MASS V2.26 and Milestone XProtect Professional 2017 R2 Integration

User Guide

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1. INTRODUCTION TO THIS GUIDE

This guide is designed to aid users with the integration of MASS (Magos Area Surveillance System) and Milestone Server, a Video Management System (VMS) that provides an interface to alerts received from MASS with regard to targets that enter or exit monitored areas. The guide specifies first the operations that need to be carried out in MASS to enable the integration, and then provides instructions for performing the integration.

MASS is a multi-feature command and control software, developed and designed for use with Magos radar sensors as well as a variety of additional sensors and verification equipment (for example: cameras and indicative fences). For in-depth information about the installation and operation of MASS, see Mass User Guide.

Milestone Control Center Client is VMS software that allows you to view live and recorded video, monitor events, and gives you the ability to configure your surveillance system. For further information about Milestone Control Center, see the Milestone Control Center User Guide.

This guide is intended for both Magos administrators and users.

1.1 ABOUT MAGOS SYSTEMS

Magos was established in 2007 to realize its co-founders' vision of bringing advanced radar technology to the security and perimeter protection and detection market. We are Experts in Low cost, Low power consumption, High performance radars that can be easily integrated with existing VMS, PSIM and other control software and automatic PTZ slew-to-cue for an end-to-end cost effective and easily maintained solution of the customer's security requirements.

1.1.1 CONTACTING MAGOS SYSTEMS

Email	info@magosys.com
Mail	Gad Feinstein 13 Office 225, Rehovot Israel 7638517
Web site	www.magosys.com

1.1.2 CONTACTING MAGOS SUPPORT

Support is available to customers who have a trial version of a Magos product or who have purchased a Magos product and have a valid maintenance contract.

To contact Magos support, send an email to support@magosys.com.

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2. PREPARING MASS FOR THE INTEGRATION

Enabling the integration between MASS and Milestone Control Center requires defining regions of interest, namely: areas within which motion is detected. This chapter specifies how to define such regions, also known as "areas of inclusion", as well as areas where motion is not detected, known as "areas of exclusion".

2.1 DEFINING AND EDITING AREAS

MASS supports an unlimited number of areas, which can be added by following the instructions described in this section.

IMPORTANT

Prior to defining areas, ensure that the Region of Interest check box in the Display Options menu is selected, otherwise the areas will not be visible.

To define and edit areas:

1. Open the main menu by clicking the icon on the top left of the screen.
2. Move the cursor over the **AREAS** menu and click the icon to add area.
   The edit area side menu opens, allowing you to define areas.
3. Make sure that the requested profile is currently active.

Figure 1: Edit Areas side menu

4. Click **Draw a polygon** ( ) to draw a new zone
   a) Click the map at the location of the polygon that defines the zone of interest. Each click adds a vertex to the polygon.
   During this stage the polygon defined by the vertexes (mouse clicks) is temporarily filled in semi-transparent red, solid red lines define the borders of the polygon, and the dashed line represents the next border-line that is to be drawn.

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Figure 2: Drawing a new area of interest

At any stage while drawing, before clicking on the first point and closing the polygon, you can select an option from the auxiliary menu:

- **Finish** – click for finishig drawing the area
- **Cancel** – Discards all vertexes drawn
- **Delete last point** – Discards the last vertex drawn (can be used repeatedly up to the first vertex)

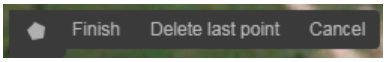

Figure 3: Polygon Drawing Auxiliary menu

b) When finished, click the first point of the polygon. The mouse cursor's shape changes from cross-hair (+) to a point hand ( ) icon when hovering (moving over) the first point, to indicate that this operation closes the polygon.
Once the polygon is complete and closed, it will be displayed as the drawn shape, filled with semi-transparent light red and bordered by a solid light red line.

Proceed to the next step in order to edit the area properties.

5. While in Area Edit mode, move the mouse over the requested area (painted green for pre-defined Inclusion areas, red for pre-defined Exclusion areas or light red for newly defined areas), and click it to open the **Area properties** menu on the bottom left side of the screen.

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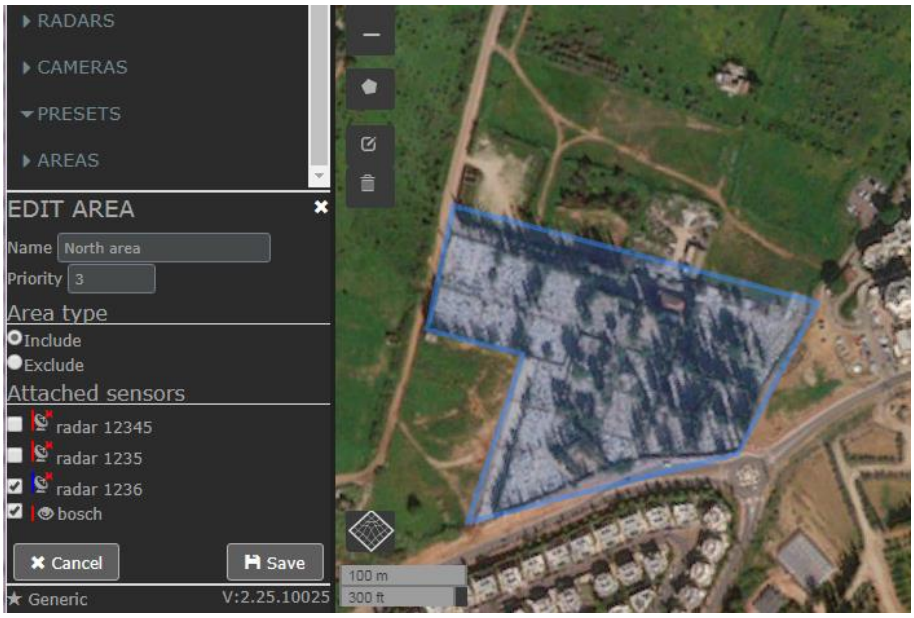

Figure 4: Area Properties Menu

NOTE

In places where two or more areas overlap each other, right-clicking the opens a pop-menu with the list of overlapping area names, allowing you to select the area to be edited.

This menu contains the following options:

- **Area Name** – User-defined name for the area. By default, the system assigns an arbitrary name to each area.
- **Priority** – Set Priority for the area. areas priority allows to control the radar tracks for each area layer (in case of overlap areas), it also allows control the camera tracking for each area. The higher the number, the higher the priority is.
- **Area type** – Include/Exclude. For the definition of available area types, see section **Error! Reference source not found.**, **Error! Reference source not found.**.
- **Attached sensors** – Select the check boxes next the radars/cameras that are to be associated with the area. For details on the meaning of associating sensors with an area see section **Error! Reference source not found.**, **Error! Reference source not und.**.
- **Save** – saves all changes made. For a newly defined polygon this operation turns the polygon into an applicable area, thereby changing its fill color from light red to green.
- **Cancel** – Discards all changes made for the area. For newly defined polygons this operation deletes the entire polygon, while or existing/pre-defined polygons all changes made since the polygon was last saved are discarded.

6. Click **Save** to finish and add the area.
7. The newly area will be added to the **AREAS** list in the main menu.

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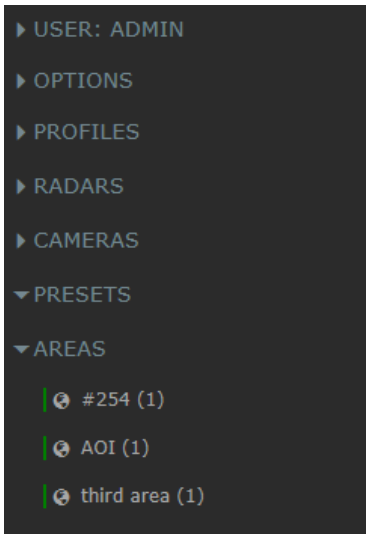

Figure 5: AREAS list menu

Editing Areas:

8. On the top left of the page, click the button to open the **Settings menu** on the left of the screen.
9. Expand the **AREAS** menu to open the areas list.
10. Move the cursor over the preferred Area and click the icon to edit the area or the to delete the area.
11. To edit the vertex positions or add new vertexes to existing polygons, click the icon from the **Edit Areas** side menu in editing mode.

All areas are now displayed as light red-filled semi-transparent polygons. The edges are marked with dashed light red lines and the pre-defined vertexes are indicated by small white squares. In addition, semi-transparent white squares appear on the center of each edge.

NOTE

Area name must not contain spaces or "–" (Hyphen-minus).

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Figure 6: Edit Polygons mode

- To move the position of an existing vertex, click and drag the white square indicating the vertex's position to the requested new position.
- To add a vertex, click and drag the semi-transparent squares from the center of the requested edge to the requested position of the new vertex.

Use any of the options in the auxiliary menu available while in this mode.

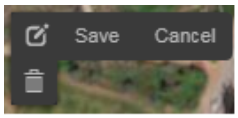

Figure 7: Polygon Editing auxiliary menu

12. When you are done applying the requested changes, click Save.

    Alternatively, you can discard your changes by using either of the following options:

    - Reverting to the previous state by clicking **Cancel**.
    - Deleting fully-drawn polygons (whether newly defined or existing), by clicking the icon and then clicking the areas to be reomoved.

      When in this mode, an auxiliary menu is available.

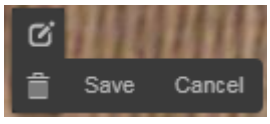

Figure 8: Polygon Deleting auxiliary menu

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3. ENABLING THE INTEGRATION

The integration between MASS and Milestone Control Center is carried out in two stages: First, you must edit the configuration file in MASS on the server side, and then you must define the required settings in Milestone Control Center.

This chapter specifies the instructions for carrying out the integration.

IMPORTANT

Prior to editing the MASS configuration file, ensure that MASS is not running, as can be seen by reviewing the task bar.

3.1 EDITING THE MASS CONFIGURATION FILE

To edit the MASS configuration:

1. Open the main menu by clicking the icon on the top left of the screen the Settings bar appears.
2. Go to USER menu > System Settings > Click **Edit configuration.**

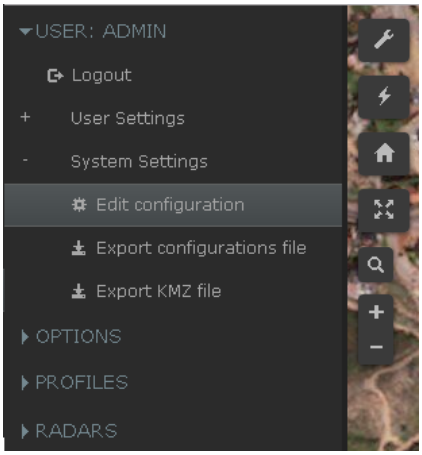

Figure 9: Open Mass system configuration

3. The Mass System Configuration screen will appear.
4. Open **Plugin** tab.
5. Set the following values to the Milestone plugin section:
   - Enable - Set to *true* (to enable the integration).
   - Server IP - set the Milestone server IP address.
   - Port - A UDP port of your choice; by default, 1234.
   - Events - Define whether to send the various events specified in the file to the Avigilon Control Center by leaving the default option true, or to disable one or more events by setting the value *false*.

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Figure 10: Milestone plugin

6. Save changes.
7. Go back to Mass

3.2 MIILESTONE SERVER SETTINGS

In order to trigger an alarm we first need to create event:

1. In order to create event please go to Advanced configuration -> Events and Outputs -> right click on Generic Events -> Properties.

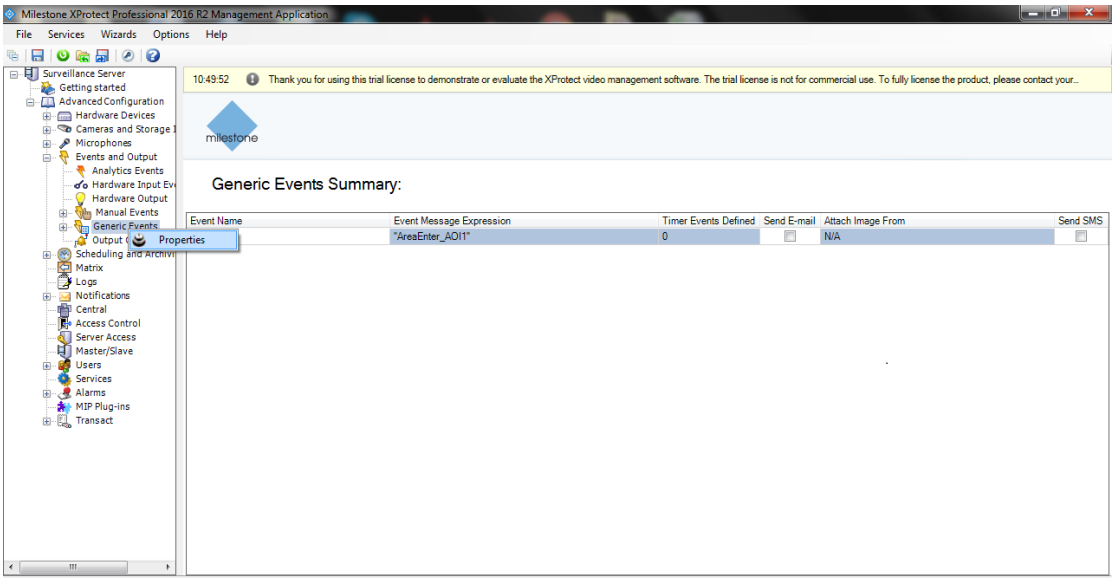

Figure 11: Generic events

2. On Generic Events Properties click Add.

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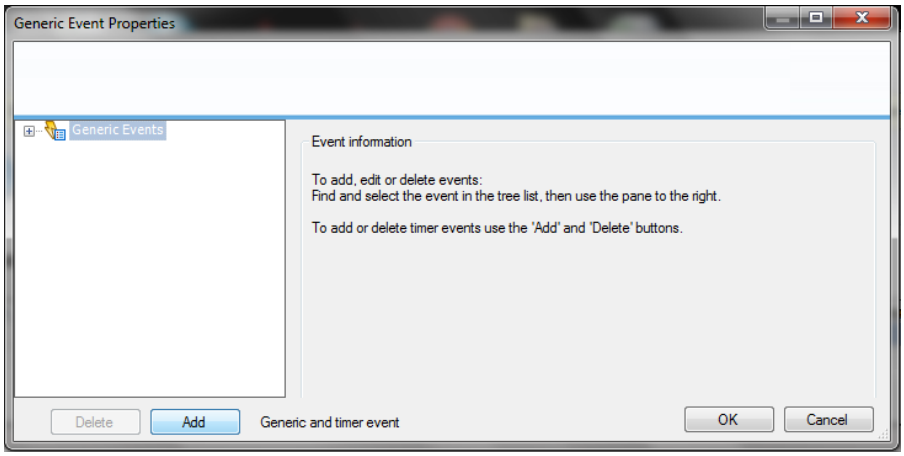

Figure 12: Add Event

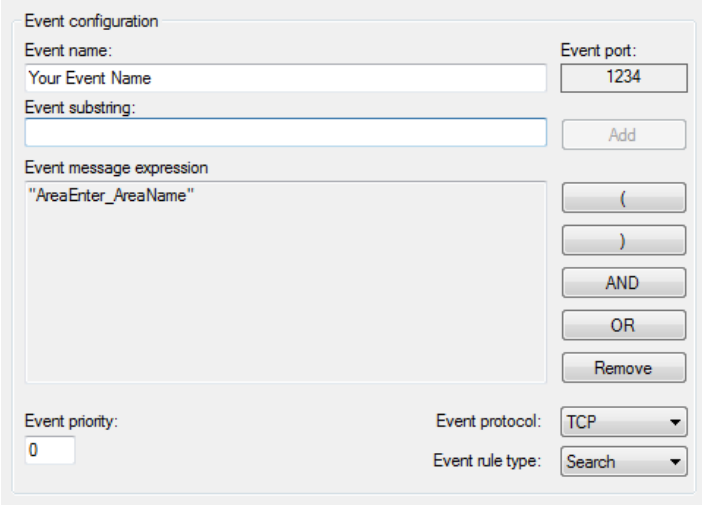

Figure 13 - Event configuration window

3. Set an Event Name – preferred event name.
4. Event substring – [EventName]_[AreaName], for example: AreaEnter_ WestArea
5. AreaEnter_AreaName.
6. Click Add, the event will be added under Event message expression, with the parameters on the left ')', '(', 'AND', 'OR' you can set expression combining several expression.
7. Choose event protocol UDP.

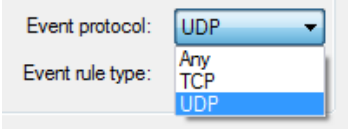

Figure 14 - Configure Data Format

8. Click 'OK'.

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9. The event will be added under Generic Event Summary.

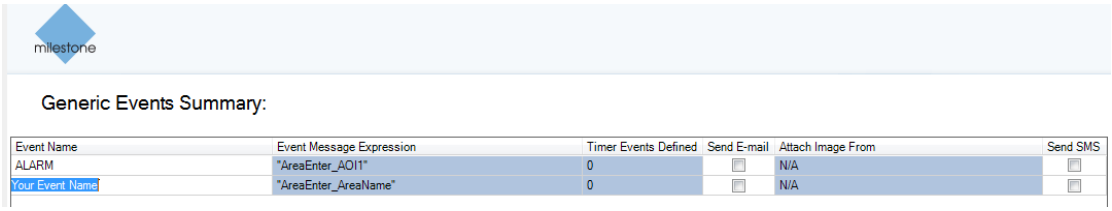

Figure 15 – Generic Events Summary

NOTE

Ensure that you have enabled all events for which you would like to receive notifications (alerts), as seen in Figure 10: , on page 8.

- *AreaEnter* - Allows receiving alerts when a target enters the region of interest specified in the string.
- *AreaExit* - Allows receiving alerts when a target exits the region of interest specified in the string.
- *TargetNew* - Allows receiving alerts when a new target is opened.
- *TargetEnd* - Allows receiving alerts when a new target is closed.
- *CameraMove* - Allows receiving alerts each time the camera moves while tracking a target.

In order to create Alarms:

1. In order to create alarms please go to Advanced configuration -> Alarms -> Alarm definitions -> right click -> Create new.

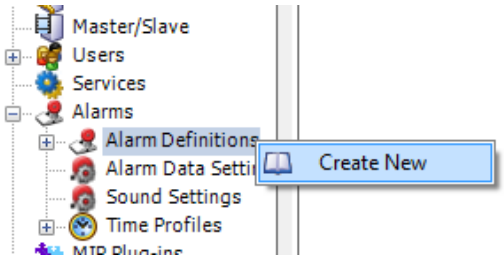

Figure 16 – Create New Alarm

2. The Alarm definition window will appear.
   A. Set the Alarm Name of your choice.
   B. Set the instructions for action when alarm is triggered.
3. Triggering event - please choose System Events option and then External event.

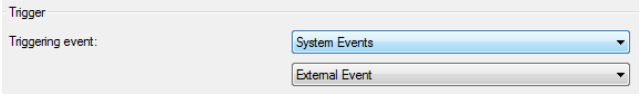

Figure 17: Configure Event Actions

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4. Sources – click on 'select', the 'Select Sources' window will open, choose a sources that will trigger the alarm, click 'Add' to add the source and then click 'Ok'

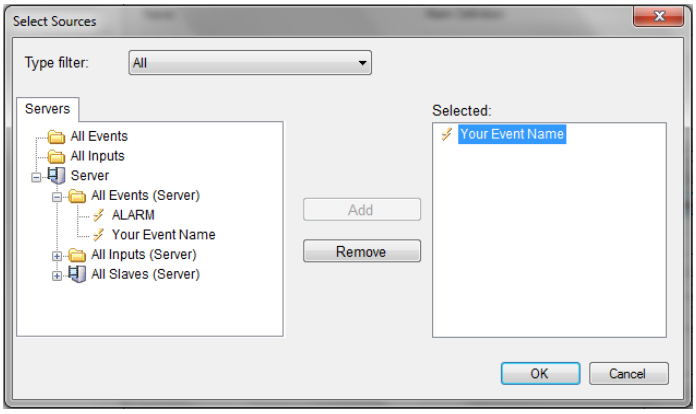

Figure 18: Select Sources

5. Activation period – choose 'Time profile ' or ' Event based' to define when the event will triggered.
    A. Time profile - Always/ Test time profile.
    B. Event based – choose period time based on events
6. Operation action required – insert required action instructions.
7. Related camera – you can choose and set related cameras to associate event to a specific camera
8. Click 'ok' to finish.
9. The alarm will be added under Alarm definitions.

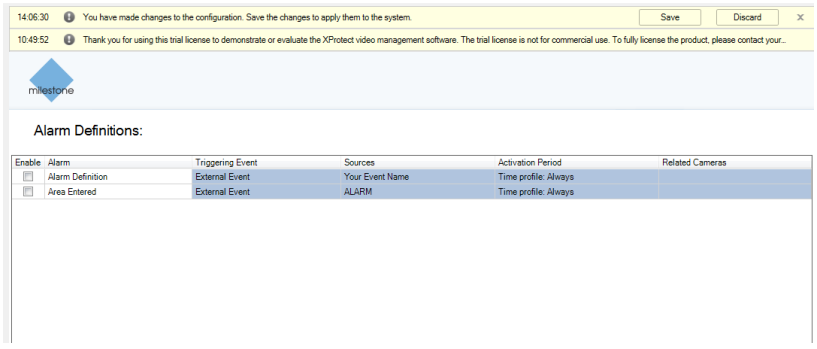

Figure 19 – Alarm Definitions

Disabling audio for cameras:

1. In order to avoid any issues with cameras, please disable audio for cameras
    A. Open Milestone management
    B. Go to Advanced Configuration
    C. Right click on Cameras and then choose "Properties".
    D. Open Audio section.

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E. Set the Default Microphone and Default speaker as "None".

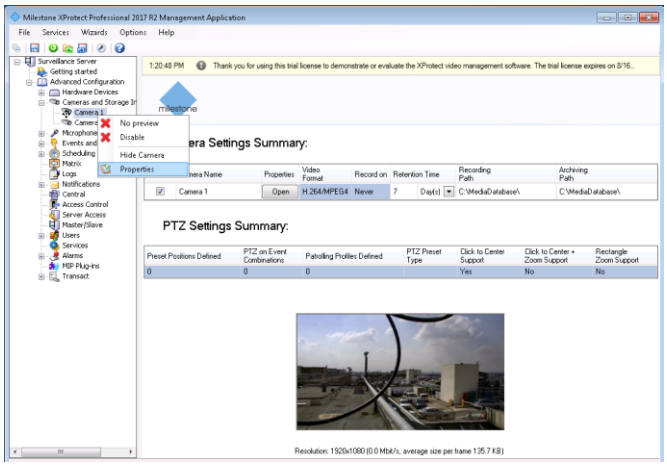

Figure 20 - Open Camera Properties

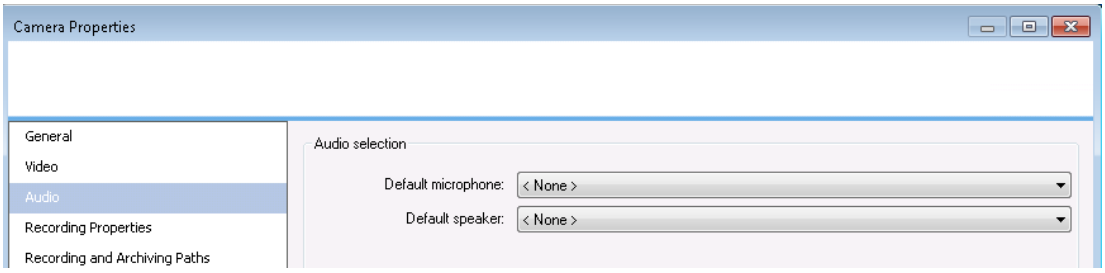

Figure 21 - disable camera audio

Recording screen settings:

Recording Mass screen in Milestone can be done via the Screen recorder tool. The Screen Recorder tool allows transmitting the Mass screen as a ONVIF IP camera to record in Milestone. The screen recorded can be downloaded via the milestone website. For more information visit Xprotect Screen Recorder Support Center.

3.3 MILESTONE CLIENT SETTINGS

Adding Milestone registry:

In order to adjust the Milestone with a supported version of IE, please follow the steps:

1. Open the main menu by clicking the icon on the top left of the screen the Settings bar appears.
2. Go to USER menu > System Settings > Click **Edit configuration.**

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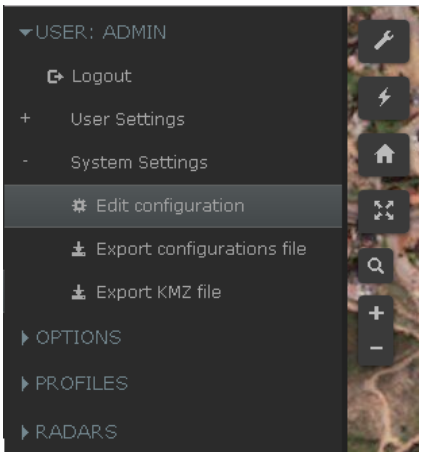

Figure 22: Open Mass system configuration

3. The Mass System Configuration screen will appear.
4. Open **Plugin** tab.

Figure 23: "milestone.reg" file download

5. On registry Setup click **Download** to download the reg. file.
6. Run the file, in the "Registry Editor" and select "Yes".
7. Wait until the installation is finish.

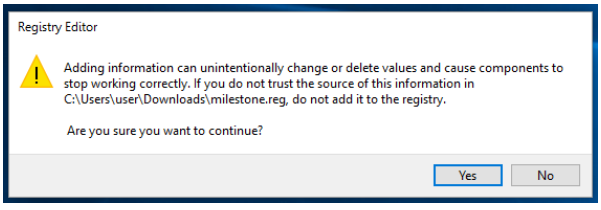

Figure 24: registry editor warning

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Setting Milestone screen interface

Since MASS is a fully web-based application integration with MASS is quite simple – it can be opened as a browser window within the MASS software, for instruction on how to set Milestone user interface please refer to Milestone user guide.

This will allow all MASS operation features within the context of the MILESTONE software. In addition, by using the MILESTONE built-in screen-capture, user can include video captions of the MASS screen as if they were a video stream from a camera, and use them for event logging and interrogation

Milestone client screen interface can be defined in many variations of views.

MASS – Milestone screen interface required at least the following three views:

1. Alarm List
2. Camera Navigator
3. HTML Page

Setting MASS – Milestone screen interface is described in the following steps:

1. Create new view with the preferred portrait number.
2. Choose from the System Overview list the 'Alarm List', Camera Navigator and HTML Page and drag them to a preferred portrait in view.

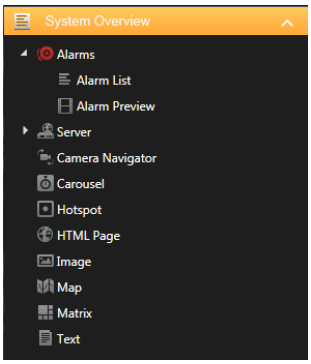

Figure 25: system overview

3. In order to open Mass view drag the HTML page:
   A. Open URL box will appear.
   B. Insert Mass server IP address or PC name (for example: http://192.168.1.2:3000 / http://MassServerPcName:3000).

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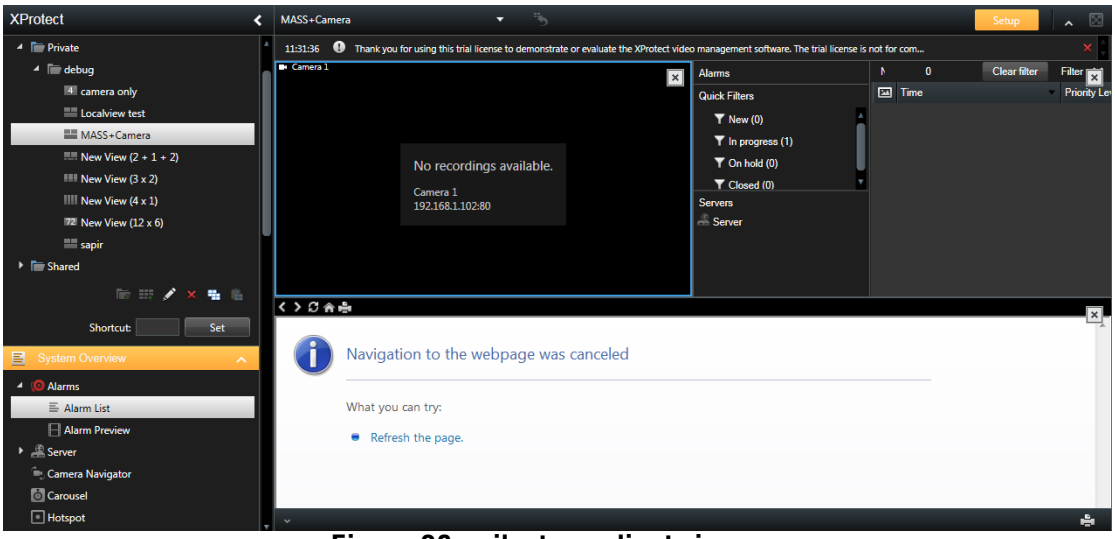

Figure 26: milestone client view

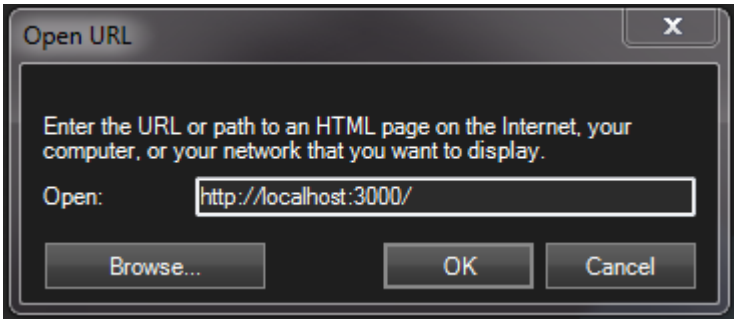

Figure 27: Open URL

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