Guideline

Kepler NurseAssist App

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BeyondHumanVision

MOBOTIX

V2.15_11/11/2024, Order Code: –/–

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Support

MOBOTIX Support

If you need technical support, please contact your MOBOTIX dealer. If your dealer cannot help you, he will contact the support channel to get an answer for you as quickly as possible.

If you have internet access, you can open the MOBOTIX help desk to find additional information and software updates.

Please visit **www.mobotix.com > Support > Help Desk**.

MOBOTIX eCampus

The MOBOTIX eCampus is a complete e-learning platform. It lets you decide when and where you want to view and process your training seminar content. Simply open the site in your browser and select the desired training seminar.

Please visit **www.mobotix.com/ecampus-mobotix**.

MOBOTIX Community

The MOBOTIX community is another valuable source of information. MOBOTIX staff and other users are sharing their information, and so can you.

Please visit **community.mobotix.com**.

Safety Notes

- This camera must be installed by qualified personnel and the installation should conform to all local codes.
- This product must not be used in locations exposed to the dangers of explosion.
- Do not use this product in a dusty environment.
- Protect this product from moisture or water entering the housing.
- Install this product as outlined in this document. A faulty installation can damage the product!
- Do not replace batteries of the camera. If a battery is replaced by an incorrect type, the battery can explode.
- External power supplies must comply with the Limited Power Source (LPS) requirements and share the same power specifications with the camera.
- When using a power adapter, the power cord shall be connected to a socket-outlet with proper ground connection.
- To comply with the requirements of EN 50130-4 regarding the power supply of alarm systems for 24/7 operation, it is highly recommended to use an uninterruptible power supply (UPS) for backing up the power supply of this product.

Legal Notes

Legal Aspects of Video and Sound Recording

You must comply with all data protection regulations for video and sound monitoring when using MOBOTIX AG products. Depending on national laws and the installation location of the cameras, the recording of video and sound data may be subject to special documentation or it may be prohibited. All users of MOBOTIX products are therefore required to familiarize themselves with all applicable regulations and to comply with these laws. MOBOTIX AG is not liable for any illegal use of its products.

Declaration of Conformity

The products of MOBOTIX AG are certified according to the applicable regulations of the EC and other countries. You can find the declarations of conformity for the products of MOBOTIX AG on www.mobotix.com under **Support > Download Center > Marketing & Documentation > Certificates & Declarations of Conformity**.

RoHS Declaration

The products of MOBOTIX AG are in full compliance with European Unions Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS Directive 2011/65/EC) as far as they are subject to these regulations (for the RoHS Declaration of MOBOTIX, please see www.mobotix.com, **Support > Download Center > Marketing & Documentation > Brochures & Guides > Certificates**).

Disposal

Electrical and electronic products contain many valuable materials. For this reason, we recommend that you dispose of MOBOTIX products at the end of their service life in accordance with all legal requirements and regulations (or deposit these products at a municipal collection center). MOBOTIX products must not be disposed of in household waste! If the product contains a battery, please dispose of the battery separately (the corresponding product manuals contain specific directions if the product contains a battery).

Disclaimer

MOBOTIX AG does not assume any responsibility for damages, which are the result of improper use or failure to comply to the manuals or the applicable rules and regulations. Our General Terms and Conditions apply. You can download the current version of the **General Terms and Conditions** from our website at www.-mobotix.com by clicking on the corresponding link at the bottom of every page.

Disclaimer under European law

This product has software for detecting certain human behavior. When used as intended in accordance with the relevant installation and usage instructions, the product can detect certain behaviors (in particular the position/change of location (a person is in bed/next to the bed)) and trigger an automatic alarm.

However, the product is not technically able to preventively detect, treat and/or prevent falls, accidents and any resulting injuries. The software used in the product is a non-autonomous aid with no diagnostic, preventive or therapeutic effect and no self-learning function. Supervision and monitoring of the persons captured by the camera remain entirely the responsibility of the user. Violations of the duty of supervision are at the user's own risk. The manufacturer of the product is not responsible or liable for this. The user is responsible for creating the technical system requirements necessary to operate the product and for the lawful use of the product. In particular, the user is obliged to comply with all applicable statutory provisions, including those governing the collection, processing and use of (personal) data. The manufacturer and the software supplier are not legally responsible for the information and use by the contractual partner and/or the user of the product.

All information on this product, its function and use is based on current (technical) knowledge. This information merely describes the properties of the product and is intended as a guide. A legally binding assurance of a certain quality or suitability for a certain purpose as well as other guarantees, warranties and / or assurances cannot be derived from this, unless expressly agreed otherwise. It is the sole responsibility of the contractual partner and / or the user to check whether the product is suitable for the specific purpose intended by the user. We recommend that the product be tested for its suitability for the intended purpose before use.

Claims for damages caused by the use or non-use of the information in this document are generally excluded, unless there is a case of intentional or grossly negligent action by the manufacturer or any other case of mandatory statutory liability.

Disclaimer under US law

The Software embedded in the Product can perceive different elements of human behavior. If installed, maintained, serviced and used pursuant to the Product manual and manufacturer's guidelines, the Software can recognize and analyze human behavior, in particular the location and movement of a person (e.g. if a person is lying in bed or next to the bed) and dispatch an automatic alert.

While the Product can increase patient safety and improve clinical outcomes, it cannot predict or avert falls, accidents and potential injuries resulting from falls or other accidents.

The Software [implemented in the Product] enables nurses or other caregivers to monitor a person but is not itself capable of autonomously monitoring and preventing falls and/or accidents and injuries nor can it diagnose or treat any medical conditions. While it empowers clinicians and care teams to remotely monitor and assess a person's location, the clinicians and/or care teams and caregivers (the "User") are solely responsible and liable for the monitored person and their well-being. WE THEREFORE EXPRESSLY DISCLAIM ANY LIABILITY ASSOCIATED WITH THE USE OF OR ACCESS TO OUR PRODUCT AND SOFTWARE.

The User of the Product and Software is responsible for ensuring that the hardware, software and services required to operate the Product and the Software meet the Products minimum requirements, including processing, speed, memory, client software and availability of dedicated Internet Access.

It is the User's responsibility to comply with all applicable local, state, national and foreign laws, rules, treaties and regulations in connection with the use of the Software and Product, including those related to data privacy, the Health Insurance Portability and Accountability Act of 1996 (HIPPA), international communications and the transmission of technical or personal data.

NNo information contained in the Product is medical advice and should not be construed as such. INFORMATION RECEIVED VIA THE PRODUCT, SOFTWARE, OR SERVICES SHOULD NOT BE RELIED UPON FOR PERSONAL, MEDICAL, LEGAL OR FINANCIAL DECISIONS AND YOU SHOULD CONSULT AN APPROPRIATE PROFESSIONAL FOR SPECIFIC ADVICE TAILORED TO YOUR SITUATION.

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About Kepler NurseAssist App

Detect falls and unauthorized bed leaving immediately in real time!

Pre-installed on the MOBOTIX c71 NurseAssist camera with intelligent MOBOTIX sensor technology the app supports hospitals, nursing homes and retirement homes effectively and cost-efficiently in protecting patients and those in need of care - automatically around the clock.

- Reliable monitoring of patients well-being.
- Integrated AI-powered software detects incidents based in real time.
- Automatic alerts to staff in case of alarm.
- Direct patient dialog possible via integrated microphone/audio function.
- Simple and decent installation.
- GDPR compliant operation through event-controlled obscuring of live and recorded images.

NOTE! The Kepler NurseAssist App is available pre-installed on the MOBOTIX c71 NurseAssist camera only.

Smart Data Interface to MxManagementCenter

This app has a Smart Data interface to MxManagementCenter.

With the MOBOTIX Smart Data System, transaction data can be linked to the video recordings made at the time of the transactions. Smart Data source can be e.g. MOBOTIX Certified Apps (no license required) or general Smart Data sources (license required) like POS systems or license plate recognition systems.

The Smart Data System in MxManagementCenter enables you to quickly find and review any suspicious activities. The Smart Data Bar and the Smart Data View are available for searching and analyzing transactions. The Smart Data Bar provides a direct overview of the most recent transactions (from the last 24 hours) and for this reason it is convenient to use it for reviews and searches.

NOTE! For information on how to use the Smart Data System, see the corresponding online help of the camera software and MxManagementCenter.

Kepler NurseAssist App Specifications

General App Information

Product Name	Kepler NurseAssist App
Order Code (only available in a bundle with the MOBOTIX M73 camera)	Camera & Basic App Bundle: Mx-APP-KEP-NUA-EXT Extended App license: Mx-APP-KEP-NUA-EXT
Supported MOBOTIX Cameras	MOBOTIX M73 (basic version pre-installed)
Minimum Camera Firmware	v7.3.5.x
MxManagementCenter compatibility	■ min. MxMC v2.5.3 ■ Configuration: Advanced Config license required ■ Event Search: Smart Data Interface license included

General Features

App Features Basic Version	■ monitoring of the well-being of patients in private rooms, corridors and common areas of Healthcare facilities. ■ minimization of reaction times due to decentralized state-of-the-art fall detection. ■ prevention of accidents through person down, person in bed and person out of bed event. ■ automatized detection and localization of the bed in the patient's room. ■ GDPR compliant operation through event-controlled obscuring of live and recorded images ■ Dynamic masking of a person in bed as additional privacy protection measure
App Features Extended Version	Plug-In license required to extend the NurseAssist status and alarm notifications with the following functions: ■ Person sits on the edge of the bed ■ Person has left the room ■ Person has entered the room ■ Person has entered the bathroom / is in the bathroom ■ Bed is not recognized / is not present **NOTE!** The Plug-In license requires MOBOTIX c71 NurseAssist Smart Sensor or licensed Kepler NurseAssist Certified App.
Maximum number of detection areas	1
Recognized objects	Persons
Supported image sensor types	Day/Night MOBOTIX M73 default
Meta Data / Statistic format	JSON
Supported Reporting Interfaces	JSON / XML via HTTP(S), MQTT, MxMessageSystem
MxMessageSystem supported	Yes

MOBOTIX Events	Yes
ONVIF Events	Yes (Generic Message event)

Scene Requirements

Room size	max. 25m^2 assuming an almost square room (e.g. 5x5 m) by radius of 4 m - long and narrow rooms will not work.
Required installation position (camera)	ceiling-mounted
Recommended installation height (camera)	2,0m - 3,5m
Mounting distance from bed	0,5m - 3,0m
Mounting distance from wall	> 70cm

Technical App Specifications

Synchronous / Asynchronous App	asynchronous
Simultaneous execution of other apps	No
Accuracy	min. 99% (considering scene requirement and no view blocking objects)

Licensing Certified Apps

The following licenses are available for the Kepler NurseAssist App:

- **30-day test license** pre-installed
- **permanent commercial license**
- **permanent advanced commercial license**

The usage period begins with activation of the app interface (see Activation of the Certified App Interface, p. 22)

NOTE! For buying or renewing a license, contact your MOBOTIX Partner.

NOTE! Apps are usually pre-installed with the firmware. In rare cases, apps must be downloaded from the website and installed. In this case see **www.mobotix.com > Support > Download Center > Marketing & Documentation**, download and install the app.

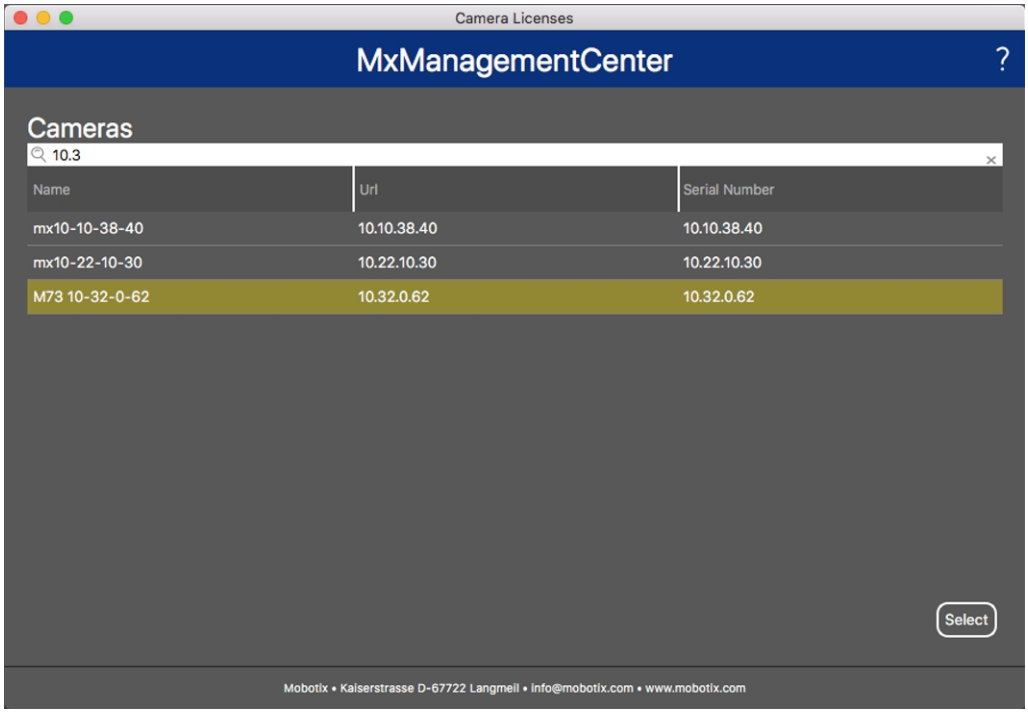
License Activation of Certified Apps in MxManagementCenter

After a test period commercial licenses must be activated for use with a valid license key.

Online-Activation

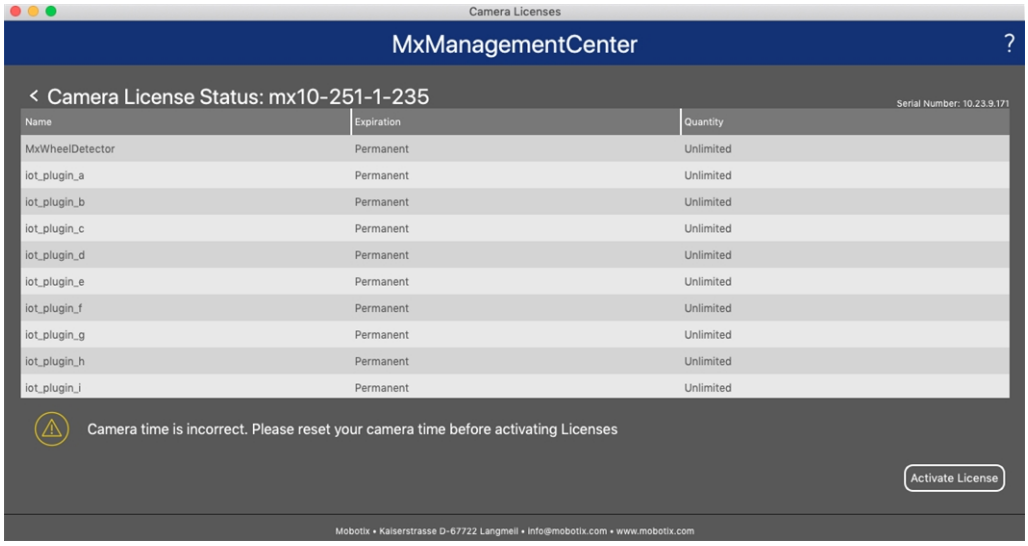
After receiving the activation IDs, activate them in MxMC as follows:

1. Select from the menu **Window > Camera App Licenses**.
2. Select the camera on which you want to license apps and click **Select**.



NOTE! If necessary, correct the time set on the camera.

1. An overview of the licenses installed on the camera may be displayed. Click **Activate License**.



NOTE! If necessary, correct the time set on the camera.

2. Enter a valid Activation ID and specify the number of licenses to install on this computer.
3. If you want to license another product, click on . In the new row, enter the appropriate Activation ID and the number of licenses you want.
4. To remove a line click .

5. When you have entered all Activation IDs, click **Activate License Online**. During activation, **MxMC** connects to the license server. This requires an Internet connection.

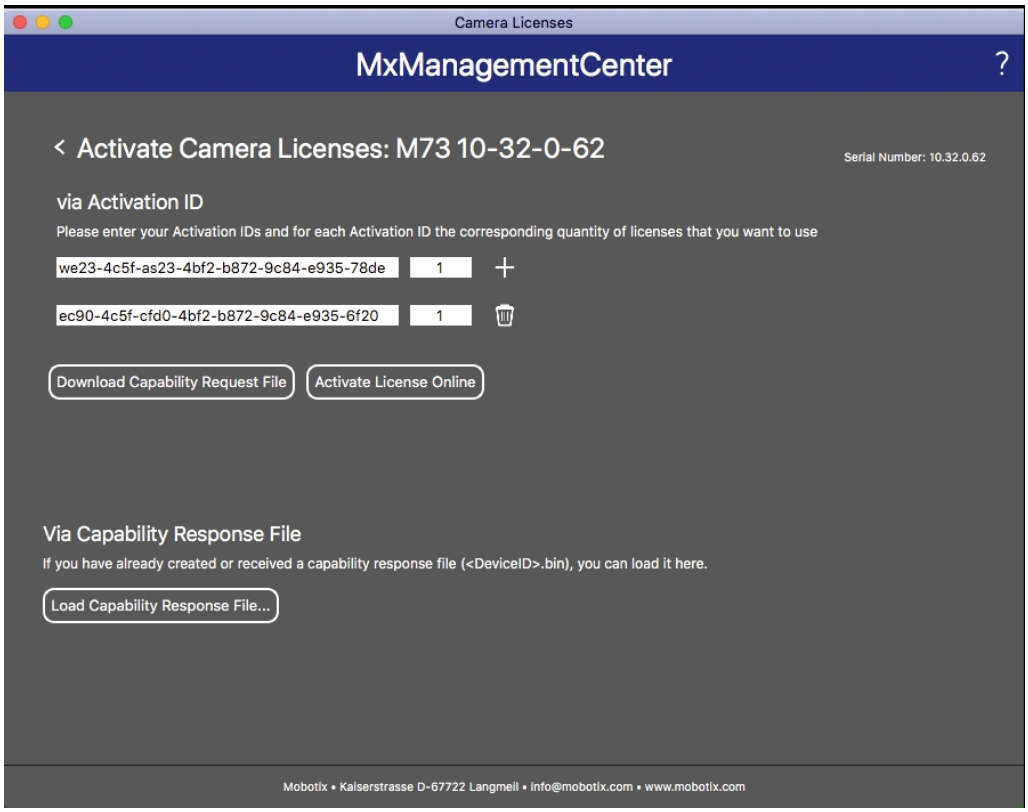


Fig. 1: Adding licenses

Successful activation

After successful activation, a new log in is required to apply the changes. Alternatively, you can return to license management.

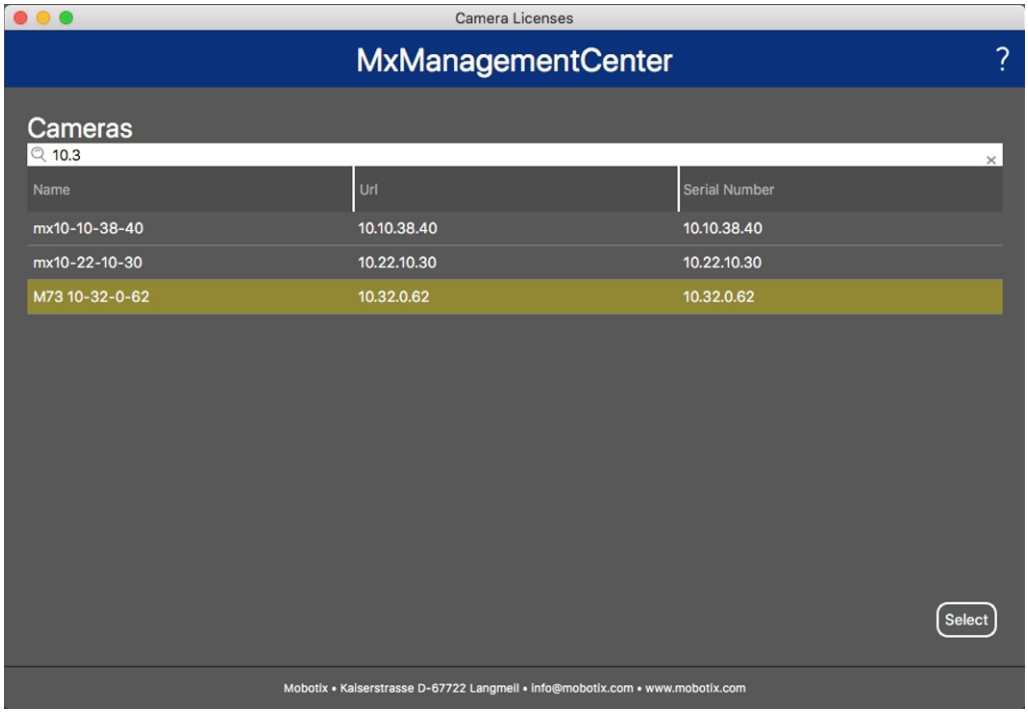
Failed activation (missing internet connection)

If the license server cannot be reached, e.g. due to a missing internet connection, apps can also be activated offline. (see Offline Activation, p. 17).

Offline Activation

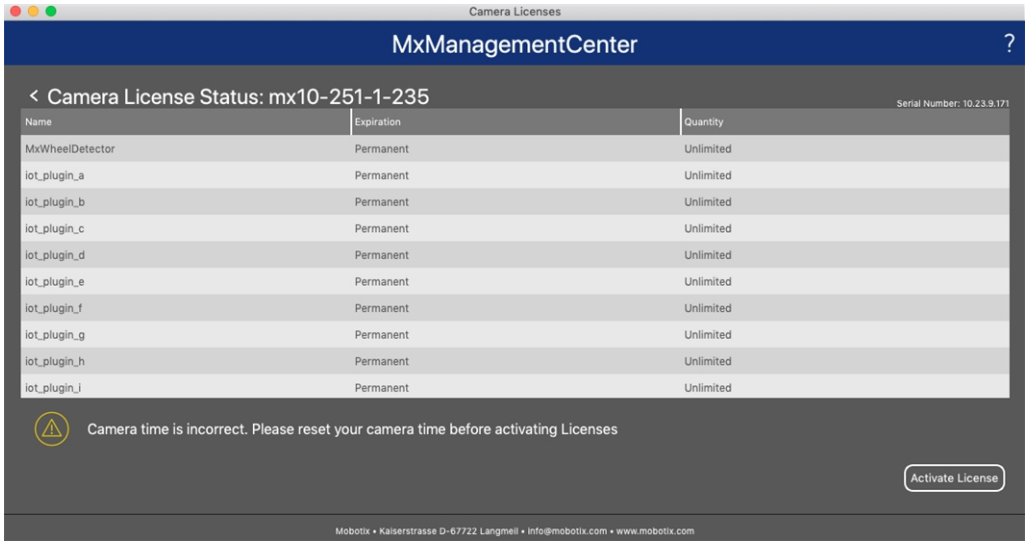
For offline activation, the partner/installer from whom you purchased the licenses can generate a capability response (.bin file) on the license server to activate their licenses.

1. Select from the menu **Window > Camera App Licenses**.
2. Select the camera on which you want to license apps and click **Select**.



NOTE! If necessary, correct the time set on the camera.

3. An overview of the licenses installed on the camera may be displayed. Click **Activate License**.

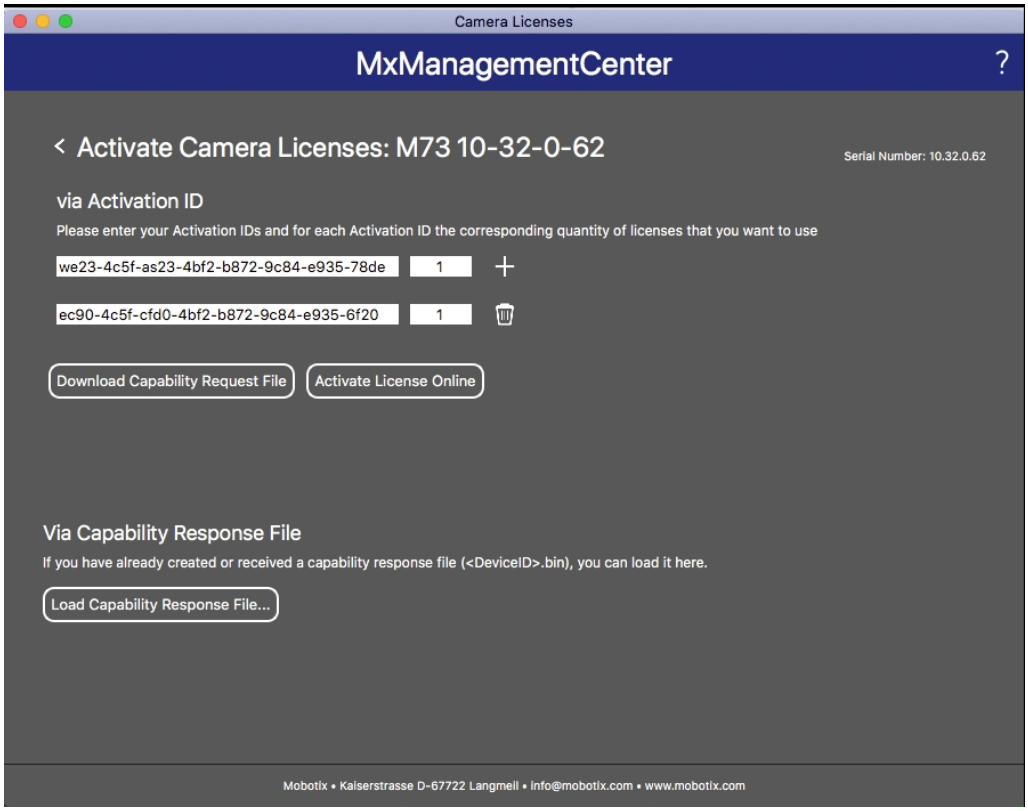


NOTE! If necessary, correct the time set on the camera.

4. Enter a valid Activation ID and specify the number of licenses to install on this computer.
5. If you want to license another product, click on . In the new row, enter the appropriate **Activation ID** and the number of licenses you want.

6. If necessary, click | to remove a line.
7. When you have entered all Activation IDs, click **Download Capability Request File (.lic)**. and send it to your partner/installer.

NOTE! This file allows the partner / installer from whom you purchased the licenses to generate a capability response file (.bin) on the license server.



8. Click Load Capability Response File and follow the instructions.

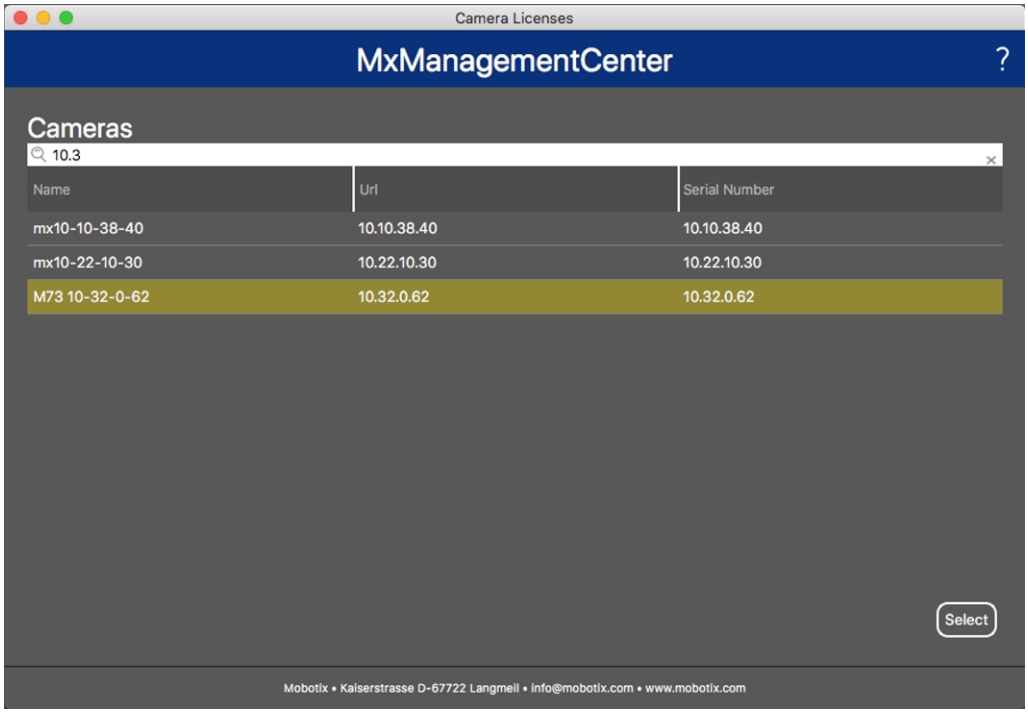
Successful activation

After successful activation, a new log in is required to apply the changes. Alternatively, you can return to license management.

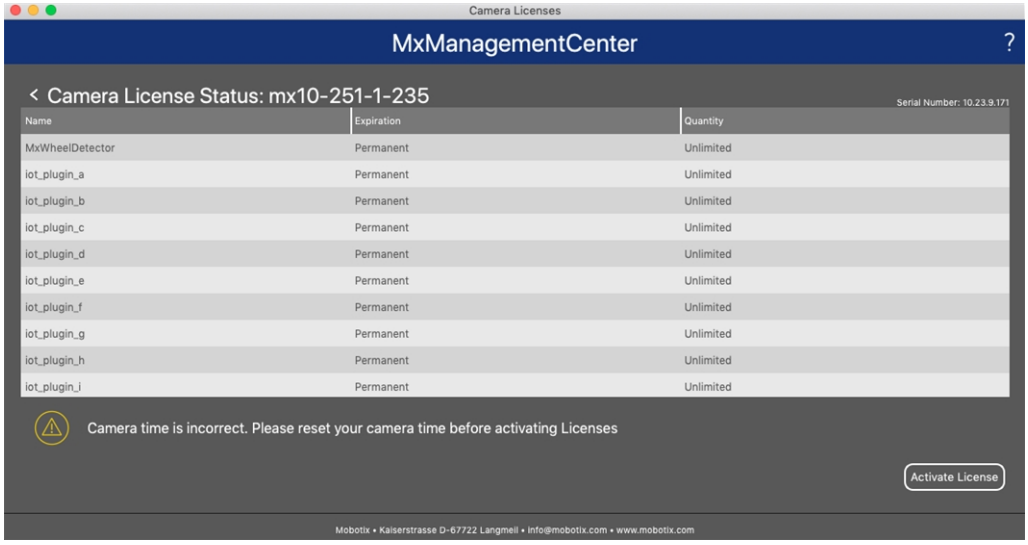
Managing Licenses in MxManagementCenter

In MxManagementCenter you can comfortably manage all licenses that have been activated for a camera.

1. Select from the menu **Window > Camera App Licenses**.
2. Select the camera on which you want to license apps and click **Select**.



An overview of the licenses installed on the camera may be displayed.



NOTE! If necessary, correct the time set on the camera.

Column	Explanation
Name	Name of the licensed app
Expiration	the time limit of the license
Quantity	Number of licenses purchased for a product.
Serial Number	Unique identification determined by MxMC for the device used. If problems occur during licensing, please have the device ID ready.

Synchronize licenses with server

When the program starts, there is no automatic comparison of the licenses between the computer and the license server. Therefore, click **Update** to reload the licenses from the server.

Update licenses

To update temporary licenses, click **Activate Licenses**. The dialog for updating/activating licenses opens.

NOTE! You need administrator rights to synchronize and update licenses.

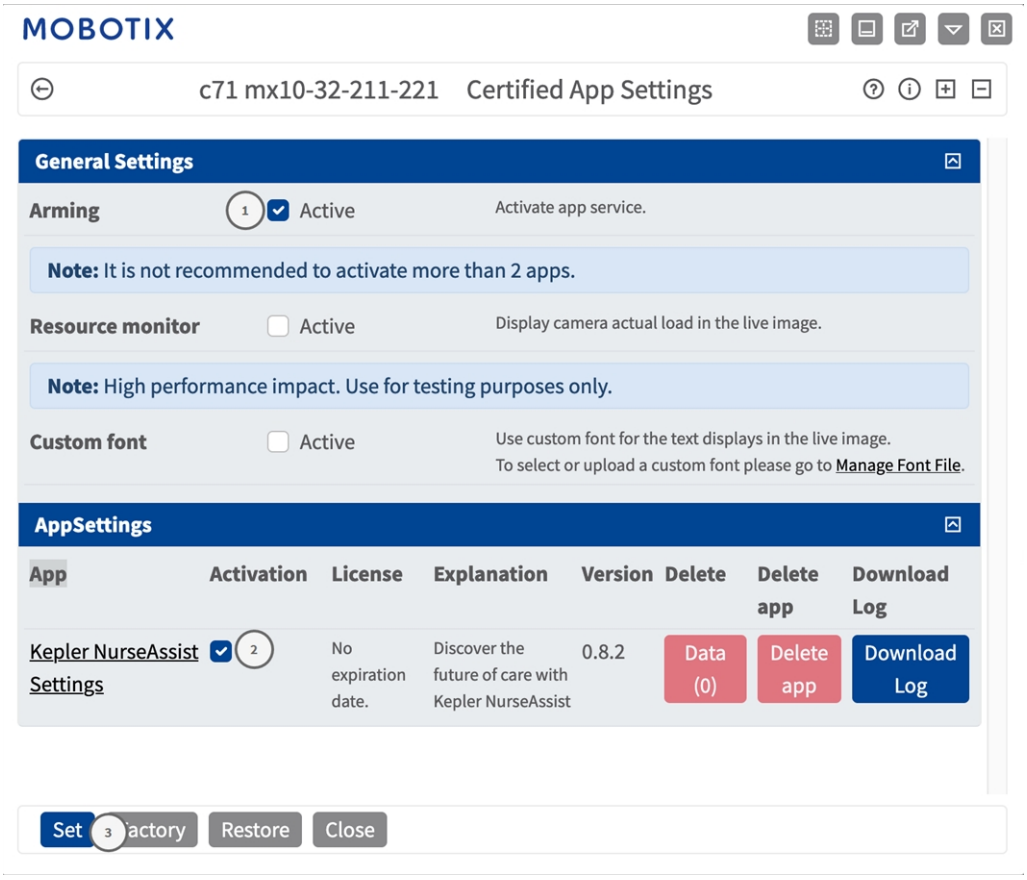
Activation of the Certified App Interface

CAUTION! The Kepler NurseAssist App does not consider obscure areas defined for the live image. Therefore there is no pixelation in obscure areas while configuring the app and during image analysis by the app.

NOTE! The user must have access to the setup menu (http(s)://<camera IP address>/control). Adjust the user rights of the camera accordingly.

Kepler NurseAssist App is activated and pre-configured by default. In case needs to be activated manually follow these steps:

1. In the camera web interface, open: **Setup Menu / Certified App Settings** (http(s)://<camera IP address>/-control/app_config).



2. Under **General Settings**, activate the **Arming**① checkbox of the app service.
3. Under **App Settings** check the **Active** option ② and click **Set**③ .
4. When the app is activated click on the name of the app to be configured to open the apps user interface.
5. For configuration of the app see Configuration of Kepler NurseAssist App, S. 1.

Camera, image and scene requirements

Kepler Nurse Assist is trusted by both healthcare staff and clients to alert staff of alarming situations.

NOTE! The camera can monitor one bed per room. Beds that are not to be monitored must be marked in the camera image with so-called ignore areas (see Advanced, p. 33).

To ensure the highest quality of detection, the following prerequisites must be fulfilled for the scene:

Recommendations on positioning and mounting

CAUTION! Never touch the camera lens. First, mount the camera completely, then remove any plastics.

To detect potentially harmful situations, the camera needs to have the maximum viewing area, with zero blind spots.

- Only mount the camera on the ceiling at a height of between 200 cm and 350 cm.
- Mount the camera at a minimum distance of 70 cm from any wall.
- Mount the camera near the bed, between 50 cm and 300 cm. This distance is necessary so that the bed is sufficiently illuminated by infrared light at night.
- Do not mount the camera directly above the bed.
- Make sure that the entire room can be covered from the mounting position of the camera.
- Make sure that the camera lens is not exposed to direct light. Direct light (Sunlight, artificial light) can lead to overexposure, which means that the image can no longer be analyzed correctly.
- Avoid mirror images of the bed in the picture. They can lead to false alarms.
- The camera uses infrared light during the night. If normal light shines too bright, it can prevent the camera from switching to night mode. If necessary, adjust the day/night sensitivity in the camera settings.

Testing the app functionality

Make sure the app is activated (see Activation of the Certified App Interface, p. 22).

Check i if the camera correctly configured (see Configuration of Kepler NurseAssist App, p. 26).

For testing, follow the next steps.

1. Adjust the operating mode to the function applicable:
   - **Fall detection + In-Bed monitoring:** use this mode for cameras placed in client rooms
   - **Fall detection:** use this mode for cameras placed in hallways and common areas
2. Enable **Show object detections**. With this option persons are displayed with blue boxes and beds with yellow boxes.
3. Make sure to test every state for at least 60 seconds. Only state changes trigger the state change and are shown live in the image.

NOTE! In the first month of operation check the functionality regularly and adjust configuration and/or mounting position if required.

NOTE! Repeat the full testing process at least yearly, or after making structural changes to the spaces that are monitored (e.g. different furniture, different flooring, etc.)

Testing Fall Detection and In-Bed Monitoring

Function	Appearance of the layer in the live image	Status text in the image
Camera startup		INITIALIZING
An empty bed in daylight, nobody in the room	Bed with yellow box and yellow label ‘bed’	NOT_IN_BED
An empty bed in the dark (IR-light on), nobody in the room	Bed with yellow box and yellow label ‘bed’	NOT_IN_BED
A person standing in the room in daylight	Bed with yellow box and yellow label ‘bed’ + blue box and label ‘person’	NOT_IN_BED
A person standing in the room in the dark (IR-light on)	Bed with yellow box and yellow label ‘bed’ + blue box and label ‘person’	NOT_IN_BED
A person in bed in daylight	Bed with yellow box and yellow label ‘bed’ + blue box and label ‘person’	IN_BED
A person in bed in the dark (IR-light on)	Bed with yellow box and yellow label ‘bed’ + blue box and label ‘person’	IN_BED
A person lying on the floor in day-light	Bed with yellow box and yellow label ‘bed’ + red box and label ‘person – LYING OR SITTING ON-FLOOR’	FALL_ DETECTED

Function	Appearance of the layer in the live image	Status text in the image
A person lying on the floor in the dark (IR-light on)	Bed with yellow box and yellow label ‘bed’ + red box and label ‘person – LYING OR SITTING ON-FLOOR’	FALL_ DETECTED
A person sitting on the floor in daylight	Bed with yellow box and yellow label ‘bed’ + red box and label ‘person – LYING OR SITTING ON-FLOOR’	FALL_ DETECTED
A person sitting on the floor in the dark (IR-light on)	Bed with yellow box and yellow label ‘bed’ + blue box and label ‘person’	FALL_ DETECTED

Testing Fall Detection

Function	Appearance of the layer in the live image	Status text in the image
Camera startup		INITIALIZING
Nobody visible in the hallway (or common area)		SITUATION_ NORMAL
A person standing in hallway in daylight	Blue box and label ‘person’	SITUATION_ NORMAL
A person standing in the room in the dark (IR-light on)	Blue box and label ‘person’	SITUATION_ NORMAL
A person lying on the floor in daylight	Red box and label ‘person – LYING OR SITTING ON-FLOOR’	FALL_DETECTED
A person lying on the floor in the dark (IR-light on)	Red box and label ‘person – LYING OR SITTING ON-FLOOR’	FALL_DETECTED
A person sitting on the floor in daylight	Red box and label ‘person – LYING OR SITTING ON-FLOOR’	FALL_DETECTED
A person sitting on the floor in the dark (IR-light on)	Red box and label ‘person – LYING OR SITTING ON-FLOOR’	FALL_DETECTED

Configuration of Kepler NurseAssist App

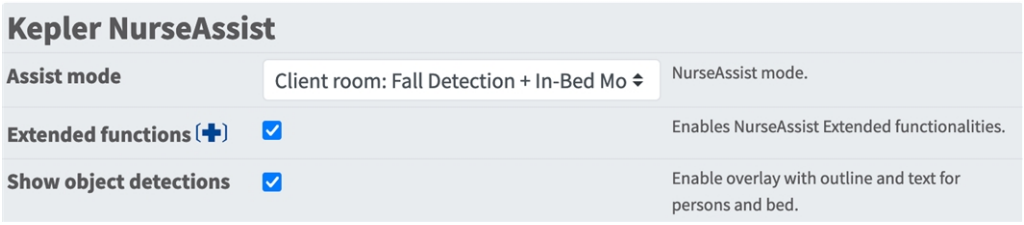
NOTE! The user must have access to the setup menu (http(s)://<camera IP address>/control). Therefore check the user rights of the camera.

1. In the camera web interface, open: **Setup Menu / Certified App Settings** (http(s)://<camera IP address>/-control/app_config).
2. Click on the name of the **Kepler NurseAssist App**.

The configuration window of the app appears with the following options:

General Settings

The following configurations should be taken into account:



Assist mode: Select a detection mode.

Client room: Fall Detection + In Bed Monitoring: Select this option if you want the app to send a trigger when people in hospital rooms fall down or behave unusually in bed.
Hallways/common areas: Fall Detection: Select this option if you want the app to send a trigger when people fall down in hallways or common areas.

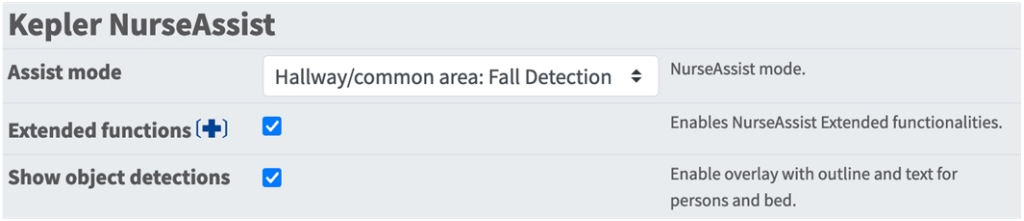
Extended functions: Check to display functions of the extended license. Extended functions are marked with a plus symbol.

NOTE!
'Extended functions' are only available with the trial version or the extended version (license required).

Show object detections: Check to display outlines and text in the live image.

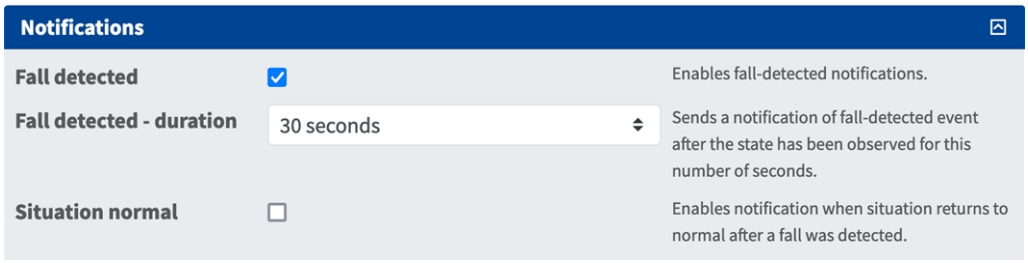
Notification Configuration for Mode "Hallways/common areas"

In mode "Hallways/common areas: Fall Detection" the app analyzes the video image for people falling down in hallways or common areas.



NOTE! If Extended functions are activated you can optionally specify doors in the Door Configuration, p. 31.

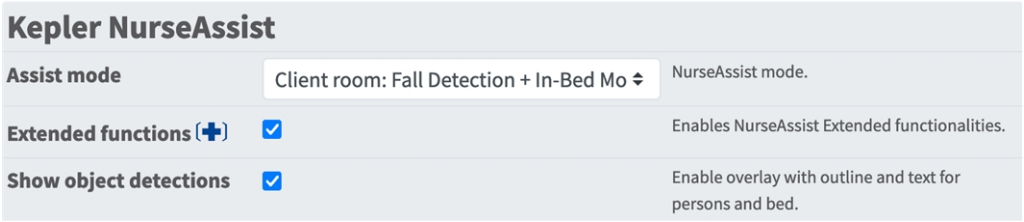
Basic Functions



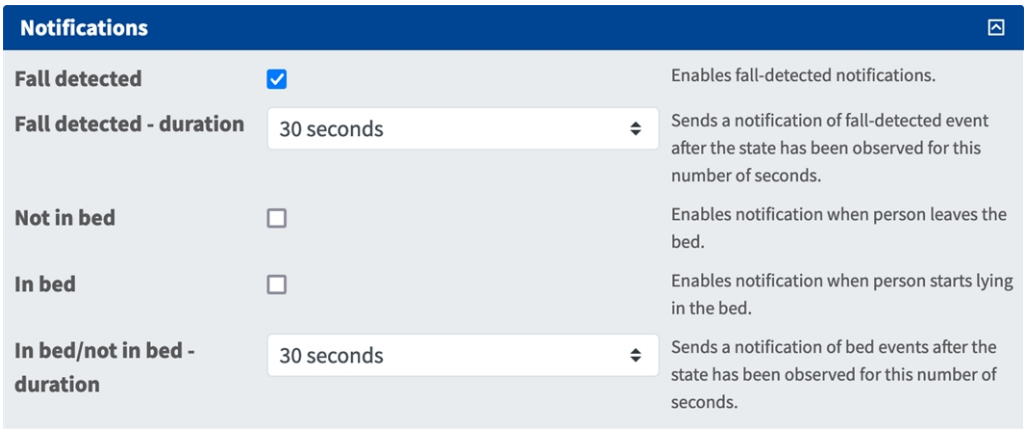
Fall detected: Check this option if the app should send a notification if a falling person is detected.
Fall detected duration: Set the duration for which a person must be observed as having fallen down before the app sends a notification.
Situation normal: Check this option if you want the app to send a message when a person is detected as standing up again (normal).

Notification Configuration for Mode "Client room"

In Assist mode "Client room: Fall Detection + In Bed Monitoring" the app analyzes the video image for people falling down in hospital/client rooms or behaving unusually in bed.



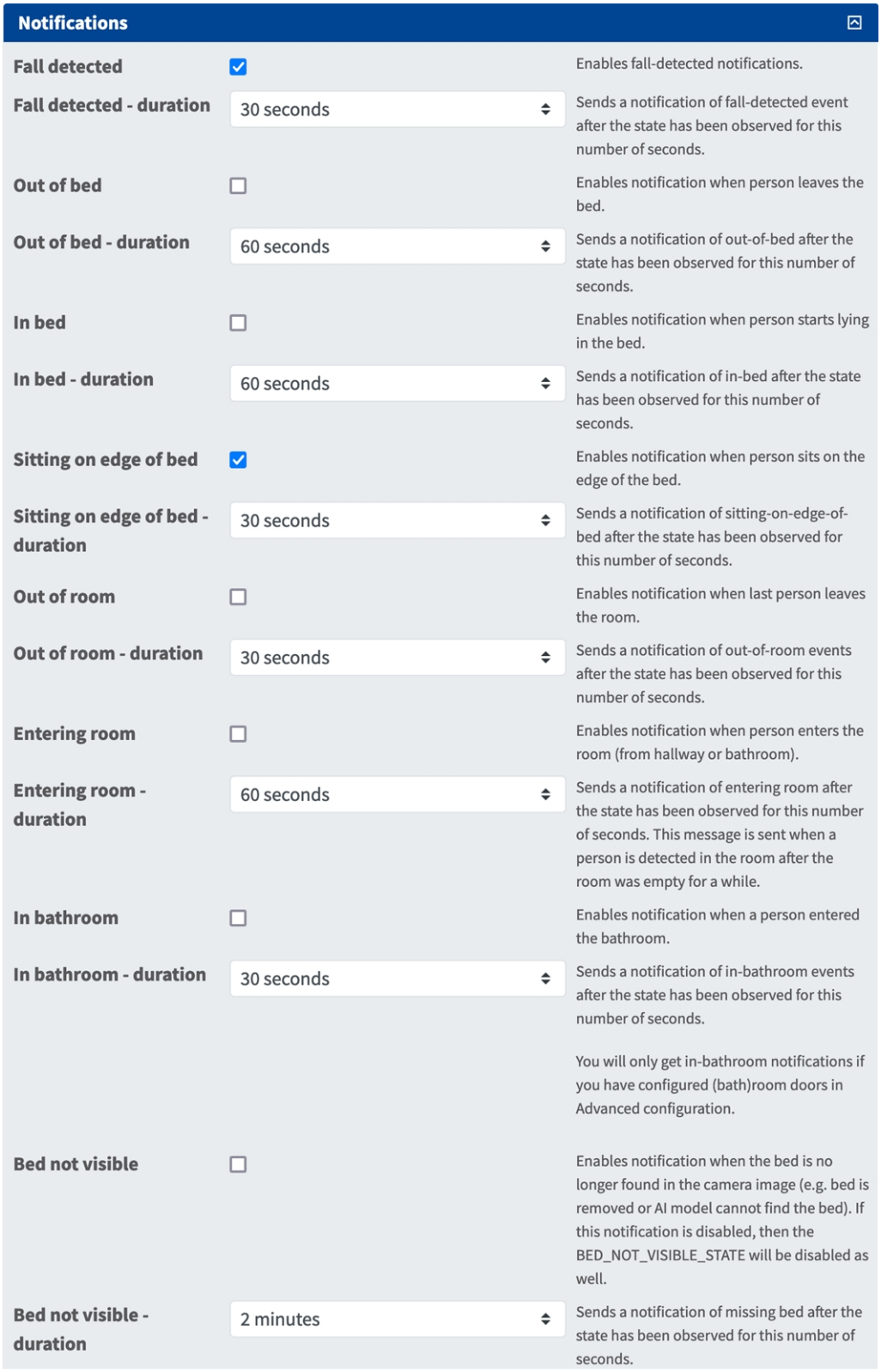
Basic Functions



Fall detected: Check this option to send a notification if a falling person is detected.
Fall detected duration: Set the duration for which a person must be observed as having fallen down before the app sends a notification.
Not in bed: Check this option to send a notification when a person leaves the bed.
In bed: Check this option to send a notification when a person starts lying in the bed.
In bed / not in bed duration: Set the duration for which a person must be observed as out of bed or laying in bed before the app sends a notification.

Extended Functions

The following functions are available only if you have activated the extended functions in the General Settings, p. 26.



NOTE! To use the functions "Out of the room", "Entering room" and "In bathroom", you need to specify doors in the Door Configuration, p. 31.

Fall detected: Check this option to send a notification if a falling person is detected.
Fall detected notification - duration: Set the duration for which a person must be observed as having fallen down before the app sends a notification.
Out of bed: Check this option to send a notification when a person leaves the bed.
Out of bed - duration: Set the duration for which a person must be observed as out of bed before the app sends a notification.
In bed: Check this option to send a notification when a person starts lying in the bed.
In bed - duration: Set the duration for which a person must be observed laying in bed before the app sends a notification.
Sitting on edge of bed: Check this option to send a notification when a person starts lying in the bed.
Sitting on edge of bed - duration: Set the duration for which a person must be observed as sitting on edge of bed before the app sends a notification.

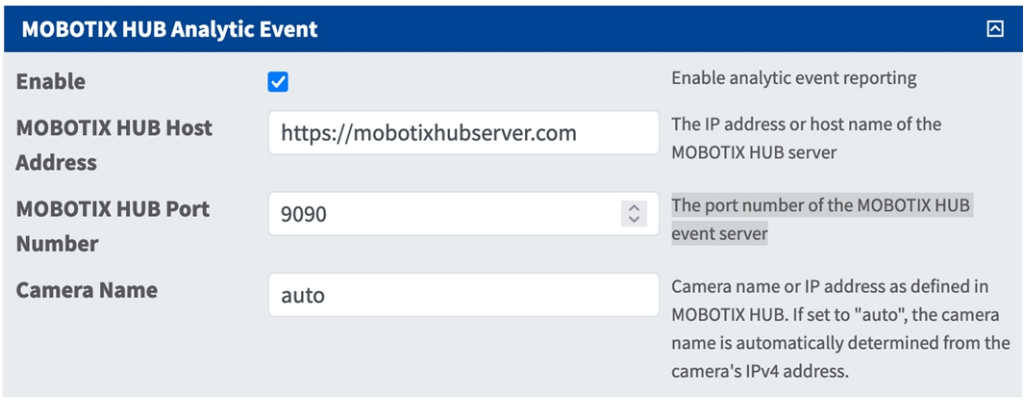
Entering room: Check this option to send a notification when a person enters a room.

Entering room - duration: Set the duration for which a person must be observed as being in the room before the app sends a notification.

In the bathroom: Check this option to send a notification when a person enters the bathroom.

In the bathroom - duration: Set the duration for which a person must be observed as being in the room before the app sends a notification.
Bed not visible: Check this option to send a notification when the bed is no longer found in the camera image (e.g. bed is removed or AI model cannot find the bed).
Bed not visible - duration: Set the duration for which the bed must be observed as not visible in the camera image before the app sends a notification.

MOBOTIX HUB Analytic Event



MOBOTIX HUB Analytic Event: With the Analytics Events feature it is possible to send MAD (Milestone Alert Data) formatted alerts to the MOBOTIX HUB event server over TCP/IP.

Enable: Check to enable and configure MOBOTIX HUB Analytic Event reporting.

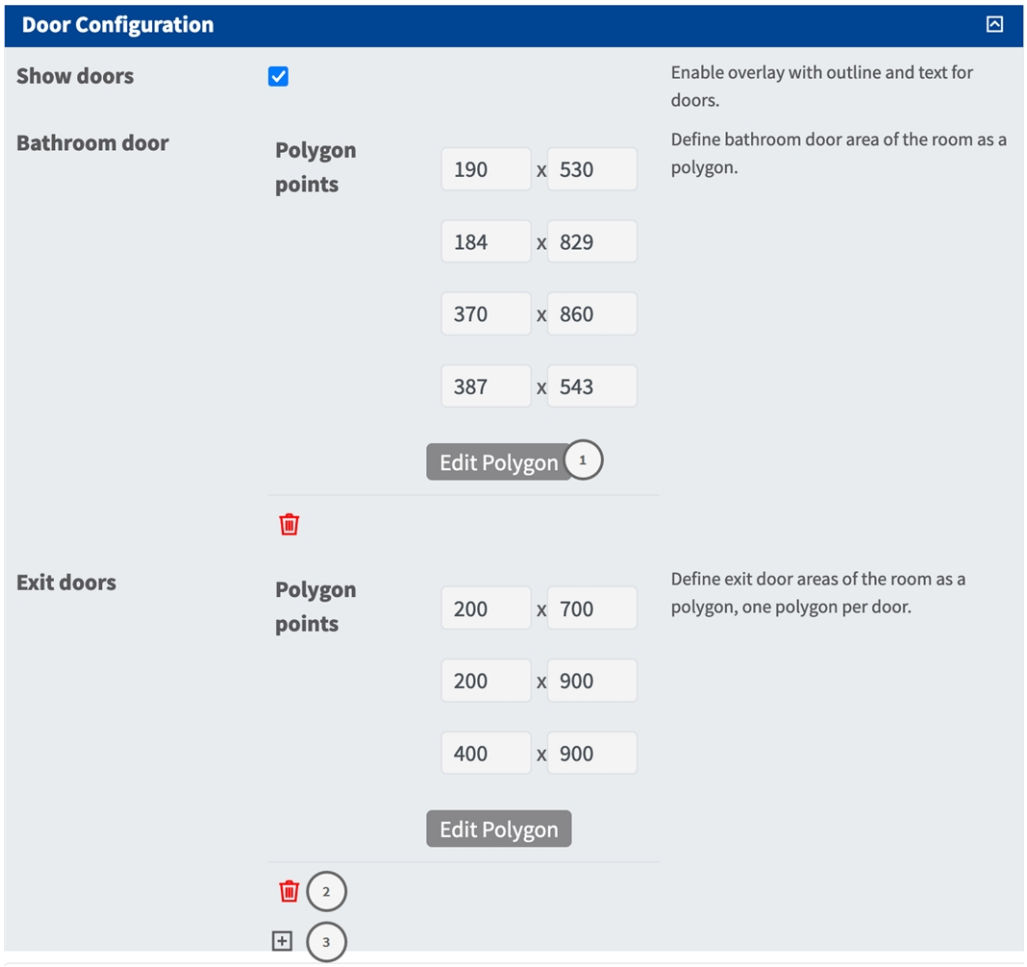
MOBOTIX HUB Host Adress: Enter the corresponding MOBOTIX HUB Server URL (e.g. http://-mobotixhubserver.com).

MOBOTIX HUB Port Number: Enter the port number of the MOBOTIX HUB event server.

Camera name: Enter the camera name or IP address of this camera as defined in MOBOTIX HUB. If set to "auto", the camera name is automatically determined from the camera's IPv4 address.

Door Configuration

To use the Assist mode " Notification Configuration for Mode "Hallways/common areas", p. 27" or the functions "Out of the room", "Entering room" and "In bathroom" (see Notification Configuration for Mode "Client room", p. 28), it is necessary that you specify the corresponding doors in the room.



Show doors: Check to display the doors in the live image.

Bathroom door / Exit doors

Polygon Points: The corner points of the doors.

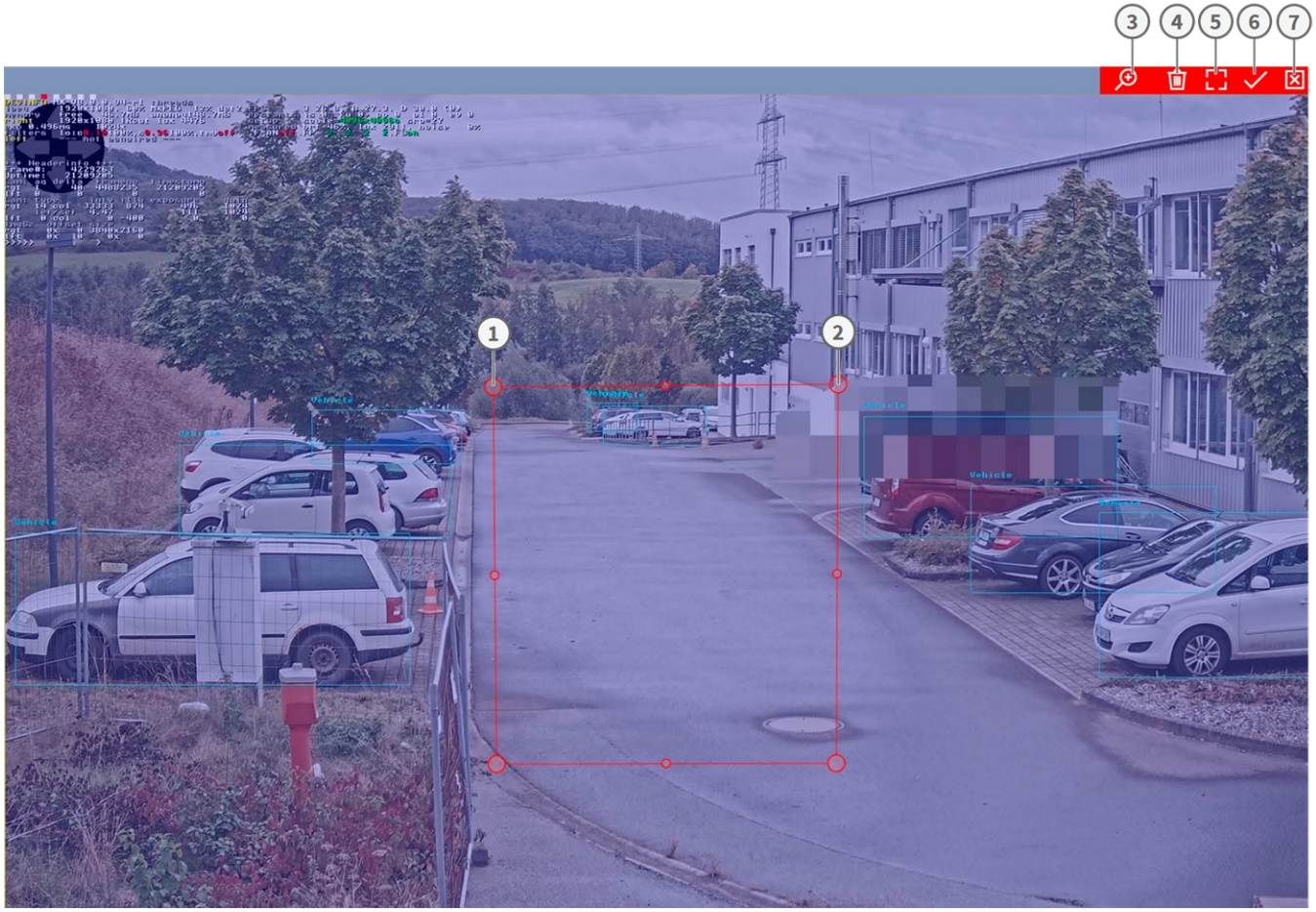
Edit Polygon: Click **Edit Polygon**① to draw a door in Live View (see Drawing a Polygon Area in the Live View, p. 32).

Add a door: Click the **plus** icon ② .

Delete a door: Click the **bin** icon ③ .

Drawing a Polygon Area in the Live View

In Live View you can draw areas based on polygons depending on the App. These areas are e.g. Detection Areas, Excluded Areas, Reference Areas, Ignore Areas etc.



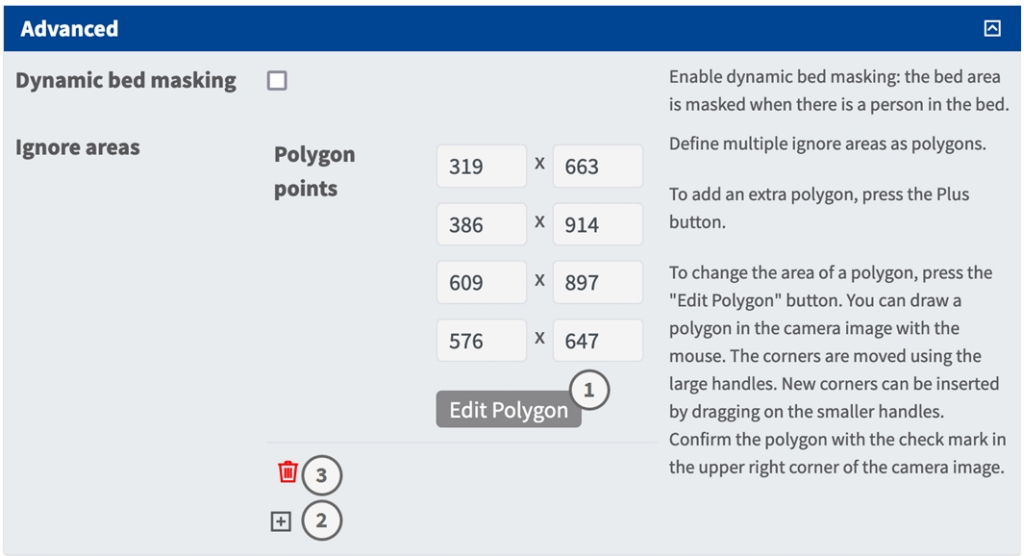
When you have clicked on the “Edit Polygon” button, the editor opens with a live image and a predefined polygon.

1. Drag the corner points ① of the polygon to the desired positions.
2. To add another corner point, drag a smaller point ② between two corner points on the contour of the area.
3. Click **Zoom in/out** ③ to zoom the live image in or out
4. Click **Delete** ④ to delete the polygon, then click and drag a new rectangular area.
5. Click **Maximize** ⑤ to extend the polygon to the entire camera image.
6. Click **Submit** ⑥ to save and adopt the coordinates of the polygon.
7. Click **Cancel** ⑦ to close the editor without saving any changes

Advanced

You can set Ignore Areas. If left blank the entire image will be used for detections.

NOTE! It is strongly recommended to monitor only one bed with one camera. Beds and objects that are not to be monitored must be excluded by Ignore Areas. Objects are only ignored if the object detection box is completely inside the ignore area.



Dynamic bed masking: Check to mask the bed area when there is a person in the bed.

Ignore Areas

Polygon Points: The corner points of the Ignore Area.

Edit Polygon: Click **Edit Polygon**① to draw the Ignore Area in the Live View (see Drawing a Polygon Area in the Live View, p. 32).

Add an Ignore Area: Click the **plus** icon ② .

Delete an Area: Click the **bin** icon ③ .

Storing the Configuration

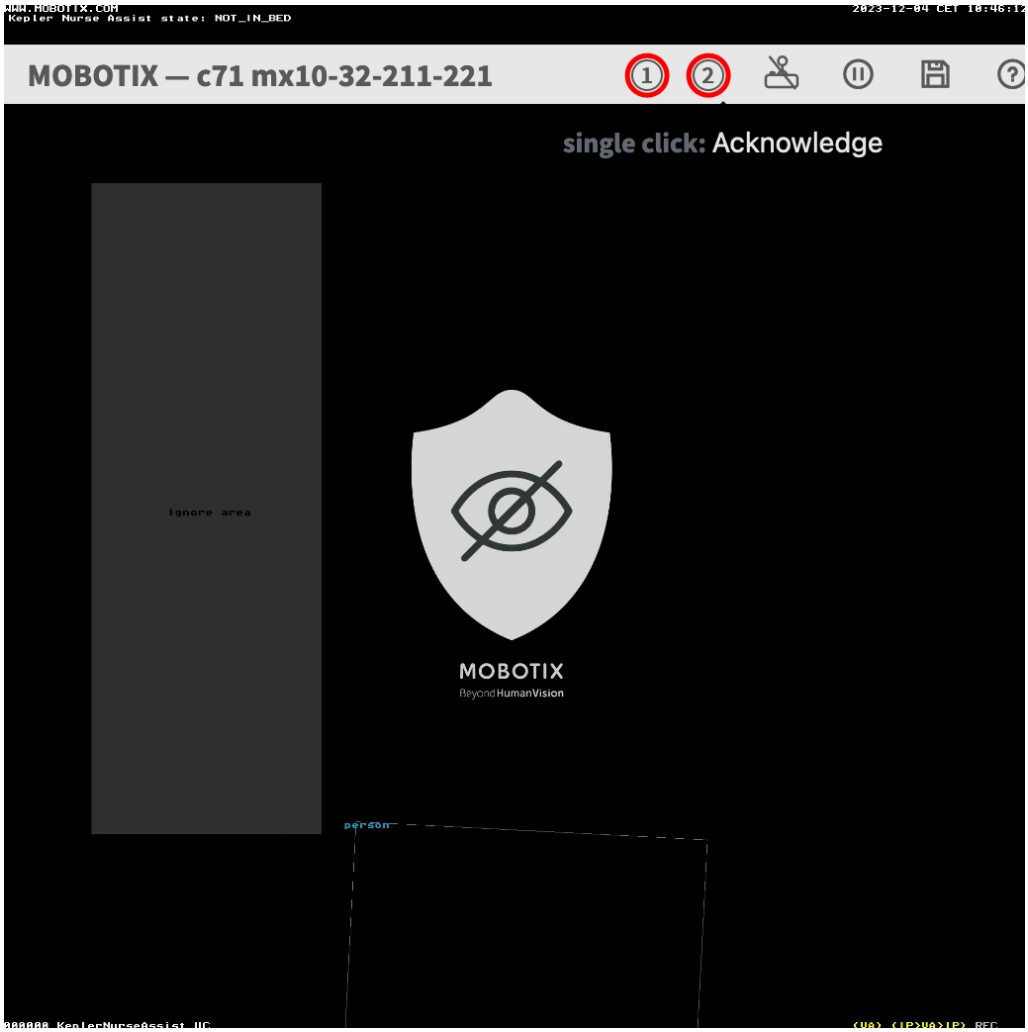
To store the configuration you have the following options:

- Click **Set** to activate your settings and to save them until the next reboot of the camera.
- Click **Factory** to load the factory defaults for this dialog (this button may not be present in all dialogs).
- Click **Restore** to undo your most recent changes that have not been stored in the camera permanently.
- Click **Close** to close the dialog. While closing the dialog, the system checks the entire configuration for changes. If changes are detected, you will be asked if you would like to store the entire configuration permanently.

After successfully saving the configuration, the event and meta data are automatically sent to the camera in case of an event.

User Actions

The Kepler NurseAssist App is completely pre-configured on the Camera. By default, the following buttons are provided in the user interface:



- **Trigger Alarm ① :** Click this button to trigger the alarm manually. If the NurseAssist_PrivacyWorkflow (see Action handling - Configuring Action Groups, p. 39) is activated the live image will become unmasked for 120 seconds or until acknowledged.
- **Acknowledge Alarm ② :** Click this button to acknowledge the alarm. If the NurseAssist_PrivacyWorkflow (see Action handling - Configuring Action Groups, p. 39) is activated the live image will become masked.

MxMessageSystem

What is MxMessageSystem?

MxMessageSystem is a communication system based on name oriented messages. This means that a message must have a unique name with a maximum length of 32 bytes.

Each participant can send and receive messages. MOBOTIX cameras can also forward messages within the local network. This way, MxMessages can be distributed over the entire local network (see Message Area: Global).

For example, a MOBOTIX 7 series camera can exchange a MxMessage generated by a camera app with an Mx6 camera that does not support certified MOBOTIX apps.

Facts about MxMessages

- 128-bit encryption ensures privacy and security of message content.
- MxMessages can be distributed from any camera of the Mx6 and 7 series.
- The message range can be defined individually for each MxMessage.
  - **Local:** Camera expects a MxMessage within its own camera system (e.g. through a Certified App).
  - **Global:** the camera expects a MxMessage that is distributed in the local network by another MxMessage device (e.g. another camera of the 7 series equipped with a certified MOBOTIX app).
- Actions that the recipients are to perform are configured individually for each participant of the MxMessageSystem.

MxMessageSystem: Processing the generated app event

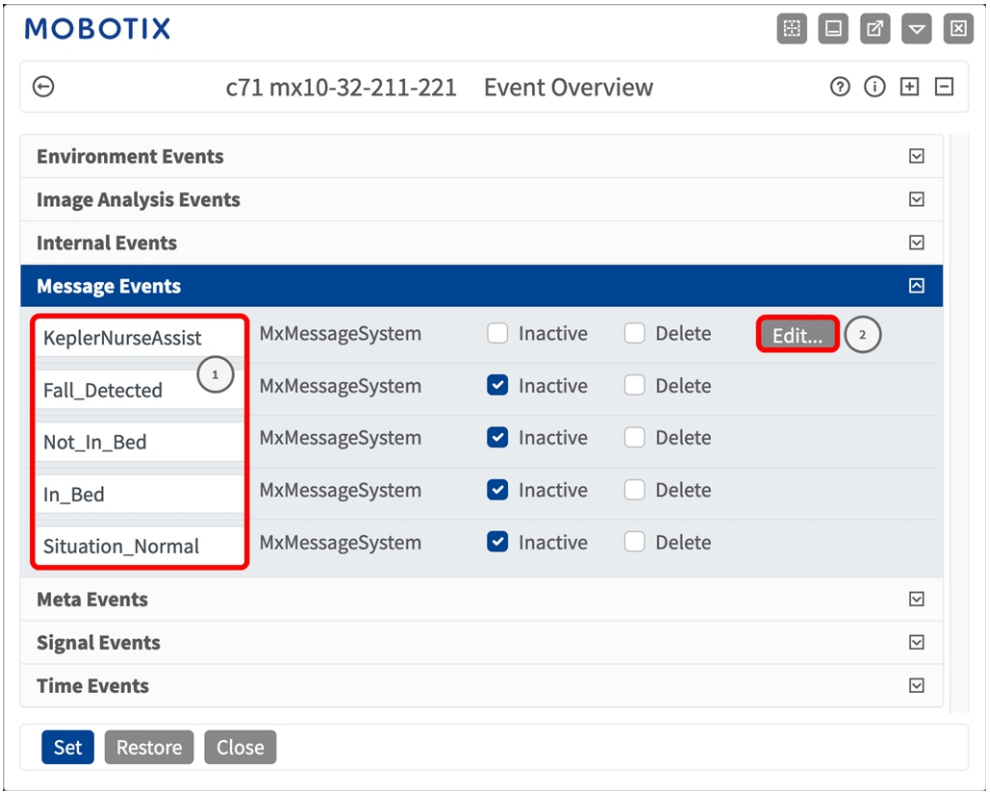
Checking generated app events

The Kepler NurseAssist App is completely pre-configured on the camera. By default, the following app-specific message events are available:

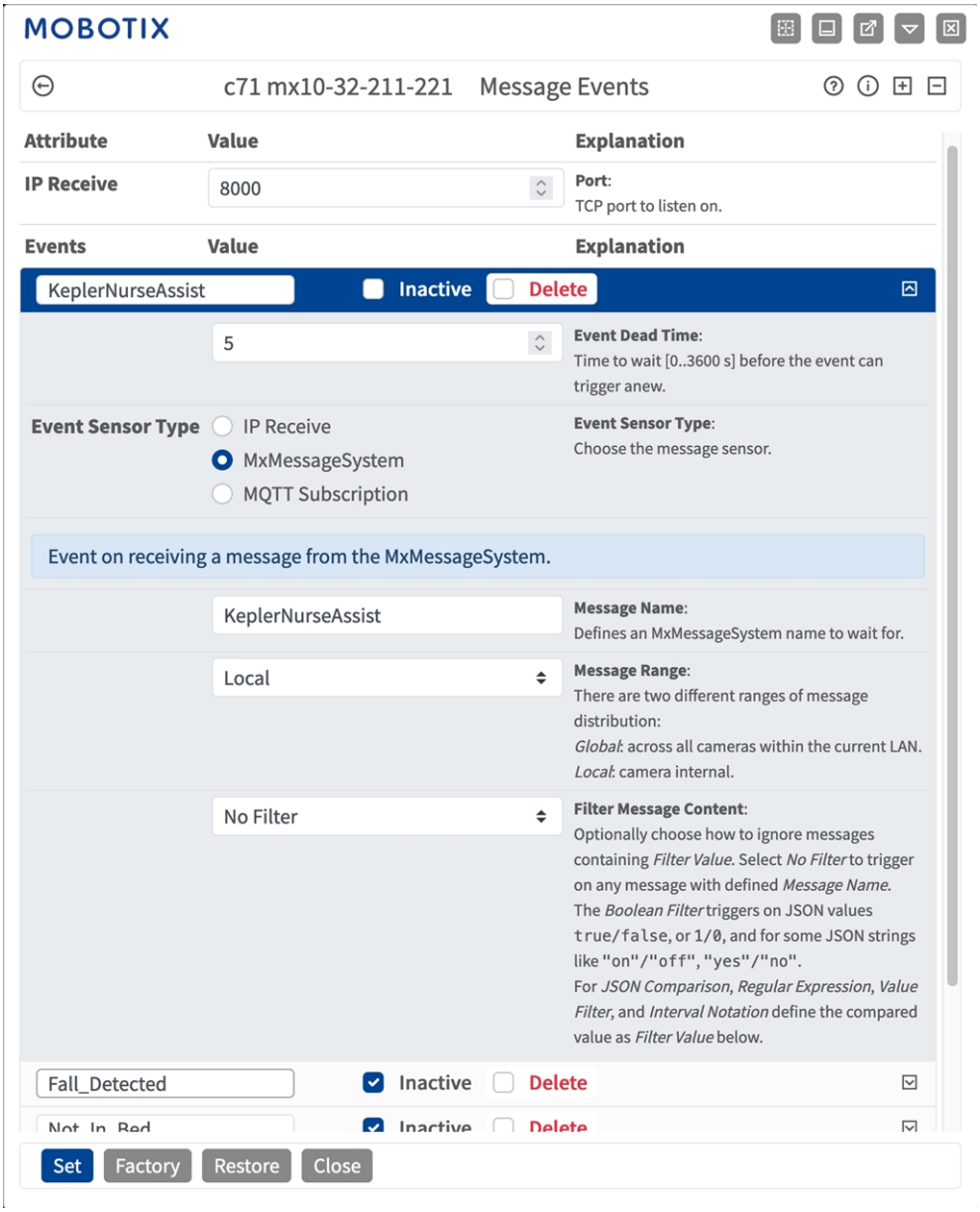
- KeplerNurseAssist
- Fall_Detected
- Not_In_Bed
- In_Bed
- Situation_Normal

NOTE! After successfully activating the app (see Activation of the Certified App Interface, p. 22), generic message events for the Kepler NurseAssist App are available.

1. Go to **Setup-Menu / Event Control / Event Overview**. In section **Message Events** the generated message events are listed ① .



2. Click **Edit**② to display a selection of all configured message events.



Action handling - Configuring Action Groups

The Kepler NurseAssist App is completely pre-configured on the Camera. By default, the following app-specificAction Groups are available:

NurseAssist_VisualAlarm: This Action Group is armed by default.

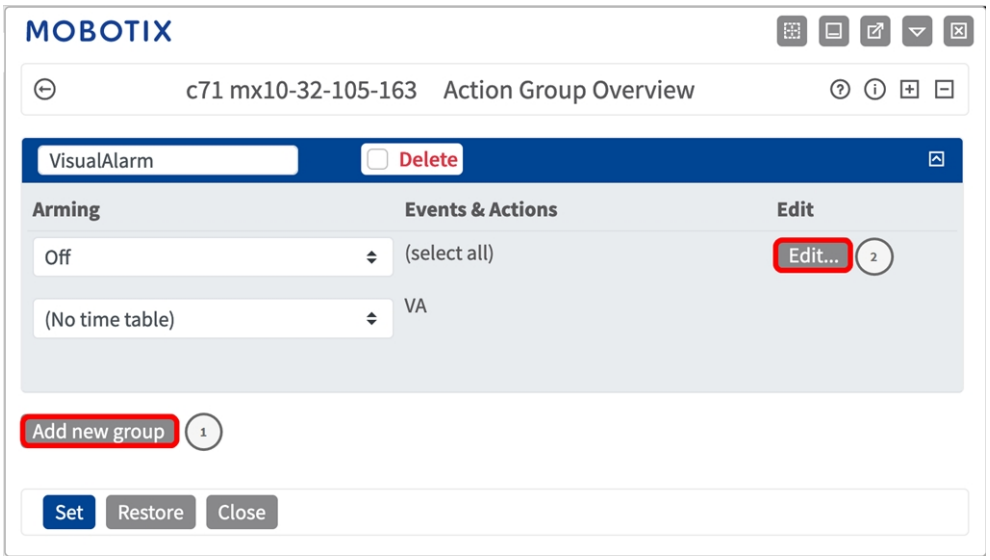
NurseAssist_PrivacyWorkflow: This Action Group is not armed by default. When enabled the camera image is masked by default. In case of a relevant NurseAssist event or User Click it will be unmasked for 120 seconds or until acknowledged by a user (see User Actions, p. 35).

CAUTION! To use events, trigger Action Groups or record images the general arming of the camera must be enabled (http(s)/<camera IP address>/control/settings)

An Action Group defines which action(s) is (are) triggered by the Kepler NurseAssist App events.

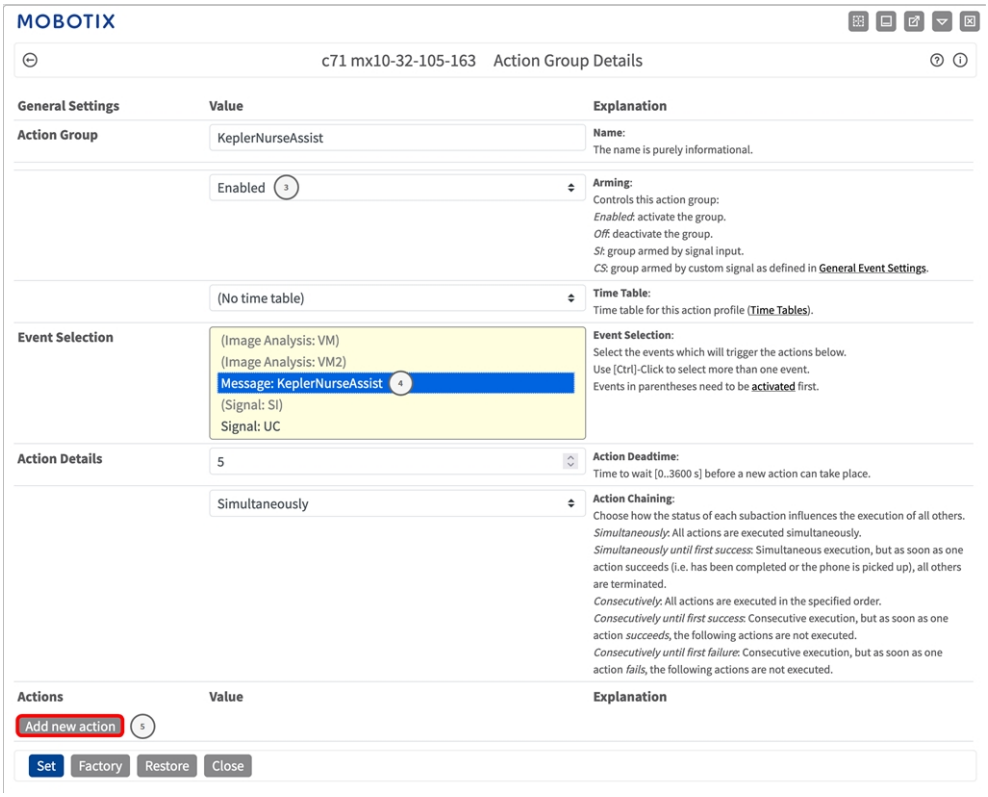
If it is required to create further Action groups, follow these steps:

1. In the camera web interface, open: **Setup Menu / Event Control / Action Group Overview** (http(s)://<camera IP address>/control/actions).



2. Click **Add new group**① .

3. Click **Edit**② , check the Action Group configuration: configure the group.

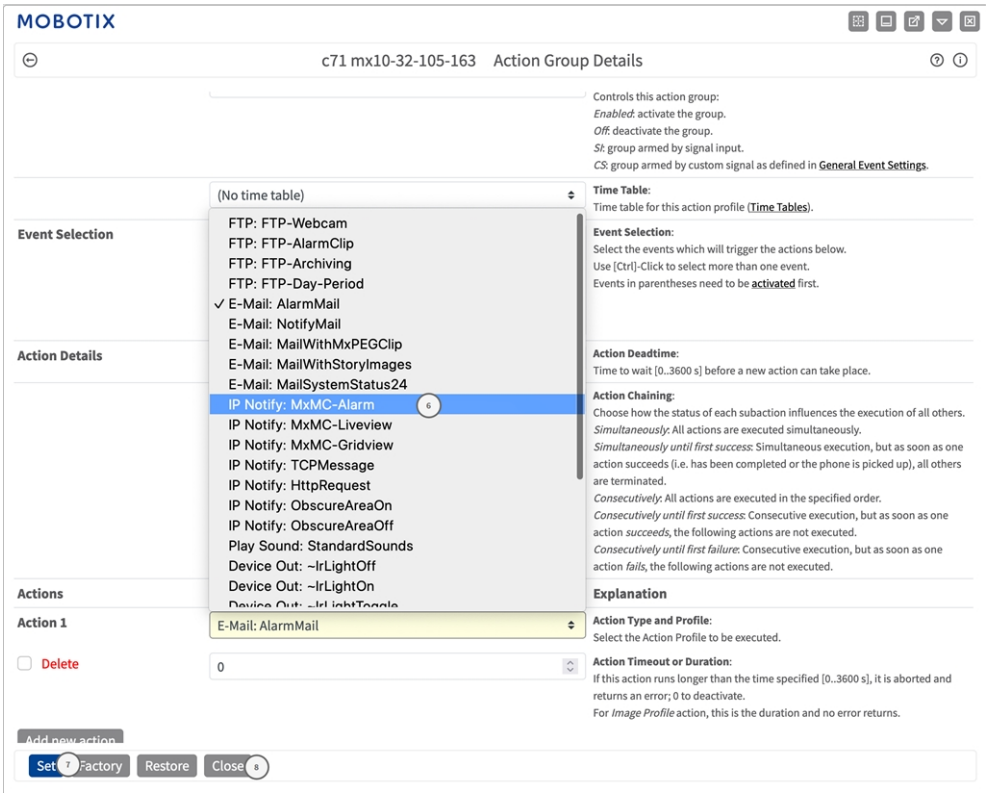


4. Enable **Arming**③ of the Action Group.

5. Select your message event in the **Event selection** list ④ . To select multiple events, hold the shift key.

6. Click **Add new Action**⑤ .

7. Select a proper action from list **Action**⑥ .



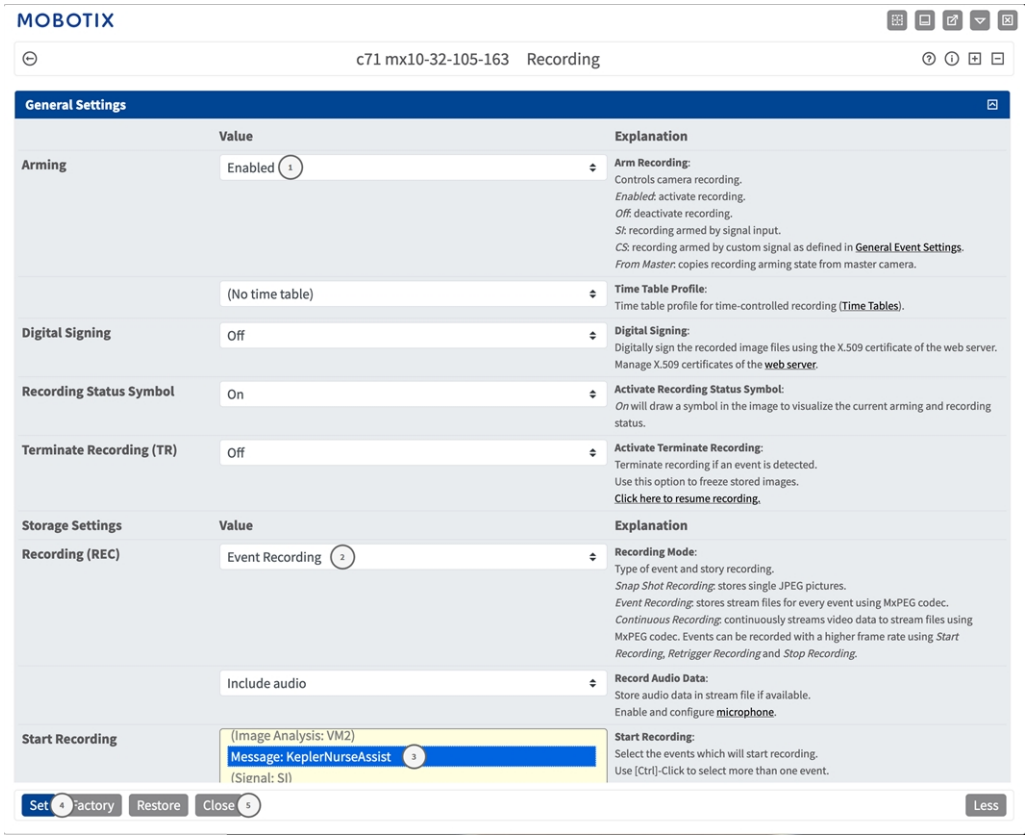
NOTE! If the required action profile is not yet available, you can create a new profile in the Admin Menu sections "MxMessageSystem", "Transfer Profiles" and "Audio and VoIP Telephony".

If necessary, you can add further actions by clicking the button again. In this case, please make sure that the "action chaining" is configured correctly (e.g. at the same time).

8. Click **Set**⑦ at the end of the dialog box to confirm the settings.
9. Click on **Close**⑧ to save your settings permanently.

Action settings - Configuration of the camera recordings

1. In the camera web interface, open: **Setup Menu / Event Control / Recording** (http(s)/<camera IP address>/control/recording).



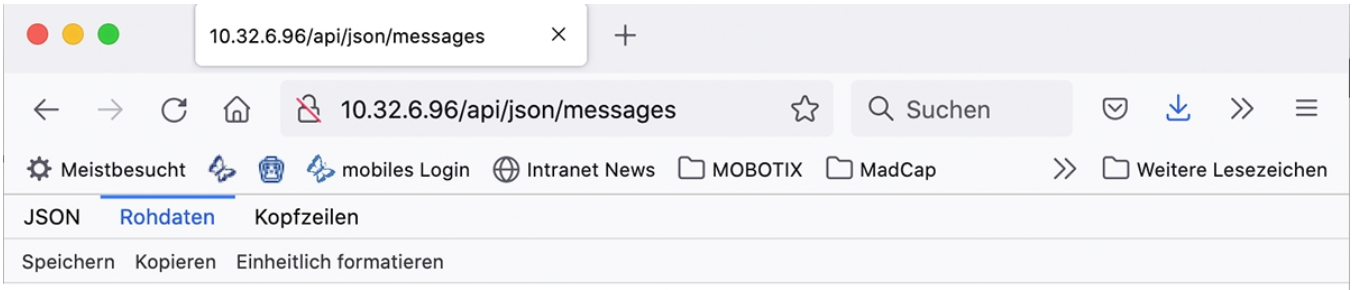
2. Activate **Arm Recording**① .
3. Under **Storage Settings** / **Recording (REC)** select a **Recording mode**② . The following modes are available:
   - Snap Shot Recording
   - Event Recording
   - Continuous Recording
4. In list **Start recording**③ select the message event just created.
5. Click on the **Set**④ button at the end of the dialog box to confirm the settings.
6. Click on **Close**⑤ to save your settings permanently.

NOTE! Alternatively, you can save your settings in the Admin menu under Configuration / Save current configuration to permanent memory.

MxMessageSystem: Processing the meta data transmitted by apps

Meta data transferred within the MxMessageSystem

For each event, the app also transfers meta data to the camera. This data is sent in the form of a JSON schema within a MxMessage.

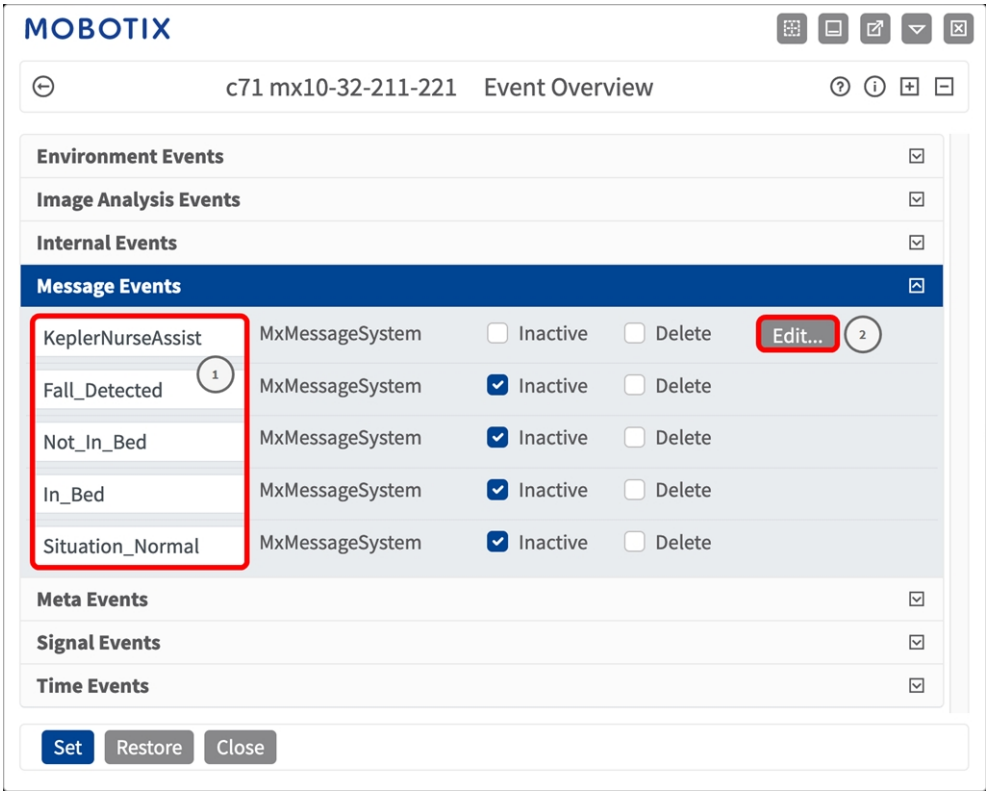



```
{
  "local" :
  {
    "KeplerNurseAssist" :
    {
      "notification" :
      {
        "cameraName" : "mx10-32-103-103",
        "cameraSerial" : "mx10-32-103-103",
        "notificationType" : "FallDetected",
        "timestamp" : "2024-01-10T06:54:58Z",
        "timestampUnix" : 1704869698,
        "uuid" : "66b772ff-82d2-2516-127b-0045c9c5e7ec"
      }
    }
  }
}
```

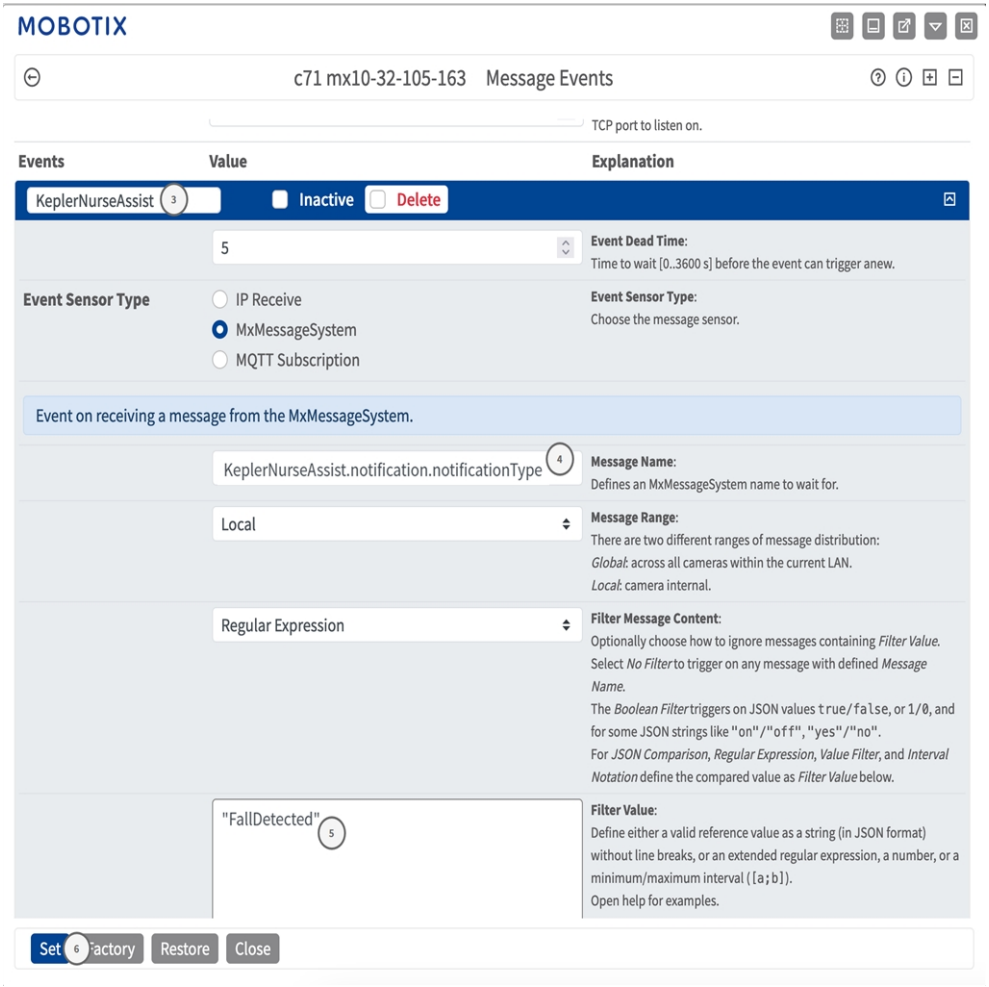

NOTE! To view the meta data structure of the last App event, enter the following URL in the address bar of your browser: http(s)://IPAddresseOfYourCamera/api/json/messages

Creating a Custom Message Event

1. Go to **Setup-Menu / Event Control / Event Overview**. In section **Message Events** the automatically generated message event profile is named after the application ① (e.g. MxActivitySensor).



2. Click **Edit**② to display and configure the event properties in detail.



3. Click on the event (e.g. KeplerNurseAssist) ③ to open the event settings.

4. Configure the parameters of the event profile as follows:
   - **Message Name:** Enter the "Message Name" ④ according to the event documentation of the corresponding app (seeExamples for message names and filter values of the Kepler NurseAssist App, p. 47)
   - **Message Range:**
     - Local: Default settings for the Kepler NurseAssist App
     - Global: (MxMessage is forwarded from another MOBOTIX camera in the local network.
   - **Filter Message Content:**
     - **No Filter:** Trigger on any message according to the defined **Message Name**.
     - **JSON Comparison:** Select if filter values are to be defined in JSON format.
     - **Regular Expression:** Select if filter values are to be defined as regular expression.
   - **Filter Value:**⑤ seeExamples for message names and filter values of the Kepler NurseAssist App, p. 47.

CAUTION! “Filter Value“ is used to differentiate the MxMessages of an app / bundle. Use this entry to benefit from individual event types of the apps (if available).
Choose “No Filter” if you want to use all incoming MxMessages as generic event of the related app.

2. Click on **Set**⑥ at the end of the dialog box to confirm the settings.

Examples for message names and filter values of the Kepler NurseAssist App

	MxMessage Name	Filter Value
Generic Event	KeplerNurseAssist	
Notification Event	KeplerNurseAssist.notification.notificationType	“FallDetected”
Timestamp Event	KeplerNurseAssist.timestamp	Date string e.g.: "2021-10-11T11:48:52+0200"

MOBOTIX

BeyondHumanVision

EN_11/24

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