Guideline

AI-TECH Video Analytics App - Message Events

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BeyondHumanVision

MOBOTIX

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Support

If you need technical support, please contact your MOBOTIX-dealer. If your questions cannot be answered immediately, your reseller will forward your inquiries through the appropriate channels to ensure a quick response.

If you have Internet access, you can download additional documentation and software updates from the MOBOTIX-helpdesk. Please visit:

www.mobotix.com

Imprint

This document is part of products by MOBOTIX AG, hereinafter referred to as the manufacturer, and describes the use and configuration of AI-TECH Apps on the camera and its components.

Changes, errors and misprints excepted.

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Support

See Support, S. 3.

About 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 an 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 an MxMessage within its own camera system (e.g. through a Certified App).
  - **Global:** the camera expects an 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.

Activation of the Certified App Interface and configuration of corresponding apps

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

Activation of A.I. Tech Apps and events

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

The default configuration password corresponds to the name of the app (e.g. AIBiodeep). MOBOTIX strongly recommends changing the default configuration password.

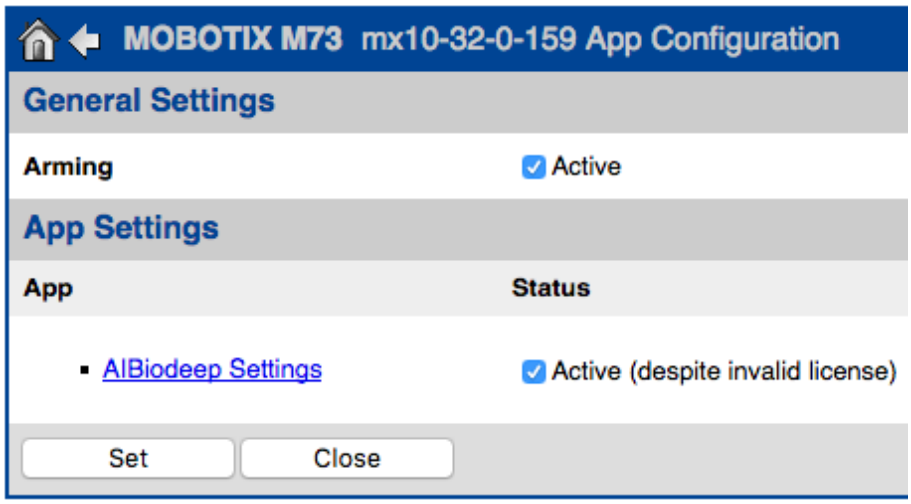

Fig. 1: Certified App: Settings

2. Under **General Settings** activate the **Arming** of the MOBOTIX interface (see Screenshot).
3. Under **App Settings** activate **App (despite invalid license)**.
4. Click on the name of the App to be configured **to open the Apps user interface**.
5. Go to the configuration interface and configure / calibrate the app as described In the A.I. Tech App documentation (seewww.mobotix.com > Support > Download Center > Documentation).
6. Save the configuration within the Apps user interface via **Configuration / Send configuration**.

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

Basic configuration: How to process the automatically generated app events

Checking automatically generated app events

After successfully activating the app (siehe Activation of the Certified App Interface and configuration of corresponding apps, S. 7), a generic message event for this specific app is automatically generated in the camera..

- To check the event go to **Setup-Menu / Event Control / Event Overiew**.
- The automatically generated message event profile is named after the application (z.B. AIBiodeep).

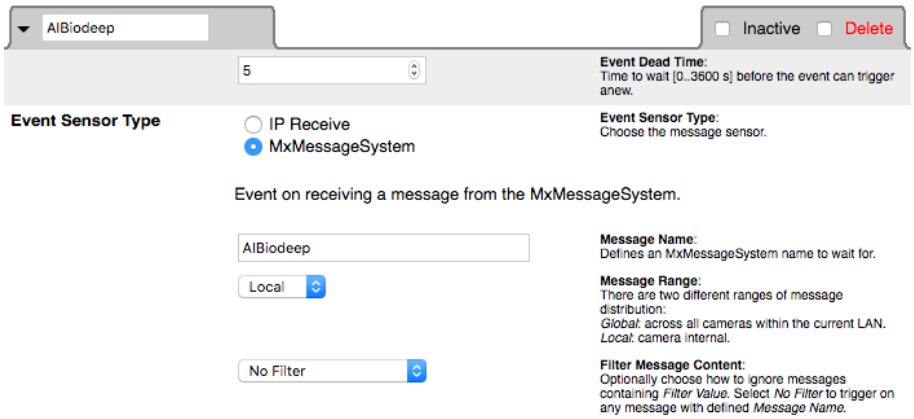

Fig. 2: Example: Generic message event from AI-Bio

Action handling - Configuration of an action group

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 A.I. Tech event.

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

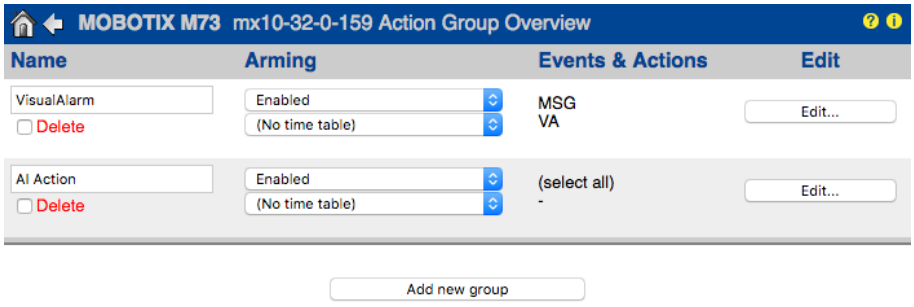

Fig. 3: Configuration of Action Groups

- Click **Add new group** and give a meaningful name.
- Click **Edit**, to configure the group.

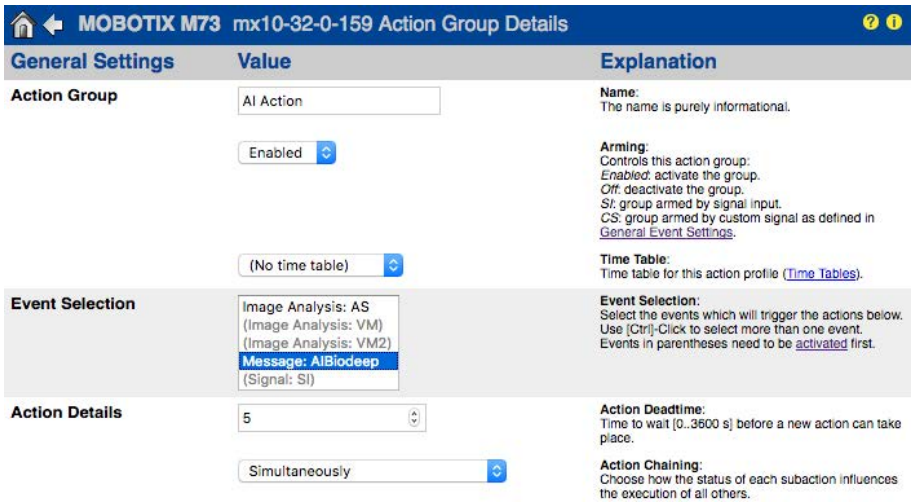

Fig. 4: Configuring an Action Group

1. Activate **Arming** of the Action Group.
2. Select your message event in the **Event selection** list. To select multiple events, press the shift key.
3. Click **Add new Action**
4. Select a proper action from list **Action Type and Profile**.

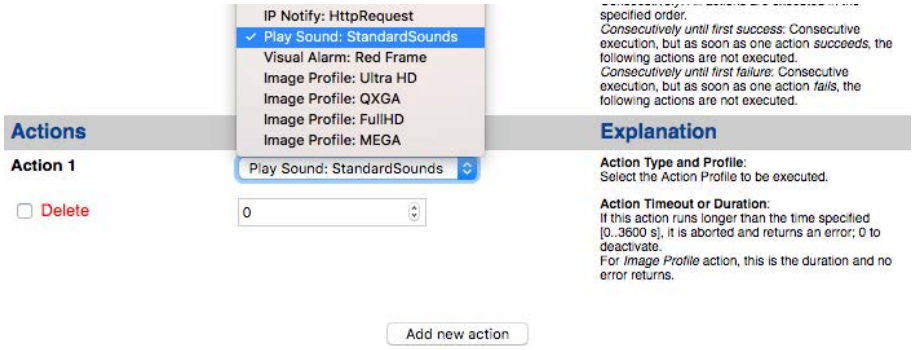

Fig. 5: Select Action Type- and Profile

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).

5. Click on the **Set** button at the end of the dialog box to confirm the settings.

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).

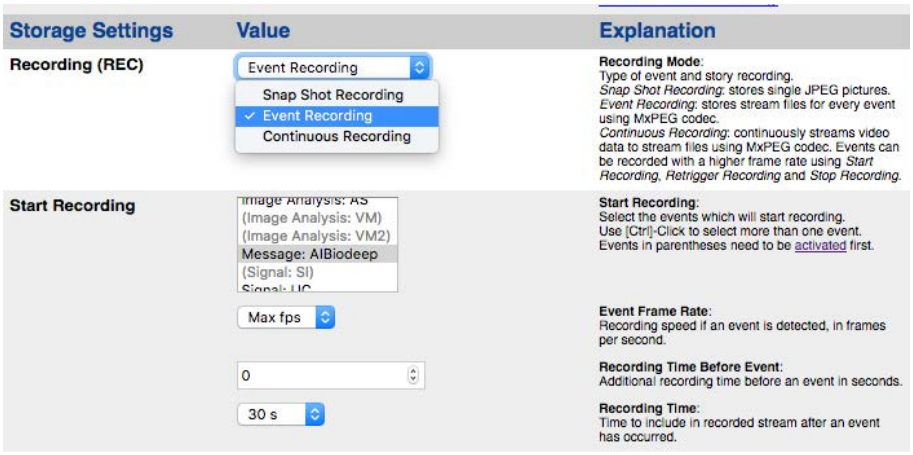

Fig. 6: Configuration of camera recording settings

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

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

Advanced Configuration: How to process the meta data transmitted by apps

Meta data transferred within MxMessageSystem

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

Fig. 7: Example: Meta data transmitted within an MxMessage of the AI-BIO app

To view the metadata 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

In the camera web interface, open: **Setup Menu / Event Control / Event Overview** (http(s)://<Camera IP address>/control/event_msg)

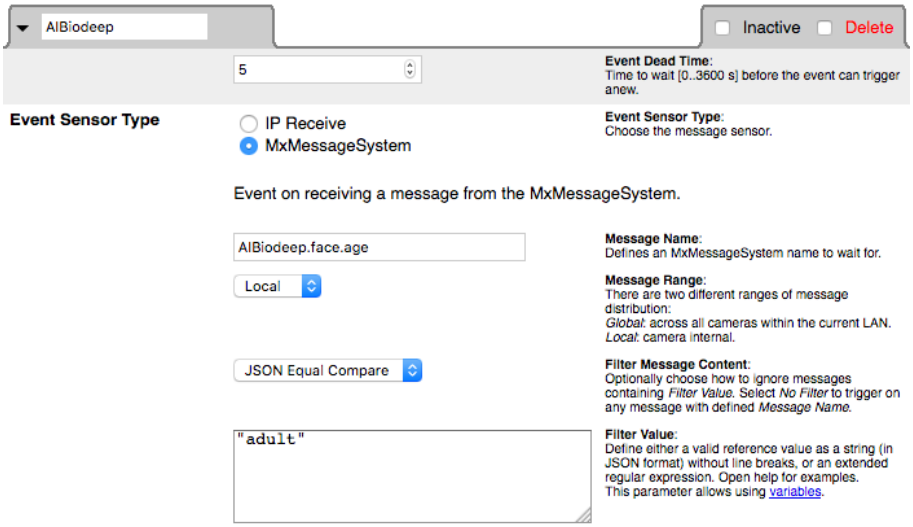

Fig. 8: Configuration of a user-defined event

1. Configure the parameters of the event profile as follows:

   - **Profile Name:** Enter an event related / application related profile name that illustrates the purpose of the profile.
   - **Message Name:** Enter the "Message Name" according to the event documentation of the corresponding app (see table Examples for MxMessage Name & Filter Values - A.I. Tech App Bundles, S. 15 below)
   - **Message Range:**
     - Local: Default settings for A.I. Tech Apps
     - Global: (MxMessage is forwarded from another MOBOTIX camera in the local network.
   - **Filter Meassage Content:**
     - Generic Event: “No Filter”
     - Filtered Event: “JSON Equal Compare”

     Filter Value: see table Examples for MxMessage Name & Filter Values - A.I. Tech App Bundles, S. 15.

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 / bundle (e.g. AI Bio Deep)

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

Examples for message names and filter values of individual A.I. Tech Apps

AI People	MxMessage Name	Filter Value
Generic Event	AIPeople	
Counting Event	AIPeople.event_type	“Counting”
Aggregate Event	AIPeople.event_type	“Aggregate”

AI Occupancy	MxMessage Name	Filter Value
Generic Event	AIOccupancy	
Prozentuale Belegung Event	AIOccupancy.event_type.occupancy	e.g. “90”

AI Overoccupancy	MxMessage Name	Filter Value
AI Overoccupancy Event	AIOveroccupancy	

AI Crowd	MxMessage Name	Filter Value
Generic Event	AICrowd	
Number of People Event	AICrowd.event_type.people_number	e.g. “10”

AI Overcrowd	MxMessage Name	Filter Value
Generic Event	AIOvercrowd	

AI Bio	MxMessage Name	Filter Value
Generic Event	AIBiodeep	
Age Event	AIBiodeep.face.age	“child”, “young”, “adult”, “elder”
Gender Event	AIBiodeep.face.gender	“female”, “male”
Face Detection Event	AIBiodeep.face	

AI Intrusion Pro	MxMessage Name	Filter Value
Intrusion Event	AIIntrusionpro	

AI Lost	MxMessage Name	Filter Value
Lost Object Event	AILost	

AI Loitering	MxMessage Name	Filter Value
Loitering Event	AILoitering	

AI Fire	MxMessage Name	Filter Value
Fire Event	AIFiredeep	

AI Smoke	MxMessage Name	Filter Value
Smoke Event	AISmokedeep	

AI Spill	MxMessage Name	Filter Value
Spill Event	AISpill	

AI Road 3D	MxMessage Name	Filter Value
Generic Event	AIRoad3d	
Vehicel Type	AIRoad3d.vehicle_type	“TRUCK”, “CAR”

AI Incident	MxMessage Name	Filter Value
Generic Event	AIIncident	

AI Incident	MxMessage Name	Filter Value
Generic Event	AIParkingdeep	
Spot Occupancy Event	AIParkingdeep.event_type.occupancy	e.g. “100”
Parking Spot-Change	AIParkingdeep.event_type	“FREE”, “BUSY”

Examples for MxMessage Name & Filter Values - A.I. Tech App Bundles

AI Security	MxMessage Name	Filter Value
Generic Event	AISecurity3	
AI Intrusion-Event	AISecurity3.description	“Intrusion”
AI Loitering Event	AISecurity3.description	“Loitering”
AI Lost Event	AISecurity3.description	“Lost”

AI Retail	MxMessage Name	Filter Value
Generic Event	AIRetail	
AI People Event	AIRetail.description	“People”
AI Heat Event	AIRetail.description	“Heat”
AI Occupancy Event	AIRetail.description	“Occupancy”
AI Overoccupancy Event	AIRetail.description	“Overoccupancy”
AI Crowd Event	AIRetail.description	“Crowd”
AI Overcrowd Event	AIRetail.description	“Overcrowd”

AI Traffic	MxMessage Name	Filter Value
Generic Event	AITraffic	
AI Road Event	AITraffic.description	“Road”
AI Incident Event	AITraffic.description	“Heat”

AI Fire	MxMessage Name	Filter Value
Generic Event	AIFireplus	
AI Fire Event	AIFireplus.description	“Fire”
AI Smoke Event	AIFireplus.description	“Smoke”

If the filter suitable for you is not listed above, simply create the message event individually using the listed MxMessage names and filter values.