MASS v3.0 and Avigilon Control Center Integration

User Guide

Table of Contents

Table of Figures

1. INTRODUCTION TO THIS GUIDE

This guide is designed to aid users with the integration of MASS (Magos Area Surveillance System) and Avigilon Control Center, 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.

Avigilon 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 Avigilon Control Center, see the Avigilon 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.

1.2 REQUIREMENTS

Avigilon requirements:

Avigilon ACC6 version 6.4.2.10 and up.
Avigilon ACC7 version 7.4.2.2 and up.

The integration requires Enterprise class license including POS

2. PREPARING MASS FOR THE INTEGRATION

Enabling the integration between MASS and Avigilon Control Center requires defining Alarm zones, namely: areas where any target should be regarded as a potential threat. This chapter specifies how to define such area.

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 zones, ensure that the **Alarm Zones** check box in the Layers menu is selected (see Mass user guide section 4.1) otherwise the zones will not be visible.

*To define and edit **Alarm Zones**:*

1. Open the main menu by clicking the  icon on the top left of the screen.
2. Make sure that the requested profile is currently active.

3. Move the cursor over the **ALARM ZONES** menu and click the  icon to add a new zone.
   In the **Map View** the edit the zone editing options will appear.

Figure 1: Edit Zone 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, as defined by the vertexes (mouse clicks) is temporarily filled in semi-transparent blue, solid red lines define the borders of the polygon, and the dashed line represents the next border-line that is to be drawn.

Figure 2: Drawing a new zone

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 zone**
- **Cancel** – Discards all vertexes drawn
- **Delete last point** – Discards the last vertex drawn (can be used repeatedly up to the first vertex)

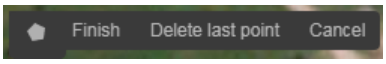

Figure 3: Polygon Drawing Auxiliary menu

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 moved 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 zone properties.

5. While in Zone Edit mode, move the mouse over the requested zone (currently filled with semi-transparent blue), and click it to open the **Zone properties** menu on the bottom left side of the screen.

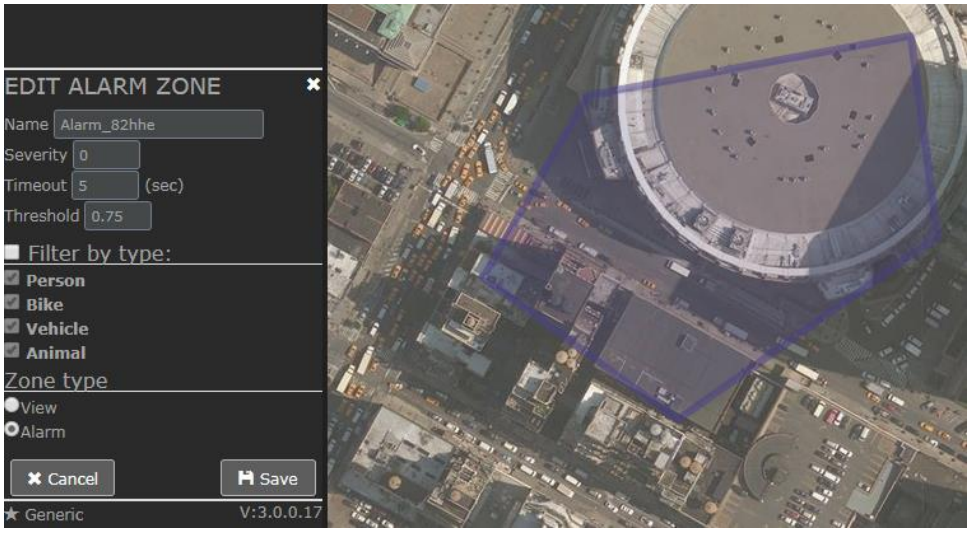

Figure 4: Zone Properties Menu

NOTE

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

This menu contains the following options:

- **Name** – User-defined name for the zone. By default, the system assigns an arbitrary name to each zone.
- **Severity** – Set Severity for the zone. Severity affects the **Resource Scheduelr** decision when several targets need to be tracked with limited amount of camera. See section **Error! Reference source not found.** for more info.
- **Timeout** – the number of seconds to wait since the last target left the alarm zone and before "re-arming" the alarm trigger. Eg. if set to 5, then if a target apears within the area and then dispears, then next alarm event will be issued only if a new target is reported more than 5 seconds after the first one disappeared.
- **Threshold –** A numeric value between 0 and 1, Typical value is 0.75. This is the track confidence threshold for decalring an alarm in this zone. A higher value will reduce False and Nuissance alarms. A lower value will increase sensitivity.
- **Zone Type** – Choose View or Alarm . See above Zones Logic explanation for more info.
- **Save** – saves all changes made. For a newly defined polygon this operation turns the polygon into an applicable zone, thereby changing its fill color from light red to green.
- **Cancel** – Discards all changes made for the zone. 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.

NOTE

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

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

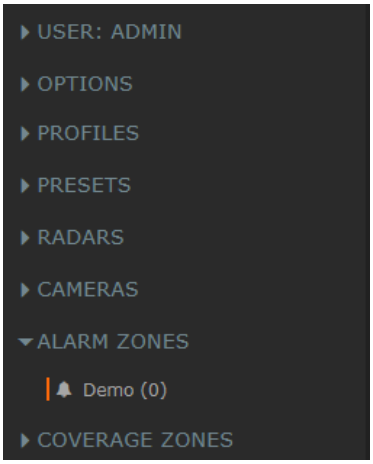

Figure 5: ALARM ZONES list menu

Editing Zones:

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 **ALARM ZONES menu to open the zones list.**
10. **Move the cursor over the preferred zone and click** the  icon to edit the zone or the  to delete the zone.
11. To edit the vertex positions or add new vertexes to existing polygons, click the  icon from the **Edit Zones** side menu in editing mode:
    - All zones are now displayed as semi-transparent polygons. The edges are marked with dashed orange 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.

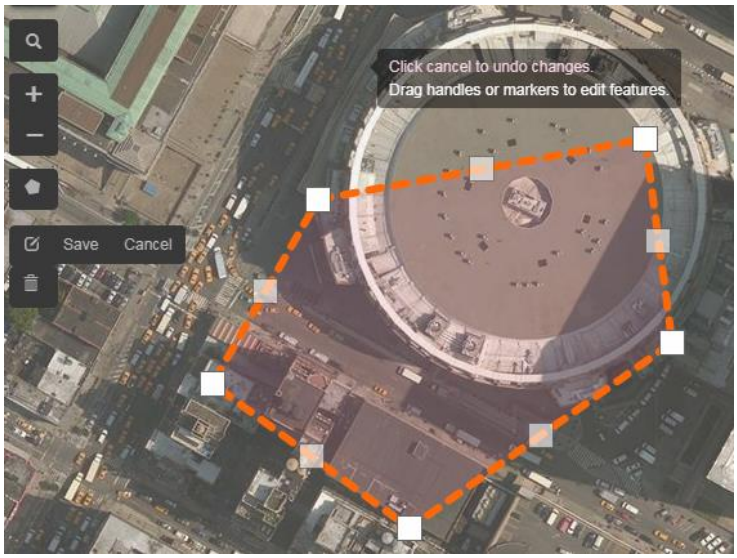

Figure 6: Edit Polygons mode

- 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.

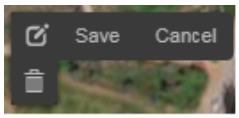

Figure 7: Polygon Editing auxiliary menu

- Click **save** when done applying the requested changes.

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 zones to be reomoved.

When in this mode, an auxiliary menu is available.

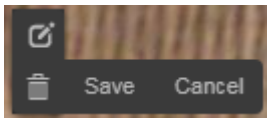

Figure 8: Polygon Deleting auxiliary menu

Reviewing Zones:

12. On the top left of the page, click the button to open the **Settings menu** on the left of the screen.
13. Expand the **ALARM ZONES menu to open the zones list.**
14. **Move the cursor over the desired Zone name and click** the icon to edit the zone or the to open the Zone Info pane showing all the settings defined for this zone.

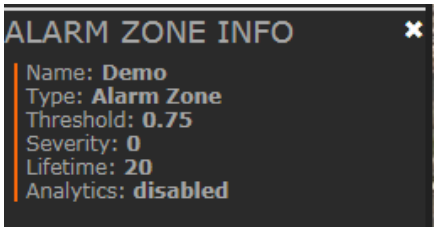

Figure 9: Zone Info

3. ENABLING THE INTEGRATION

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

This chapter specifies the instructions for carrying out the integration.

3.1 EDITING THE MASS CONFIGURATION

In order to open the Mass system configuration:

1. Open the main menu by clicking the  icon on the top left of the screen the Settings bar appears.
2. Expand the USER menu, and on the  button.
3. The Mass System Configuration page will open.

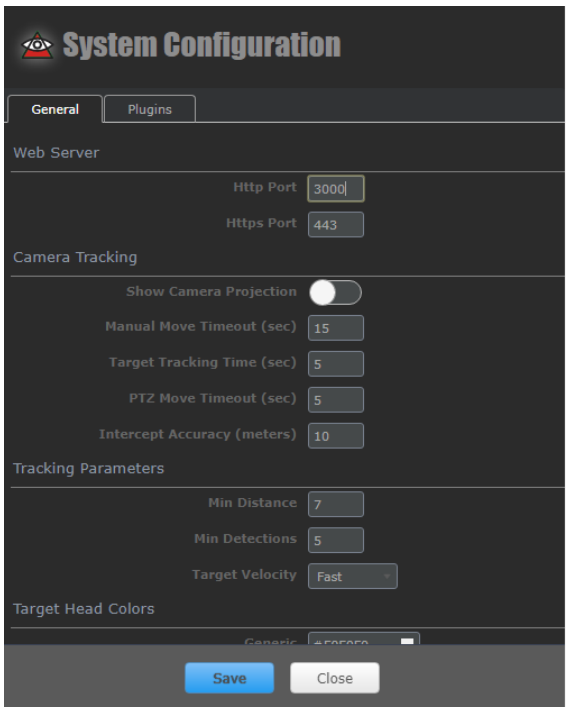

Figure 10: Open Mass system configuration

4. Open **Plugin** tab.
5. Set the following values to the Avigilon plugin section:
   - Enable - Set to *true* (to enable the integration).
   - Port - A UDP port of your choice; by default, 10001.
   - Zone Alarm - Define whether to send the event to the Avigilon Control Center by leaving the default option true, or to disable event by setting the value *false*.

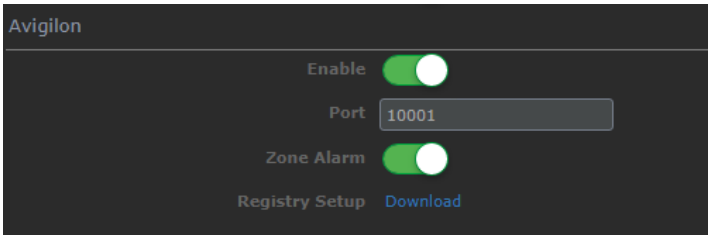

Figure 11: Avigilon plugin

6. Save changes.
7. Click "Close" to go back to MASS.

3.2 ENABLING THE INTEGRATION IN AVIGILON

To enable the integration in Avigilon Control Center Client:

1. Open the Avigilon Control Center Client and login to your site.

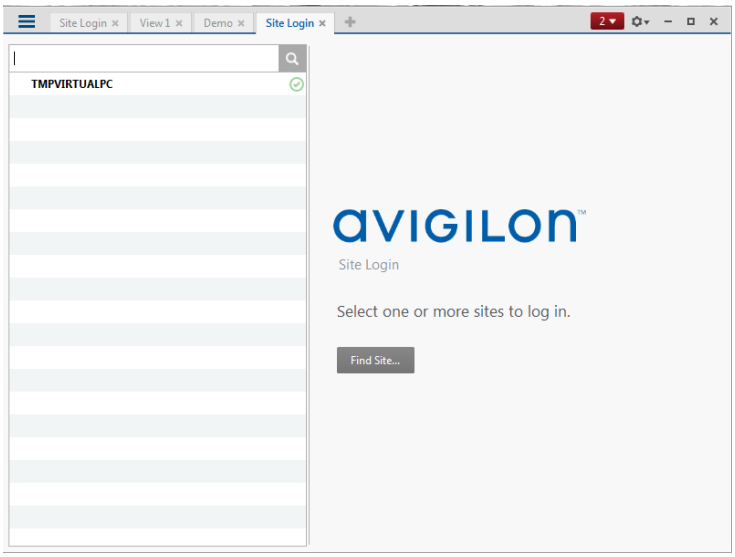

Figure 12: Avigilon Control Center login

2. Open the new task Menu and then go to Site Setup.
3. Click .The POS Transactions dialog box is displayed (see figure 11).

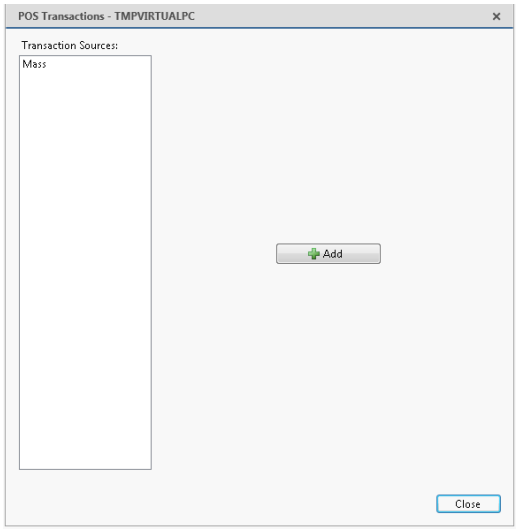

Figure 13: The Global Event Registration screen

4. Click The POS Transaction Setup wizard is displayed.
5. On the Set Transaction Source Device page, enter the **Hostname/IP Address:** and the **Port:** of the Mass server, the port by default is 10001.
6. Click **Next**.

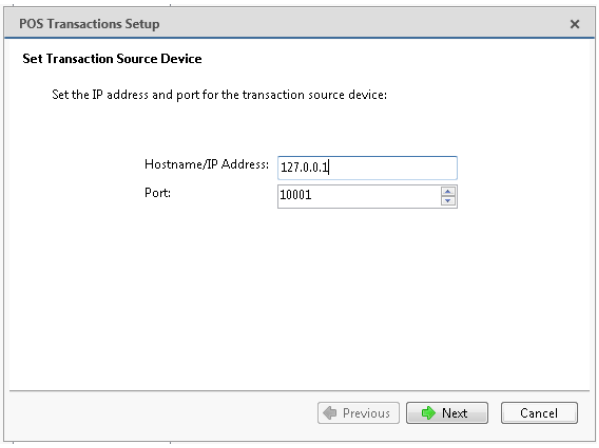

Figure 14: Set Transaction Source Device

NOTE

Prior adding POS transaction, make sure that the Mass server is up and running with the Avigilon plugin enabled, see chapter 3.1 Editing the MASS Configuration.

7. On the Set Transactions Source Data Format page click The Configure Data Format will display.
   A. Enter preferred name.
   B. Set Transaction Strat Text: '%' and Transaction End Text: '~'.

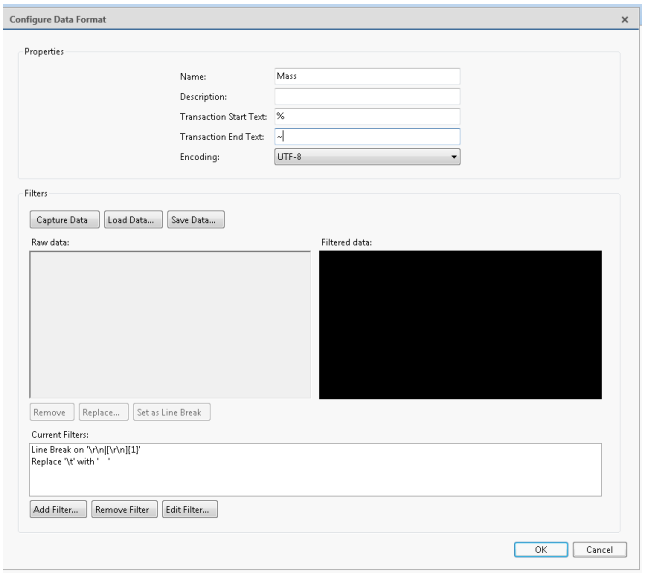

Figure 15: Configure Data Format

8. On the Set Transaction Exceptions page click  to add new exception. The Configure Exception dialog will display.
   A. In the *Name* section, enter the preferred exception name that will trigger this event. For example, [AreaName].
   B. Check *Match Text* box.
   C. In the *Text to Match* section enter the string that will trigger the event. The strings must be entered by using the following convention: < *ZoneAlarm* >_<*AlarmZoneName*>; for example, *ZoneAlarm_AOI*.
   D. Click **OK**.

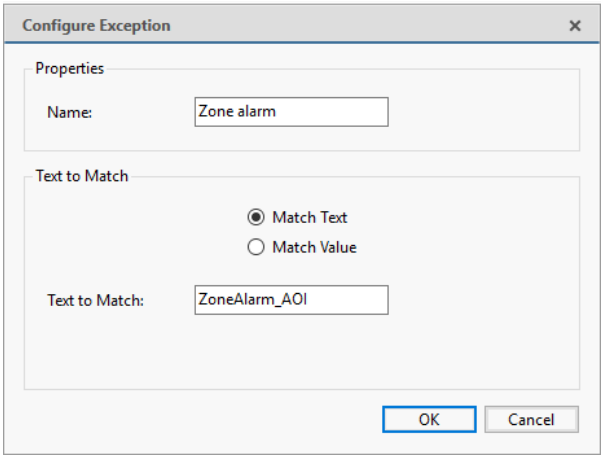

Figure 16: configure Exception

NOTE

Ensure that you have enabled zone alarm for the Avigilon plugin, as seen in Figure 11: .

9. After setting the preferred exceptions select the exceptions for this transaction source which will trigger the alarm and click **Next**. The Select Linked Cameras dialog will display.
    A. Select preferred camera.
    B. Set Pre- Transaction and Post – Transaction record time if required.
    C. Click **Next**.

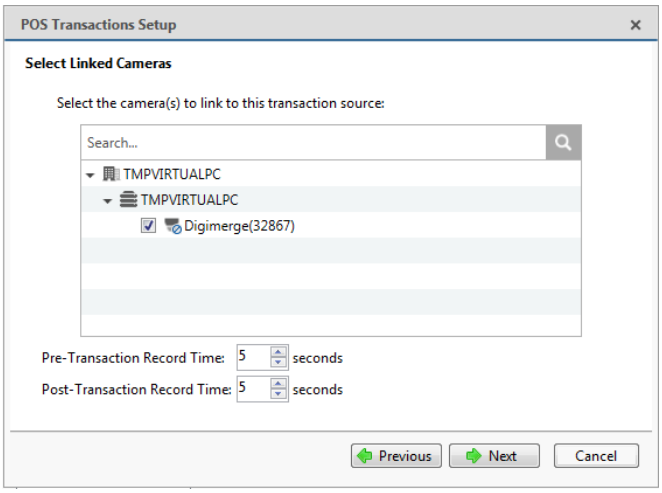

Figure 17: select linked camera

10. The *Set Transaction Sources Name and Description* screen will open.
    A. Set the Transaction Sources Name of your choice.
    B. Set the Transaction Sources Description if required.
    C. Select **Enable transaction source** to start receiving data from the transaction source.
11. Click **Finish** to save the new transaction source.

Defining Alarm:

Prior adding new Alarm, POS transaction source must be defined

1. In the Site Setup tab, click . The Alarms dialog box is displayed.

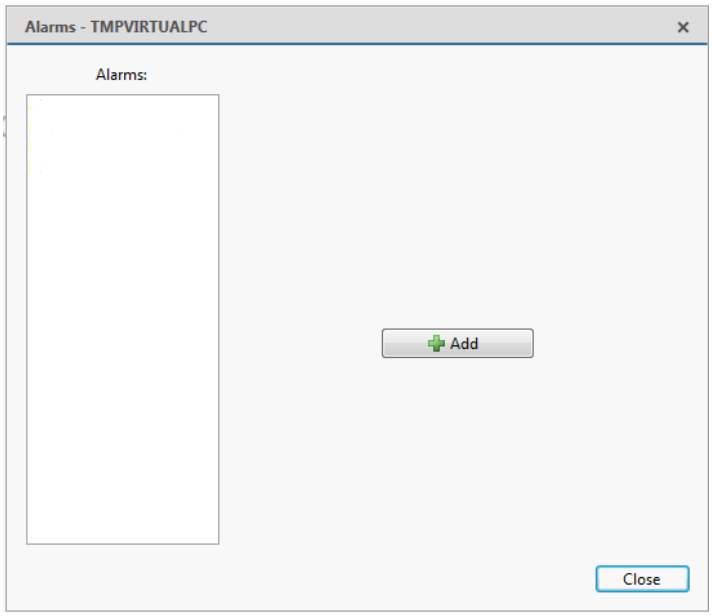

Figure 18: Configure Event Actions

2. Click to add new alarm. The Add Alarm wizard is displayed.
3. On the Select Alarm Trigger Source page, select **POS Transaction Exception**.
4. Choose the transaction exception to trigger the Alarm and click **Next**.

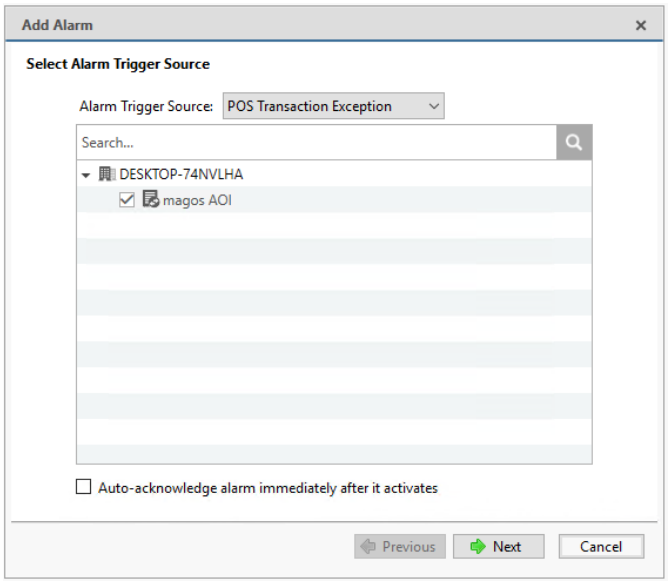

Figure 19: Select Alarm Trigger Source

5. On the Select Linked Cameras page, select the cameras that will record the event.
   A. Set the **Pre-Alarm Record Time** and the **Recording Duration**.
   B. To automatically display the alarm video in a View when the alarm is triggered, select the **View linked cameras when alarm is triggered**.

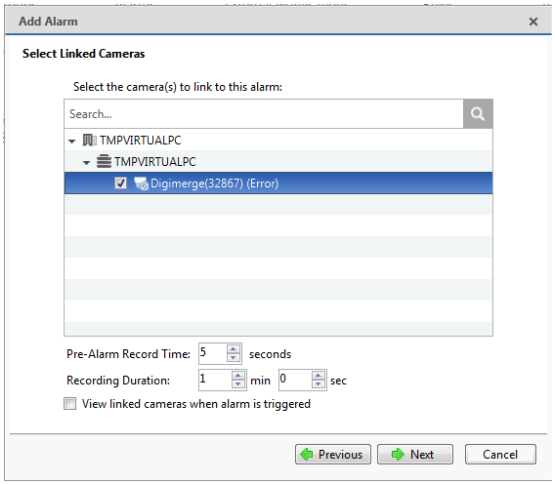

Figure 20: Select the camera to link to Alarm

6. Click **Next**.
7. On the Select Alarm Recipients page, select the groups and users that need to be notified of this alarm if required.
    A. Click  to add users or groups that need to be notified of this alarm. By default the list is empty and you must add at least one user to continue.

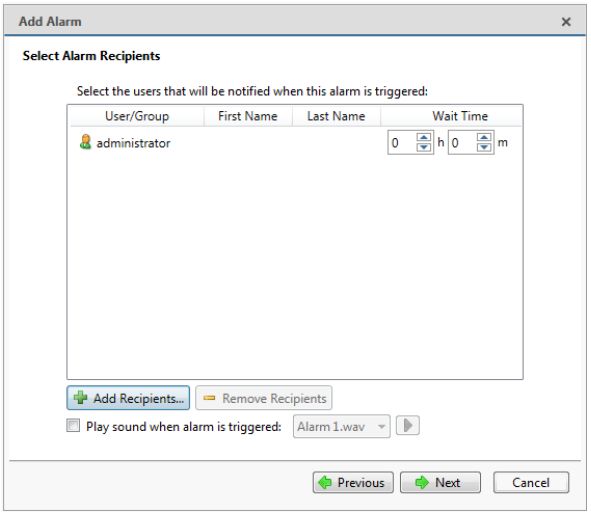

Figure 21: Select Alarm Recipients

8. Click **Next**.
9. Select Alarm Acknowledgement Action (Optional). Click **Next**.

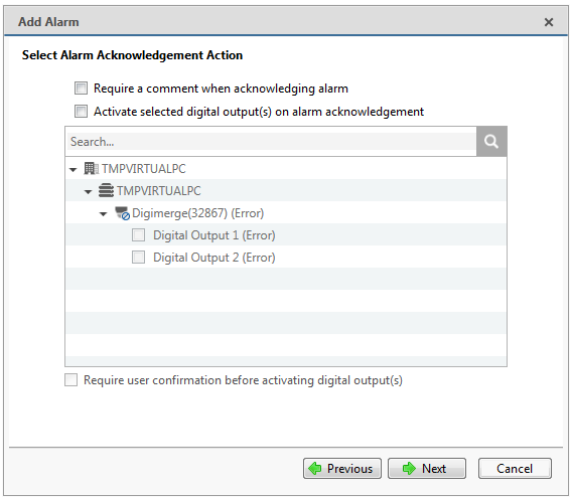

Figure 22: Select Alarm Acknowledgement Action

10. On the Select Alarm Properties page, complete the following:
    A. Enter name for the alarm.
    B. Select a Priority for the alarm
    C. Select schedule for the alarm.
    D. Make sure the **Enable alarm** check box is selected to set the alarm.
11. Click **finish** to save the new alarm.

At this point, Avigilon Control Center is integrated with MASS. All the configured events will to be displayed in the Alarms tab.

To display and monitor live cameras and Mass:

1. Click + to open a new View tab.
2. Edit Layout of your choice with your preferred camera
3. To view the Mass screen in the layout follow this directions:
    A. In the system explorer, right-click a site folder and select New Web Page…
    The Web Page Properties dialog box is displayed.
    B. Enter the Mass server IP address and port in the URL:field, for example:
    http://127.0.0.1:3000

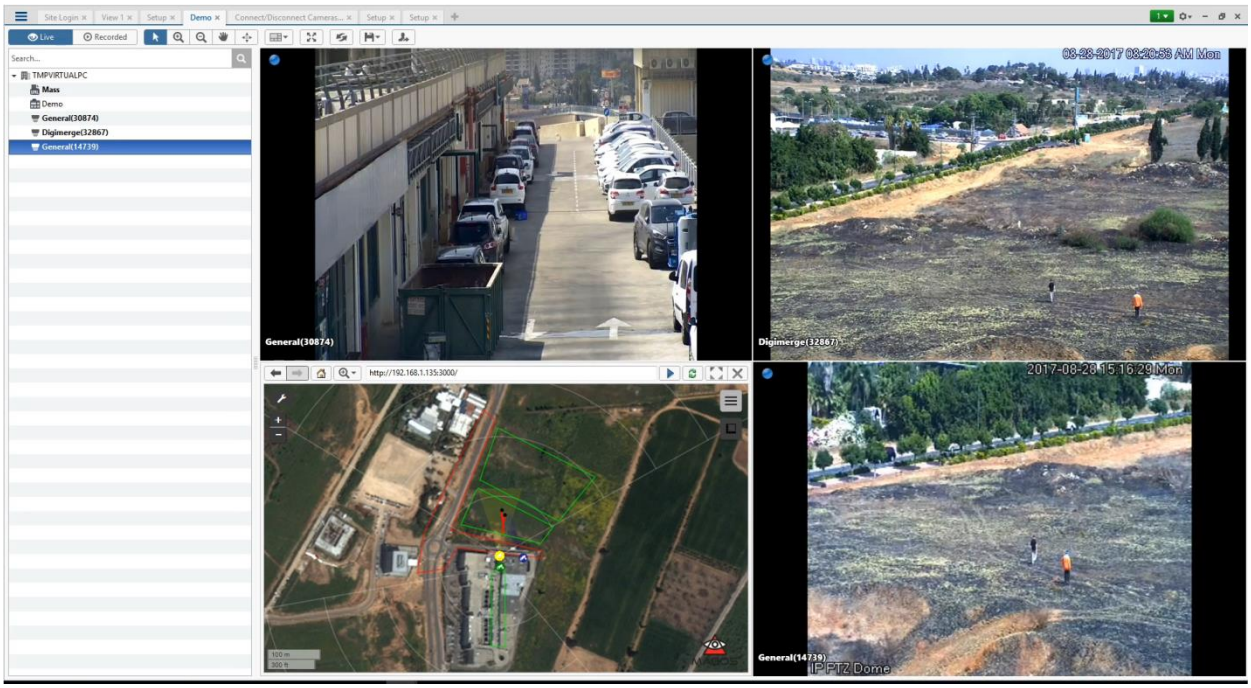

Figure 23: Live Mass and camera Display tab

The Alarms will be displayed at the Alarms, to open the alarms tab open the New Task menu and then go to Alarms .
The Alarms tab is divided into a series of vertical alarm panels. The panels display alarms that are currently active, acknowledged or assigned to a user.

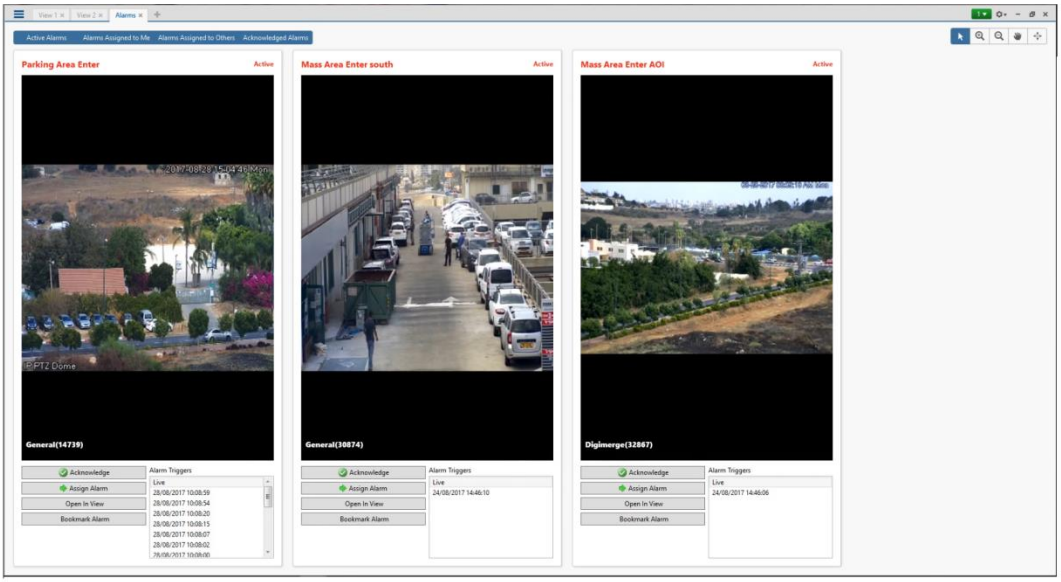

Figure 24: Alarms display Tab