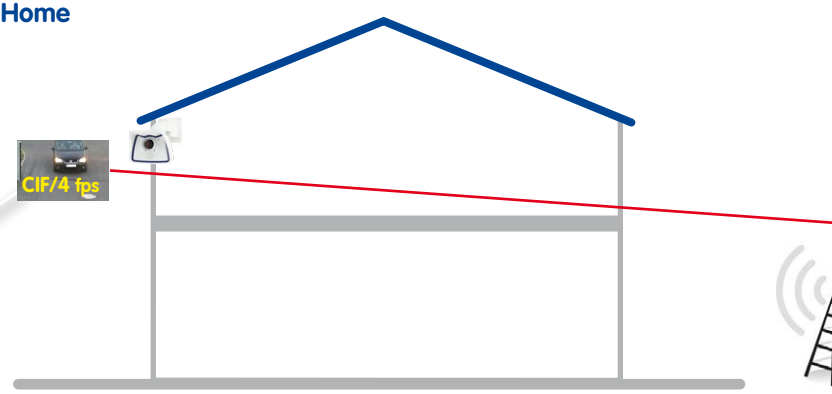
Automatic adjustment of image size, image quality and frame rate depending on selected environment. This is done by the camera, independent of the Live view. The same applies to stored images, which have been reduced in size by the camera before transmission.

Home

Good Quality
House camera

Access to gas station cameras from home using DynDNS access via Internet (low bandwidth)
Direct access to home cameras (high bandwidth).

Home

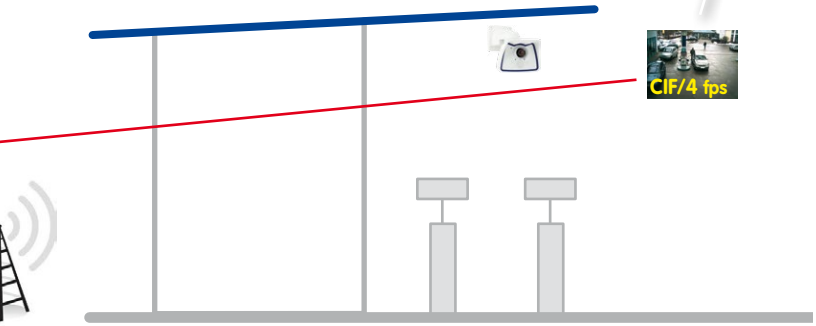


Adjusted Quality Home camera

Access to home cameras from gas station using DynDNS access via Internet (low bandwidth)
Direct access to gas station cameras (high bandwidth).

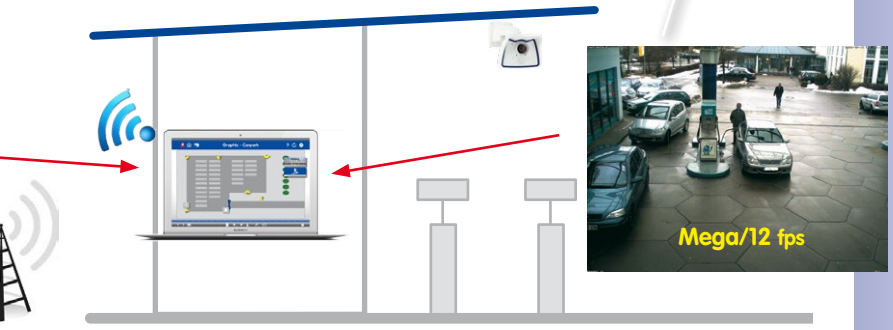
Adjusted Quality
Gas station camera

Gas Station



Good Quality
Gas station camera

Gas Station



2 Highlights

2.1 Unique Usability Concept

Instant Selection
Drag&drop from camera bar.

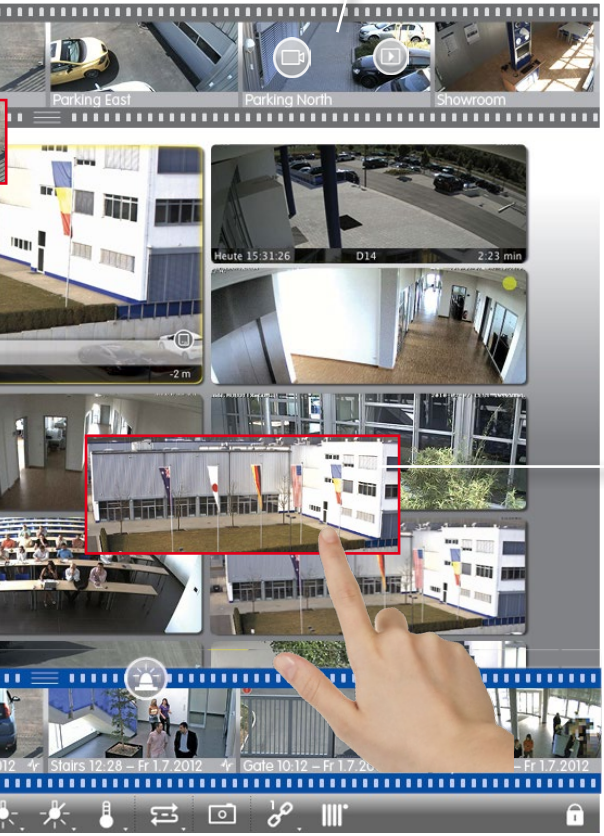
Show maximized within window
Single click

Show fullscreen
Double-click

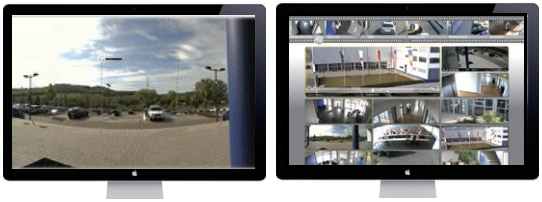
If additional monitor is attached:

Show on 2nd monitor
Double-click

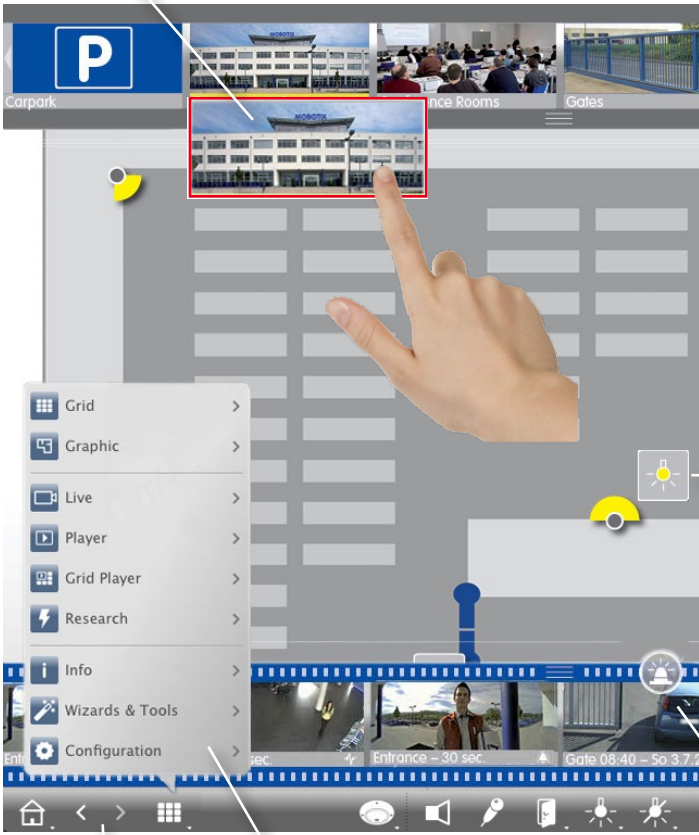
Switch View
View selection using mouse-over icons in the camera bar.



Instant Selection
Drag&drop from tiles into focus window.



Instant Selection
Drag&drop from group bar.

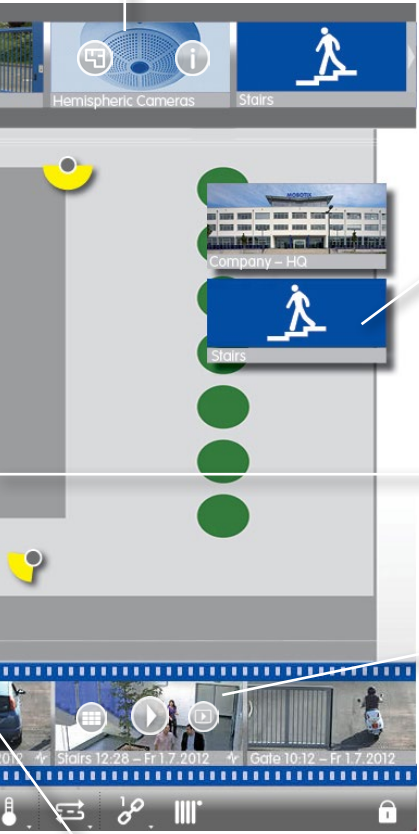


Home View

Browse
Through the view history.

Navigate
Select view or camera using navigation button.

Switch View
Select view using mouse-over icons in group bar.



Open Other Group
By clicking in Grid view.

Switching Functions
Use switch icons to control functions.

Switch View
Select view using mouse-over icons in Alarm bar.

Icons in All Views For Adjusting And Selecting

Settings: 4:3 16:9 2x 31 ...

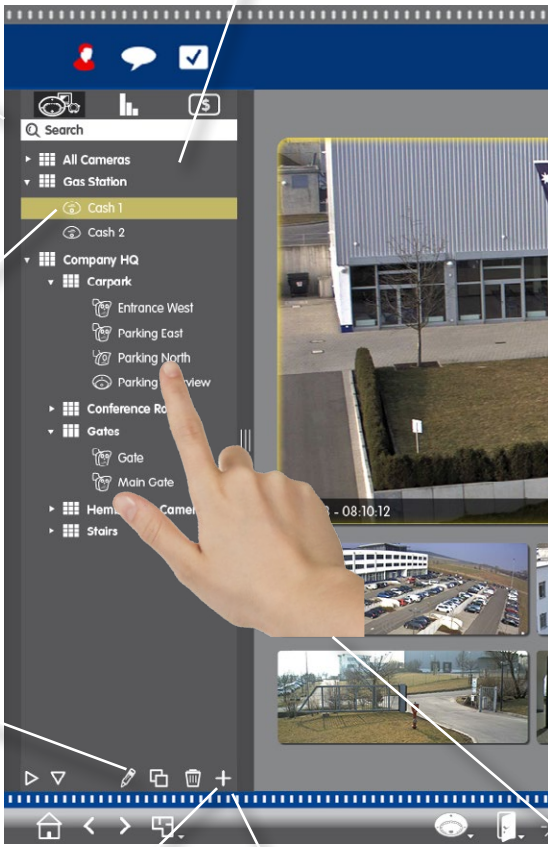
Zooming, sorting and filtering: ...

Image settings and volume:

MxManagementCenter Tutorial: Highlights

Clearly Structured Display
Of all cameras and groups in list mode

Quick Search
By cameras and groups



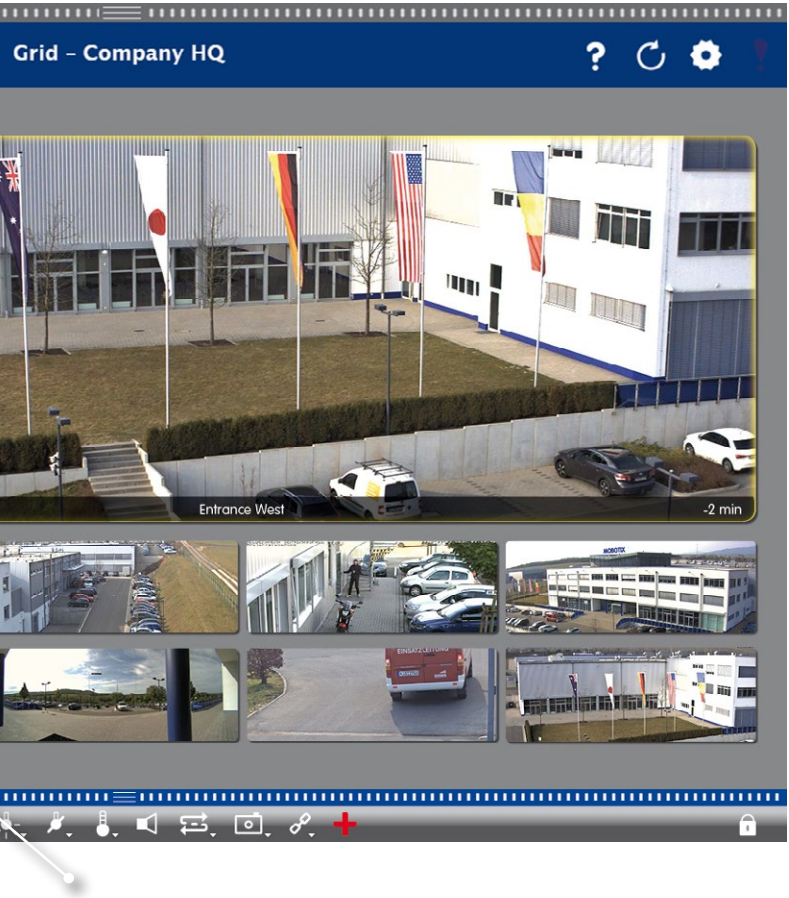
Simple Renaming
Of cameras and groups by overtyping the name

Managing Cameras and Groups
Edit
Delete

Create Groups

Adding Cameras
Manually or by using Bonjour

Coming soon

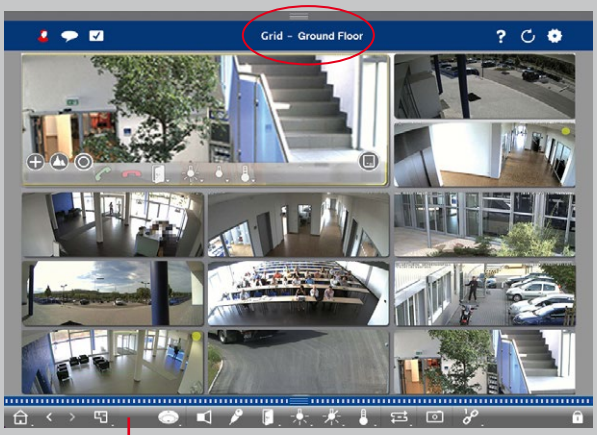


Easy Sorting
Drag&drop from within the list

2.2 Camera Groups

Grid View For Grouping According to Several Criteria: By location, by function, ...

"Ground Floor" camera group

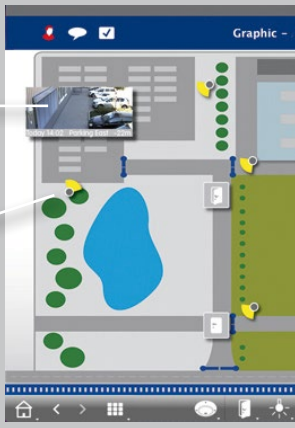


Group functions
Announcements using sev

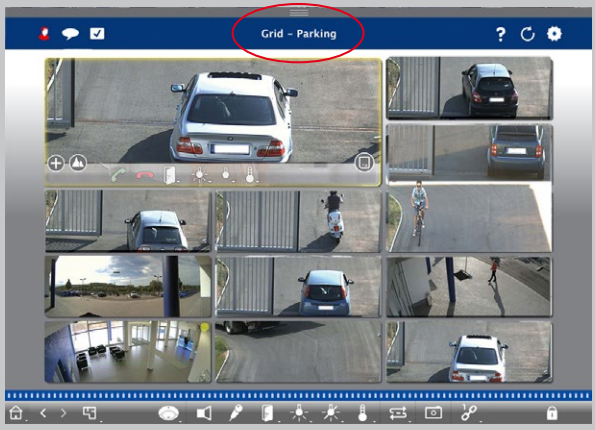
Graphic view for positioning as in reality: perfect overview

Mouse-over on camera icon shows live image.

Actual camera position and angles of view.



"Parking Lot" camera group



veral cameras or opening of the default doors.

Quickly switch to other groups.

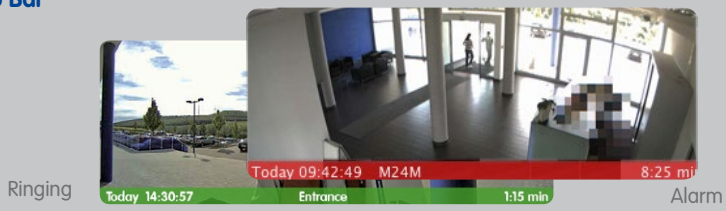
Directly execute switching functions.

2.3 Staying Informed Everywhere and in All Views

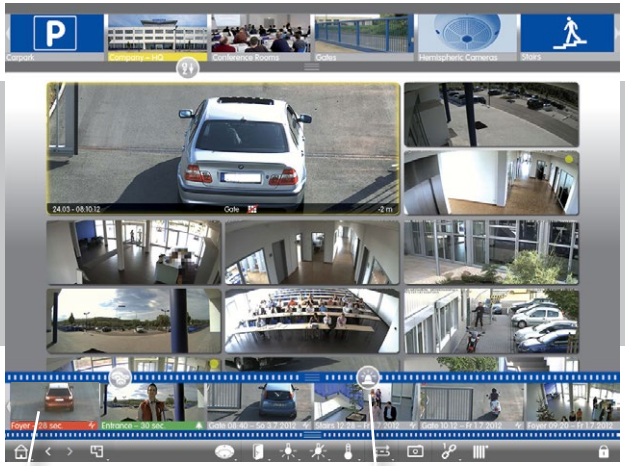
Alarm Bar

Show New Alarms
Red upon alarm trigger, green upon ringing.

Alarm Info Bar



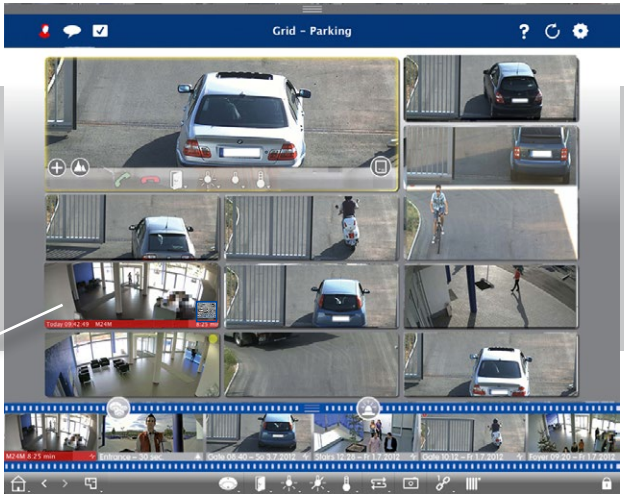
Show New Alarms
Bar beneath live image turns red or green if the camera detects an alarm. Move the storage card slider to the left to see the last alarm image.



Chronological Ordering of Alarm Images

Filter Display

- By camera
- By group
- By event type



2.4 Player: Convenient Search and Analysis in Player Means Fast Results

Fast and Simple Operation

High-speed playback with up to 60x the regular speed

Camera selection
By drag&drop

Select playback mode

Search for time/date

Quick positioning on desired date/time

Play

Play

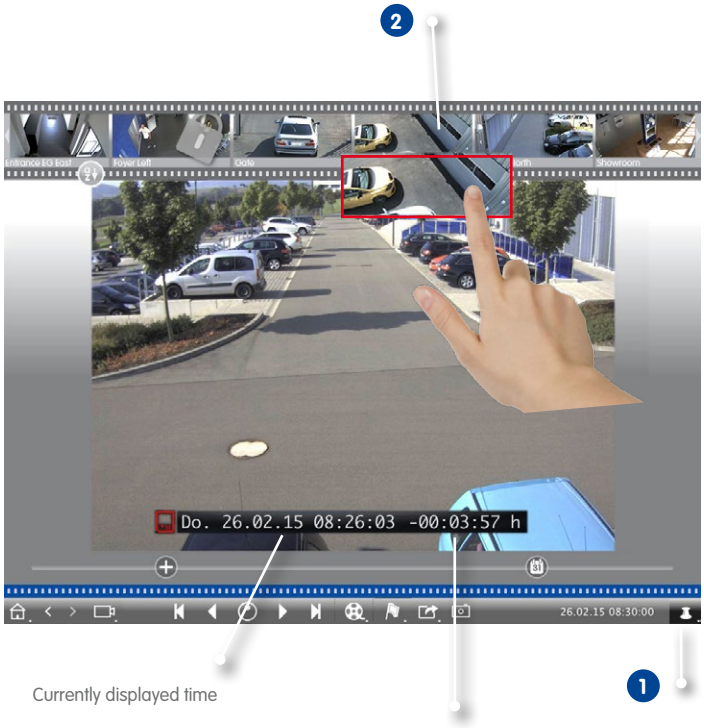
Up to 60 times
playback speed

One image forward/ backward

Precise positioning
Search 30 seconds forward/ backward from time of current image (only when accessing recordings directly on a file server).

Investigate Multiple Cameras for a Specific Point in Time

One of the parking lot cameras has detected an event at 8.30 pm. What did the other cameras record at that time?

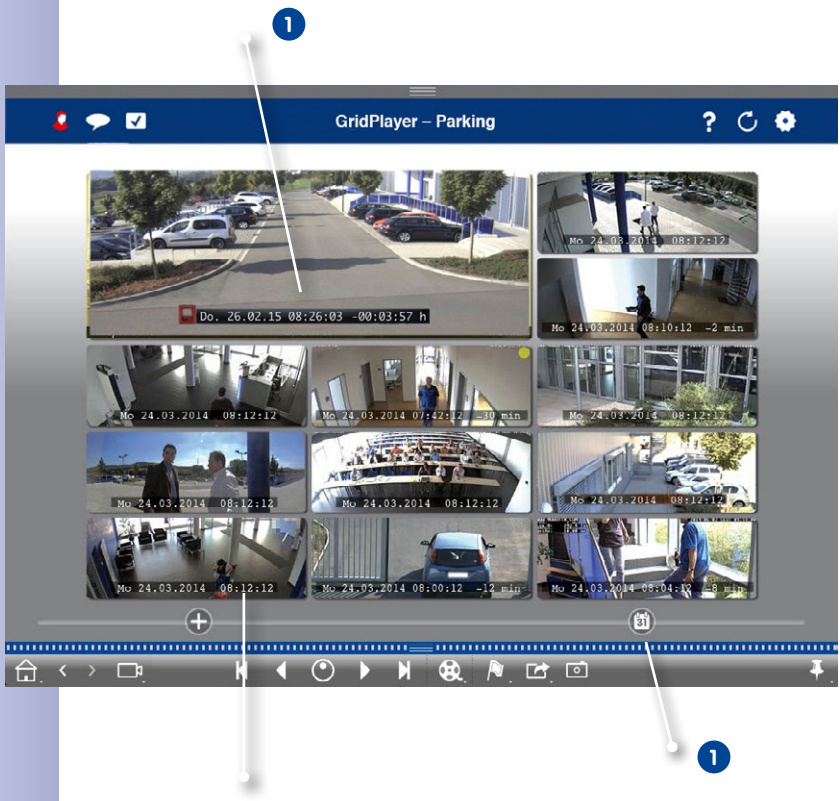


1. Click on pin button to set the reference time.
2. Drag&drop cameras from camera bar one by one to position them on the reference time.

2.5 Grid Playback – Investigating Entire Camera Groups

Browse the Recordings of Entire Camera Groups Synchronized By Time

1. Use the timestamp in the focus window or the calendar slider to set the time.



All cameras jump to the event image that is closest to the specified point in time. The timestamp beneath each camera image shows the time and date of the image. The difference to the reference time is shown at the right.

2.6 Access to Stored Images – Easily Customized

Depending on the requirements, you can configure each network environment to access the recordings via the camera or directly on the file server.

1 **Remote player: Access via camera**
In local network or remotely

Advantage: Camera can adjust the image size, frame rate and image quality of the video stream to the available bandwidth.

2 **Player: Direct access on stored images**
In local network

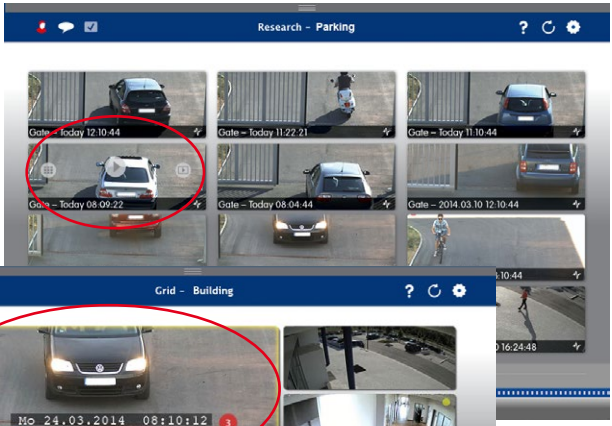
Advantage: Faster, since it does not put any load on the camera.

2.7 Instant-Player – Research from Everywhere

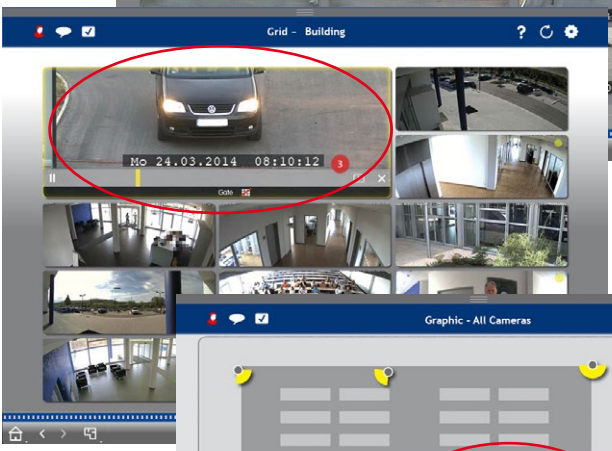
Instant playback of event recordings for fast results – in the Alarm bar or the Research, Grid or Graphic views.

Alarm Bar

Research view



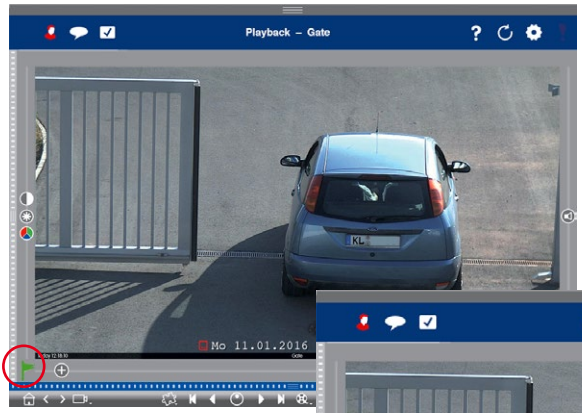
Grid View



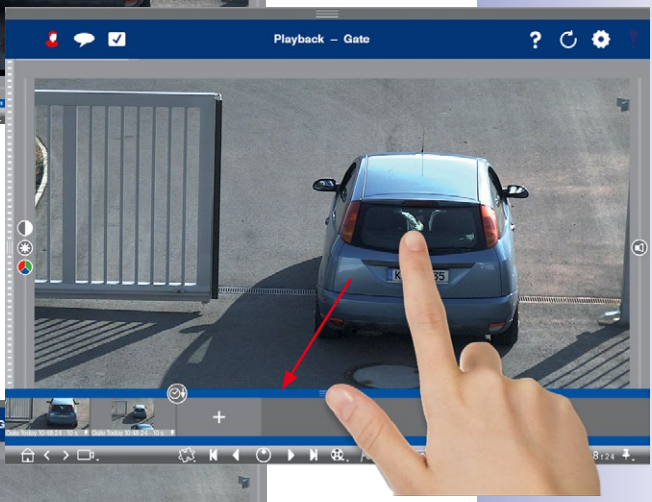
Graphic View

2.8 Export List – Flexible Export of Video Clips

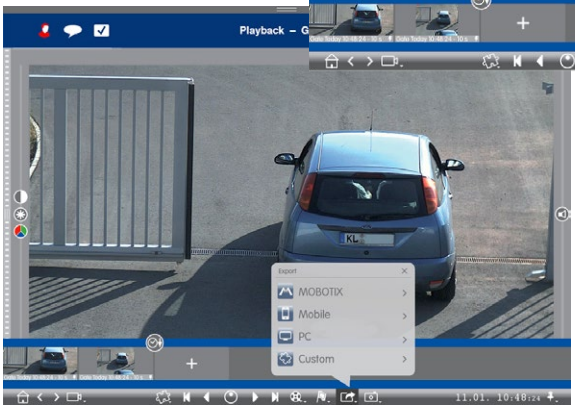
Export of the entire video to get an overview or of an image section into various formats (mxg, avi, etc.). The new export feature supports the flexible export into different video sizes and image rates independent of the original format, it also supports virtual PTZ views as well as the transformation of a 360-degree full image into a surround view, a panorama view or a customized view.



Mark recording for export.



Drag&drop the clips into the Export bar one by one. Alarm bar automatically switches to the Export bar. Use drag&drop to change the clip sequence.



Click on Export and set the export parameters.

2.9 Playback Analysis: Automatic Post Video Motion Analysis

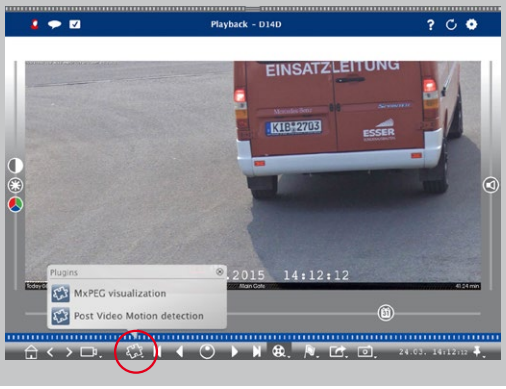
The automatic Post VM analysis provides a high-speed search mechanism with time-lapse feature

Open the Plugin dialog and select the **Post VM** function.

2.10 Plugins: Interface for Third-Party Products

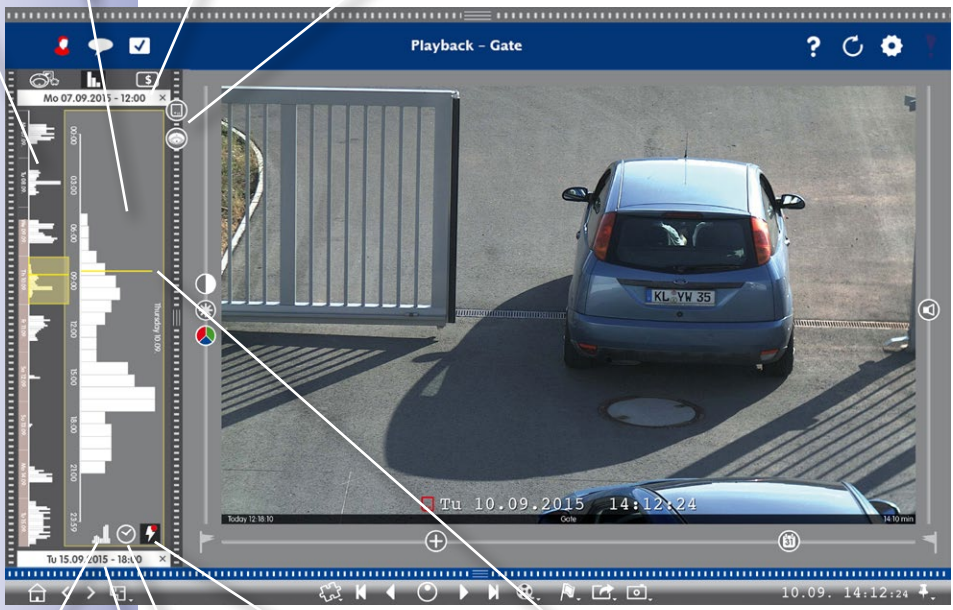
This interface provides a mechanism for third-party developers to add their own software features and developments, such as bar code scanners or number plate recognition. This opens up a whole new range of applications.

e to find special motion events in all recordings.



2.11 Histogram With MxEventStatistics

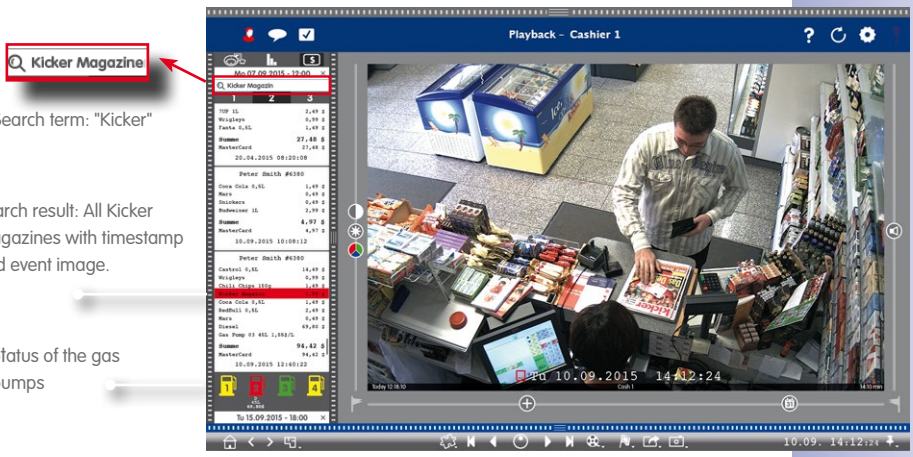
The Histogram bar is a fast and graphic method to find irregularities and the corresponding information. This perfect tool provides the fastest overview using the camera's internal database, without the need of an additional computer.



2.12 MxPOS – Integration of Point-of-Sale Systems

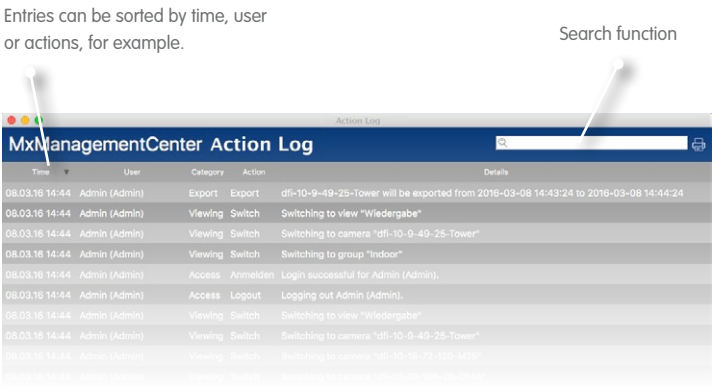
Coming soon

MxMC allows searching and sorting the data of an attached POS system. Cash register transactions can be analyzed according to articles, price or staff member, for example. MxMC shows the relevant videos and allows searching the cash register data for keywords.



2.13 Action Log (User Log)

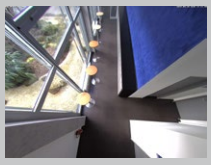
MxMC can log any action, such as starting playback or export actions, activating the sound, etc. This means that you can log all user actions and thus deliver the entire chain of events for legal purposes.



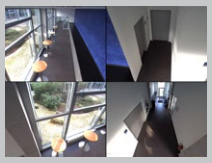
2.14 Image Adjustment

Hemispheric cameras generate 360° images. In order to get naturally-looking images, MxMC can correct these images. This applies to both live images and recorded images.

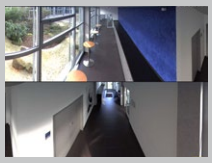
Full Image Normal Panorama



Surround



Double Panorama



Panorama/Focus

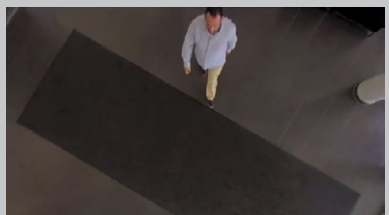
2.15 Panorama Correction and Auto Flip

Panorama Correction

Not corrected

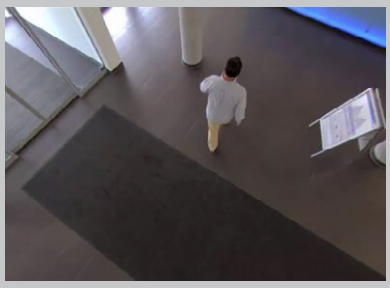
Auto Flip: Automatic Monitoring Aid for Dome Cameras

Always shows correct images even if persons or objects move directly under the camera.



Corrected

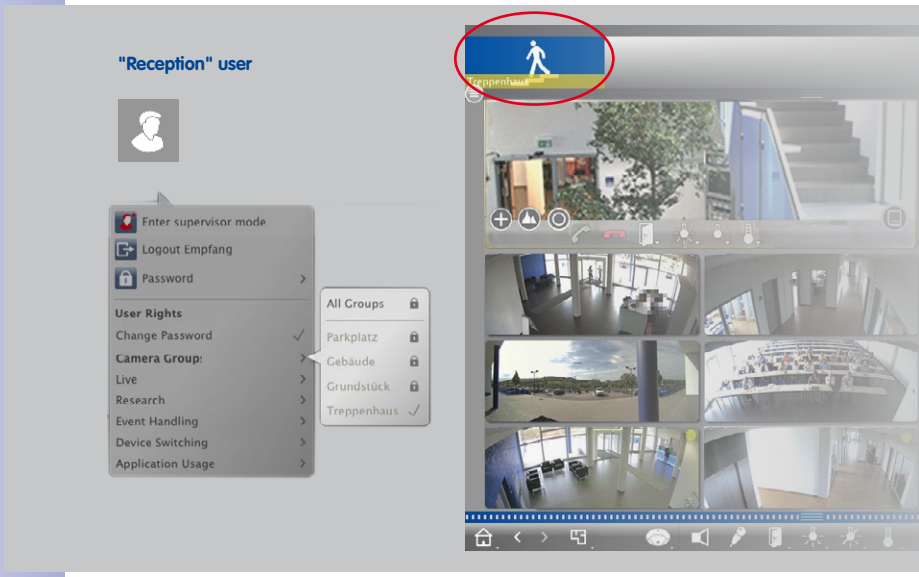
Move Panorama slider to Correction position and use the mouse wheel to create the most naturally-looking image.



Automatic flipping of the camera image

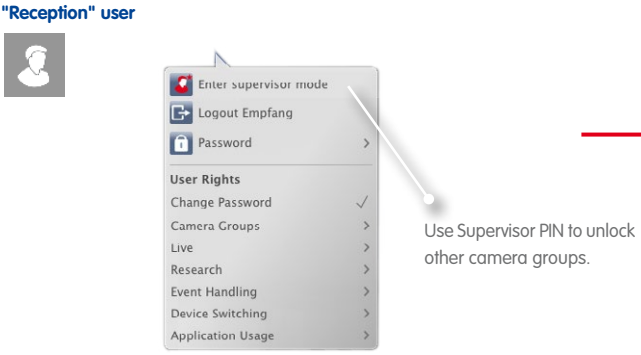
2.16 User Management

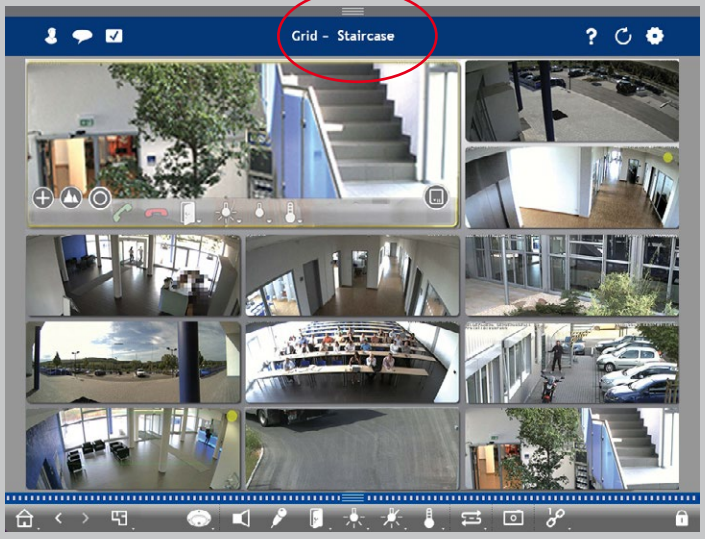
Individual Rights Management

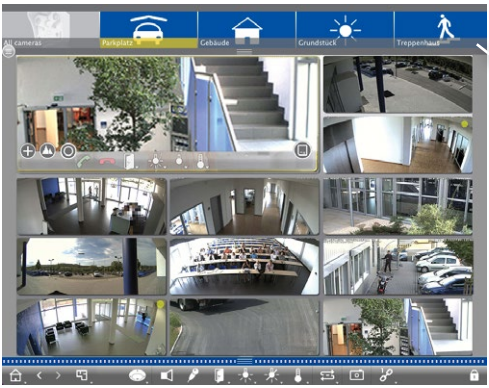


Only the "Staircase" camera group has been unlocked for the "Reception" user.

Temporarily Unlock Functions

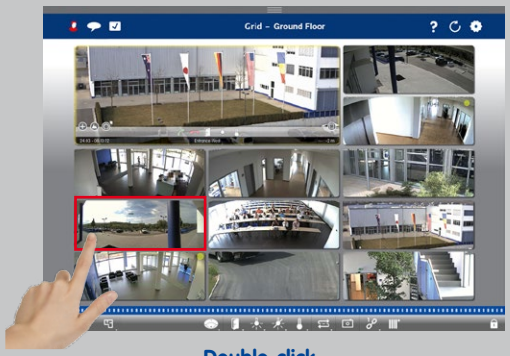






User can temporarily access all camera groups.

2.17 Multi-Monitor Capability

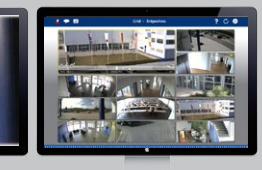


Double-click

Two Monitors

Live image shown on

Multi-Monitor System Without Any Costs for Additional Software



2nd monitor.

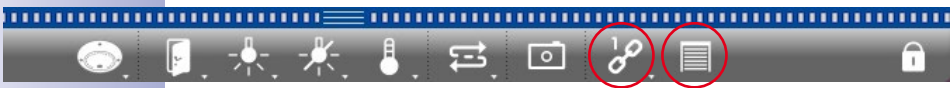
Several Monitors/Monitor Wall

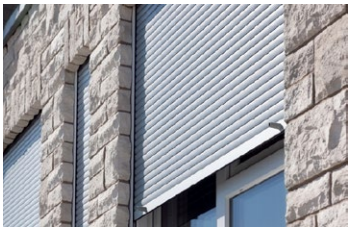
Monitors are recognized automatically and can be selected and arranged as needed.

2.18 Hyperlink Support

Execution of pre-defined functions, such as display of weather station website or home automation control using HTTP requests or MxBroadcast.

Show weather station website





Open/close shutters.

Coming soon

2.19 ONVIF Support

MOBOTIX is ONVIF member since December 2014. MxManagementCenter allows integrating and using ONVIF-compatible video sources.

ONVIF | The IP-based Security Standard

2.20 Intelligent Configuration Management

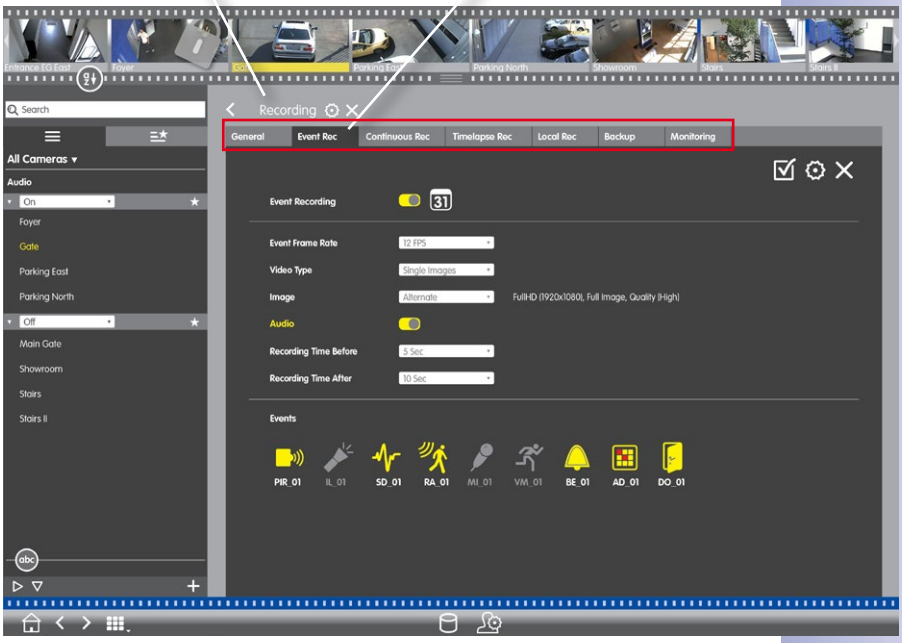
Simple management of the entire system configuration using the intelligent configuration and sort bar.

Coming soon

All Relevant Settings for the Selected Function in One Spot

All settings for configuring event recordings

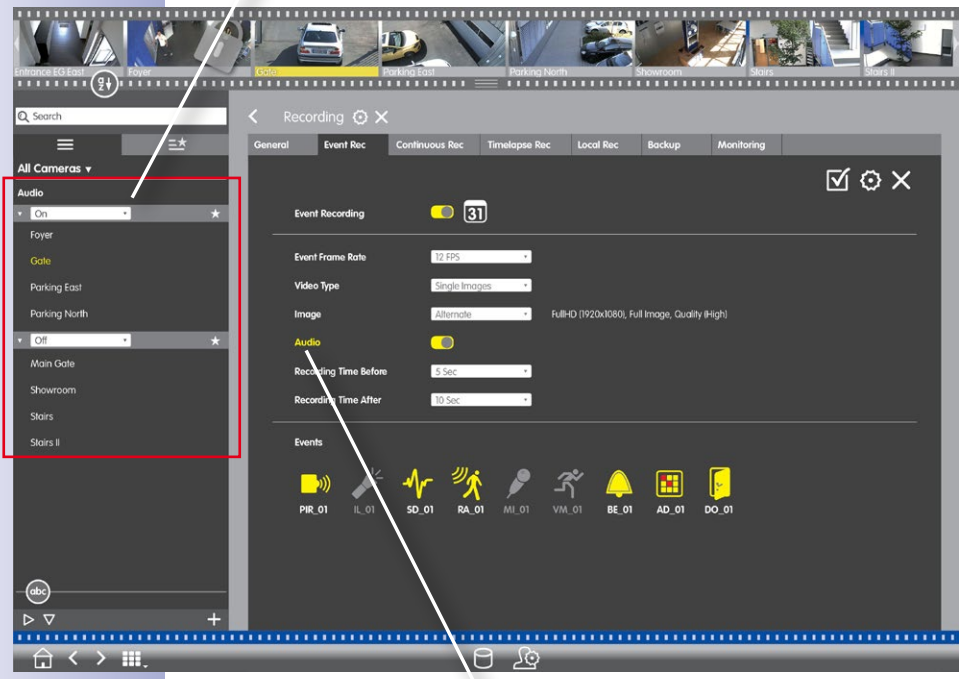
Configuration: Recordings



All Settings of the System/the Group at One Glance

Coming soon

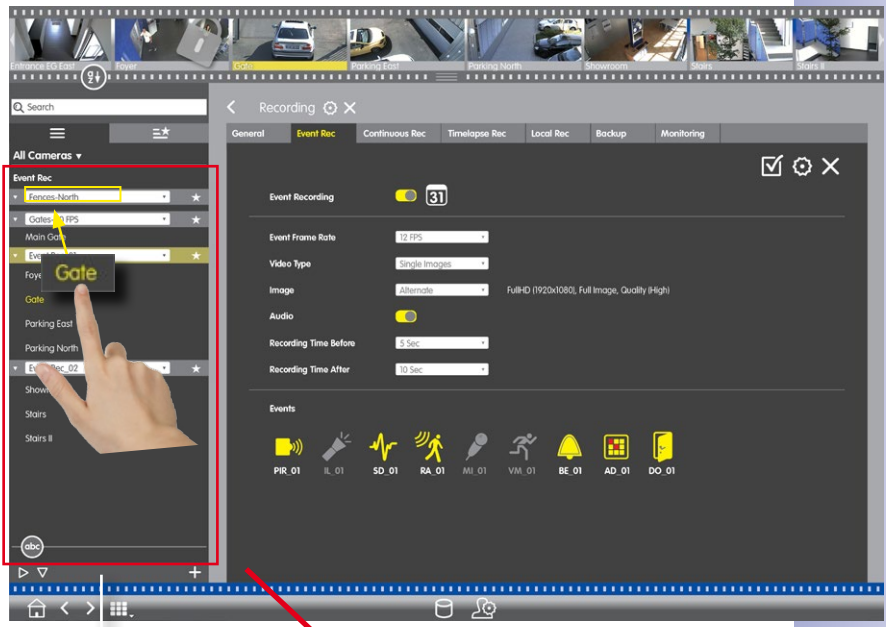
Display of all settings of one or more cameras for the selected function and intelligent sorting by profiles.



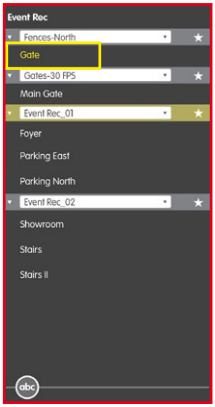
Select function

Simple Configuration Changes of One or More Cameras Using Drag&Drop

Coming soon



Adjust encoding of the "Gate" camera by dragging it to a different setting.



3 Details

3.1 System Requirements

Mac OS X:
Mac OS X 10.7 or higher, processor with at least 2 GHz, min. 2 GB RAM, graphics adapter with OpenGL V2.1 support.

Windows:
Windows Vista or higher, processor with at least 2 GHz, min. 2 GB RAM, graphics adapter with OpenGL V2.1 support.

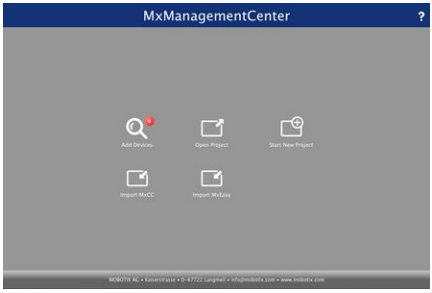
Integrated MOBOTIX video sources:
Camera software release 4.3.2.72 or higher.

For more information on system requirements and other important information on the available MxMC releases, please read the corresponding release notes on **www.mobotix.com > Support > Software Downloads**.

3.2 Initial Operation of MxManagementCenter

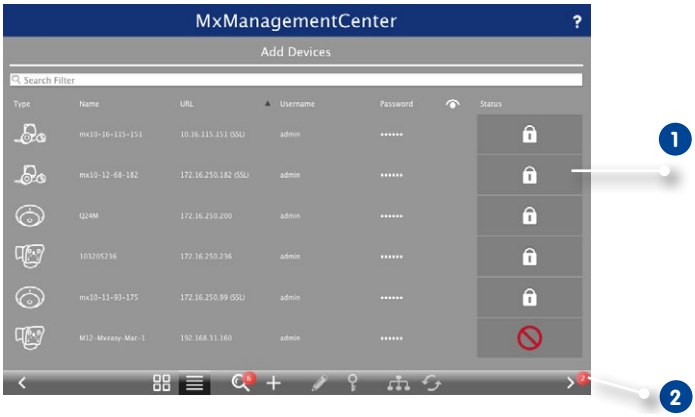
3.2.1 Adding Cameras

Adding Cameras When Starting MxMC for the First Time



When starting MxMC for the first time, the configuration wizard opens and automatically starts searching for MOBOTIX cameras. The number of found cameras is shown next to the **Add** button . This number is updated automatically if the number of MOBOTIX cameras on the network has changed (i.e., by connecting new/disconnecting existing cameras).

1. Click on **Add Devices**. The cameras are displayed either in a list or as tiles. Use the **List** and **Tile** buttons to change the display mode.



Possible camera statuses: 1

- : Camera cannot be reached
- : Camera not in the same network as the computer
- : Camera software is not up-to-date
- : Camera is password-protected

2. Select camera (use **Cmd-click** to select several cameras)
   - : If the camera is password-protected, click on **Edit User and Password** and enter the user name and password.
   - : If the camera is in an invalid network, click on **Edit Network Settings** and select automatic IP address assignment or enter a fixed IP address.
3. The number of selected cameras is shown near the **Next** button 2. Move to the next page and click on **Finish**.

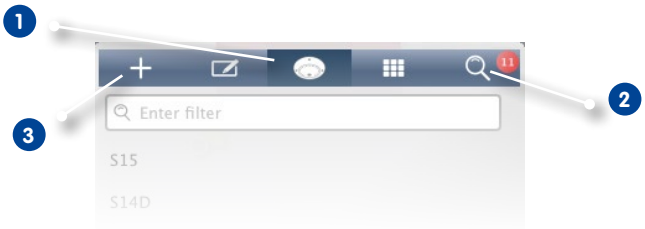
Hint:

You can also open the configuration wizard from the menu later on.

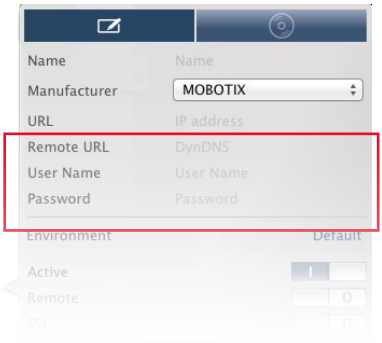
Adding Cameras to a Running System

Open the **Camera management**. To do so, right-click on **Camera** in the command bar in the Graphic, Grid, Live and Info views.

a) Camera search:



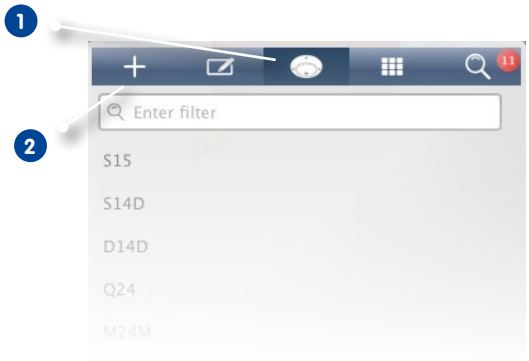
1. Click on **Camera** 1 and then on **Search** 2. The list shows all cameras that were found in the local network.
2. Select the camera you want to add (use **Cmd-click** to select several cameras).
3. Click on **Add** 3. Enter a camera description, such as "Parking lot". If several cameras are added, they will be numbered "Parking Lot_001", "Parking Lot_002", etc.
4. Enter the user name and password.
5. Click anywhere outside of the context menu and click on "Yes" to close the prompt. The list now shows all cameras that have been added. Click on one of the recently added cameras to edit the camera data.
6. Camera access data:



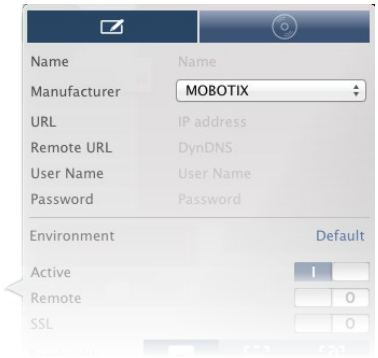
- *Name*: The camera name is displayed automatically. If you added several cameras before, you can now enter an individual name for each camera.
- *URL:* The IP address is displayed automatically.
- *User name, password:* Shows the access data that had been entered when adding the camera. You can change the data here, if required.

b) Add cameras manually:

Cameras that are not part of the local network cannot be found automatically. You can add these camera manually.

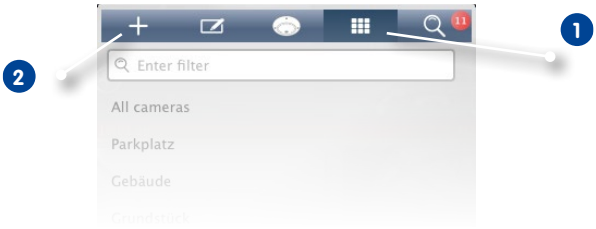


1. Click on **Camera** 1 and then on **Add** 2.
2. Camera access data:
   - *Name*: Enter a descriptive name for the camera.
   - *URL:* IP address of the camera.
   - *Remote URL:* In order to access the camera from outside of the local network, you need to enter the DynDNS name. Make sure that you also activate the **Remote** option.
   - *User name, password:* Enter the user name and password of the camera.



3.2.2 Creating Camera Groups

1. Open the **Camera management**. To do so, right-click on **Camera** in the command bar in the Graphic, Grid, Live and Info views.
2. Click on **Group** 1 and then on **Add** 2.

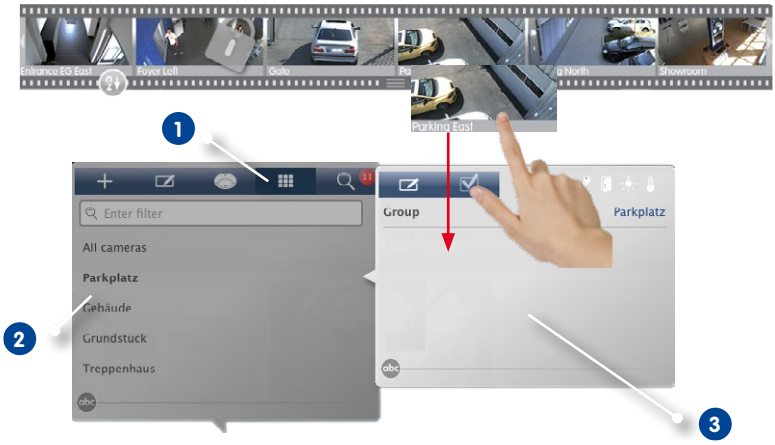


3. Enter a group name and – if desired – add an image or an icon that will be used to represent the group in the group bar later on. To do so, click on the gray field 1 and select one of the pre-defined icons. If you want to use one of your own images, click on **Custom** 2.

4. *Focus/Format*: This controls the layout that is used to show the cameras in Grid view: Format (aspect ratio) of the camera images (4:3, 16:9, 8:3) and size of the focus window (0x (no focus window), 1x, 2x, 3x, 4x, 5x, 6x, 7x or 8x the size of the camera images). Set the maximum number of cameras that will be shown in the Grid view.
5. Move the three sliders to the desired settings.

Adding Cameras to a Camera Group

1. Open the **Camera management**. To do so, right-click on **Camera** in the command bar in the Graphic, Grid, Live and Info views.
2. Click on **Group** 1 and then on the desired camera group 2.
3. Pull down the camera bar from the upper frame border.



4. Drag&drop the desired cameras from the camera bar into the window for editing the groups 3.

Hint:

Note that you can also drag groups into the new group. This will insert all cameras of the group into the new camera group. To add all cameras of the same type, click on and drag one camera into the group.

3.2.3 Setting Up Group Views

Using a Ground/Floor Plan for the Graphic View

You can position the cameras of a group on a ground or floor plan when using the Graphic view.

1. Open the **Camera management**. To do so, right-click on **Camera** in the command bar in the Graphic, Grid, Live and Info views.

2. Click on **Group** 1 and then on **Edit** 2. Select the camera group for which you want to set a ground or floor plan. Another window opens.
3. Move the slider to the right until you reach the position.
4. Click on the arrow and select the file with the ground or floor plan.

Adding Information for a Camera Group

You can add an information page to a camera group in order to show special instructions for this camera group, for example.

1. Open the **Camera management** (in the Graphic, Grid, Live and Info views) by right-clicking on in the command bar.

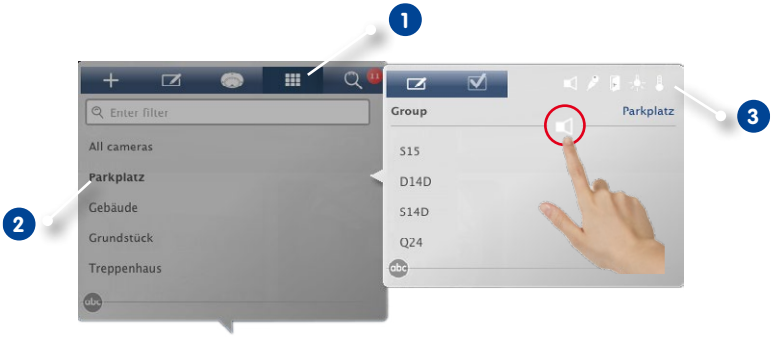
2. Click on **Group** 1 and then on **Edit** 2. Select the camera group for which you want to add information. Another window opens.
3. Move the slider to the right until you reach the position.
4. Click on the arrow and select the file you want to use.

Setting and Deleting Group Functions

You can use group functions in the Graphic, Grid, Live and Info views.

For example, you can switch the lights of several cameras at once, make an announcement via several speakers or open a door without having to select a specific camera.

1. Open the **Camera management**. To do so, right-click on **Camera** in the command bar in the Graphic, Grid, Live and Info views.



2. Click on **Group** 1 and then on the camera group 2, for which you want to assign group functions.
3. Assign the desired functions to the cameras by moving the corresponding buttons (Listen, Talk, Door, Light, Temperature) 3 onto the cameras.

Deleting Group Functions

To delete a function, drag the icon away from the camera line.

Setting Additional Options for the Grid View

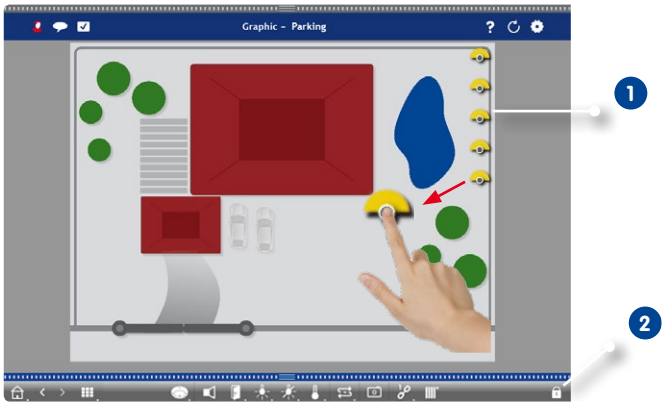
You can also adjust the layout you defined when creating the camera groups directly in the Grid view later on.

1. Activate the **Edit mode** 1.
2. Open the group bar. There are several sliders at the bottom of the bar.
3. Move the slider to the desired 2 position to set the format (aspect ratio) of the camera images (4:3, 16:9, 8:3). Move the slider to the desired position 3 to set the size of the focus window (0x, 1x, 2x, 3x, 4x, 5x, 6x, 7x or 8x the size of the camera images). You can use the slider 4 to limit the number of cameras to show. This can be used, e.g., if you want to see an overview with many cameras in the Graphic view and show only the most important ones in Grid view.
4. Deactivate the **Edit mode** to save the settings.

Setting Additional Options for the Graphic View

Positioning Cameras on the Plan

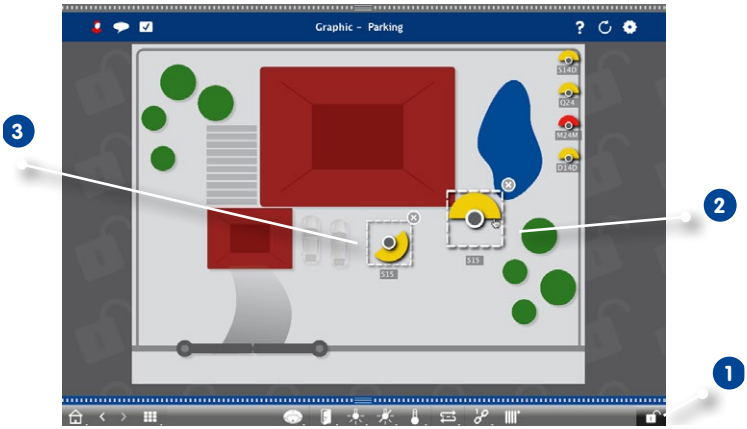
When opening the Graphic view of a camera group for the first time, all cameras of the group are shown as an icon 1 at the right-hand border. You should move the cameras to the same position on the ground or floor plan as in reality.



1. Activate the **Edit mode** 2. Click on the gray circle at the center of the icon and drag the icon to the actual position of the camera.
2. Deactivate the **Edit mode** to save the settings.

Editing Camera Icons

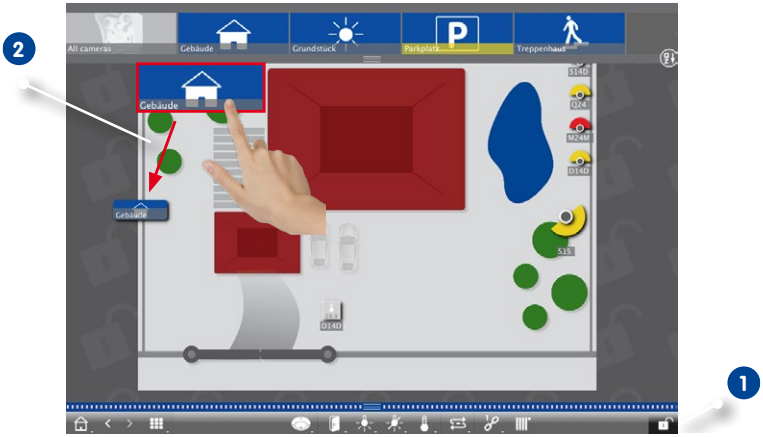
You can change the icon size and rotate the icons to reflect the viewing direction and the angle of view of the cameras.



1. Activate the **Edit mode** 1 and click on a camera icon. Use the yellow area of the icon and rotate it as desired 2.
2. To change the icon size, drag the corners of the bounding box as desired 3.
3. To change the angle of view, click in the camera icon and turn the mouse wheel until the desired angle has been reached.
4. Deactivate the **Edit mode** to save the settings.

Positioning Other Camera Groups on the Plan

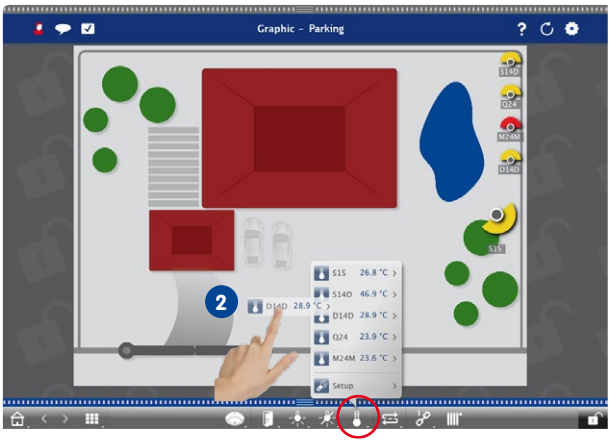
You can position additional camera groups on the ground or floor plan of a camera group. If a camera of an added camera group detects an alarm, the camera group icon turns red or green (ringing). Click on the group icon to open the Grid view of the camera group.



1. Activate the **Edit mode** 1 and drag the desired camera groups from the group bar onto the ground or floor plan 2.
2. Deactivate the **Edit mode** to save the settings.

Positioning Controls on the Plan

If a camera is connected to a door, for example, and has been set up properly, simply drag the corresponding control icon onto the ground or floor plan and click on the icon to control the feature. This is helpful if you want to control the door features of a camera close to its position on the plan, for example.



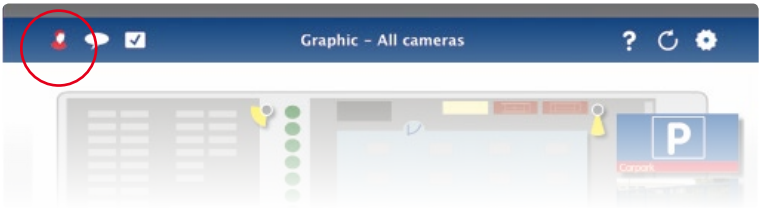
1. Activate the **Edit mode** 1.
2. Right-click on the desired control function and drag the icon onto the ground/floor plan 2.
3. Deactivate the **Edit mode** to save the settings.

3.2.4 Adding Users

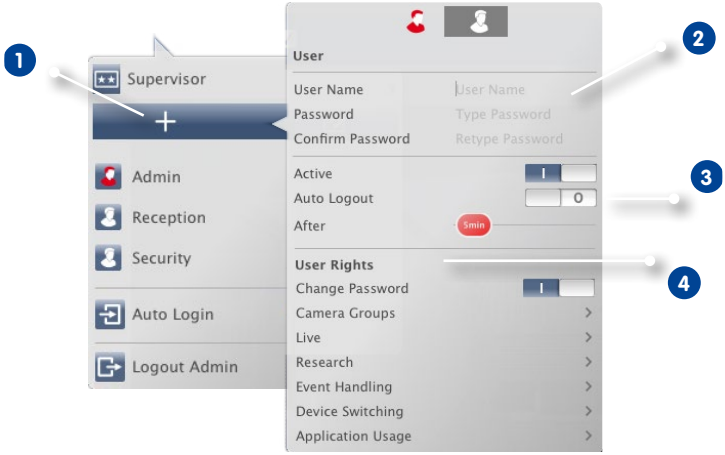
If you want to set up users with different rights for MxManagementCenter, you need to add these users first. For this purpose, the application differentiates between the "administrator" and "user" roles. While the administrator has all rights, you can assign the rights for users depending on the functions they need.

In order to add a user, you need administrator rights.

1. Click on the **User management** icon in the header bar.



2. Click on **Add** 1.
3. Enter the user name and a password 2.



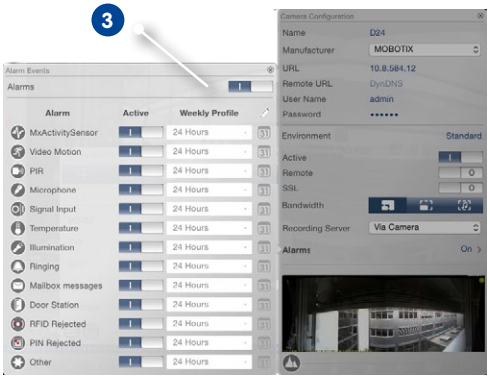
4. Use the **Active** option to enable the new user immediately or later on. If required, use the **Auto Logout** settings to automatically log out the user after the specified period of time 3.
5. By default, a new user has the rights to execute all functions. Deactivate the rights that are not available to this user in the **User Rights** section 4.

3.2.5 Setting Alarm Filters and Alarm Notifications

Setting Alarm Filters

Events that lead to an alarm will change the background color of the alarm or the alarm info bars to red. Use the camera management to specify the event types on the cameras that should trigger an alarm. To do so, open the camera management by right-clicking on **Camera** in the command bar.

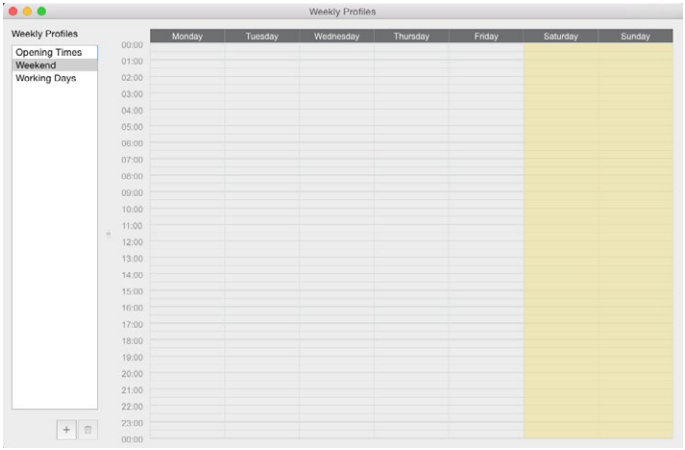
1. Click on **Camera** (1) and select the desired camera.
2. Click on **Alarms** (2). The **Alarm Events** dialog opens. Make sure that the **Alarms** option has been activated (3).



3. Select the event types that should create an alarm.

In addition, you can select a weekly profile for every event type that should trigger an alarm. As long as no other weekly profile has been selected, the setting is valid from Monday 00:00 to Sunday 24:00.

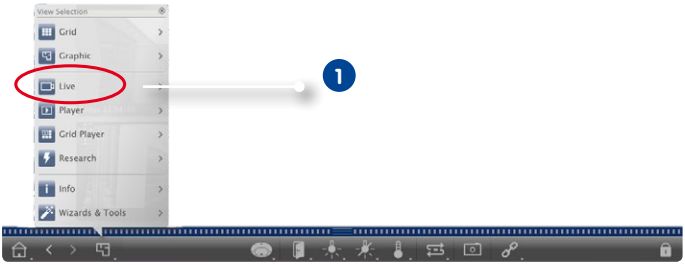
1. To create new weekly profiles, click on . The **Weekly Profiles** dialog opens. Several predefined profiles are available, such as the **Weekend** profile (Saturday 00:00 to Sunday 24:00).



2. To add a profile, click on . Enter a description. Highlight the desired active times in the table. You can resize an active time block by clicking on the time block and then moving the borders accordingly It is also possible to move a block. Click on the block to select it, then drag the block to the new position. To delete a time block, click on .
3. The description of an existing profile can be changed. Right-click on the description and overwrite it.
4. To select a weekly profile, click on the **Weekly Profile** dropdown list next to the event type and select the desired profile. The calendar icon turns white.
5. To easily invert the settings of the weekly profile, simply click on the calendar icon. For example, if you have created a profile with opening hours and would like to activate the alarms for the closing times, simply click on the calendar icon and the profile is used in inverted fashion. The icon turns red.

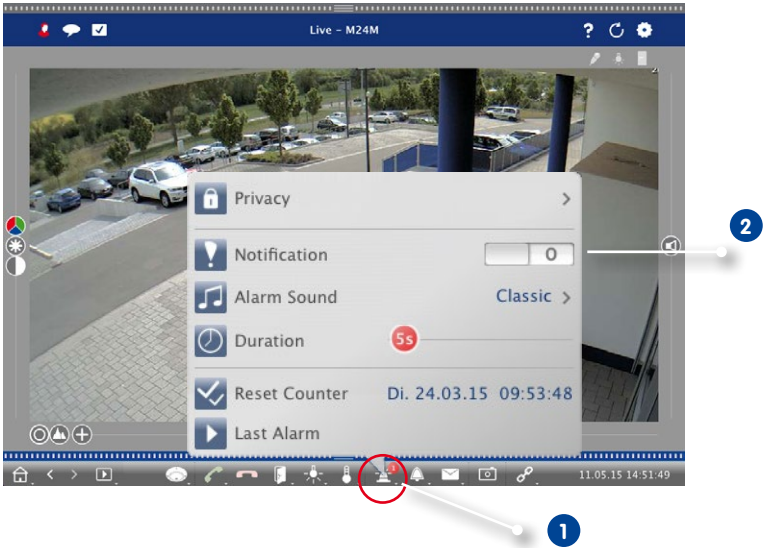
Setting Alarm Notifications

In addition to the event notifications in the Alarm bar or the Alarm Info bar, you can set up an alarm notification or alarm sound that signals new alarms. You can do this in the Live view by right-clicking on the Navigation icon and selecting the **Live view** 1.



Alarm Messaging

To activate/deactivate alarm messaging, right-click on the **Alarm** 1 icon in the Live view. Next, activate the **Notification** 2 switch.



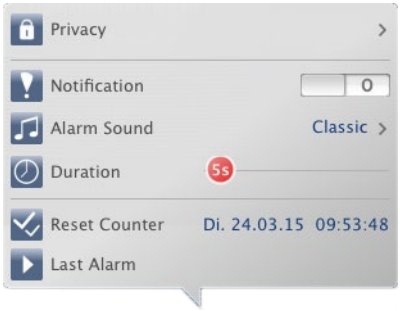
Active Alarm Message

If a camera detects an event that leads to an alarm, an alarm message pops up if **Notification** has been enabled.

- Click on to see the live images of the camera (e.g., if the alarm popped up a couple of seconds ago).
- To open the Playback view and to see the recording, click on .
- To close the message, click on .

Alarm Sound

1. Click on **Alarm Sound** to set the melody and the volume.
2. Select a melody from the list and move the **Volume** slider at the bottom to set the volume.



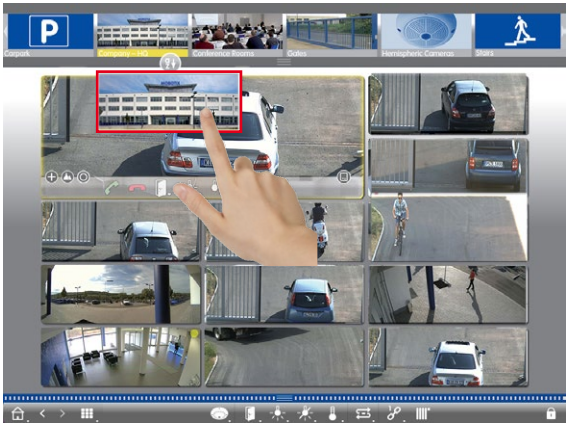
Alarm Duration

Use the **Duration** slider to set the period of time for showing the message.

3.3 MxManagementCenter in Day-to-Day Use

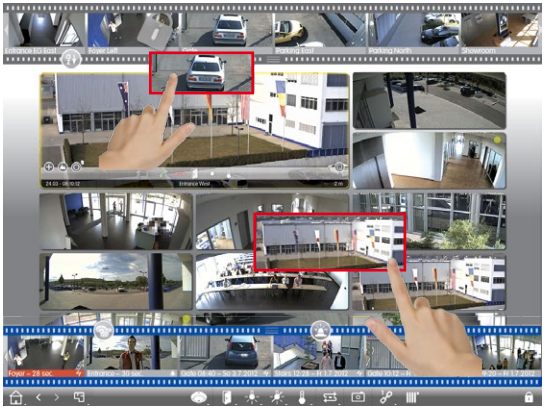
3.3.1 Working With the Grid View

Selecting a Group



1. Pull down the group bar.
2. Drag&drop a group onto the Grid view. Alternative: Click on the Group icon.

Showing a Different Camera in the Focus Window



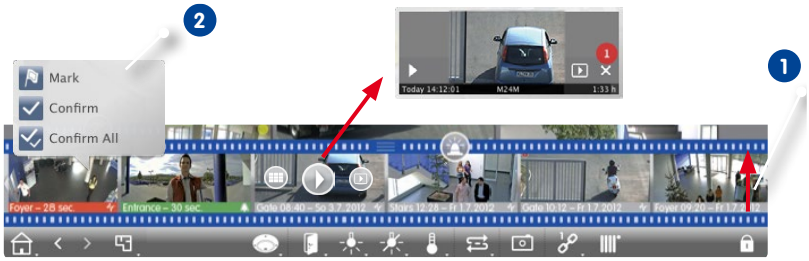
1. Drag&drop a camera from the camera bar or drag the live image into the focus window.

Detecting and Editing Events

If a camera triggers an alarm, the Grid view shows this using several methods.

Alarm Bar

The **Alarm bar** contains events that lead to an alarm (red) or if visitors rang the doorbell (green) – regardless of whether or not the bar is hidden at the moment.



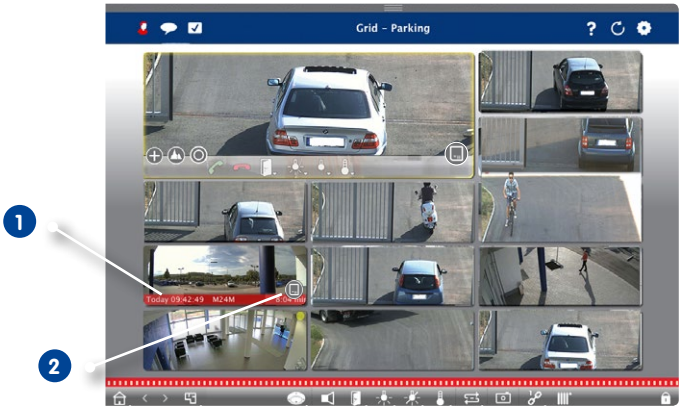
1. Pull up the lower frame border to show the Alarm bar **1**.
2. To acknowledge a new alarm, click on the event image. To acknowledge all alarms at once, right-click the event image and select **Confirm All** **2**. You can also mark events that are important to you, so you can play back only the important events later on.
3. Features of the Alarm bar:
   - View the event recording directly in the Alarm bar using the **Instant Playback**. To do so, move the mouse pointer over the event image. Three icons appear. Click on to start the playback.
   - Jump to the Playback view. Click on .
   - Open the Grid view assigned to this camera. Click on .

Hint:

Click into the live image or the recording to show this camera maximized within the window.

Alarm Info Bar

New alarms are also displayed in the Alarm Info bar. The bar beneath live image turns red or green if the camera detects an alarm 1.



1

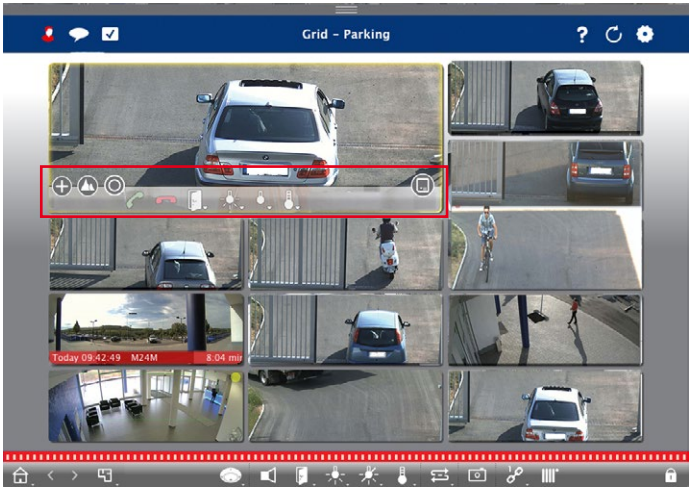
Move the SD card slider to the left 2. This opens the **Instant Playback** with the last event image. Drag the red counter 3 along the bar to show the preceding images; the number in the counter increases. Click on **Playback** 4 to see the recording for the corresponding event image.

Hint:

Click into the live image or the recording to show this camera maximized within the window.

Controlling the Camera in the Focus Window

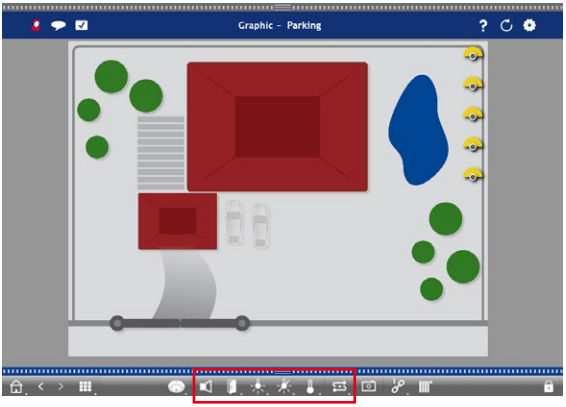
Use the controls at the bottom of the window to control the camera that is currently showing in the focus window.



- : Zooming and Moving Image Sections
- : Select pre-defined image sections.
- : Correct image distortion
- : Accept and end calls.
- : Open door and switch lights.
- : Show temperature.
- : Show event images.

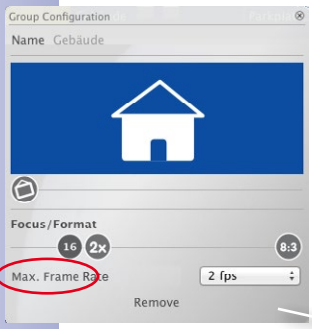
Switching Group Functions

You can use the group buttons of the command bar to control the functions of a camera group. A group function allows to switch the lights, to open one or more doors or to make an announcement over several speakers for one or more cameras of the group (regardless of the camera in the focus window). In addition, you can right-click on the group buttons to open the context menu in order to control cameras that are not part of the current group. Before you can this, the cameras have to be set up accordingly, i.e., the cameras need to be connected to door openers/light switches and have to be configured properly.



- Make an announcement.
- Open door, switch light.
- Show temperature.

Limit Frame Rate of Live Images



If a very large number of cameras is displayed in the Grid view, the performance may decline. To avoid this, you can limit the frame rate of the live images. Note that this limit does not apply to the camera displayed in the focus window.

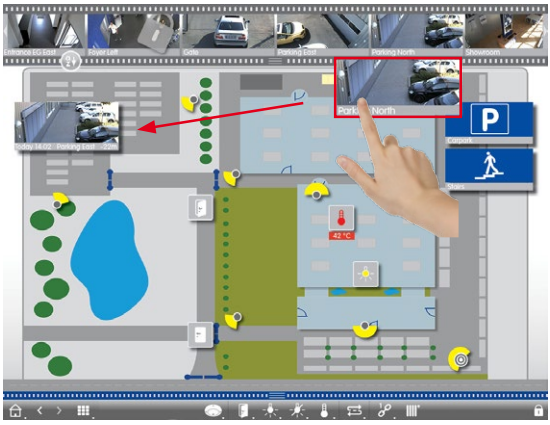
1. Pull down the group bar.
2. Right-click on the Group icon and select Frame Rate (1).

3.3.2 Working With the Graphic View

Temporarily Showing the Live Image of a Camera on a Ground/Floor Plan

To quickly check the situation, you can show a live image by moving the mouse pointer over the camera icon (1). You can also temporarily drag the live image from the camera bar onto the Graphic view.

Temporarily Showing the Live Image of a Camera of a Different Group



Drag&drop the desired camera from the camera bar onto the ground/floor plan. When changing the view, the live image disappears.

Hint:

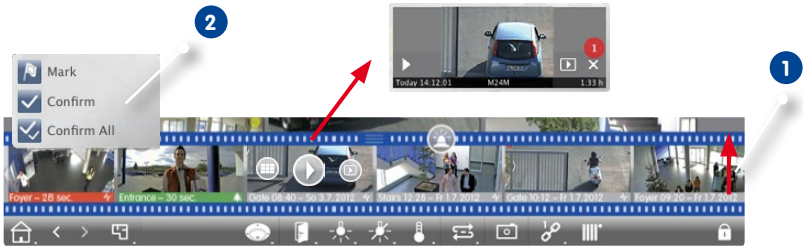
You can also show the live image permanently. Simply activate the **Edit mode**, pull the live image onto the ground/floor plan and deactivate the edit mode.

Detecting and Editing Alarms

If MxMC detects an event that leads to an alarm, the Graphic view shows this using several methods.

Alarm Bar

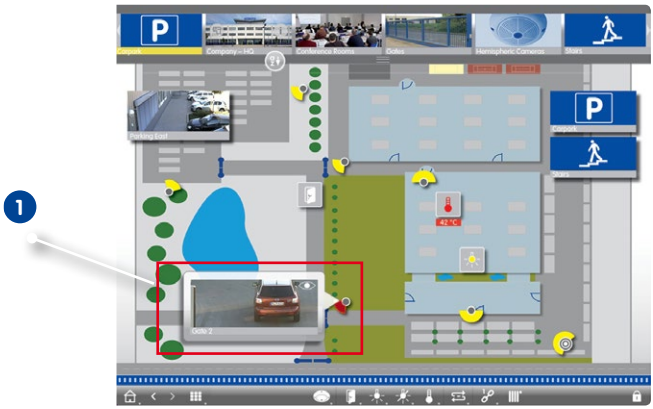
The **Alarm bar** contains events that lead to an alarm (red) or if visitors rang the doorbell (green) – regardless of whether or not the bar is hidden at the moment.



1. Pull up the lower frame border to show the Alarm bar (1).
2. To acknowledge a new alarm, click on the event image. To acknowledge all alarms at once, right-click the event image and select **Confirm All** (2). You can also mark events that are important to you, so you can play back only the important events later on.
3. Features of the Alarm bar:
   - View the event recording directly in the Alarm bar using the **Instant Playback**. To do so, move the mouse pointer over the event image. Three icons appear. Click on to start the playback.
   - Jump to the Playback view. Click on .
   - Open the Grid view assigned to this camera. Click on .

Camera Icons

If a camera detects an event, the camera icon turns red or green (ringing event). You can get a quick glance at the situation observed by the camera by showing a small live image



(move mouse pointer over icon) 1 or by showing a large live image (click on camera icon). If a second monitor is available, double-clicking on the icon will show the live image on that monitor. From the live image, you can switch directly to the Playback view to check the alarm details.

You can also see the recording for this alarm directly in the **Instant Playback**. To do so,

show the live image and click on the bottom (date and time). The Instant Playback opens 2. Click on ▶ to start the playback or move the mouse pointer over the image.

Camera Group Icon

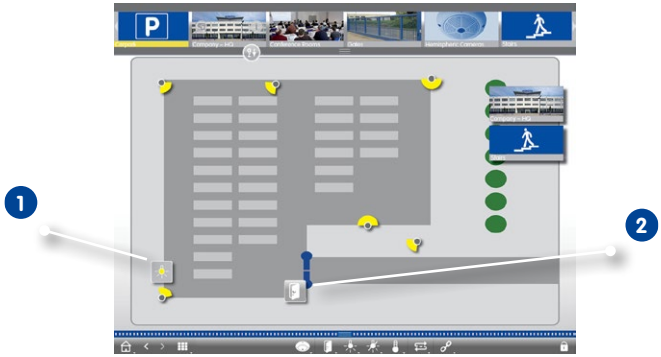
If you have positioned additional camera groups on the ground/floor plan, the name bar of the group icon turns red or green, if a camera of that group detects an alarm 1.

1. Move the mouse over the group icon in order to show the live image 2 from the camera that triggered the event.
2. Click on the bottom of the live image (date and time) to open the Instant Playback. Click on ▶ to start the playback.

Switching Functions

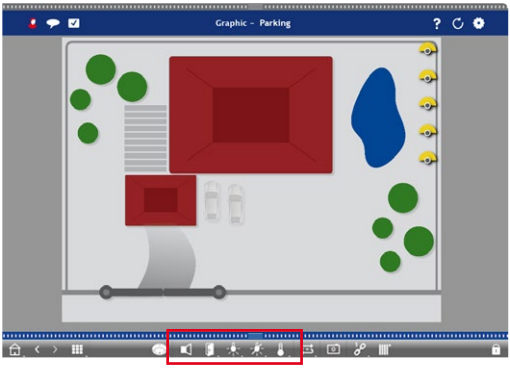
Switching Functions for One Camera

For controls that you pulled onto the ground/floor plan, a simple click will execute the function 1. At the same time, the icon shows the status of the function. If the door is not closed, for example, the icon shows an open door icon 2.



Switching Functions for a Group

Use the group buttons of the command bar to switch the lights of several cameras at once, to open several doors or to make an announcement over several speakers for one or more cameras of the group regardless of the focus window contents. In addition, you can right-click on the group buttons to open the context menu in order to control cameras that are not part of the current group.



- Make an announcement.
- Open door, switch light.
- Show temperature.

3.4 Searching in MxManagementCenter

3.4.1 Configuring the Access Mode

The program can access the stored images using two methods: Access via the camera (remote playback) or directly on a file server, on which the recordings are stored.

1. In the menu, click on **MxManagementCenter > Preferences** and select **Recording Path**. Create the recordings paths you want to use for directly accessing the recordings on one or more file servers. For more details, please see «3.8 Program Settings».

2. Open the **Camera management**. To do so, right-click on **Camera** in the command bar in the Graphic, Grid, Live and Info views.

3. Click on **Camera** and then on **Edit**.
4. Select the desired camera. Now select the desired recording path (2) for every network environment (1).
5. Select the format (3) of the recordings: Use MxFFS, if the recordings have been stored in an MxFFS archive. Use MxFileServer, if the recordings have been stored in the classic MOBOTIX folder/file structure.

Hint:

If you want to add recordings from a hard disk that had been recorded by a camera that is not in the system any more, you can set the recording path to **Local Path** and enter the recording folder using drag&drop.

3.4.2 Searching and Playing Back in the Research View

To open the Playback view, right-click on the Navigation button. Select **Playback View**.

General Playback View Controls

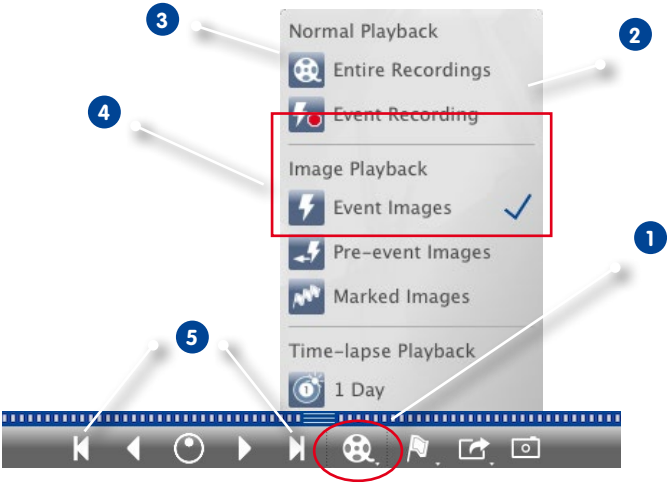
To search and play back recordings, you can activate **Playback mode** 1 or select the date and time and then use the **Previous/Next Image** buttons, to browse the recordings or you can start the playback using the **Forward/Backward Playback** buttons. The playback mode is initially set to **Event Recording** 2. If you want to play back all recordings, switch to **Entire recordings** 3.

Browsing Recordings for Event Images

You can select the recordings according to these events:

- **Event images:** Only shows event images.
- **Pre-event images:** Shows only the first recorded image for each event.
- **Marked events:** Shows only the images, which had been marked as important before.

1. In the Playback view, select the **Playback mode** by right-clicking the button and selecting the desired mode 4.



2. Browse the recordings using the and buttons. Beginning at the current event image, these buttons show the previous or next event image 5.

Browsing Recordings for a Specific Date and Time

If you have set up continuous recording for certain times and you want to check for events during those times, for example, you can limit the search to these times. You can search for events at a given time, by using time leaps or time-lapse playback.

Searching for a Specific Date and Time

1. Click on the displayed date and time 1 and enter the date and time to search for.
2. The event image jumps to the event in the recordings that is closest to the specified date and time. Click on **Playback**.

or

1. Click on the **Calendar** slider 2. The date and time will be shown above the slider. Move the slider until you reach the date and time that is closest to the point in time you want to examine. The event image jumps to the event in the recordings with the specified date and time. If such a recording is not available, the event image jumps to the event that is closest to the specified point in time (in the direction of searching). In the latter case, the slider turns read the time difference to the specified point in time is shown above the slider. Click on **Playback**.

   Hint: The farther away you move the mouse pointer from the slider, the more precise your setting will be.

Searching Several Cameras for Persons or Objects

Camera A is overlooking the gate and signals an event. The event image in the Alarm bar shows a delivery truck driving through the gate. You want to know if the truck has also passed the area monitored by camera B.

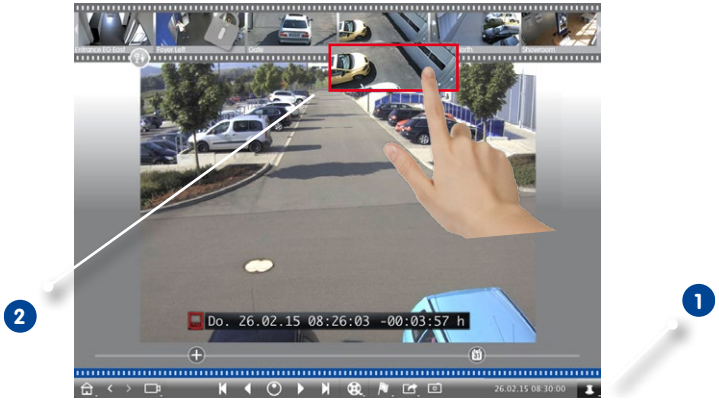
1. Move the mouse pointer over the event image to see three icons. Open the Playback view mode by clicking on .
2. Play back the recording (end of recording 1).

3. Drag&drop camera B from the camera bar into the Playback view.

4. The playback automatically selects the recording that follows the end of camera A's recording 2. You can repeat this for as many cameras as needed.

Investigate Multiple Cameras for a Specific Point in Time

You want to know if other cameras have recorded something at a specific point in time:

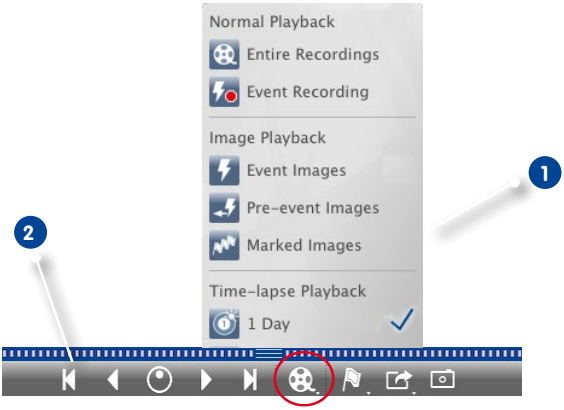


1. Set the reference time using the **Pin** button 1.
2. Drag&drop the cameras from the camera bar one by one 2.
3. The application shows the event images of each camera that are closest to the specified point in time.

Limiting the Search Range for an Incident

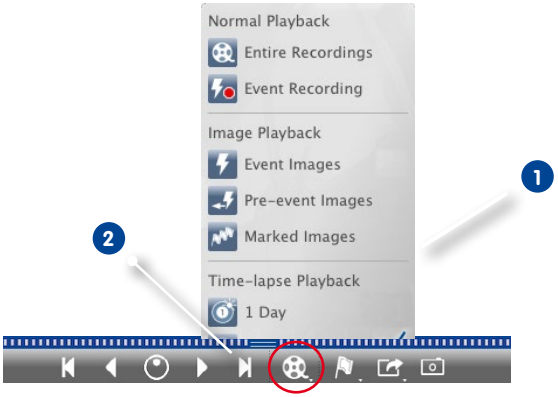
Your camera monitors a parking lot from which a car had been stolen during the day. Follow these steps to locate the event as quickly as possible:

1. Start the **Playback mode** (right-click) and select an interval (e.g., 1 day) 1.
2. Keep clicking on **Previous image** 2 until the car is in the image.



3. Select a shorter interval (e.g., 1 hour) 1.
4. Keep clicking on **Next image** 2 until the car is not in the image any more.
5. Keep on using shorter intervals, until you have found the exact point in time of the incident.

Note that you can also use the **Forward/Backward Playback** buttons to play back using the same time leaps.



Playing Back Recordings

Hint: Precise Positioning by Image

If you want to examine a scene very closely, you can check the recordings one image at a time. To do so, stop the the playback (click on or). Now use the two buttons (forward) and (backward) to navigate the images one by one.

Hint: Playback Priority

To optimize the camera for fast playback, the **Playback has Priority** option has already been set. You can change this setting in **Setup Menu > General Image Settings > Playback has Priority**.

3.4.3 Searching and Playing Back in the Grid Playback

To show the Grid Playback, right-click on the Navigation button and select **Grid Playback**.

The Grid Playback provides synchronized searching and playback of the recordings of entire camera groups.

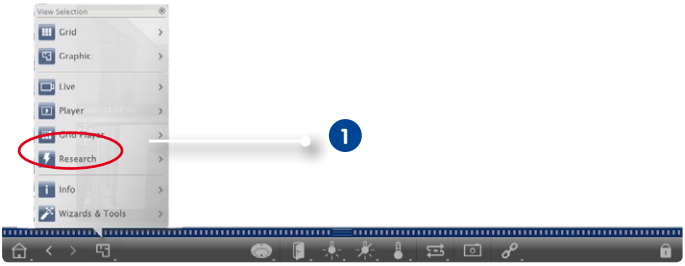
1. Use the timestamp in the focus window 1 or the calendar slider 2 to set the time.
2. Drag&drop the desired camera group from the group bar.
3. All cameras jump to the event image that is closest to the specified point in time. The timestamp beneath each camera image shows the time and date of the image. The difference to the reference time is shown at the right.

Hint:

You can also use the Grid Playback by dragging a group onto the Playback view. The original camera will be shown in the focus window.

3.4.4 Searching and Playing Back in the Research View

To show the Research view, right-click on the Navigation button and select **Research** 1.



The Research view allows searching all event images of one camera or of the cameras of a group. You can filter the events according to event types.

Showing the Event Images of a Camera/a Camera Group

Camera: Drag&drop the desired camera from the camera bar into the display area of the view.
Camera group: Drag&drop the icon image of the desired camera group into the display area of the view.

Filtering by Event Types

Initially, the event images of the selected cameras are sorted by time. You can filter the events according to event types (1). To activate the event types, click on the corresponding buttons:

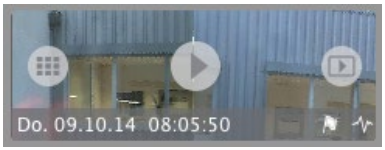
- : MxActivitySensor Events
- : Video Motion Events
- : PIR Events
- : Environment events: Sounds, temperature, illumination, signal input
- : Ringing Events
- : Mailbox Messages
- : Door Station Events
- : Invalid RFID card
- : Invalid PIN

Marking Events

When browsing event images, you can right-click on an image and mark it as "important". The same applies to event images that you have marked as "important" in the Playback view or in the Alarm bar – you can see them in one collection in the Research view.

Playing Back Events

You can see the recording for each event directly in the view. To do so, move the mouse pointer over the event image. Three icons appear.



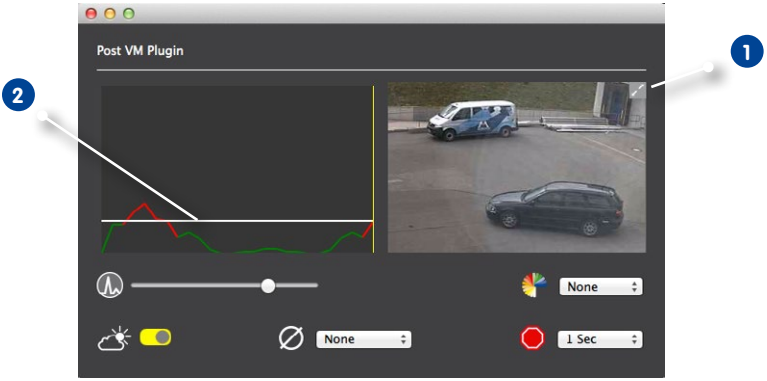
- Click on to show the recording.
- Click on to switch to Playback.

3.4.5 Playback Analysis: Searching With Post Video Motion Detection

Post video motion detection (Post VM) has already been added as a plugin in MxMC. This plugin allows searching recordings for changes in one or more image areas of a camera. This is done with the help of "motion windows".

To open the Post video motion detection, right-click in the Playback view or in the Grid Playback and select **Post VM Detection**.

Creating Motion Windows



1. Click on in the image area on the right-hand side of the settings dialog 1. A new window with a predefined video motion window opens.
2. You can execute the following commands:
   - Modify the size of the video motion window: By moving the sides or the corners of the window.
   - Create additional video motion windows: Draw a new window with the mouse.
   - Duplicate a video motion window: Click on .
   - Delete a video motion window: Click on .
   - Deactivate a video motion window: Click on .
3. To close the editor window, click on in the top right corner of the window.

Setting the Trigger Conditions

The Post VM windows allows setting different parameters that influence the detection results:

- **Trigger Level:** White bar in diagram 2

  Controls the trigger threshold of the video motion windows. Move the bar to the bottom to recognize a movement if only a few pixels change from one image to the next. Move the bar to the top to recognize a movement only if many pixels change.

- **Sensitivity:**

  This setting controls how large the change of each pixel in a video motion window must be to count as a movement. Together with a low threshold value, this setting can be used to fine-tune video motion detection.

- **Correct Changes in Illumination:**

  Activate this option to avoid false alarms, if lighting conditions change rapidly (e.g., sun and cloudy sky).

- **Deadtime:**
  This sets the timespan after the last Post VM event, during which pixel changes in a video motion window are ignored.

- **Median Value:**

  Enter a long duration (e.g., 2.0 sec.) to improve the detection of slow movements. **Note:** Setting a value that is too high can lead to smears in the preview window.

- **Color Filter:**

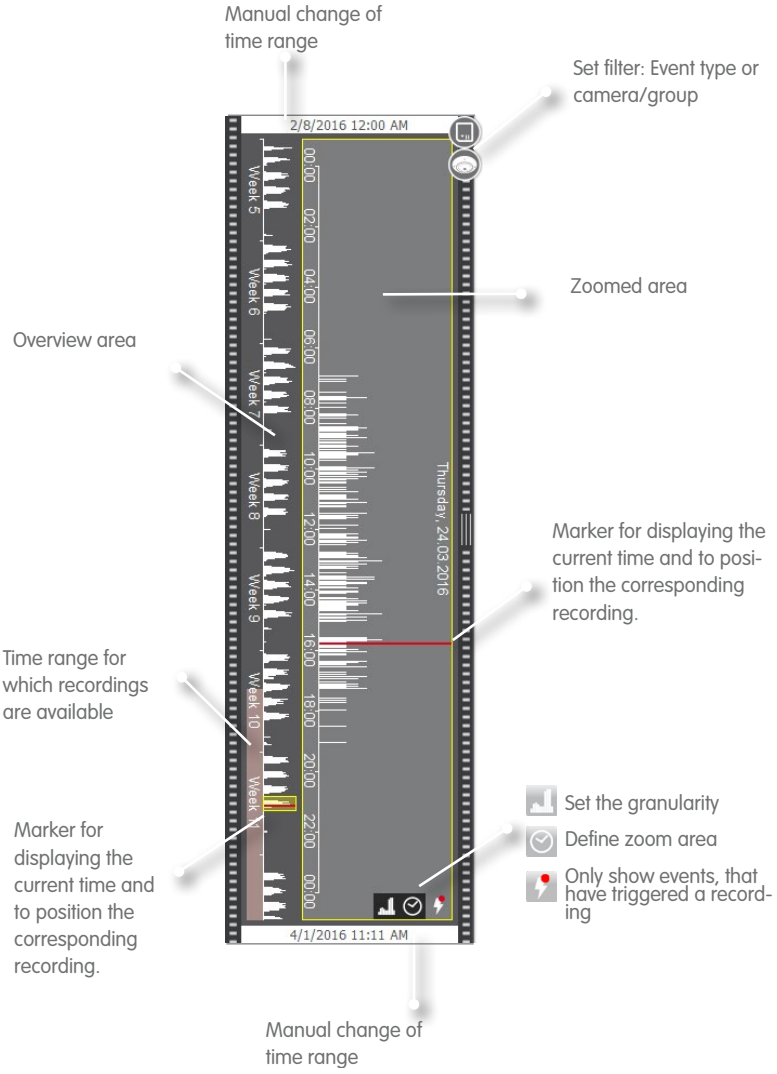
  To limit the motion detection to a specific range or colors, select a color. If this color changes during post video motion detection, the Post VM event will trigger.

Searching for Changes in Video Motion Windows

Once you have defined the video motion windows and have set the trigger conditions, you can search the recordings for changes in the video motion windows. Use the playback buttons in the command bar and proceed as described in «3.4.2 Searching and Playing Back in the Research View» and in «3.4.3 Searching and Playing Back in the Grid Playback». If MxMC detects a change within one of the video motion windows, the frame of that window turns red and the search stops.

3.4.6 Histogram With MxEventStatistics

The histogram in the Histogram bar illustrates the distribution of the event frequency and thus provides a quick overview of the events of one or more cameras. You can open the histogram in the Playback view and in Grid Playback by clicking on the dark gray frame border. To begin with, the histogram always shows the entire range of the events logged by the camera.



- **Displayed time range:**

  The timestamps at the top and the bottom of the histogram show the first and the last of the available events logged by the camera, respectively. You can change this range manually. A small cross at the left of the time range indicates that it has been changed manually. Click on the cross to reset the timestamps to their original values.

- **Filtering:**

  You can filter the display by camera, by group or by event type. There two sliders for this purpose: the group/camera slider and the event type slider. To set the filters, move the sliders until you see the desired results.

- **Structure of the histogram:**
  - The histogram is split into the overview area and the zoomed area of the selected range in the overview. Depending on the displayed timespan of logged events, the overview area shows hours, weeks or months (as indicated by the unit).
  - The pink bar indicates the time range, in which recordings for the logged events exist. **Note:** Recordings may not exist for the entire timespan that is covered by the histogram.
  - The yellow scroll bar shows the range that is displayed in the zoomed area. Click on to set the displayed time range in the zoomed area (e.g., custom, 6 hours or one day).
  - To move the time range in the zoomed area, simply move the yellow scroll bar to the time range you want to examine. If you have set the zoomed area to "Custom", you can modify the displayed time range by dragging the frame of the scroll bar.
  - If you want to see only events in the zoomed area that have triggered recordings, click on .

- **Distribution of Frequency:**

  The length of the bars indicates the frequency of logged events per time unit. Click on if you want to see more details on the distribution of frequency for a specific point in time. The display switches to a higher resolution.

  If you want to get more detailed information on a specific point in time with a high event frequency, click on the interesting spot in the zoomed area or the overview area. The red position marker jumps to the spot and shows a recording, if available. You can now play the recording in Playback view.

3.5 Exporting Recordings

3.5.1 Saving Snapshots

Snapshot images can be created in the Live and the Playback views for the displayed camera, in the Grid view and Grid Playback for all displayed cameras. Click on the **Snapshot** button in the command bar.

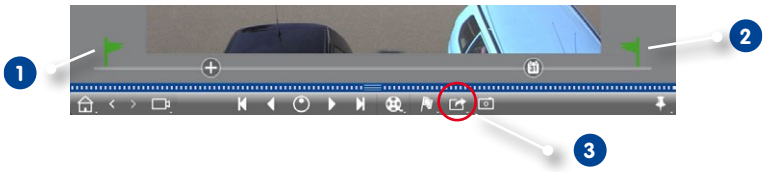
By default, the images are stored on the desktop. Snapshots from the Grid view or the Grid Playback are stored in a folder on the desktop that contains the images of all cameras of the group. To set the target folder and image settings for the snapshot images, open **MxManagementCenter > Preferences > Snapshots** in the menu.

3.5.2 Exporting Recordings

Exporting the Recordings of One Camera

The Playback view allows setting a time range for a recording (event or continuous recording) in oder to select it for exporting.

1. Open the Playback view.
2. Drag&drop the desired camera from the camera bar.
3. Find the recording you are interested in.
4. Mark the start of the clip by clicking on the green flag on the left 1. Play the recording until you have reached the end of the clip you want to export. Mark the end of the clip by clicking on the green flag on the right 2.



5. Click on **Export** 3 and select MOBOTIX.
6. Select a target folder in the Export dialog and enter a file name. Click on **Save**. The clip is saved to the file.

Hint: Automatic Import
If you activate the **Automatically import after export** option, the exported clip is automatically added to the camera bar.

Exporting the Recordings of Camera Group

The Grid Playback allows setting a time range for a recording (event or continuous recording) in order to select it for exporting from several cameras.

1. Open the Grid Playback.
2. Drag&drop the desired camera group from the group bar.
3. Find the recordings you are interested in.
4. Mark the start and the end of the clip as described in **Exporting the Recordings of One Camera**.

5. Instead of exporting all cameras of this group, you can also select one or more cameras for exporting. To do so, click and hold **Export** 3. A circle appears on the camera images in the top left corner. To do so, select the desired cameras by clicking on the corresponding circles 4.

   Note: The recording of the camera shown in the focus window will always be exported.
6. Export the clips as described in **Exporting the Recordings of One Camera**. Instead of in one file, the program creates a folder that contains all exported clips.

Hint: Automatic Import
If you activate the **Automatically import after export** option, the exported clips are automatically added to the group bar.

3.5.3 Exporting From the Export Bar

Using drag&drop, the Export bar provides a quick and easy way to create a list of recordings for subsequent exporting. From the bar, you can export recording time ranges as combined clips. You can add the clips in the Playback view, in Grid Playback and in the Research view. Note that the Export bar will not be deleted automatically after exporting, but only when closing the application.

Adding Clips for Exporting

Adding Clips for Exporting in the Playback View

1. Drag&drop the desired camera from the camera bar.
2. Find the recording you are interested in.

3. Mark the start of the time range by clicking on the gray flag on the left. Play the recording until you have reached the end of the clip you want to export. Mark the end of the time range by clicking on the gray flag on the right. Both flags are now green (1). Of course, you can set the end marker first (gray flag on the right), then play the recording backward and set the start marker (gray flag on the left).
4. Click on the image of the recording and maintain the position until you see a scaled-down image (2). Drag&drop this image to the Alarm bar (regardless of whether or not it is open). The Alarm bar automatically turns into the Export bar, allowing you to place the image there.
5. Alternative: Activate the Alarm bar. Click on the lower frame border of the open Alarm bar. The Export bar opens. Click on +. The selected time range will be copied to the Export bar.

Adding Clips for Exporting in Grid Playback

The Export bar in Grid Playback is the best way to combine sequential time ranges of different cameras. For example, you can use it to follow one person that passed several cameras.

1. Drag&drop the desired camera to the focus window in the grid and find the relevant recording.
2. Mark the start and the end of the clip as described in **Step 3, Adding Clips for Exporting in the Playback View**. The recordings of the other cameras will reposition accordingly.
3. Click on the image of the recording and proceed as described in **Steps 4 and 5, Adding Clips for Exporting in the Playback View**.
4. Drag&drop the camera with the next recording in the sequence of events into the focus window. Mark the start and the end of the clip as described above, then drag&drop the recording into the Export bar.
5. Repeat these steps until you have added all recordings you want to export.

Note that you can also add recording time ranges from several cameras in the Export bar.

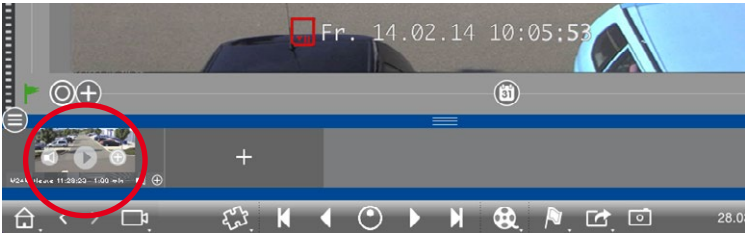
1. Simply drag&drop the desired camera group from the Group bar and find the relevant recording.
2. Mark the start and the end of the time range as described in **Step 3, Adding Clips for Exporting in the Playback View**. The recordings of the other cameras will reposition accordingly.
3. Right-click on **Export** . A circle with a checkmark appears in the top left corner of the recordings. If you do not want to use the recording of a specific camera, deactivate the recording by clicking on the corresponding checkmark.
4. Click on the image of the recording and proceed as described in **Steps 4 and 5, Adding Clips for Exporting in the Playback View**. The selected clips will be copied to the Export list.
5. Repeat these steps until you have added all time ranges you want to export.

Adding Clips for Exporting in the Research View

In the Research view, you can add recorded event sequences to the list. The length of the event sequences is currently 10 seconds.

1. Set filters by camera, by group or by event type as needed.
2. Right-click on **Export** . A circle appears on the camera images in the top left corner. Mark the desired events by clicking on the corresponding circles.
3. Open the Export bar (by clicking on the lower frame border of the open Alarm bar). Click on an event image and maintain the position until you see a scaled-down event image. Drag&drop this image to the Export bar. The clips of all selected event images are added to the Export bar.
   Alternative: In the Export bar, click on . The clips of all selected event images are added to the Export bar.
4. If needed, you can set new filters and add more event images to the Export bar.

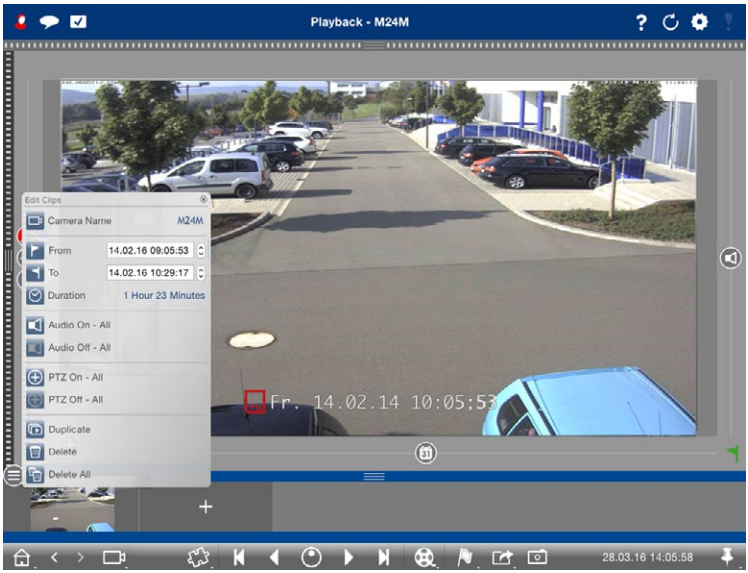
Editing Clips



If you have added a recording to the Export bar, for which you had activated distortion correction or zoom features during playback, you can choose to export the clip with or without PTZ settings. Likewise, you can export the clip with or without audio. To do so, move the mouse pointer over the recording in the Export bar. Three icons appear:

- : Clip is exported with PTZ.
  Click on to export the clip without PTZ. The icon is disabled.
- : By default, the clips are exported with audio (provided that audio had been recorded).
  To export without audio, click on . The icon is disabled.
- : The clip is played back.
  Note that you can review the clips before exporting by playing back individual clips directly in the Export bar. Click on .

To delete one or more clips, open the context menu by right-clicking on a clip. The context menu contains more information on the clip, such as the camera name. In addition, you can manually adjust the time range, activate/deactivate audio for all clips or duplicate a clip.



Exporting

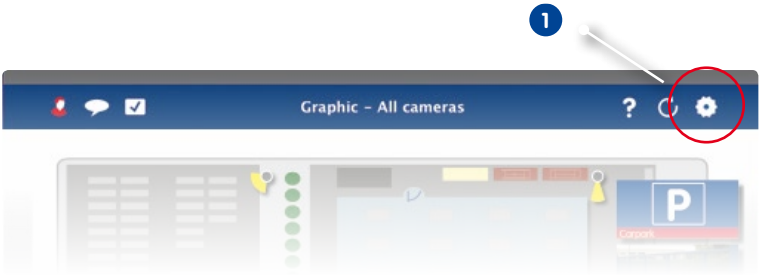
Click on **Export** , then select MOBOTIX to export an MXG clip. Select a different profile to create an AVI file. Select a target folder in the Export dialog and enter a file name. In addition, you can choose to automatically add the MXG clips of the Export bar to the Camera bar after exporting. To do so, activate the **Automatically import after export** checkbox.

3.6 Working With Different Network Environments

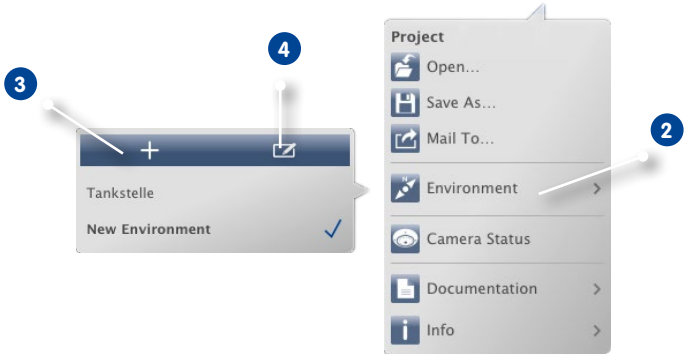
Using MxManagementCenter, you can access cameras from different locations. This usually means that each location requires using different network access data. To avoid having to change the network access data every time, you can set up different network environments with the corresponding network access data.

3.6.1 Creating Environments

Create your environments to begin with. Next, use the **Camera management** to select the cameras for each environment. This is also where you can set the DynDNS access for the cameras (if you did not specify this when adding the cameras).



1. In the header bar, click on **Projects and Environments** 1 and then on **Environment** 2.

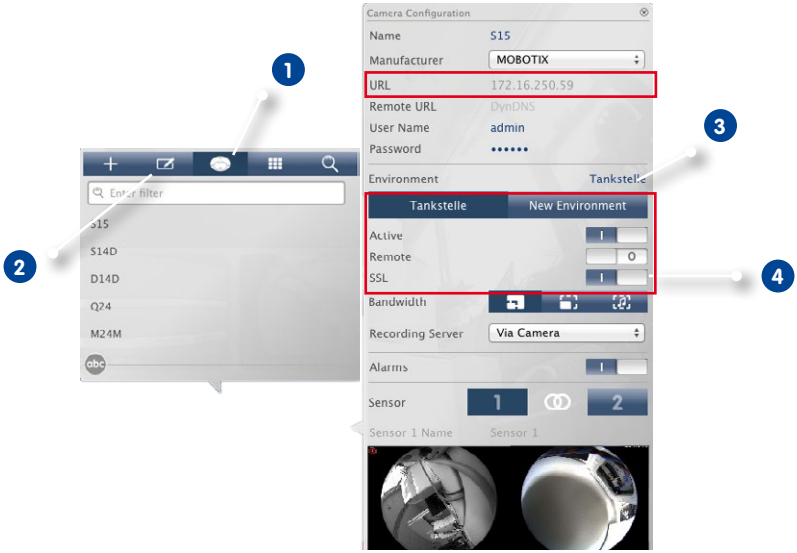


2. Click on **Add** 3. This adds an environment with the "New environment" default name. You should change the name by clicking on **Edit** 4 and entering a descriptive name.

3.6.2 Changing Network Data and Selecting Environments

After creating the environments, you can select the cameras that will be active for each environment and adjust the network data as needed.

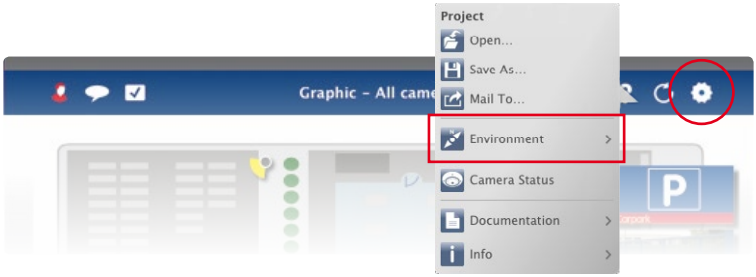
1. Open the **Camera management** (in the Graphic, Grid, Live and Info views) by right-clicking on in the command bar.



2. Click on **Camera** 1 and then on **Edit** 2. Select the desired camera.
3. Select the desired environment 3.
4. Select the bandwidth to use for this environment: 4
   - **HiRes:** The images are transferred using the current camera settings.
   - **LoRes:** The images are provided with the specified frame rate, image size and quality (see "Program settings").
   - **Audio Only:** No images (still image can be pulled upon request), good audio quality with low bandwidth requirements.

Selecting an Environment

1. In the header bar, click on **Projects and Environments** and then on **Environment**. Select the desired environment.



Hint: Limiting the Frame Rate

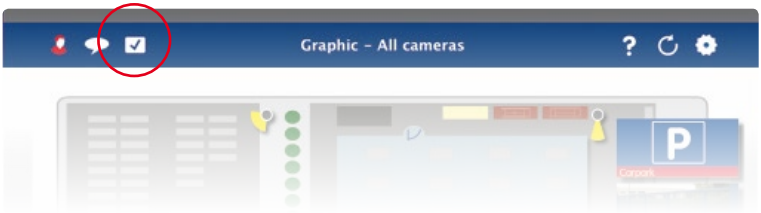
If the recorded images are loaded too slowly, you can enhance the performance by limiting the frame rate to 8 fps, for example. The camera uses the free resources to generate images with reduced size, quality and frame rate for transfer while providing regular images for live display and storage.

1. Open the camera's user interface in the browser.
2. Click on **Setup Menu > Image Control > General Image Settings > Frames per Second**.
3. Make sure that **Limit Frame Rate When Idle** has been activated.
4. Set the maximum **Frames per Second**.

3.6.3 Temporarily Adjusting the Bandwidth

By assigning a bandwidth to an environment, you can specify how the images are pulled from the cameras given different connection speeds. This basically controls how the images can be displayed for live viewing and event research. Selecting a bandwidth thus also controls the image quality. Note that you can temporarily overwrite the bandwidth setting without actually changing the camera setting.

1. Click on **Bandwidth** in the header bar.



2. Click on the button to switch from one setting to the next.
   - **HiRes:** The images are transferred using the current camera settings.
   - **LoRes:** The images are provided with the specified frame rate, image size and quality (see "Program settings").
   - **Audio Only:** No images (still image can be pulled upon request), good audio quality with low bandwidth requirements.
   - **Unchanged:** Uses the original setting of the camera.

3.7 Working With Door Stations

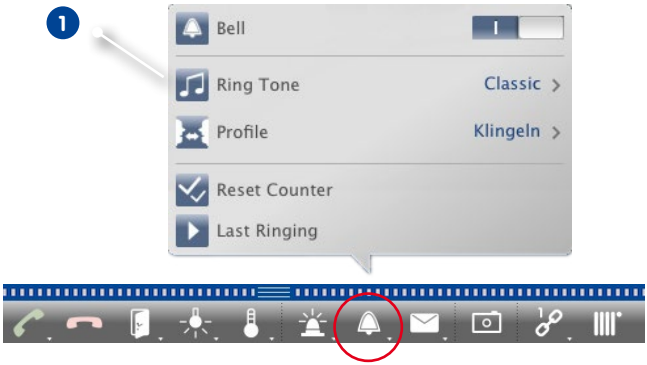
3.7.1 Setting up Door Stations

In general, the door stations are configured when adding them to the system. Note that you can change the bell behavior and the mailbox settings also while the system is up and running. You can do this in the Live view in the bell and the mailbox settings. The settings apply to the currently displayed camera image.

Bell Settings

Setting the Ring Tone

1. In the Live view, right-click on the **Bell** icon to open the **Bell settings**.



2. Click on **Ring Tone** 1 and select the desired melody.
3. Move the **Volume** slider until you have found the desired volume.

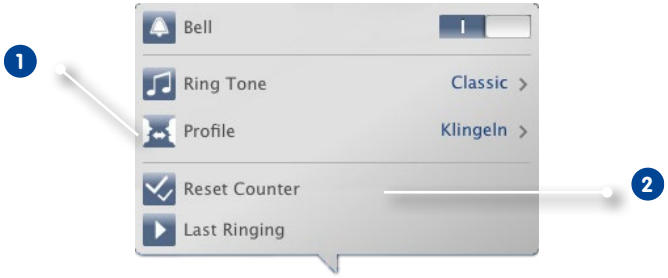
Selecting a Bell Profile

A bell profile basically controls the reaction if someone is ringing at the door station. The camera provides several **pre-defined** bell profiles.

- **No phone ring:** MxMC and all other remote stations will not react, i.e., you will not notice if someone is ringing (neither visually nor by sound).
- **Ringing:** You will hear if someone rings the doorbell. The visitor cannot leave a message.
- **Ring and Mailbox:** You will hear if someone rings the doorbell. If you do not react within a given period of time, the door station plays back an announcement and the visitor can leave a message.

- **Mailbox:** After ringing, the door station immediately plays back an announcement and the visitor can leave a message.
- **Announcement only:** After ringing, the door station immediately plays back an announcement. The visitor cannot leave a message.

1. Click on **Profile** 1.
2. Then click on the desired profile in the list.



Reset Counter

The counter in the Live view is incremented upon every ringing of the doorbell, regardless of whether or not you react to the ringing. Resetting the counter will help in recognizing if you have missed a ringing, you should therefore always reset the counter to Zero. Once you have reset the counter, you will be informed how long ago the last reset took place.

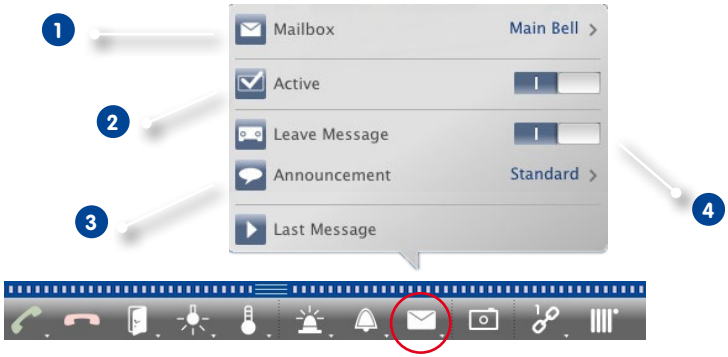
1. Click on **Reset Counter** 2.
2. The counter has been reset and will not be shown next to the **Bell Settings** button.

Mailbox Settings

Select Mailbox

Depending on the installed options and the configuration of the door station, you may have several bell buttons or – in case a MOBOTIX keypad module has been installed – several contact numbers. Each of these bells or contact numbers has its own mailbox. The corresponding mailboxes are presented in the list (below the name of the bell).

Note: All settings made in the **Mailbox** function always apply to the selected mailbox. This also means that the new messages counter only applies to this mailbox. To get the messages and recordings of a different mailbox, select that mailbox first.



1. In the Live view, right-click on the **Mailbox** icon to open the **Mailbox settings**.
2. Click on **Mailbox** 1 to select the desired mailbox from the list.

Proceed by selecting a bell profile for each mailbox. For instructions on how to do this, see "Selecting a Bell Profile".

Activate the Mailbox and Select a Welcome Message

Activate 2 the mailbox. Select the message that will be played to the visitor 3.

Enable the Message

If visitors should be allowed to leave a message, activate the **Leave Message** option 4.

3.7.2 Operating Door Stations

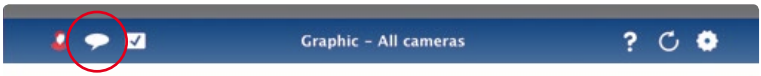
Answering Ringing

There are different ways to indicate that someone has rung the doorbell.

Notification on Ringing

If alarm messaging has been activated (**Live view > Alarm > Alarm Message**), a notification will be shown if someone rings the doorbell – regardless of the currently active view. Using the notification buttons, you can open the door 1 or start a conversation 2.

You can temporarily disable notifications. To do so, click on **Notification** in the header bar. The button indicates that it is currently disabled .



Alarm Bar

Note that you will still see if someone is ringing even though notifications have been disabled – the Alarm bar will turn green.

- In **Live view**, drag&drop the event image into the live image. Use the buttons in the command bar to start a conversation and to open the door.
- In **Grid view**, drag&drop the event image into the focus window. Use the controls of the focus window to start a conversation and to open the door.
- In **Graphic view**, drag&drop the event image from the Alarm bar onto the ground/floor plan. A small temporary live image is shown at the bottom; use its controls to start a conversation and to open the door.

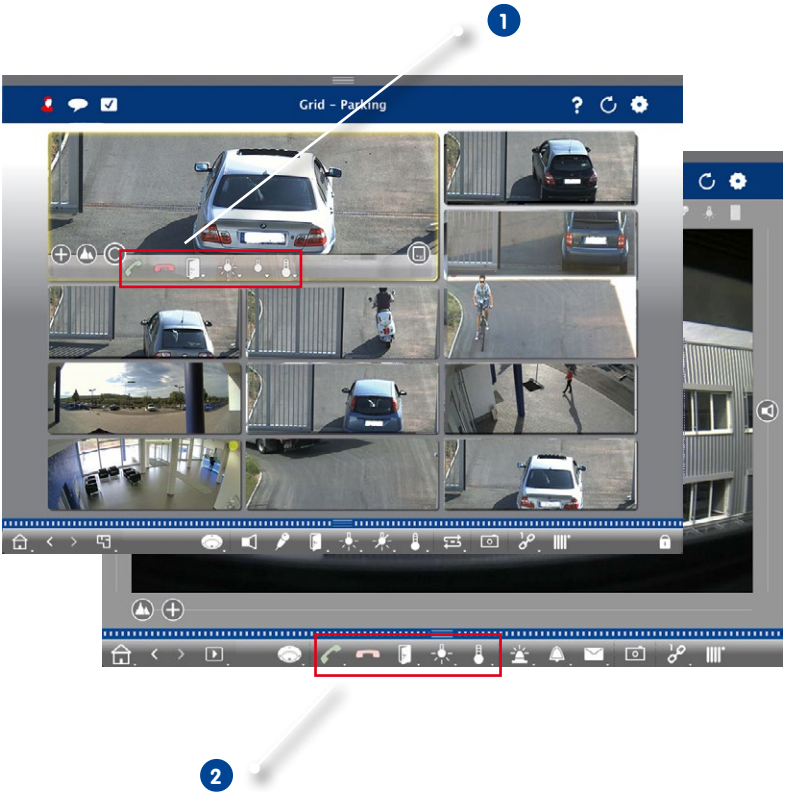
- From **all other views**, switch to the Grid view (by clicking on in the mouse-over), then drag&drop the event image into the focus window. Use its controls to start a conversation and to open the door.

Opening the Door/Switching Lights

If the door station has been set up properly, you can use MxManagementCenter to open the door and to switch the lights. Use the buttons in the command bar of the focus window (Grid view) 1 and in the command bar of the Live view 2.

Grid view

Live view



Playing Back Door Station Events

Playing Doorbell Recordings

If you have missed a visitor, you can use the Alarm bar to see who rang the doorbell and when that happened.

1. To do so, move the mouse pointer over the event image. Three icons appear.
2. To see the doorbell recording directly in the Alarm bar, click on **Play** .
3. To see the doorbell recording directly in Playback view, click on **Playback** .

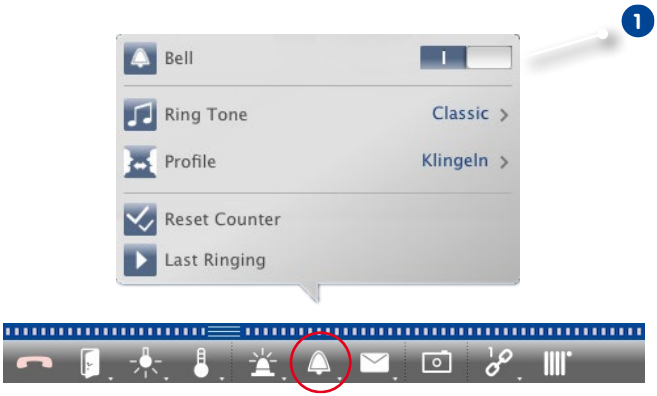
Accessing the Mailbox Messages

If visitors have left messages during your absence, you will immediately notice the **counter next to the Mailbox button** in the Live view, which is incremented every time someone leaves a message. Once you have played back the message in the Playback view, the message is automatically marked as "seen" and the counter is reduced by one.

Deactivating the Doorbell

If you do not want to be disturbed by the doorbell, you can deactivate a specific bell or contact number. This means that the ringing of the doorbell will neither be indicated nor registered at the door or at one of the door stations. It also means that you will not get any information about visitors you missed, that these visitors will not be able to leave messages and that nothing will be recorded.

1. In the Live view, right-click on the **Bell** icon to open the **Bell settings**.
2. Deactivate the **Bell** switch 1.

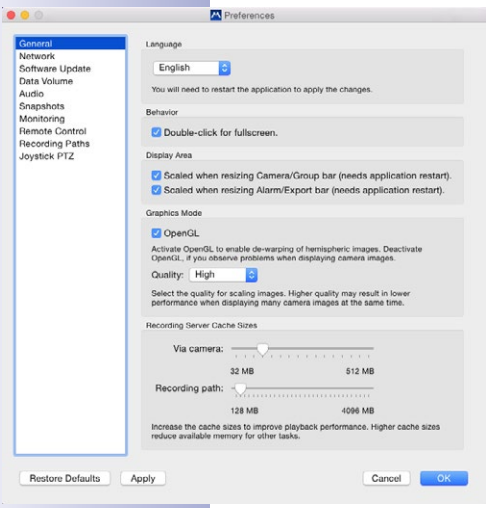


3.8 Program Settings

3.8.1 Setting Options and Selecting Defaults

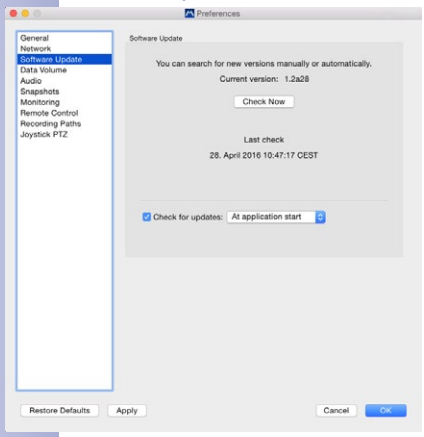
Open **MxManagementCenter > Preferences** in the menu.

General Settings



- **Language:** Sets the program language. You may have to restart the software in order to apply your changes.
- **Behavior:** Deactivate this option to prevent that a double-click switches to full-screen image on the main monitor or on other monitors.
- **Graphic Mode:** If you want to correct hemispheric images, make sure that this option has been activated. A prerequisite for using this feature is a graphics adapter with OpenGL V2.1 support, since it performs the actual distortion correction. Deactivate OpenGL if your graphics adapter does not support this mode or if you experience problems when displaying the camera images.
- **Recording Path Cache Sizes:** To improve the playback performance, you can set the internal cache size for playback. This applies to both types of playback – via camera or directly from a file server. Please be aware that the cache size set here will reduce the available RAM for other processes, which in turn can influence the performance of other applications.
- **Display Area:** If you are working with the Camera/Group bars or the Alarm/Export bars, you can change the width of the bars. Use this option to automatically resize the display area in such a case.

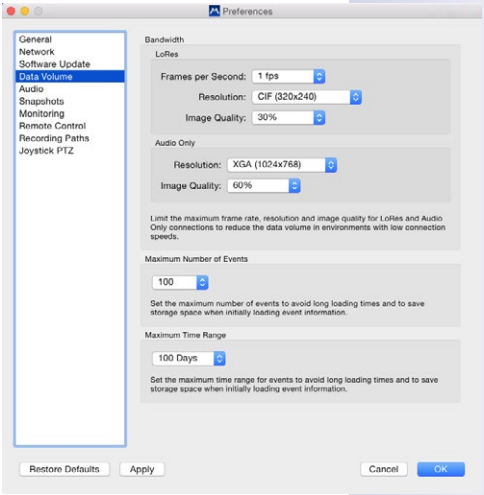
Software Update



MxMC can use the update feature to automatically search for new program versions. This function requires an Internet connection. Adjust the update request to suit your needs.

Note that you can also start the search manually. To do so, click on **Search Now**. If a new program version is available, you will see this here.

Data Volume



- **Bandwidth:** By using environments (see Section 3.4, «Working with Different Environments»), the images can be pulled from the cameras with different size, quality and frame rate. You can limit the bandwidth by adjusting the values for LoRes and Audio Only connections. By using lower values, you can limit the bandwidth required to transfer the data, thus allowing you to adapt the system to the connection speed. Default values for the settings:
  - LoRes: 1 fps, CIF, 30%
  - Audio Only: XGA, 60%

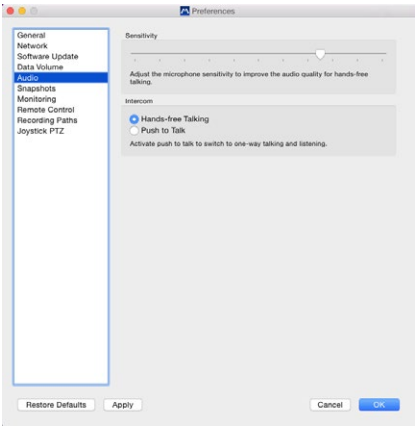
  Note that these settings are by no means camera settings; you are only limiting the frame rate, image size and quality of the video stream that is transferred to MxMC. If you set a value that is higher than the value set on the camera, the camera value will be used.

- **Maximum Number of Events/Maximum Time Range:** The number of events and the time range are controlling how far into the past MxMC will look for event information after the next launch of the application. The settings apply to the event counter in Live view and the event preview images in the Research view. This avoids long loading times and saves storage space when initially loading the event information. Note that you can load additional images, if required.

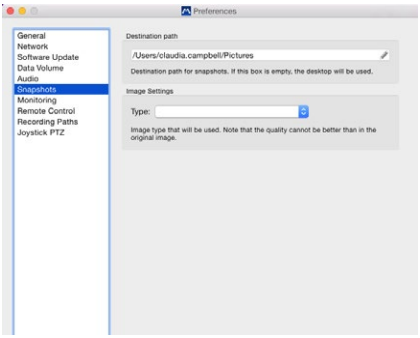
Setting the Intercom Mode of Door Stations

Use the slider to set the sensitivity for recording the sound from the camera microphone. The default setting has been optimized for Intercom connections and should only be changed in very noisy or very quiet door station surroundings.

Hands-Free Talking and Push to Talk
The Hands-free Talking option is activated by default. If the surroundings are very noisy or if audio connection problems persist, you should try to use the Push to Talk setting.

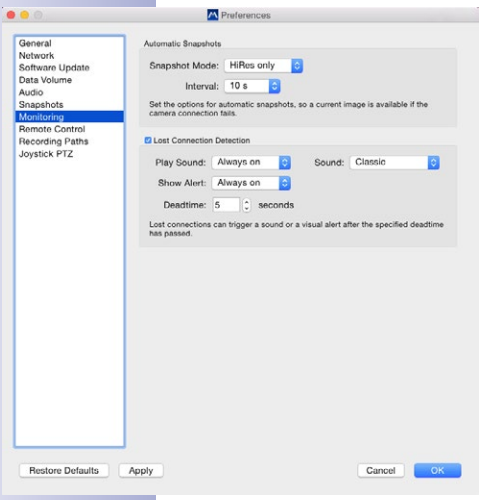


Snapshots



You can save snapshots from live images or from recordings. These settings control the location and the quality of the snapshot images stored by MxMC. If you do not specify a folder, the files will be created on the desktop (see Section 3.6.1, «Saving Snapshots»).

Monitoring



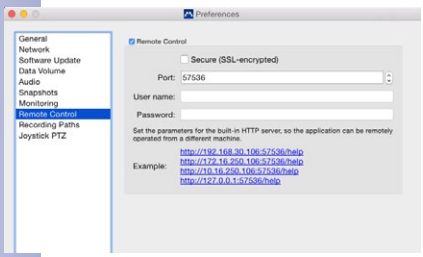
Automatic Snapshots

Use this section to have the application automatically store snapshots of all cameras at regular intervals. Every new snapshot of a camera overrides the previous snapshot. If the connection to a camera fails, you will have a fairly recent snapshot of that camera.

Lost Connections

If the connection to a camera is lost (e.g., due to a network failure or changed camera access data), the application can show a warning. This is where you configure the warning. Activate the **Lost Connection Detection** checkbox and specify how you want MxMC to react if the connection to a camera is lost (warning sound and window).

Remote Control



MxMC can be remote-controlled from other programs using HTTP requests. Activate this feature and set a proper port if you want to use this feature. Click on one of the example links to see a list of executable commands.

Recording Paths

The program can access the stored images using two methods: Access via the camera (remote playback) or directly on a file server, on which the recordings are stored. If you want to directly access the recordings, you can create recordings paths, which can then be assigned to the cameras (**Camera Management > Camera Settings**). Direct access allows using extremely high playback speeds (up to 60x the regular speed).

Name

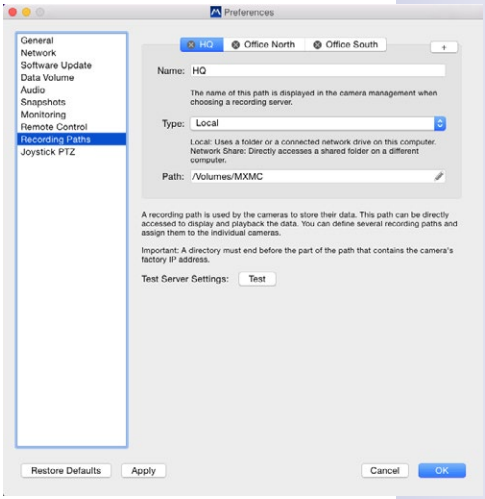
The name of this path will be shown in the camera management when selecting a recording path.

Type

- **Local:**

  Contains a local folder on this computer or on a connected network drive. You can either enter the folder path manually, drag&drop a folder to the text box or select the folder.

  Path: Make sure that the path ends before the folder containing the factory IP address of the camera.



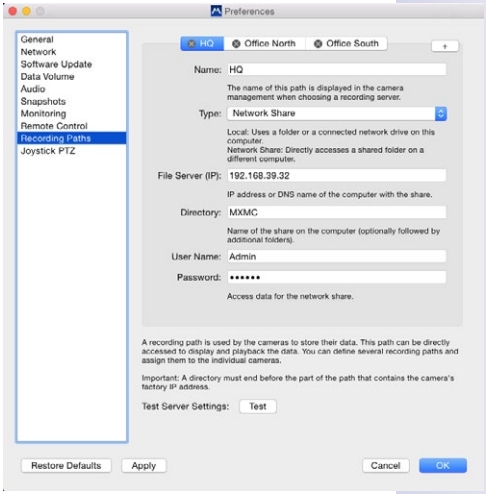
- **Network Share:**

  The program directly accesses a shared folder on a different computer. In this case, you need to enter the computer, the folder and the access data.

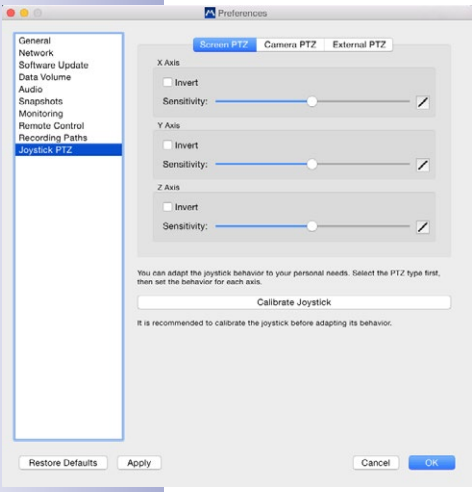
  File Server (IP): IP address or DNS name of the computer with the share.

  Directory: Name of the share on the computer (optionally followed by additional folders). Important: Make sure that the path ends **before** the folder containing the factory IP address of the camera.

  User Name/Password: Access data for accessing the network share.



Joystick PTZ



You can adapt the joystick behavior to your personal requirements. Start by setting the PTZ type, then set the behavior for each axis.

PTZ Type

- Screen PTZ: The PTZ actions are taking place in the application. This means that only the visible image section of the current live image is modified. Any zooming does not influence the recordings of the current camera image that may be taking place.
- Camera PTZ: Zooming will be performed on the camera and can also influence the recordings (but only if the camera does not record the full image).
- External PTZ: If you are using the camera of a different manufacturer, you can set its joystick behavior in this dialog.

Axes

- X Axis: Horizontal movement
- Y Axis: Vertical movement
- Z Axis: Zooming

Invert

Use this option to invert the actions by the joystick for that axis.

Sensitivity

If the PTZ actions are reacting too slowly, you can increase the sensitivity. If the reactions are too fast, reduce the sensitivity.

Progression

Click on the button to change the progression of the joystick movements. The default setting is linear progression.

- Linear: Default setting
- Logarithmic: Use this progression if you want to make the joystick less sensitive to small input movements.
- Exponential: Use this progression if you want to make the joystick more sensitive to large input movements.

Calibrate Joystick

Before adjusting the behavior, it is recommended to calibrate the joystick.
This will determine the basic settings of the joystick (behavior and speed).

3.8.2 Saving and Loading Program Settings

Saving a "project" will store all program settings of the cameras and the camera groups, including the layouts. If you provide such a project via email, you can choose to include the encrypted access data for each camera (user name and password). If you do not supply the access data, the user name and password will have to be entered manually for each camera.

Saving a Project

1. In the header bar, click on **Projects and network environments**.
2. Click on **Save As**.
3. Activate the **Include access data** checkbox if you want to include the camera access data. Click on **Save**.

Sending Projects

1. In the header bar, click on **Projects and network environments**.
2. Click on **Email To**.
3. Activate the **Include access data** checkbox if you want to include the camera access data. Click on **OK**. The file is automatically attached to a new email. Send the email.

Opening a Project

1. In the header bar, click on **Projects and network environments**.
2. Click on **Open** and select the project file. Decide if you want to add the project to the current one or if you want to replace the current project.

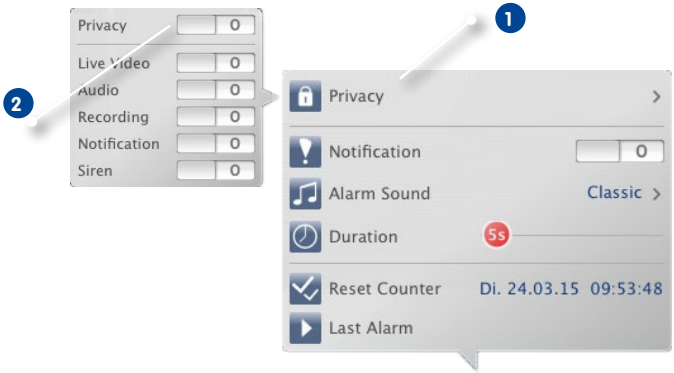
Opening Projects Received by Email

1. Open the attached file in the email.
2. Click on **Open in MOBOTIX**. MxManagementCenter opens automatically. Decide if you want to add the project to the current one or if you want to replace the current project.

3.8.3 Activating/Deactivating the Privacy Mode

You can lock or deactivate specific functions of a camera for a certain period of time. This is easily done by activating the privacy mode. This mode is valid for 24 hours unless you deactivate it before.

1. In the Live view, right-click on the **Alarm** icon to open the **Alarm settings**.
2. Click on **Privacy** 1.

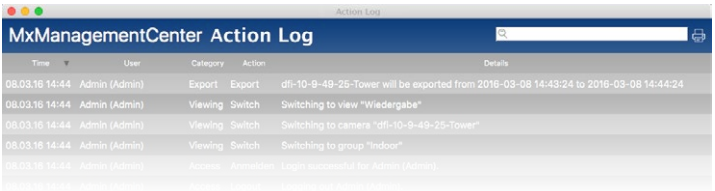


3. Activate the features that should be blocked when entering the Privacy mode. Activate the **Privacy** switch 2.
4. Deactivate the **Privacy** switch if want to stop this mode. The privacy settings will be stored and will be reused the next time you are activating this mode.

Note: If the Privacy mode icon appears in the top right corner of the camera image, this mode has been activated.

3.9 Opening the Action Log

MxMC can log any action, such as starting playback or export actions, activating the sound, etc. This means that you can log all user actions and thus deliver the entire chain of events for legal purposes. To open the action log, select **Windows > Action Log** in the menu.



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