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Wise Reference Manual Version 1.0

1 - Introduction

About This User Guide

Welcome to viisights Wise!

viisights Wise (the system) is a real-time and recorded video analytics intelligence platform that uses artificial intelligence to achieve human-like video understanding. It performs detection and classification of objects, actions and events in live video and recorded video streams.

This user guide is intended for video analytics users and describes how to use the system. This guide assumes that you are familiar with basic video analytics concepts.

viisights Documentation

This user guide is part of a suite of viisights documentation, which also includes –

- *viisights Wise Integration and API Guide*
- *viisights Wise Administration and Maintenance Guide*
- *viisights Wise Hardware Requirements*
- *viisights Wise Release Notes (per release)*
- *viisights Wise Product Specification*

Important Notice

Introduction

Introducing Viisights Wise

Governments, municipalities, enterprises and individuals utilize vast amounts of video-capturing devices in order to cope with safety hazards, surveillance and security threats. They face the challenge of having to extract objects, events and actions of interest from huge amounts of video content in a timely manner in order to achieve actionable insights and to take quick and appropriate action.

The viisights system intelligently and automatically understands videos originating from diverse video sources in real time and supports thousands of channels per account. The system’s intelligent detection mechanism automatically classifies objects, actions and events and triggers alarms for the events of interest to the customer.

The system's mode of operation –

- Processing **Live Video Streams** – Process video streams from live cameras and trigger alarms based on detection of events, actions and objects of interest, within a few seconds of their occurrence.

The system is a software stack that leverages standard off-the shelf servers that can be hosted in a cloud environment or as an on premise deployment. Specifications are provided in WISE Hardware Requirements document.

Artificial Intelligence Technology for Behavioral Understanding

The system’s unique technology understands and automatically identifies the behavior of a human or vehicle in a video stream, as well as detects smoke and fire. The system not only detects the existence of an object (such as a person) in an area, but also

understands that person’s behavior – such as a person throwing an object or people fighting.

The system utilizes sophisticated computer vision technology together with machine learning based on deep learning neural networks.

What Is Detected?

The system is based on artificial intelligence time-based technologies that facilitate human-like video understanding that can detect a wide variety of objects, actions and events in the video and create alarms for selected detections. You may refer to *viisights Wise System Specifications* for a full list. The following are a few examples –

- Human Behavior –
  - Human Movement – Running
  - Human Throwing an Object
- Human Suspicious Behavior –
  - Human Lying on the Ground
  - Human Posing as Holding a Weapon
- Violent Activity –
- People Fighting
- Vehicle Behavior –
  - Vehicle-Vehicle Collision

Video Stream and Detection Specifications

The supported input video stream specification is defined in WISE Product Specification, Product Interfaces Chapter, Input section. The system detects events of interest that comply with the Detection Specification chapter in the WISE Product Specifications.

Concepts And Terms

Alarm

An **Alarm** is a system notification that alerts the user about video stream detections. An alarm can be predefined and changed by the user.

Class

A **Class** is one of four types of classifications detected by the system in a video stream – Object, Action and Event. The system is provided with a variety of predefined objects, actions and events.

The following are assigned to each instance of the detection of a class – a name (such as **People Fighting**), a start time, end time, location and potentially a display size in the frame. This information can be viewed as follows –

- **WEB UI –** On the timeline and in the player provided by the system.
- **Output API –** The system detections can be retrieved using the system's API.

Object

An **Object** is the entity detected in a video, such as a **Person**, **Car**, **Motorcycle**, **Handbag, Fire, Smoke** and so on. An object may have attributes, such as **Color**. In the context of the system, a person holding a gun is classified as a **Person** with the attribute **Holding a Gun.**

Action

An **Action** defines an object's behavior. For example, a **Person Walking, Person Throwing Object**, **Person Falling**, **Car Moving** and so on.

Event

An **Event** defines an interaction between two or more objects. These can be objects of the same type (such as two cars) or two different types of objects, such as a person and a car. For example, **People Fighting**, **Car-Car Collision**, **Vehicle Stopping in Junction**, **Person Getting Out of Car** and so on.

Attribute

An **Attribute** is a property of an object. Each type of class has a variety of attributes that describe it. For example –

- **For a person** – Upper Color, Lower Color, Holding a Gun, Age Group (Child, Adult) and so on.
- **For a car** – Color, Type (Sedan, Bus) and so on.

You may refer to the *viisights Wise System Specifications* for the full list of the attributes provided in the system.

Video Source

A **Video Stream Source** is a video stream that was uploaded, processed and saved by the system. There are two ways for Video Streams to be processed by the system –

- **Live Video –** Live video can be streamed into the system from a camera or a Video Management System (VMS). Each time the live video stream is stopped (either by the API or by the operator in the user interface), a video clip is created and saved in the system for a limited time.
- **Prerecorded Video –** A prerecorded video clip can be uploaded to the system from a public URL. Refer to the “forensic section”

Unique Class Identifiers

Each detection of a class in a video stream is assigned a **unique identifier** (ID) by the system. This ID identifies the class detection within the video stream.

For example –

- **Same Identifier –** The same unique identifier is retained for a person who walks behind a tree for a moment.
- **New identifier –** A new identifier is assigned to a person who enters a public building and then leaves it within a few minutes.

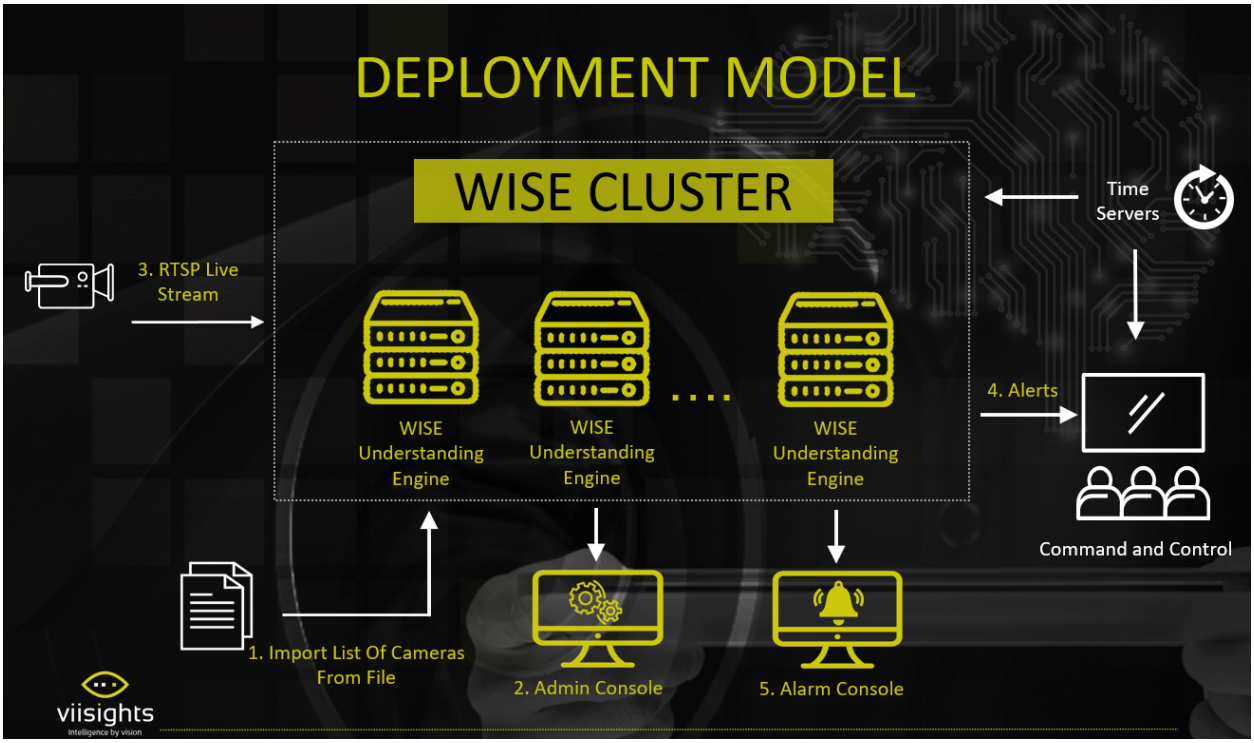
Command and Control Center (CCC)

An external display control system (typically a security, surveillance or monitoring system) that receives alarms from the system via API, displays these alarms and detections and enables operators to analyze them along with their video.

Deployment Architecture

The following describes the components, connections and topology of the system's deployment architecture.

Figure 1 – Deployment Architecture



Video Input Sources

Live video can be streamed into the Video Engine via the Real Time Streaming Protocol (RTSP) directly from a video camera or from a Video Management System (VMS), according to your preference.

In addition, video can be stored in a repository and then streamed into the Video Engine for processing using the system's UI.

By default, the system does not store videos. However, if required, it can store video streams for short periods (a few hours), in order to allow the operator to access recent detections. Storing videos depends on available storage. You may refer to the Retention tab for more information.

Understanding Engine

The Understanding Engine processes and analyzes the real-time and recorded video that is streamed into it. It makes these results available in the web user interface and

can be retrieved by a CCC via API.

Alarm Console and Admin Console

The system provides a web user interface for two consoles: The Admin Console for configuring system behavior, watching and monitoring videos and the Alarm Console for viewing the alarms, detections and insights generated by the system. The functionality provided by this user interface can also be accessed using the system's API.

API

The system provides a proprietary API or Open Network Video Interface Forum (ONVIF) that enables external entities (such as a CCC) to register, start and stop video streams and to receive alarms and detections.

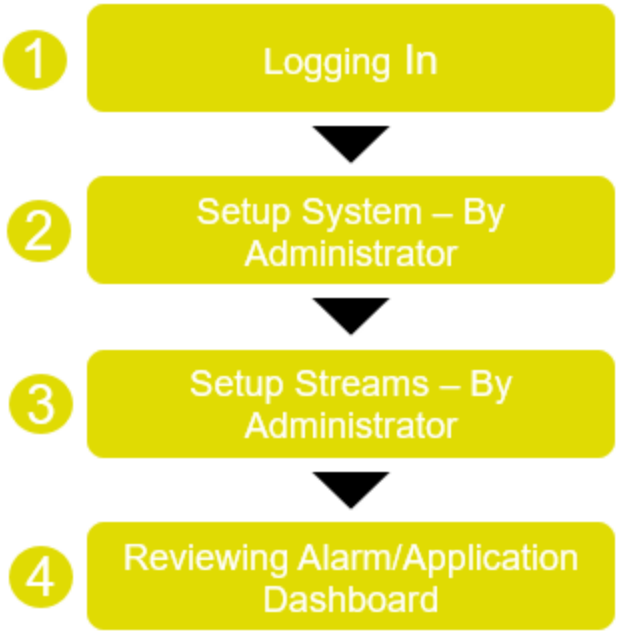
Wise Cluster Architecture

CCC Integration

The Video Engine supports both proprietary REST-based protocols and the standard ONVIF protocol, which enables its integration into any standard CCC via API.

In this case, the system administrator will only use the system's Admin Console interface in order to define the System Settings.

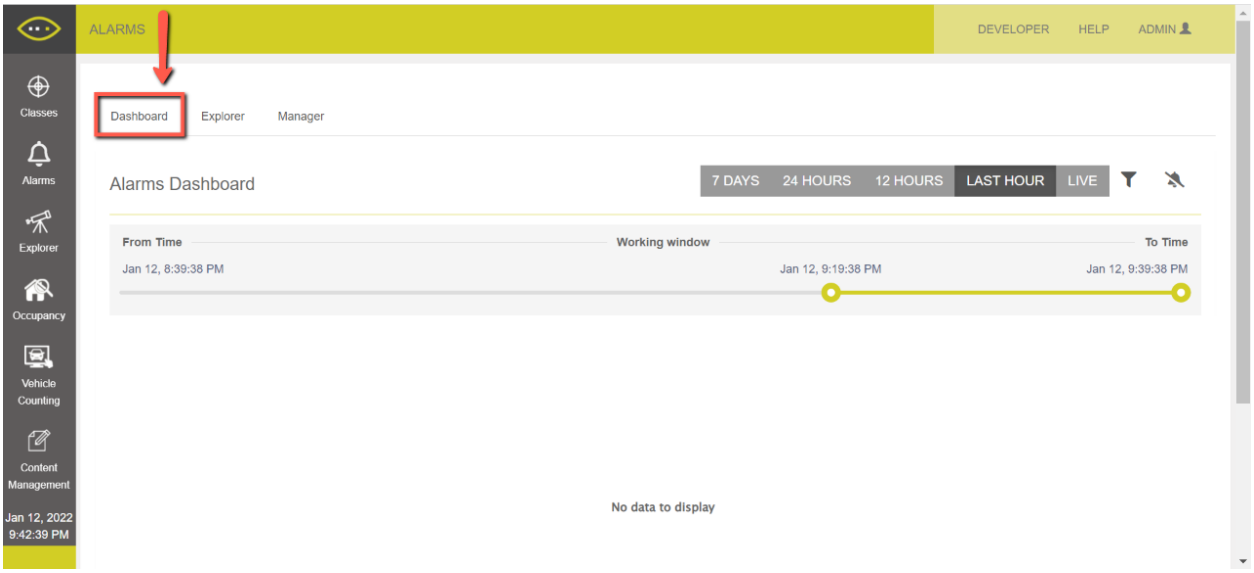
Using viisights Wise


1
Logging In
2
Setup System – By Administrator
3
Setup Streams – By Administrator
4
Reviewing Alarm/Application Dashboard

2 - Alarms

This page displays a distribution of the alarms that have been detected across all the video streams, registered in the platform.
Under the assumption that each alarm was predefined by the user.

Dashboard

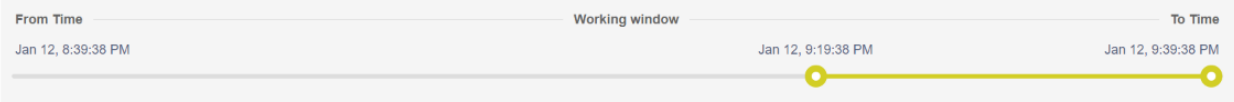


UI Interface

The Dashboard application is divided into three segments:

1. **Filtration Tools:**
    a. Defines the boundary selection length of the **Timeline Tool** – 7 days/ 24 hours/ 12 hours/ last hour/ live
    b. **Filter button** – additional filtration methods
    c. **Paused Cameras** – Opens a menu, displaying steams that were paused by the user/system

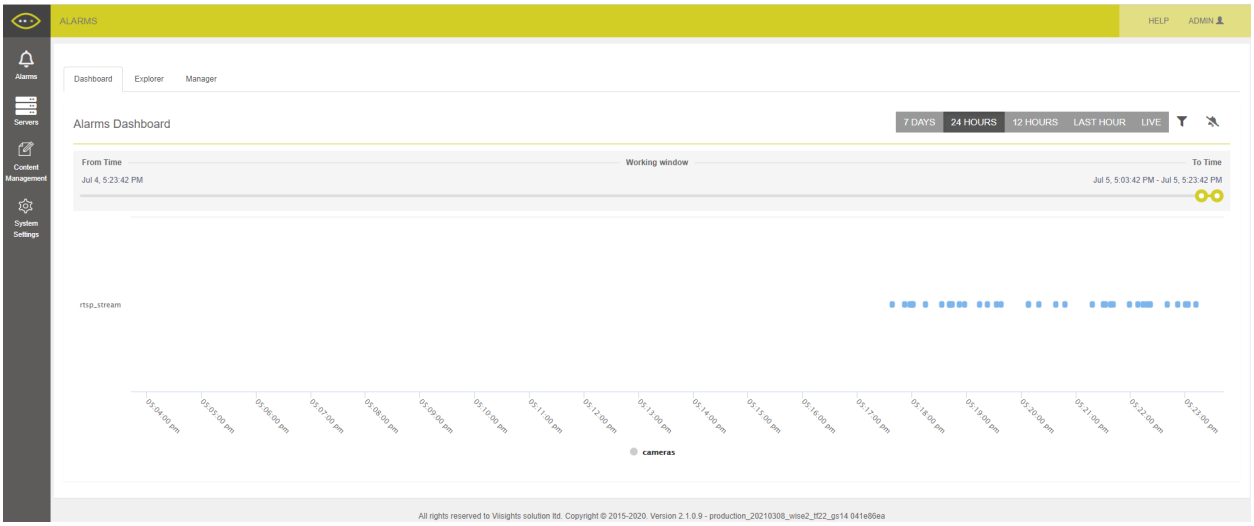
2. **Timeline Tool** – a time range selection tool, allows the user to select a relevant time range - view in the graph display



3. **Graph Display** – flags a detected event/action/object, providing thumbnail vids along with relevant stream meta data

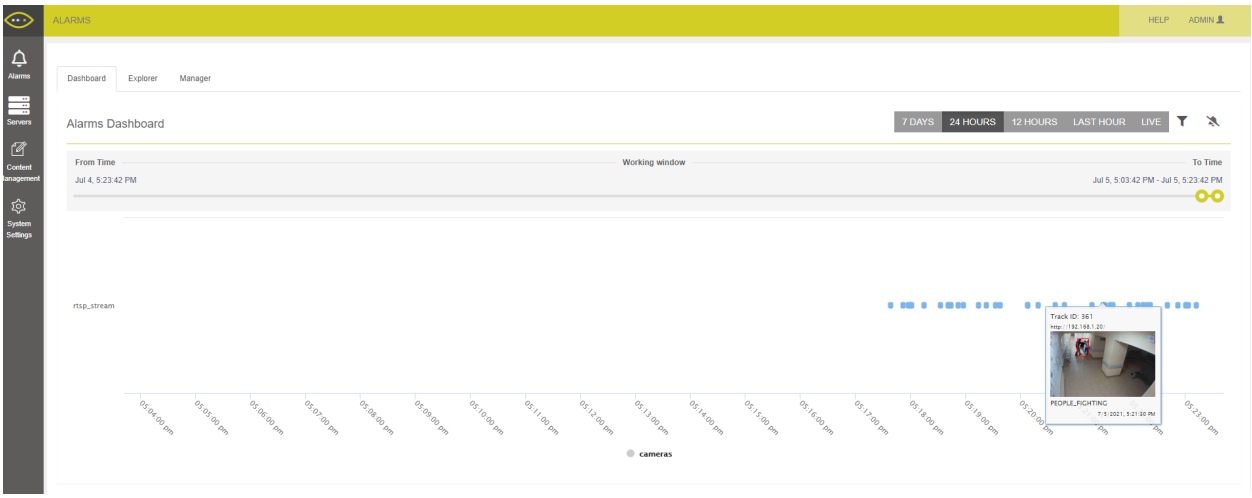
Each time the system detects an **Event**, **Scene**, **Action** or **Object**, a dot appears on the screen (based on what the user selected).

Each mark indicates an alarm.



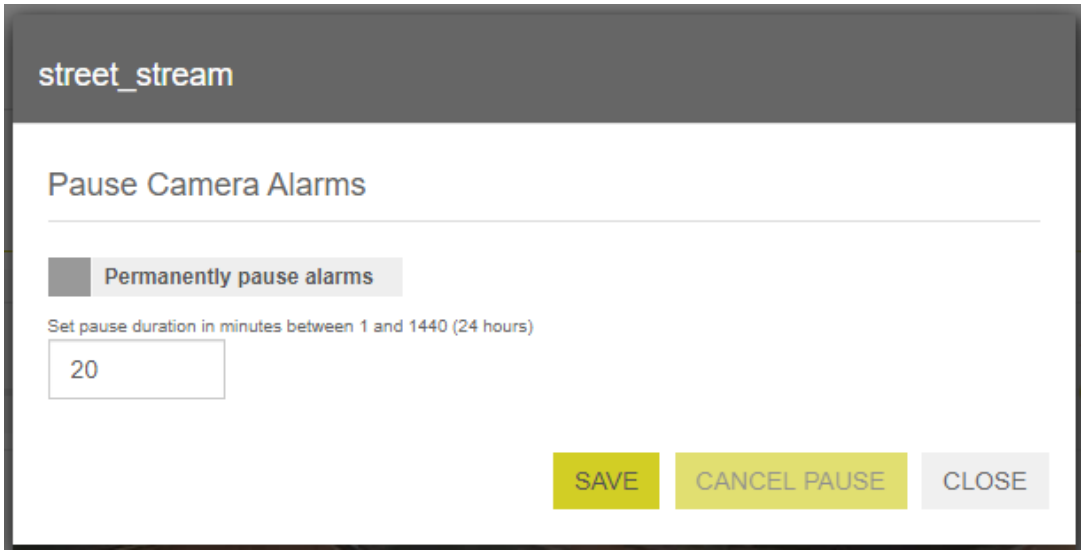
Functionality

1. Hover over a dot alarm to displays a video thumbnail

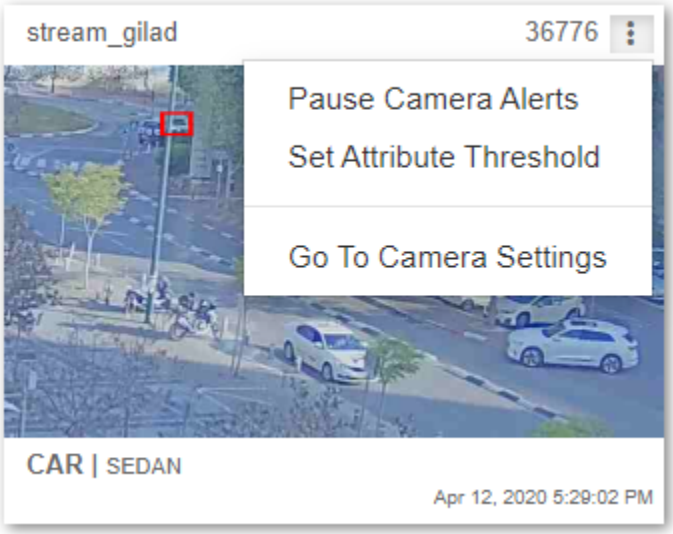


2. Click on the thumbnail to play the video segment.
    a. The name of the video and the URL of the server appears at the top-left corner
    b. The alert ID appears at the top-right corner.
    c. The date and time of the video
    d. The event that was selected appear at the bottom.

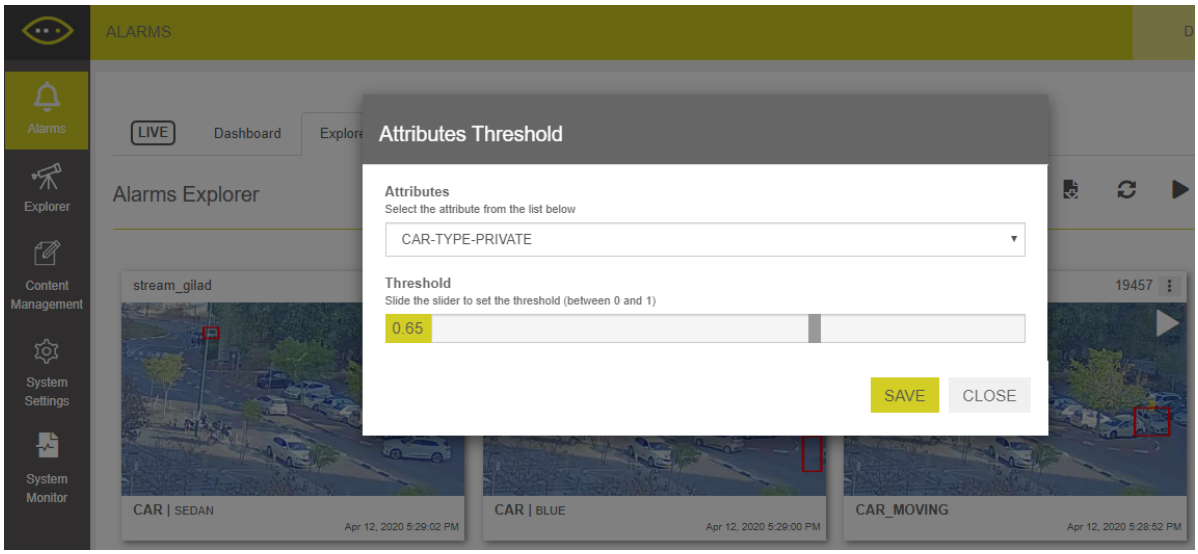
3. Click the three dots icon, at the top-right corner to:
    a. **Pause the camera alerts**
        i. The user can pause receiving alerts from a camera stream permanently or for a specific number of time, up to 24 hours
        ii. Click **SAVE** to save the new setting or **CANCEL PAUSE** to reinstate the alarm notifications.



    b. **Edit alarm**
    c. **Set attribute threshold (If relevant)**

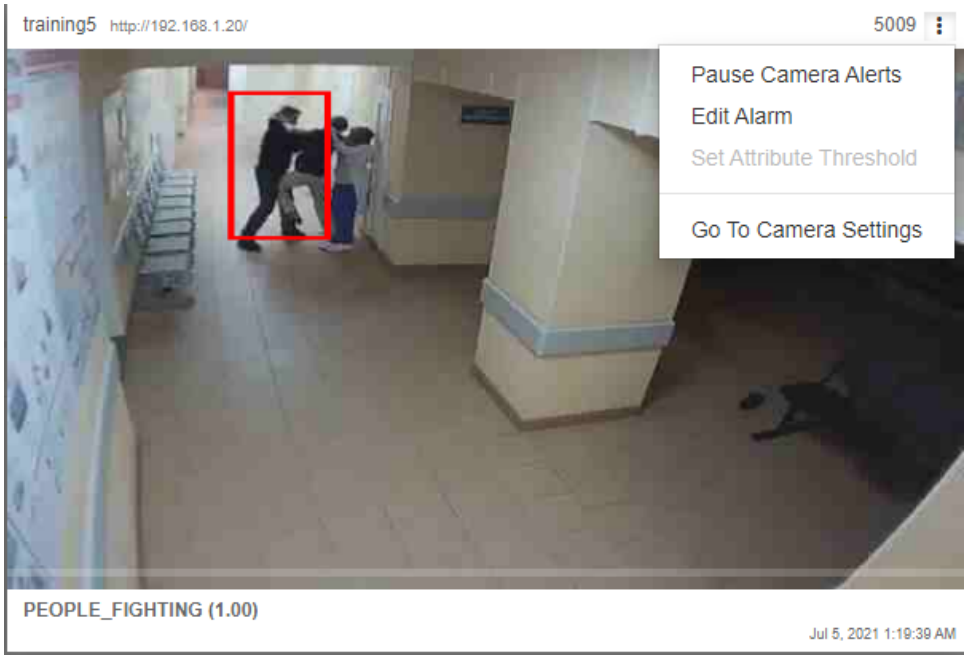


- The following displays –

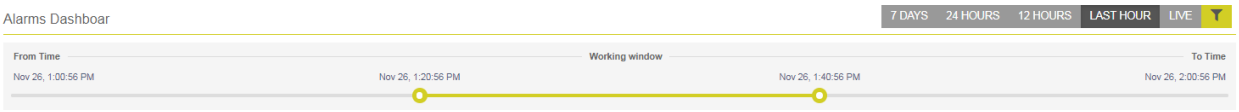


- Select the relevant attribute, and then set a new threshold by sliding the slider between 0-1 and then clicking **SAVE**.
- Setting an attribute threshold only affects the received alarms and not the system detection.
- A threshold attribute can also be set from the **Alarms Explorer** tab or from the **Threshold** tab in the stream settings.

Access the camera settings.

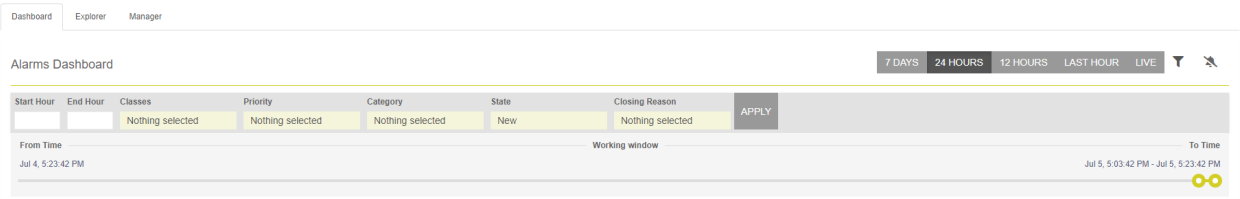


4. To select the time frame of the videos, click the options at the top-right corner or move the time bar.

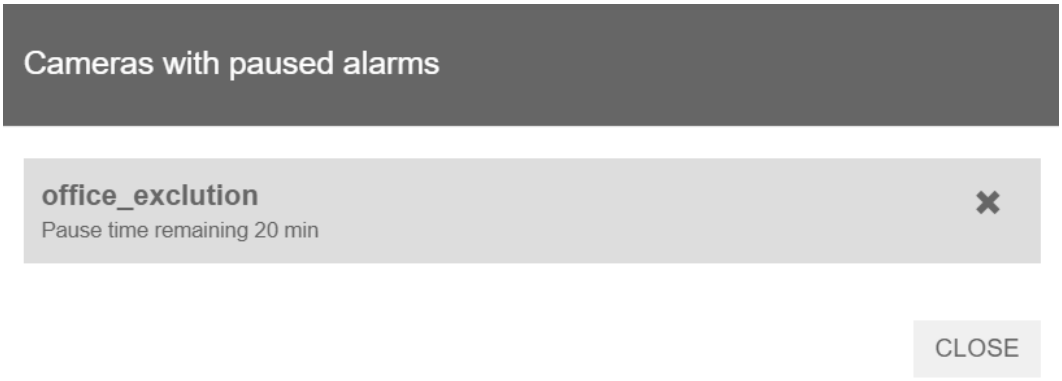


5. By clicking on the funnel icon - the user can filter the alarms by date, start & end hour, classes, cameras, priority, category, state and closing reason.

Click on the ‘APPLY’ button to apply any changes.

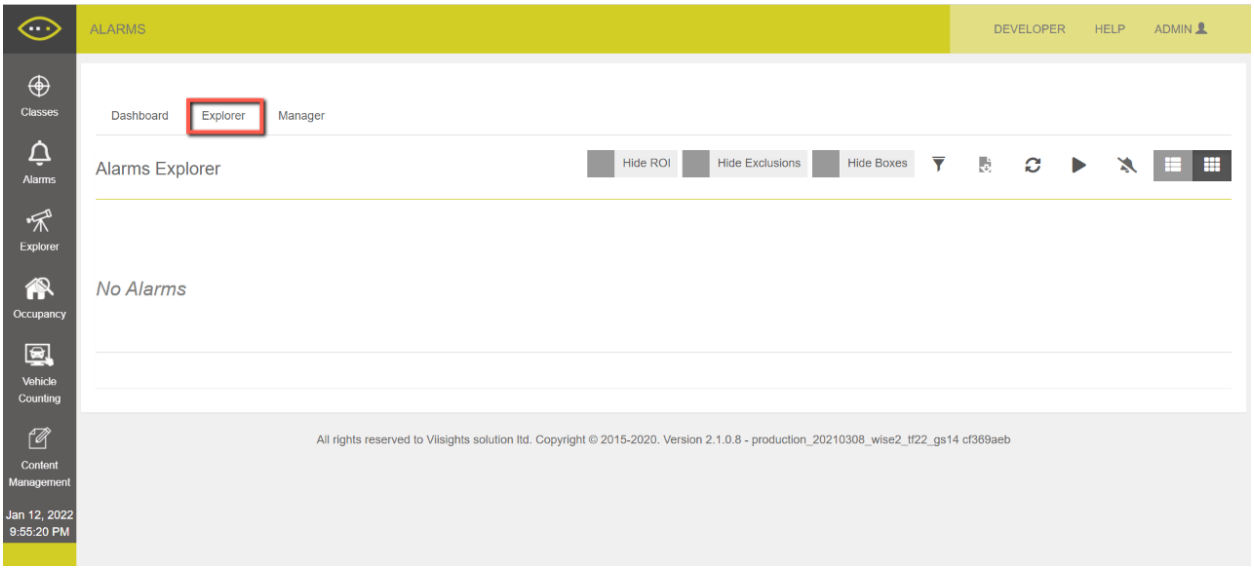


6. Click on the bell icon - to display a list of cameras with paused alarms.



Click the X button to disable the pause.

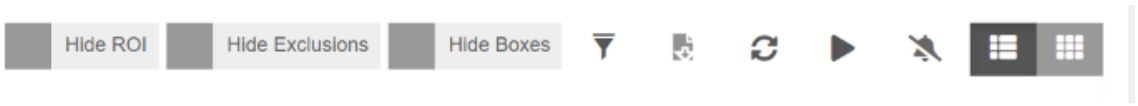
Explorer



UI Interface

The Explorer application is divided into two segments:

1. **Filtration Tools:**



Parameter Name	Description
Hide ROI	Remove the predefined Region of Interest
Hide Exclusions	Removes the stream's static predefined Exclusions
Hide Boxes	Removes the detection boxes from the alarm recording
Filter button	Provide additional filtration controls
Export to CSV	Exports the meta data to a CSV format
Refresh	Refreshes the alerts on the second segment
Auto Start Refresh	Auto start refreshing the clips
Paused Cameras	Opens a menu displaying steams that were paused by the user/system
List/Gallery View	Changes the display view of the second segment

2. **List/Gallery View** – Provides Meta data and a thumbnail display of the relevant alarm

Functionality

Basic operations

Click on the **start auto refresh** button - this will start showing new alarms as they are received by the system.

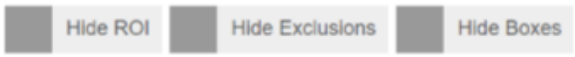
The user can filter the video streams in the display window, by clicking the **filter** button. Filtration can be done by the following parameters:

- Date
- Start & End hour

- Detection Classes
- Cameras
- Priority
- Category
- State
- Closing Reason

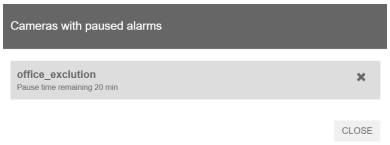
✅ Click on the ‘APPLY’ button to apply any changes.

The user can also select whether to hide the region of interest (ROI), the exclusions and boxes, as described in the **Locations tab**

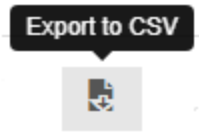


The user can manually refresh the page by clicking the Refresh icon.

The user can display a list of cameras with paused alarms - by click the bell icon - Click the **X** to disable the pause.



The user can generate a **csv** file containing the alarms by clicking the following button.



The user can change the page view layout using the option at the top-right corner.

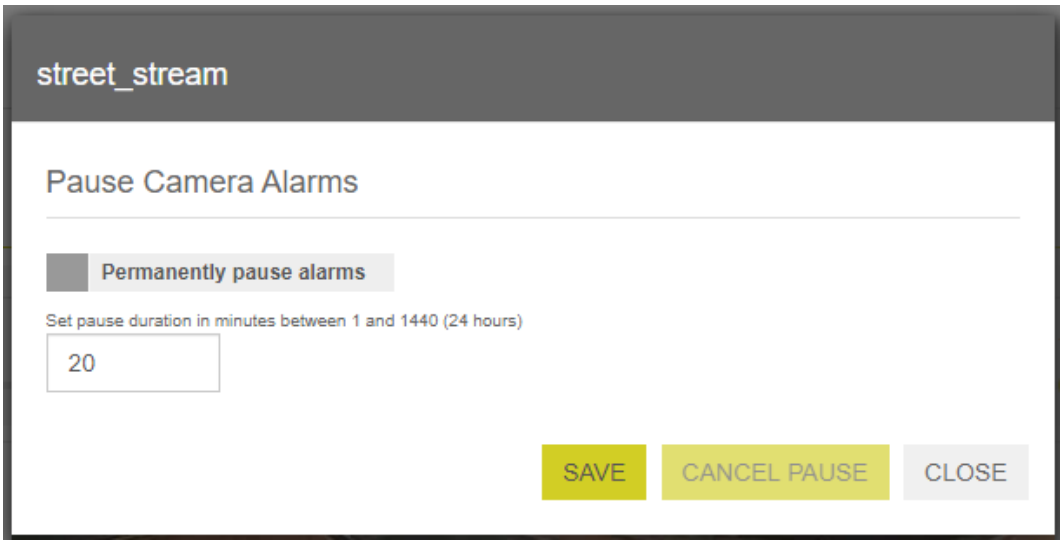
- A list display

- A gallery display

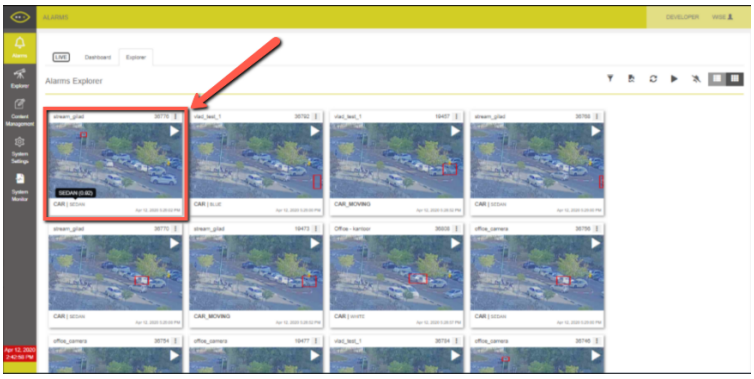
Pausing the Camera Alerts

The user can pause receiving alerts from a camera stream permanently or for a specific number of minutes, up to 24 hours.

Click **SAVE** to save the new setting or **CANCEL PAUSE** to reinstate the alarm notifications.

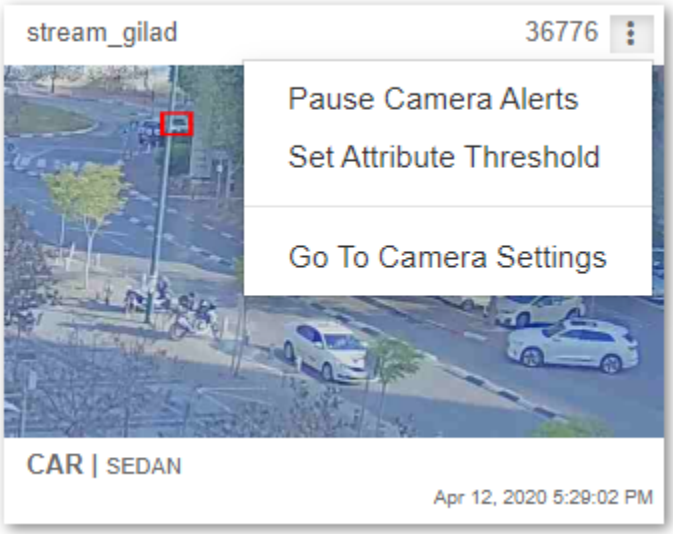


In both Alarm Explorer and Alarm Dashboard, the user can see the level of certainty of a detection. In the example below, the system has a 92% certainty of the **Sedan car** detection.

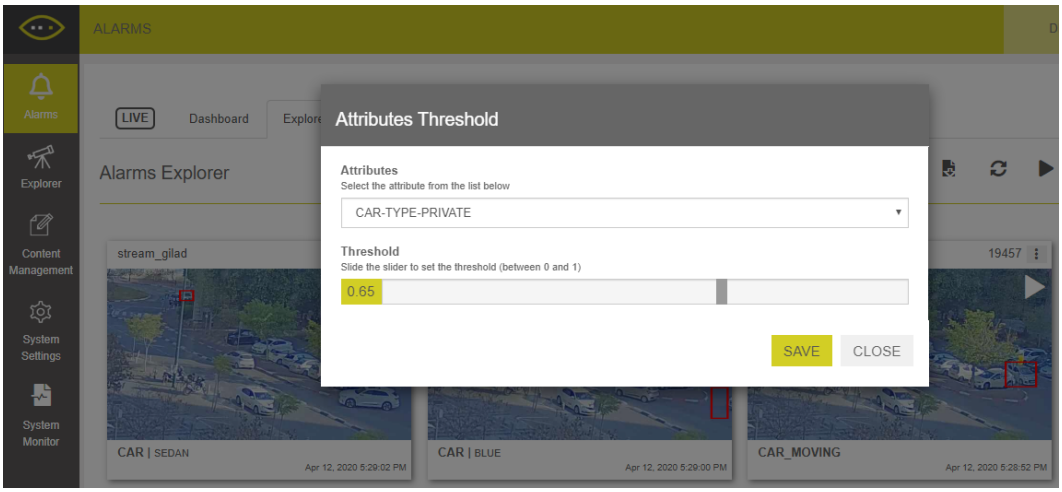


Set Attributes Threshold

1. Click the upper-right side, and then select - "**Set Attribute Threshold"**



The below following windows will display:



2. Set the relevant attribute threshold value you would like to set.

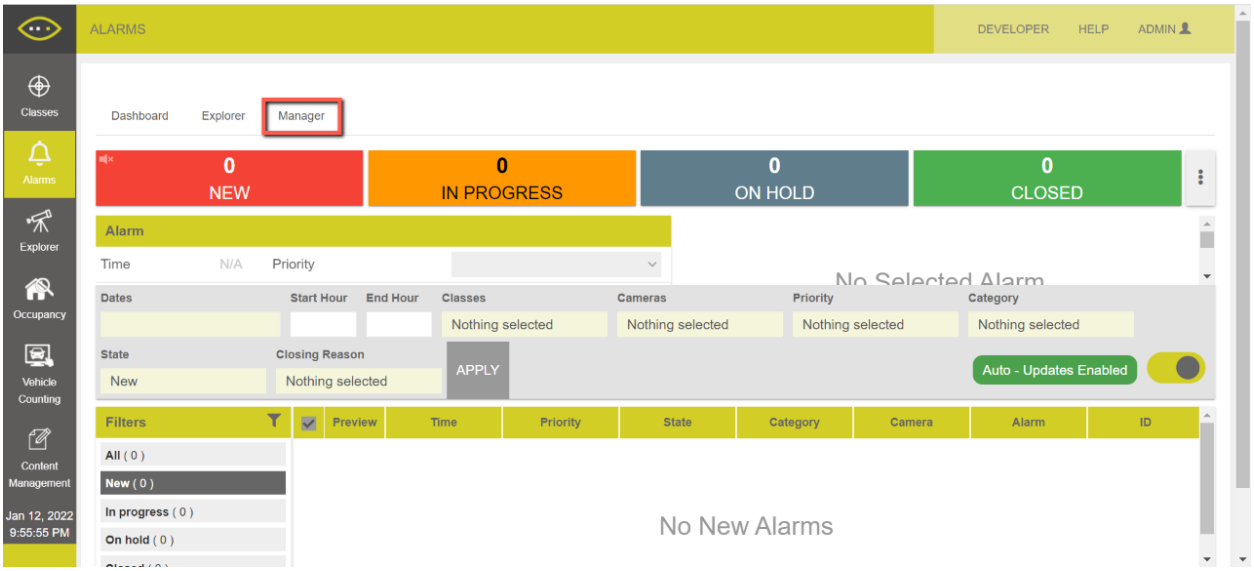
✅ Setting an attribute threshold only affects the received alarms and not the system detection mechanism.

➕ A threshold attribute can also be set from the **Alarms Dashboard** tab or from the **Threshold** tab in the stream settings

🛠️ The threshold ranges from 0 to 1, and acts as a identification filter, for example: if the threshold is set on 0.5 for car detections, then the alarms will only be displayed when the system is “sure” of a 0.5 or more certainty that the object is indeed a car.

Manager

The Manager application is divided into 4 segments:



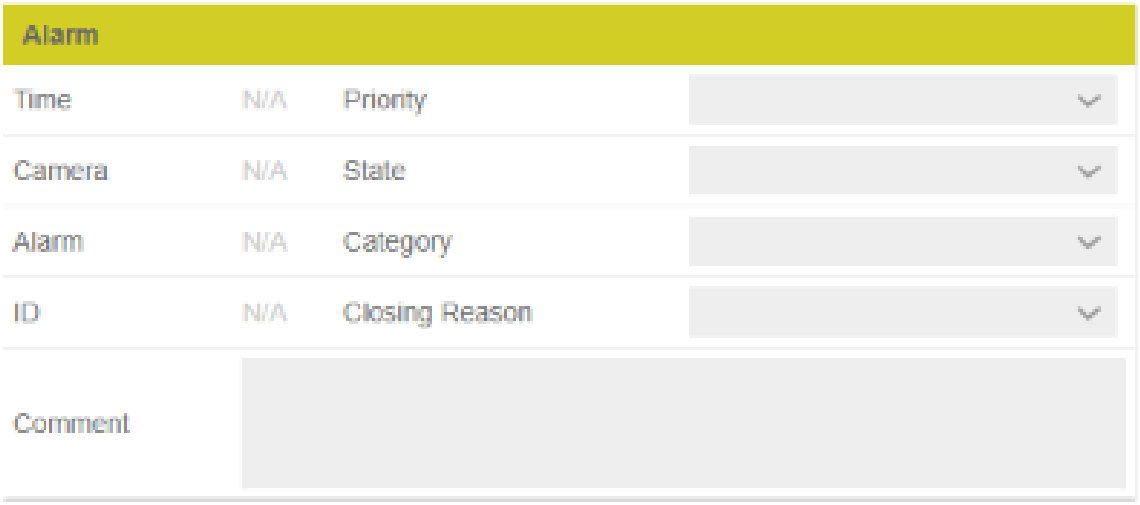
Colored Tile Alert Indicators

Color	Description
Red	New Alarms, that were not viewed by any user
Orange	Alarms that are currently in process, viewed by at least one user
Grey	Alarms that are on hold, to be processed at a later time
Green	Closed Alarms, dealt by the user

⚠ When new alarms are detected by the system, an animation of a siren appears, followed by a notification sound. The sound can be muted by clicking on the speaker icon.

Alarm’s Meta Data

Provides property data associated with the alarm and enables the user to modify some of them.



Property Name	Modification	Description
Time	**No**	Date & Timestamp of the alarm
Camera	**No**	Name of the Camera
Alarm	**No**	Type of the Alarm
ID	**No**	Unique ID of the alarm
Priority	**Yes**	High/Medium/Low
State	**Yes**	New/In Progress/On Hold/Closed
Category	**Yes**	Cars/People
Closing Reason	**Yes**	If alarm was closed, add infomration
Comments	**Yes**	Allows the user to add comments

Alarm clip Vs. Live Stream

Provides two distinct video displays:

- The relevant alarm clip– 3 seconds prior & after the triggered event
- The current live stream coming from the same camera

Filtration Tools & Meta Data Table

Filtration bar

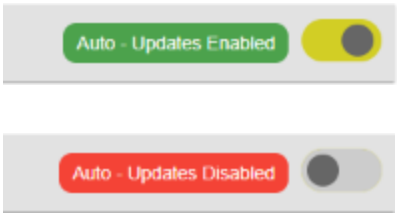
The User can filter alarms by the following parameters

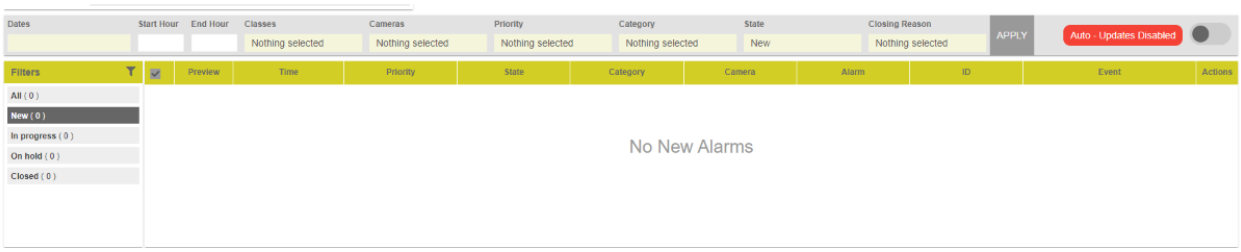
Property Name	Description
Dates	Filter between a range of dates
Start Hour	Filter from starting hour
End Hour	Filter from ending hour
Classes	Filter according to class
Cameras	Filter according to certain cameras
Priority	Filter according to priority
Category	Filter according to category
States	Filter according to states
Closing Reason	Filter according to closing reason

⚠️ Click on the ‘APPLY’ button to apply any changes

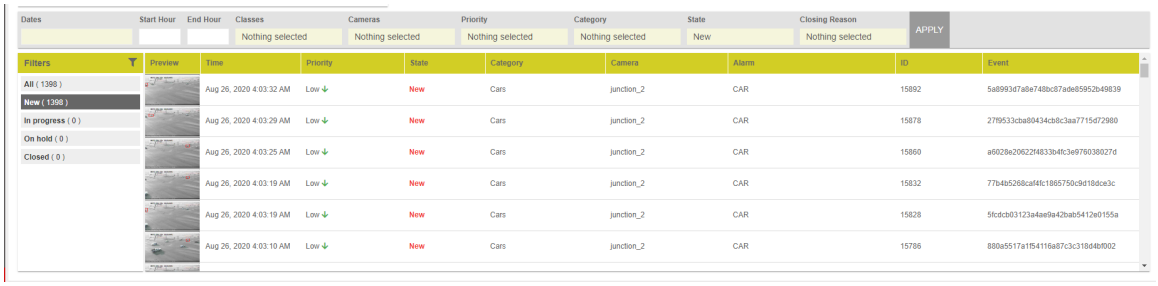
Auto Update toggle button

⚠ When enabling the “Auto - Update” toggle button, alarms will be displayed automatically on the Meta data table, else the alarms will not registered





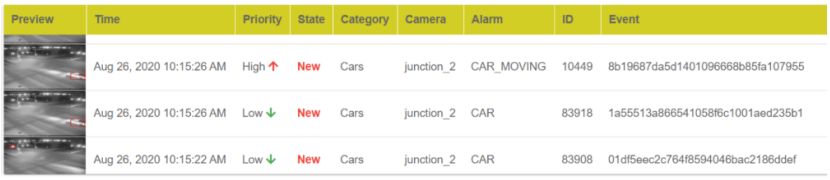
Meta Data Table



Data Table

The meta data table displays alarms that were received by the system. The table consists of a thumbnail preview of the alarm, as well as the following additional parameters:

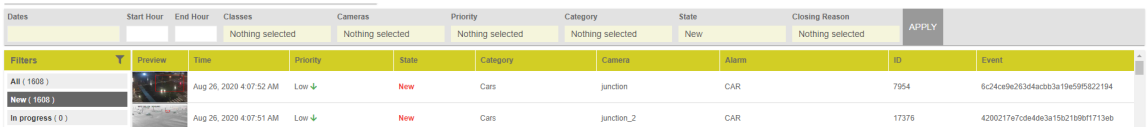
- Time
- Priority
- State
- Category
- Camera



- Alarm ID
- Event ID

Left side filter menu

The user can filter alarms as a function of the alarms' state.



⚠️ Only alarms with the given state will be shown

Functionality

Changing details on a specific alarm

When the user clicks on one of the alarms, the details of the specific alarm are shown in various locations:

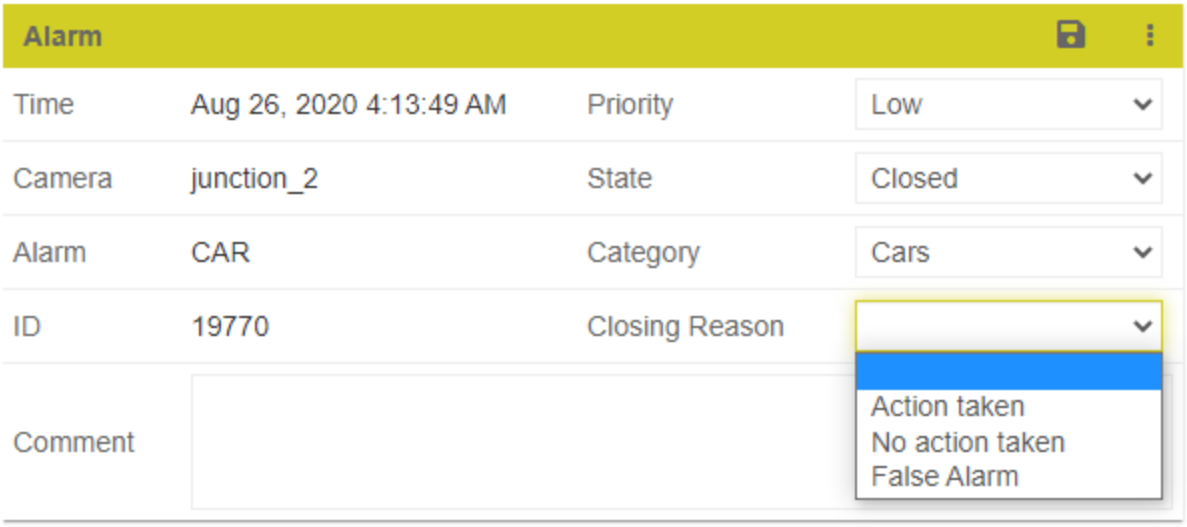
Alarm's Meta Data

Alarm Clip

Live Stream

The user can then :

- Leave a comment
- Change the priority/State/Category of the alarm
- When the users want to close an alarm, they can provide a reason for closing it

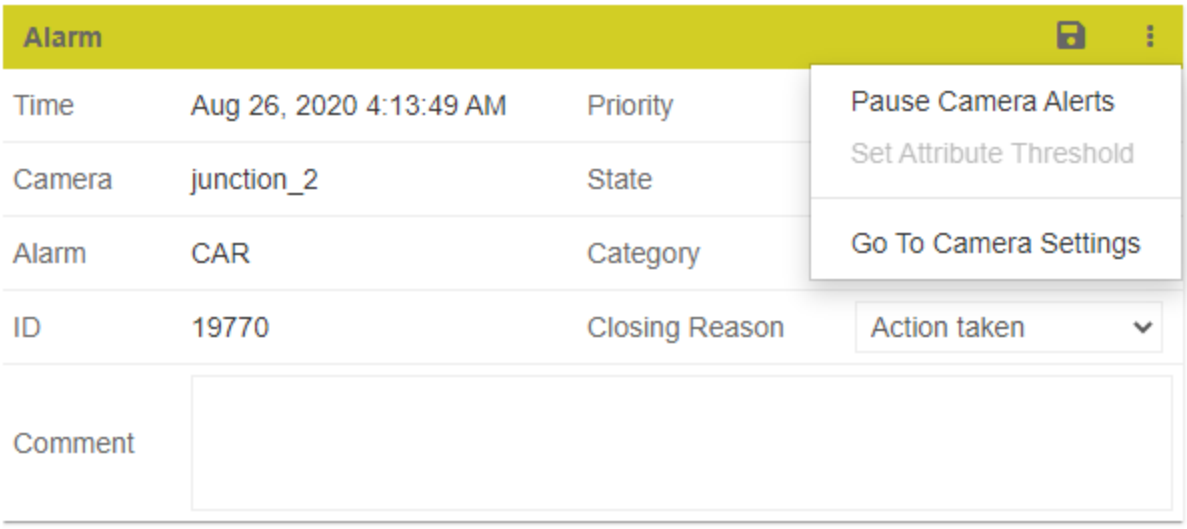


Save the changes by clicking on the save icon

Camera Operations

Clicking on the three dotted button, provides the user with various options to preform:

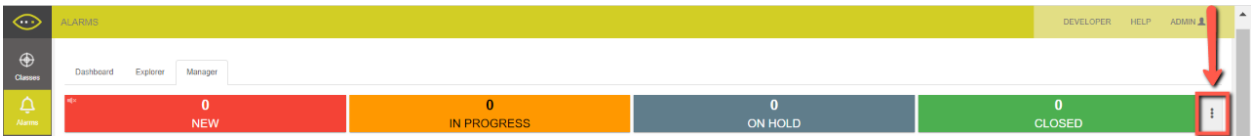
- Pause receiving alarms from a specific camera
- Set attribute and threshold
- Browse to the camera settings



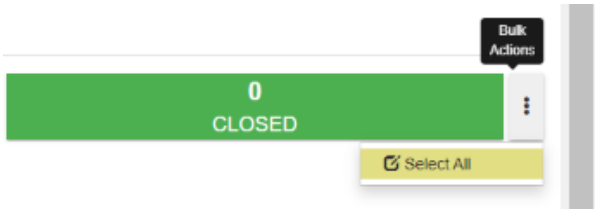
Alarm Bulk Update Operation

The user can update all of the alarms in bulk, changing up to 1000 alarms at once.

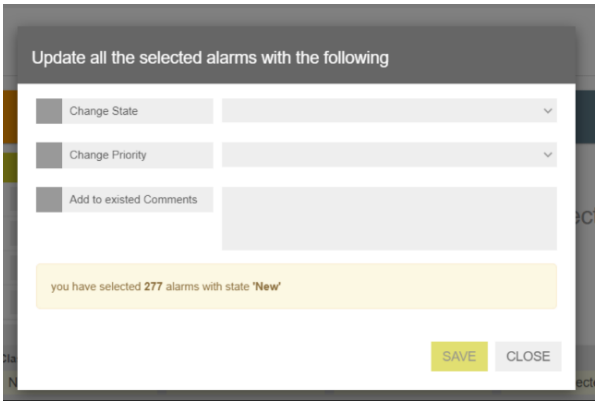
1. Click on the three dotted button



2. Click on the 'Select All'

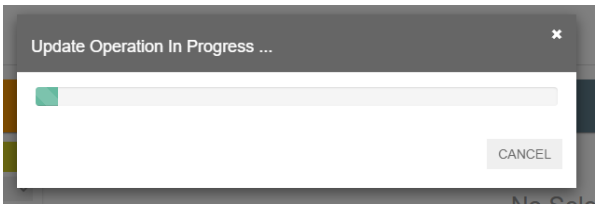


3. Change the relevant details:
    a. State of the alarms
    b. Priority of the alarms
    c. Add comments

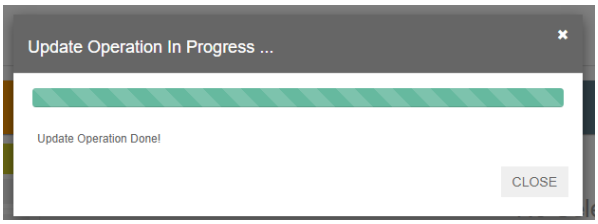


4. Click on the 'SAVE' button.

5. After saving the changes, will see the following status bar



6. Once finished, the status will look like this.

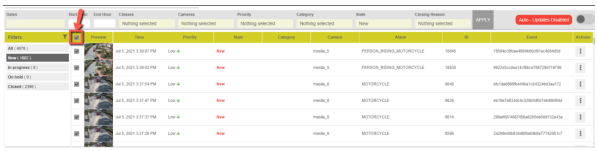


Alarm Bulk Update Operation - from Meta Table

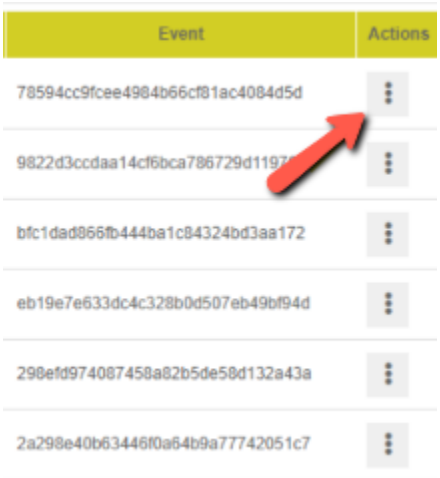
1. Select the main check box or the relevant alarms

2. A popup window will appears, querying if to select the first 100 alarms, or all available alarms

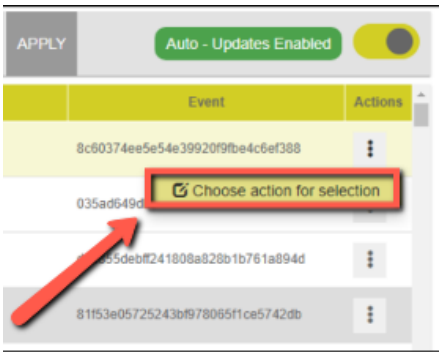
3. After selecting the relevant choice, the windows disappears and the requested alarms will be marked



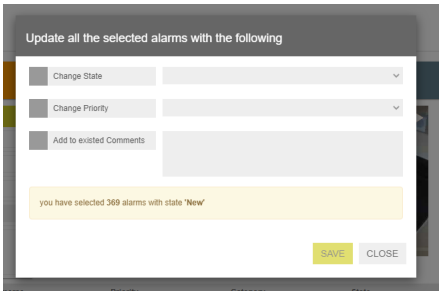
4. Click on the three dotted button



5. Click on 'Choose action’ for selection' button

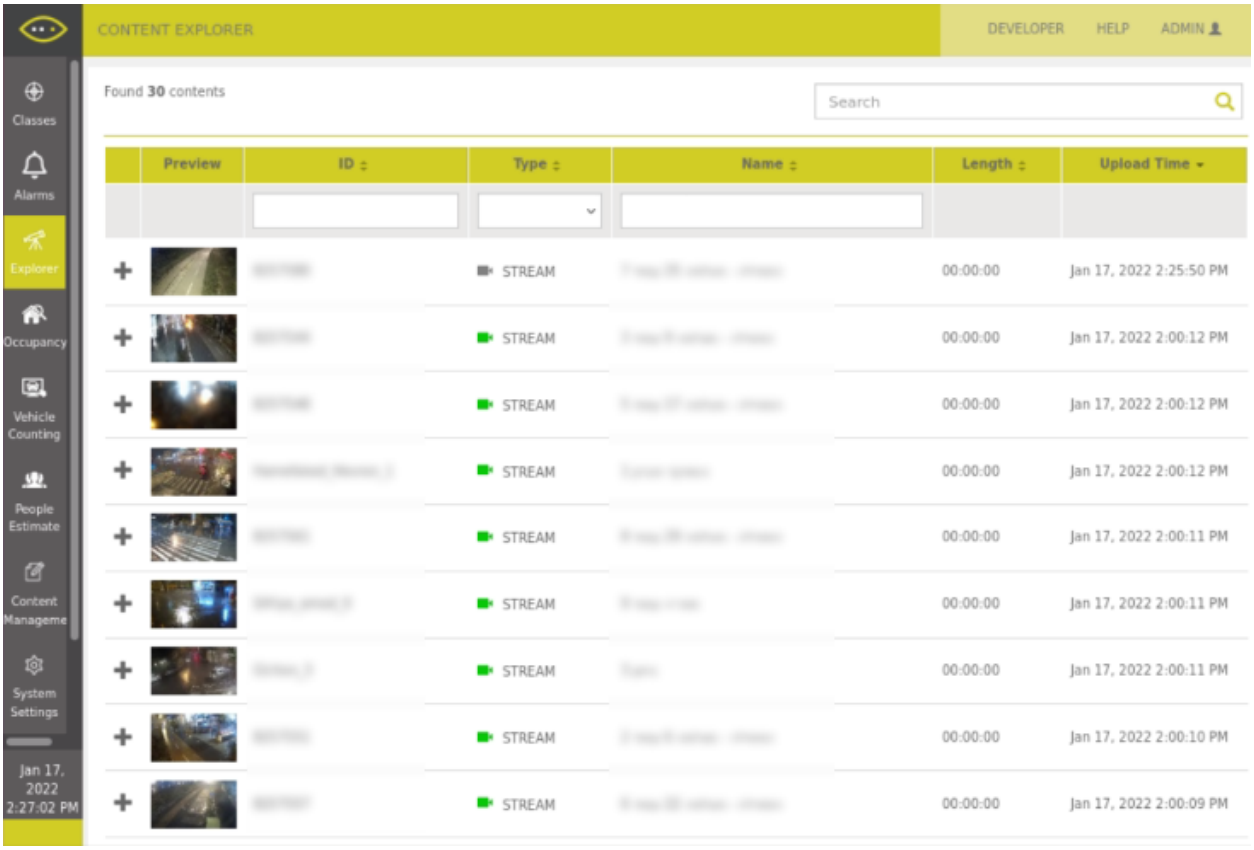


6. The following will appear.



7. Next configuration steps are similar to previous section

3 - Explorer



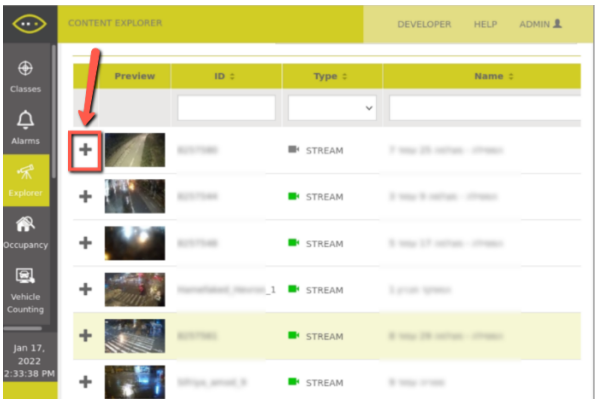
The Explorer lists the Realtime and past streams, that were processed by the system.

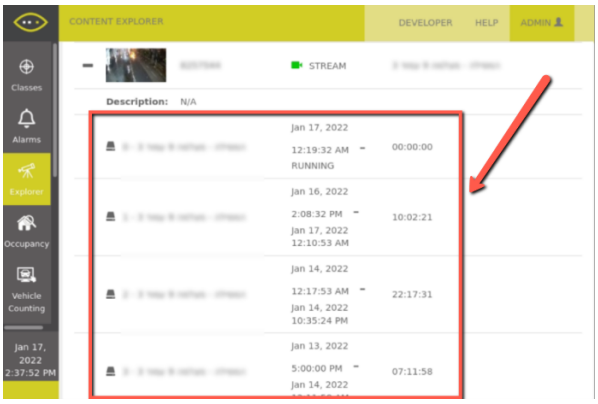
> ⚠️ The past streams time period is defined in the Retention tab.

- Each time either the API or the user, stop a video stream, a new video clip is saved.

- Clicking the **+** icon, will reveal and list all of the relevant video clips associated to the same video stream.

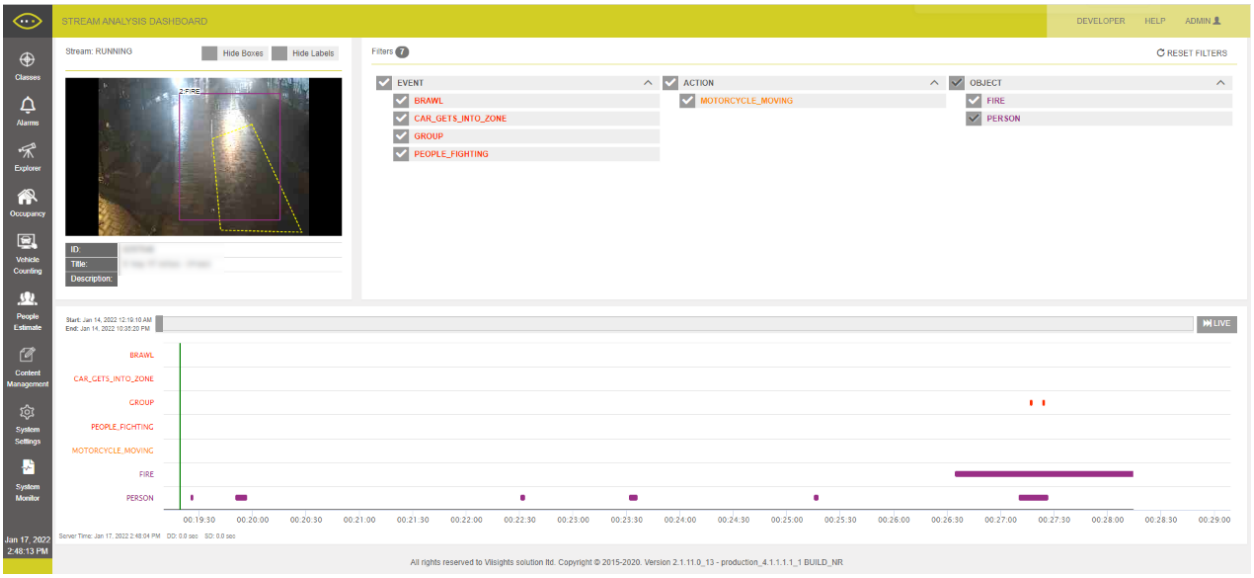
The example below shows multiple video clips from a single video stream





Analysis Dashboard

Upon double clicking on one of the video clips, the **Stream Analysis Dashboard** will appear.



- When clicking on a detected class (e.g. a purple bar segment) in the **Detection Graph**, this will synchronizes the Video Player to the position in which the class was detected, as well as draws the Boundary Boxes of the selected class.

4 - Occupancy

Occupancy

The occupancy application allows the system to detect and count the amount of people crossing a virtual line. The static virtual yellow line is plotted on the video stream - enabling the system to keep track on the amount of people entering and existing a specific area.

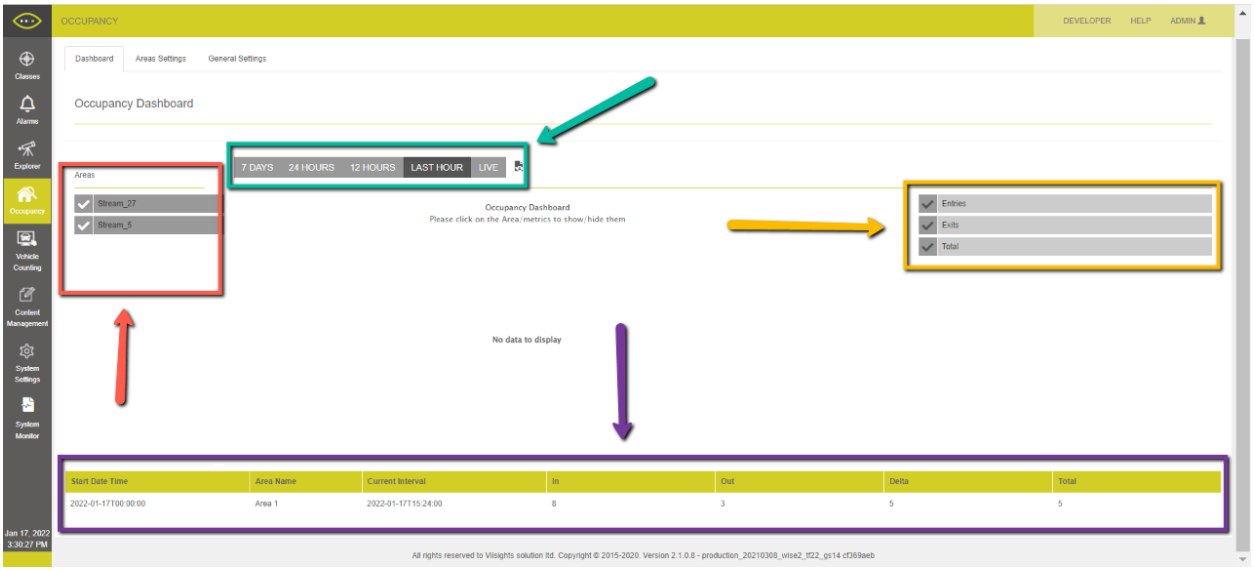
Prerequisite

⚠️ Before getting started - make sure that you have set-up the Occupancy Location setting

Dashboard

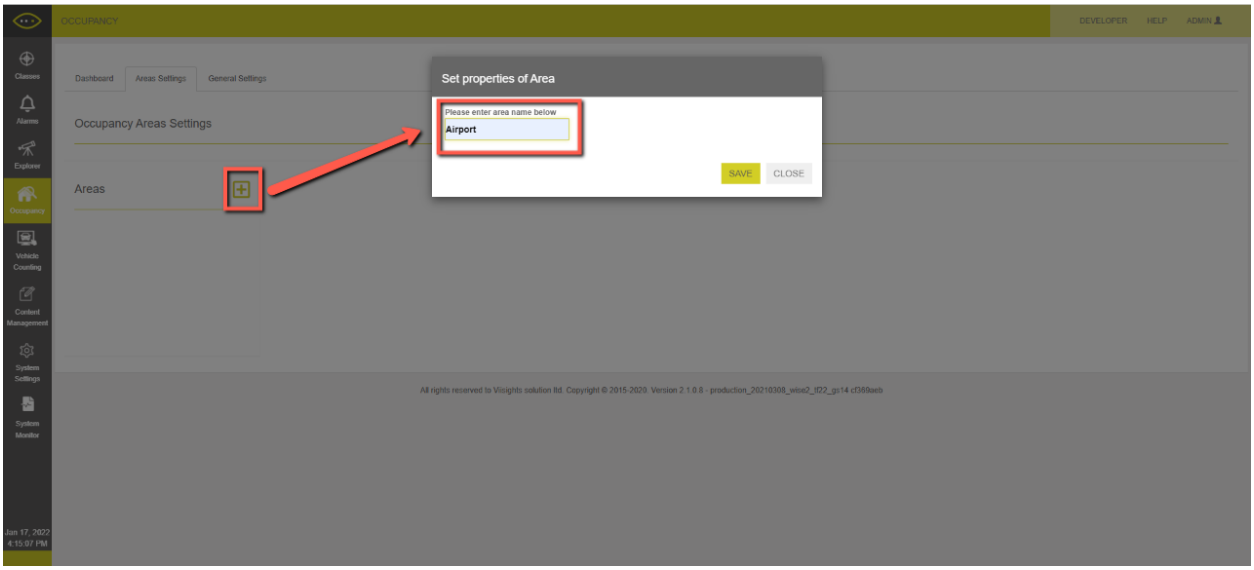
1. The Area section displays a **list of cameras** - the user can select individual or multiple cameras to view the various occupancy aggregated data
2. The user can filter the aggregated data according to **live, last hour/12/24 hours or last 7 days.** In addition the user can **Export the data to a csv file**
3. The user can filter the aggregated data according to **entries, exits and the total** amount of occupancy from the Area selection

4. The dashboard table displays the **aggregated data from Area selection camera**

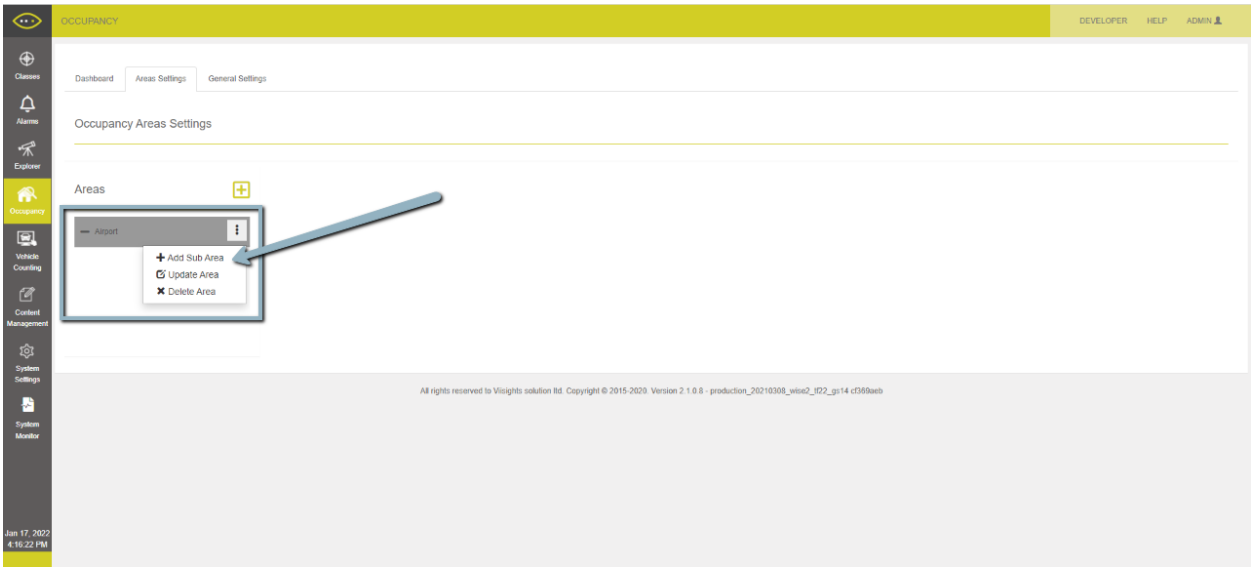


Area Settings

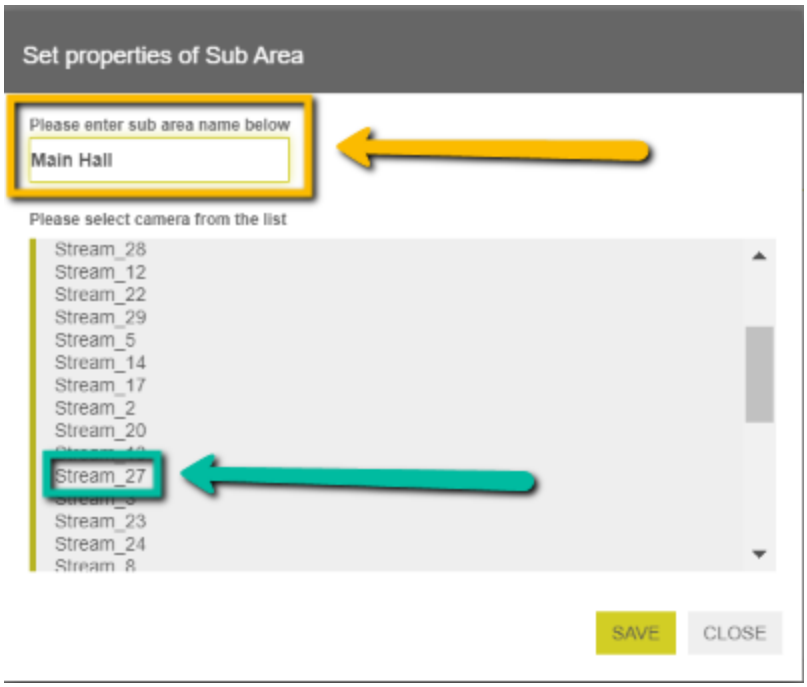
1. Add a new Area Name - e.g. **Airport**



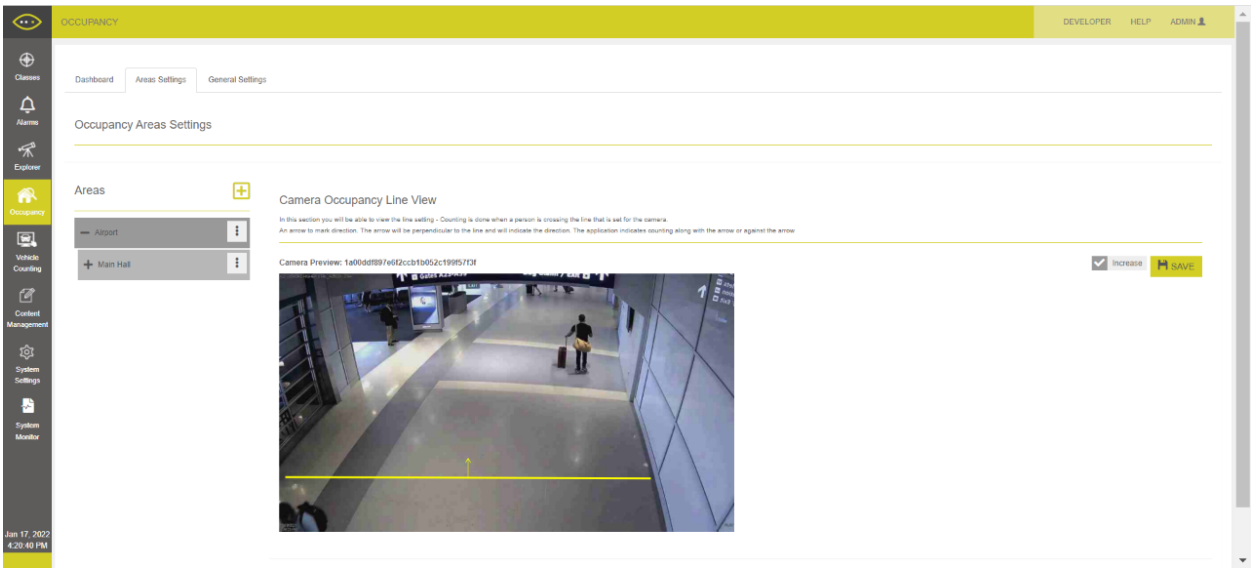
2. Under the New Area Name, click on the **Three dots icon**



3. Add your **S**ub-Areas - e.g. **Main Hall** & choose the associated **video stream** - e.g. Stream_27



4. Click on Save

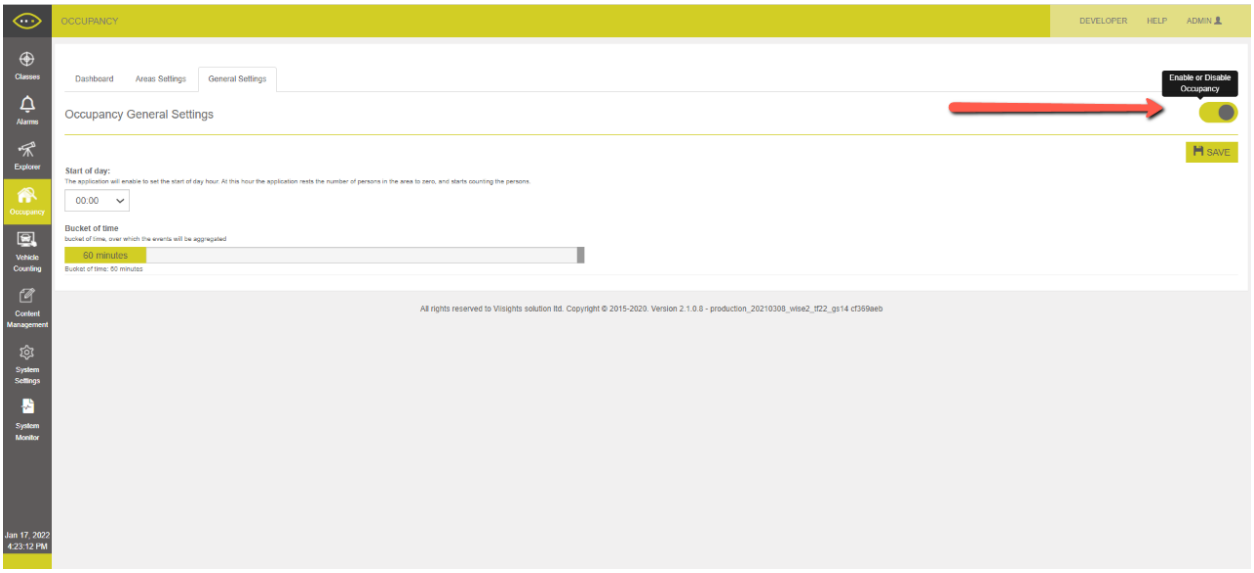


General Settings

The user can configure 3 main settings on the occupancy application:

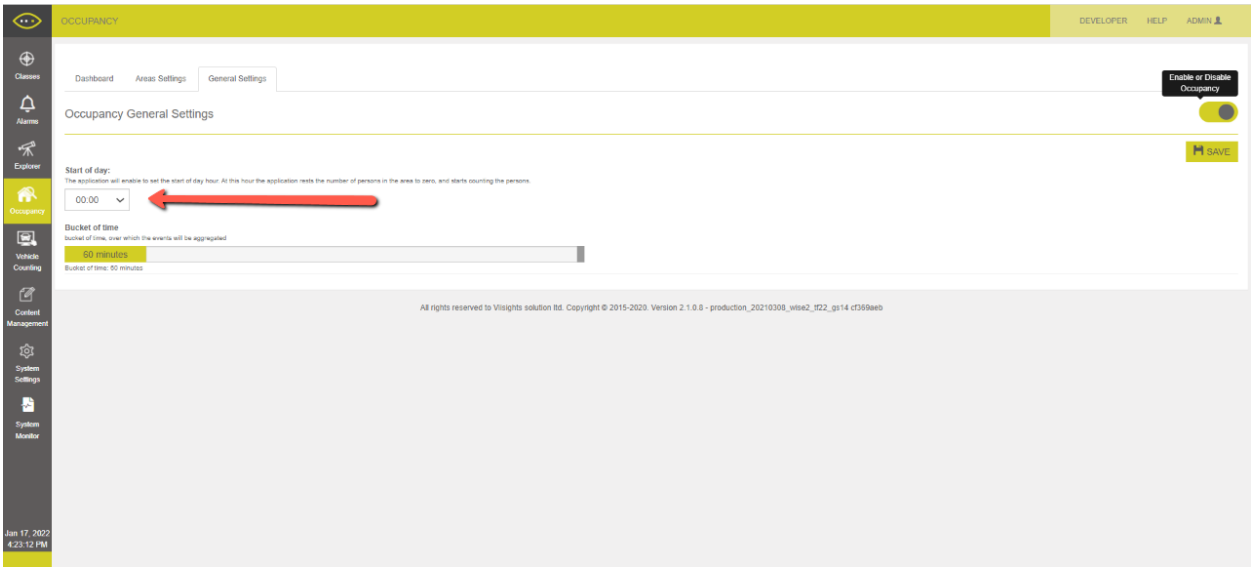
1. **Enabling Occupancy Application**

A simple toggle button controller to either enable or disable the occupancy application for the specific running wise instance.



2. **Start of Day**

   Defining when the day starts - at the defined hour, the application initializes the amount of detected people in the area (both “INs” and “Outs”, starting the count again from zero.



3. **Bucket of Time**

   Defining the period of time which the count get aggregated

5 - Vehicle Counting

The Vehicle Counting application allows the system to detect and count the amount of vehicles crossing a virtual line. The static virtual yellow line is plotted on the video stream - enabling the system to keep track on the amount of vehicles crossing threshold.

Prerequisite

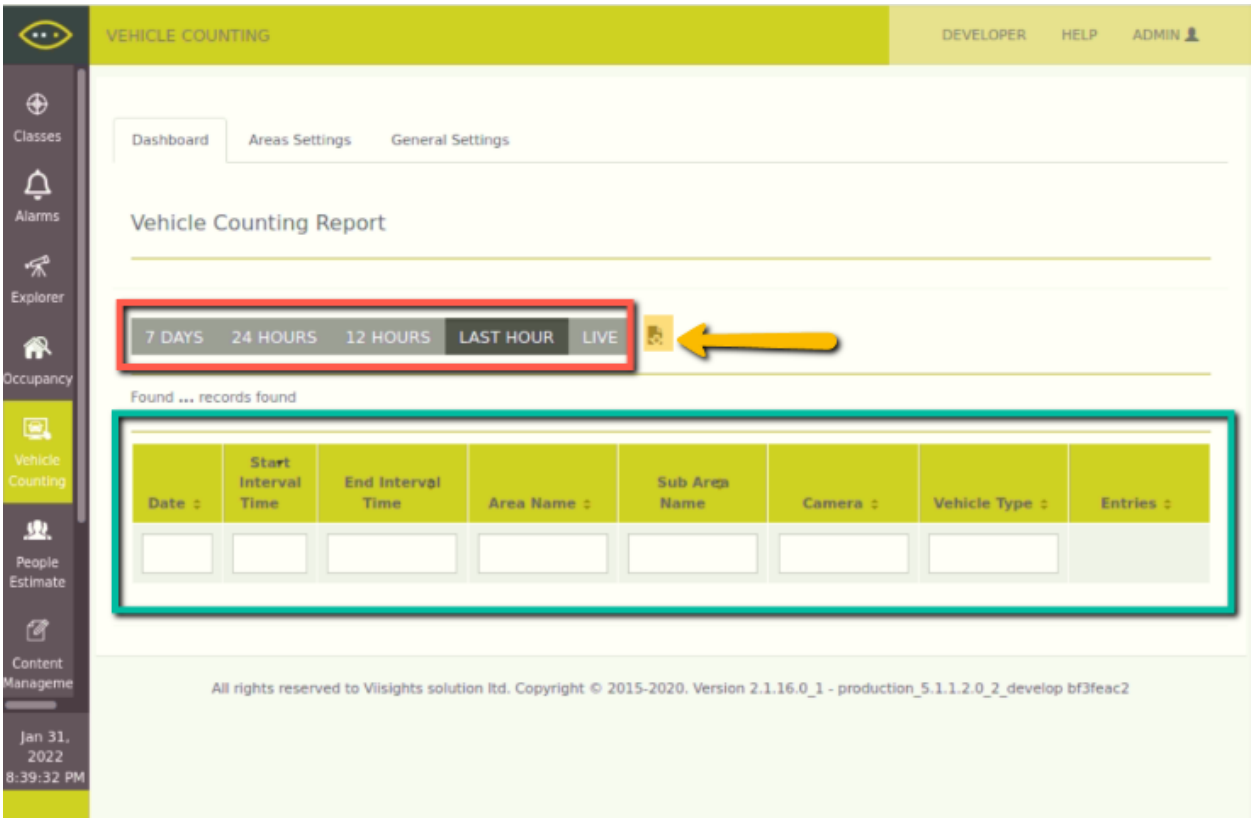
- Make sure that you have set-up a static yellow line in Location setting on the relevant camera stream
- Create a profile in the System Settings - enabling **Car_In / Car_out** Events

Dashboard

The dash board tab is divided into three sections:

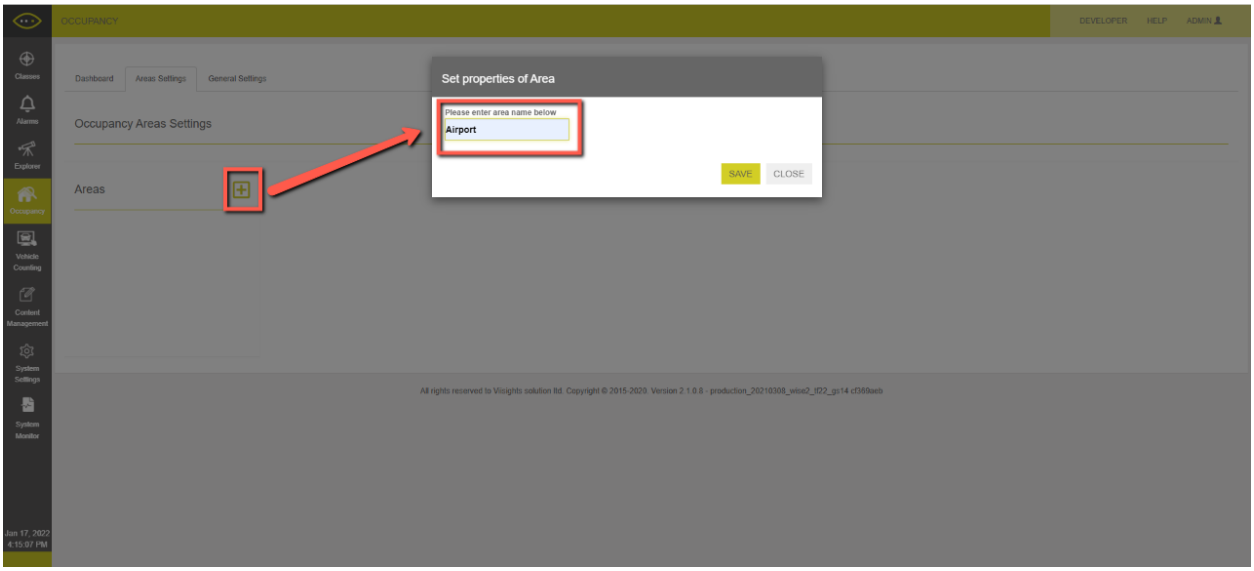
- **Time Filtration Tool** for the vehicle Counting Report - allows the user to filter out the report according the following options: 7 days, 24 hours, 12 hours, last hour or a live view
- **CSV Export Button** allowing the user to export the below meta data table of the report

- **Meta Data Table** - includes all of the relevant Vehicle Counting Report information.

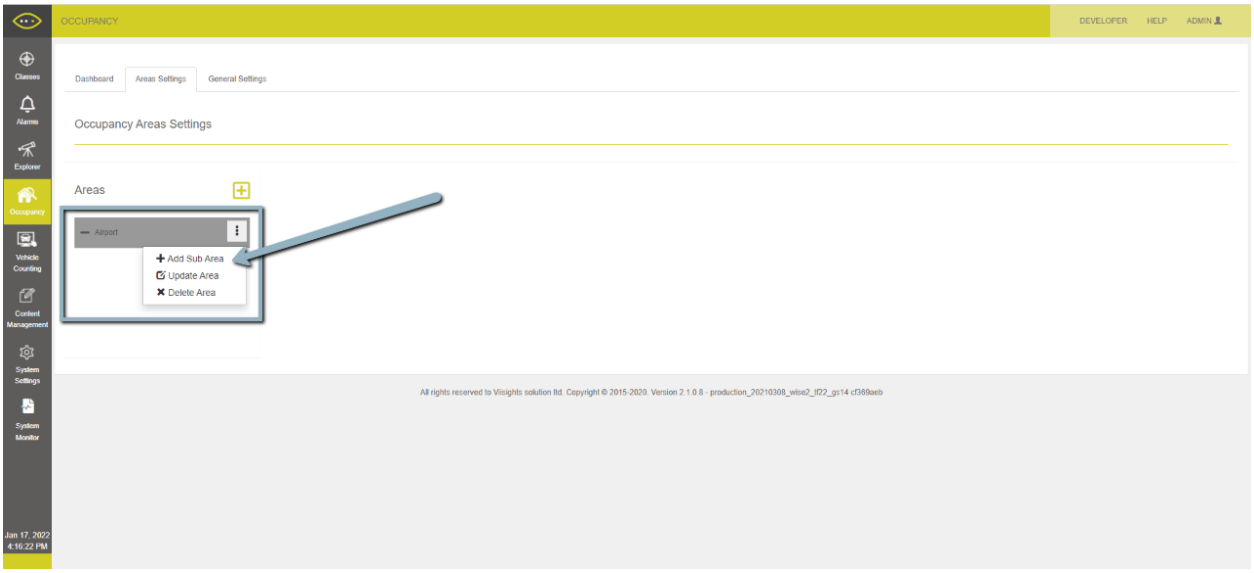


Area Settings

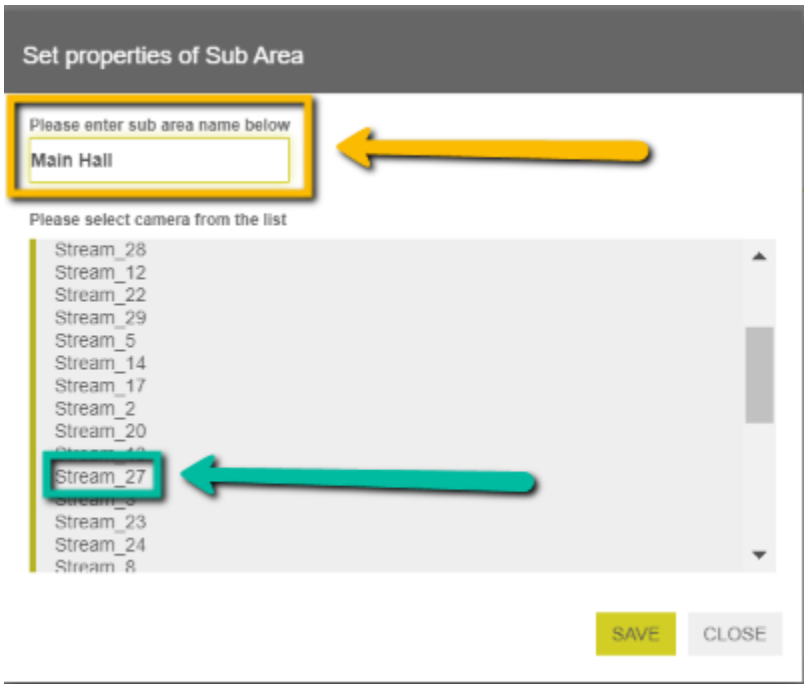
1. Add a new Area Name - e.g. **Airport**



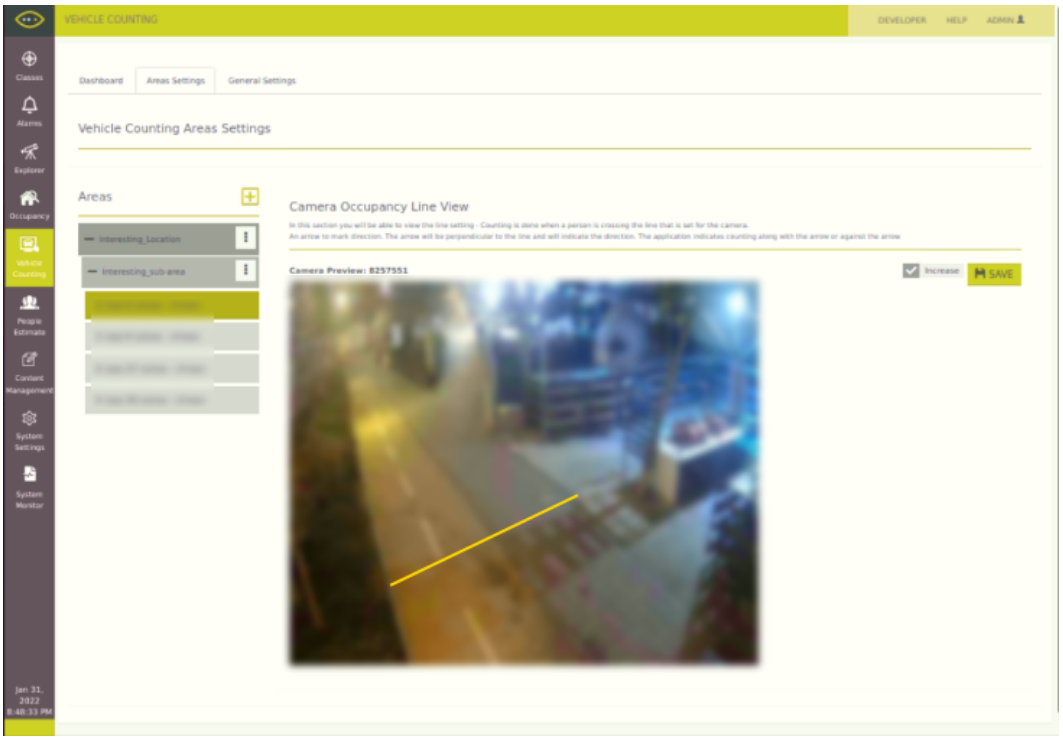
2. Under the New Area Name, click on the **Three dots icon**



3. Add your Sub-Areas - e.g. **Main Hall** & choose the associated **video stream(s)** - e.g. Stream_27



4. Click on Save

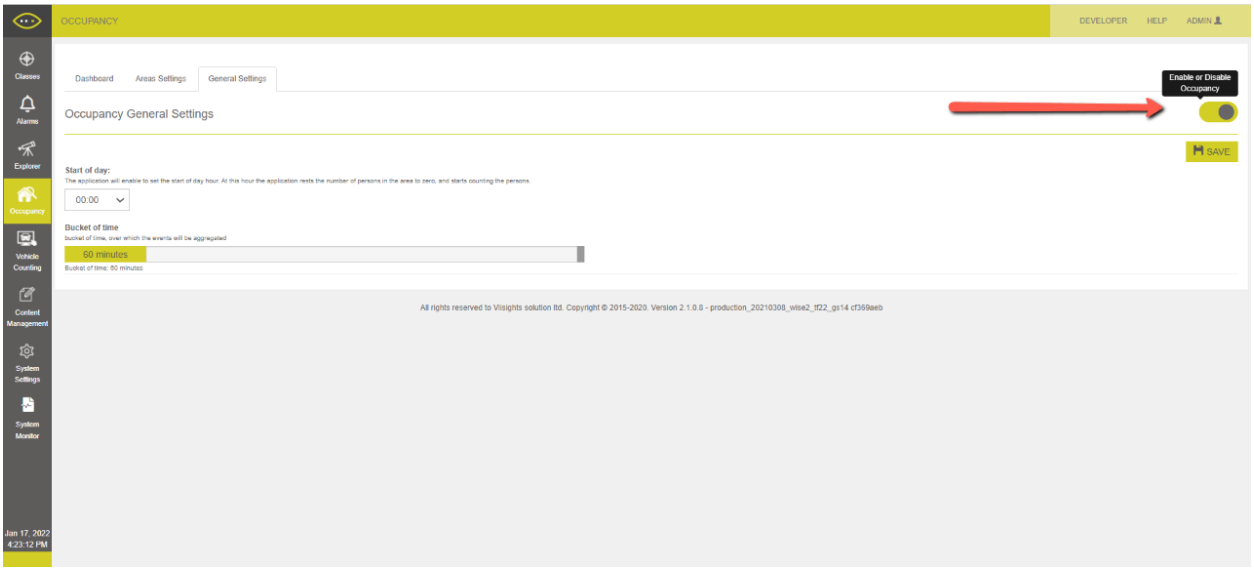


General Settings

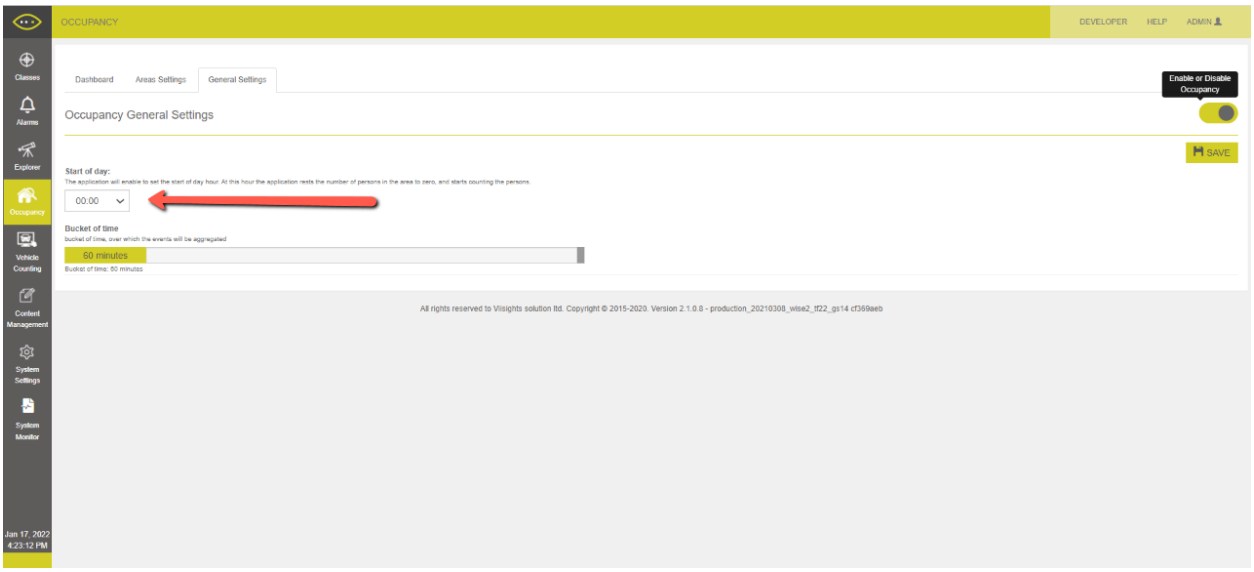
The user can configure 3 main settings on the occupancy application:

1. **Enabling Vehicle Counting Application**

A simple toggle button controller to either enable or disable the occupancy application for the specific running wise instance.



2. **Start of Day**
   Defining when the day starts - at the defined hour, the application initializes the amount of detected people in the area (both “INs” and “Outs”, starting the count again from zero.



3. **Bucket of Time**

   Defining the period of time which the count get aggregated

6 - People Estimate

The People Estimate application allows the system to estimate the amount of people during a customizable interval of camera footage. The application has various controls that allows the user to fine tone the people estimation amount in the video stream.

Prerequisite

- Make sure that you added the “People_Counting” class under the “scene” class type in your camera/stream’s profile

Dashboard

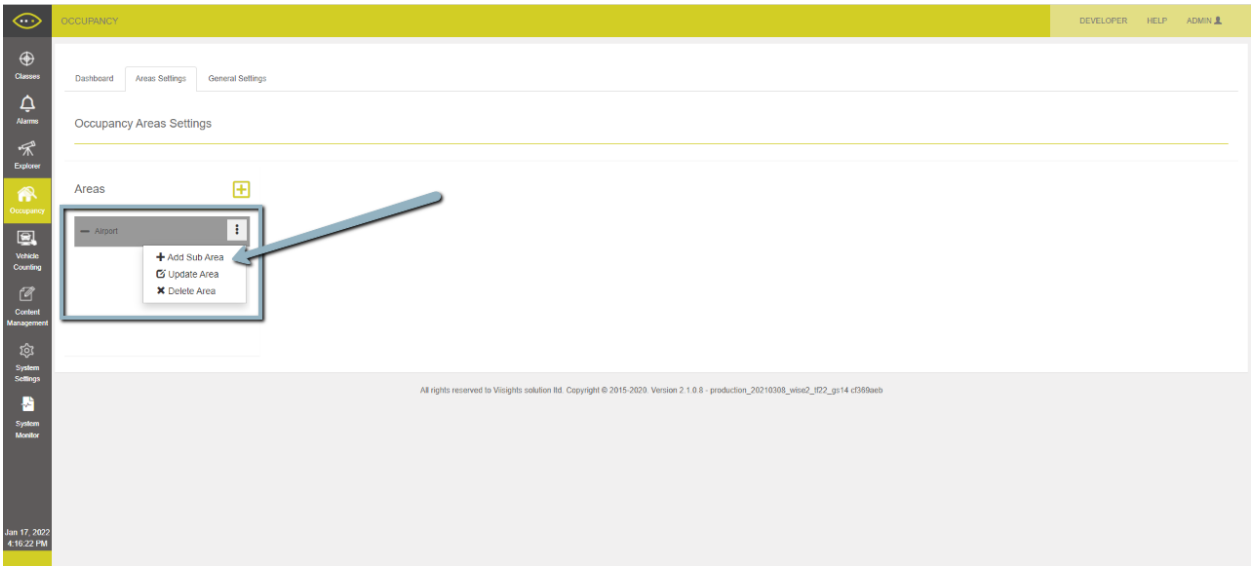
The dash board tab is divided into three sections:

- **Upper controllers** - allows the user to filter out the different stream lists, collapsing them and pausing/ initializing the live analytics
- **Legend information** - provides a visual color code manifestation of the analytics
- **Timeline tool -** allows the user to change the 24 hour period of the analytics through a range
- **Analytics Table** - Provides a bar visual indication of the people estimate measurement as a function of the time

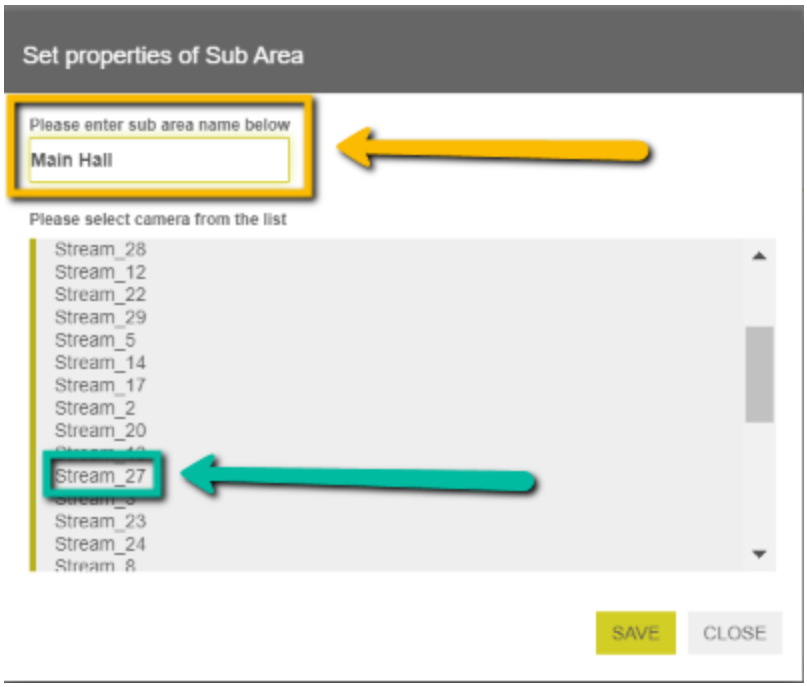
Stream Settings

The stream settings tab allows the user to define and add cameras to the people estimate analytics

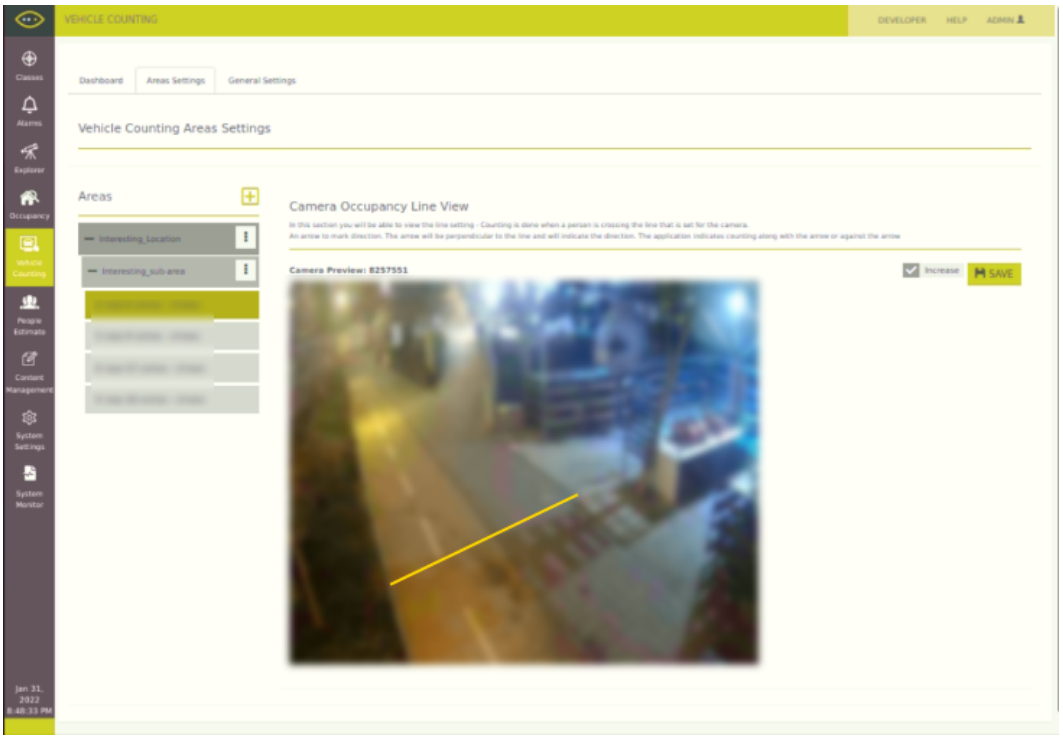
1. Add a new Area Name - e.g. **Airport**
2. Under the New Area Name, click on the **Three dots icon**



3. Add your Sub-Areas - e.g. **Main Hall** & choose the associated **video stream(s)** - e.g. Stream_27



4. Click on Save

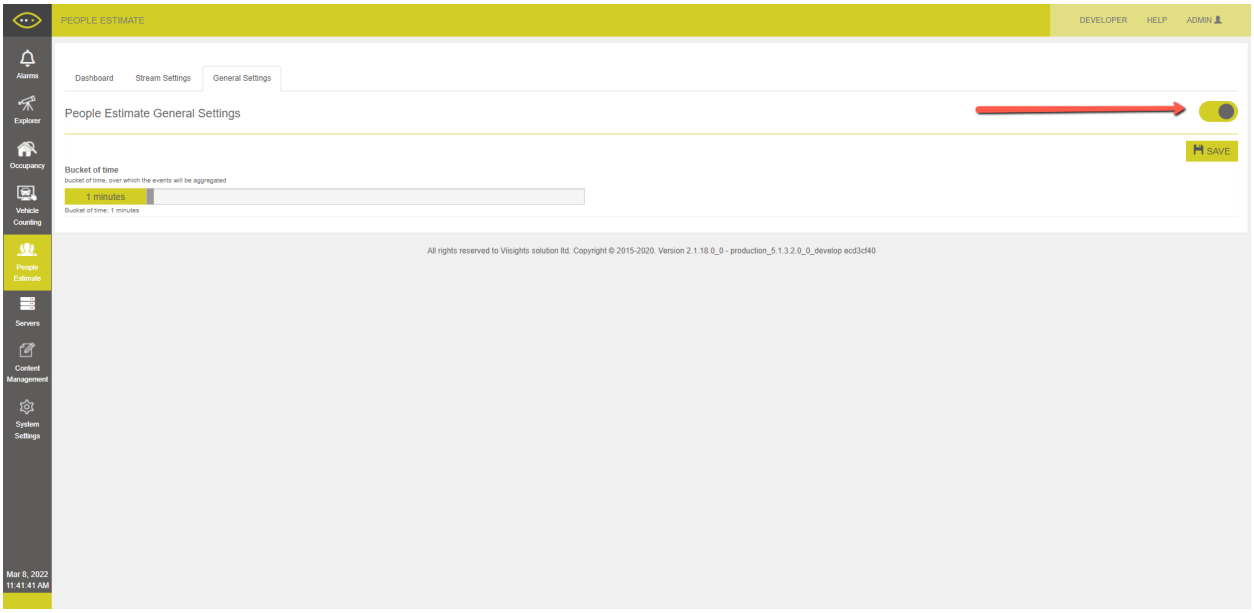


General Settings

The user can configure 3 main settings on the occupancy application:

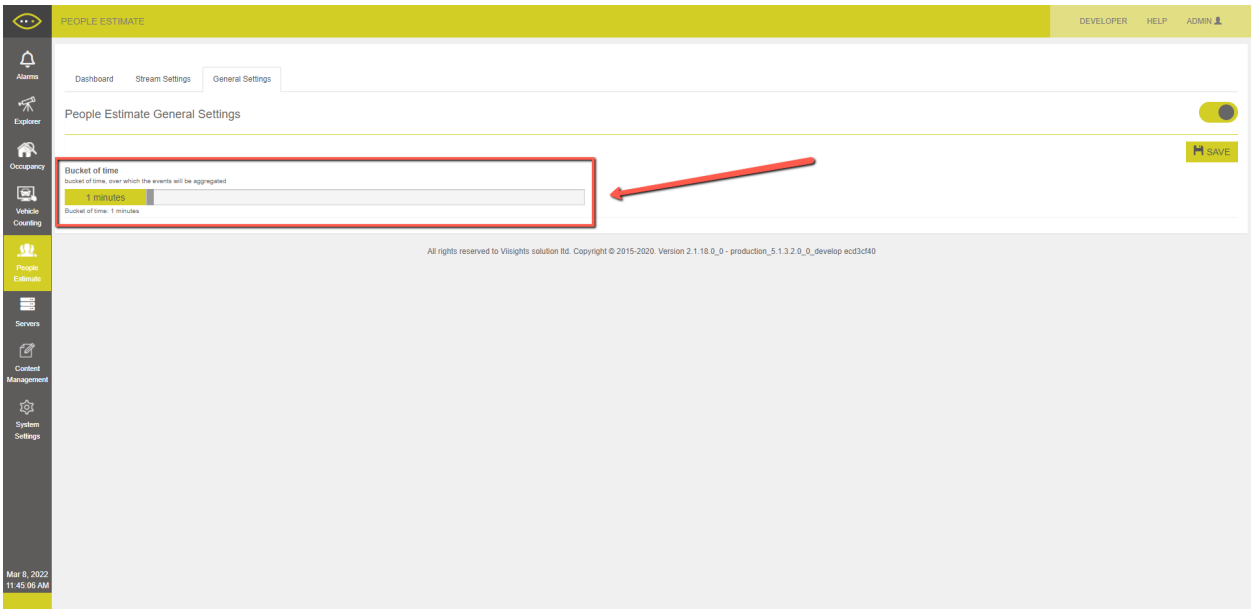
1. **Enabling the People Estimate Application**

A simple toggle button controller to either enable or disable the people estimate for the specific running wise instance.



2. **Bucket of time**

   Defining the interval time of each analytic monitoring segment - e.g. of the bucket time equals to 1 minute, then the system will output the people estimate legend in the timespan of one minute.


PEOPLE ESTIMATE
DEVELOPER
HELP
ADMIN
Alarms
Explorer
Occupancy
Vehicle Counting
People Estimate
Servers
Content Management
System Settings
Mar 8, 2022 11:45:06 AM
Dashboard
Stream Settings
General Settings
People Estimate General Settings
SAVE
Bucket of time
bucket of time, over which the events will be aggregated
1 minutes
Bucket of time: 1 minutes
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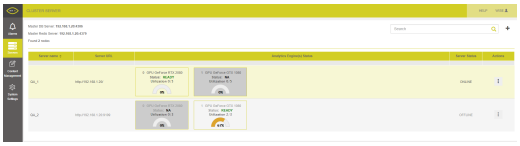
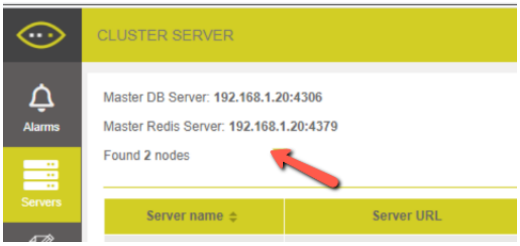
7 - Servers

Functionality

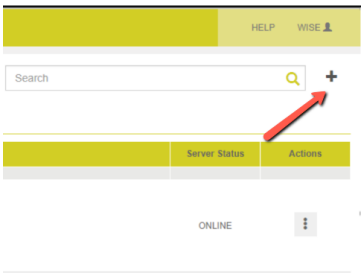
- This Server tab functions as the node management for all connected nodes.
- At the left top of the screen, you can find the information concerning the IP addresses and ports of the master DB & Master Redis servers.





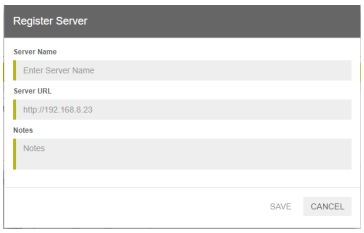
Adding Nodes

- To register a new server node, click on on '**+**' icon at the right top side of the screen

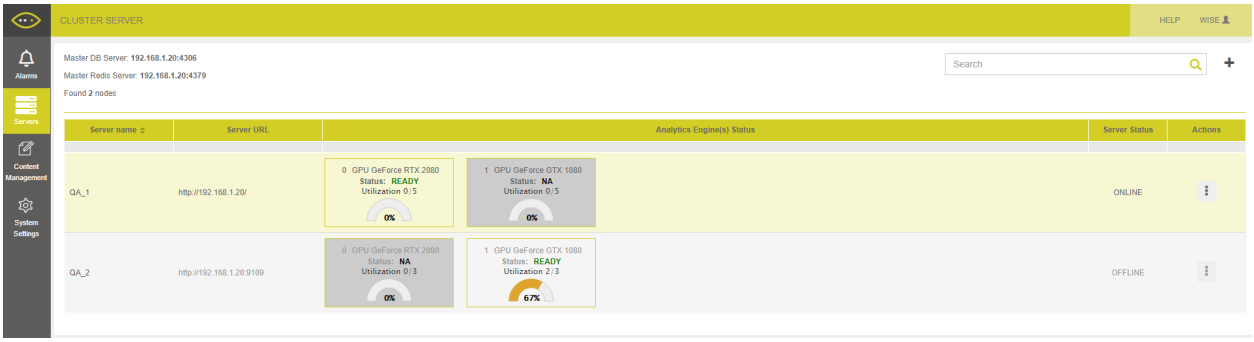


- The following window will pop up, input the server’s data infomration

- Input node name
- Input the URL (including port number)
- Click on the 'SAVE' button.



- The registered servers will appear In the Server's tab, along with the following infomration:
  - The server name
  - The server's URL
  - The server's Analytics Engine's (GPUs) status
  - The server's status.



Analytics Engine(s)

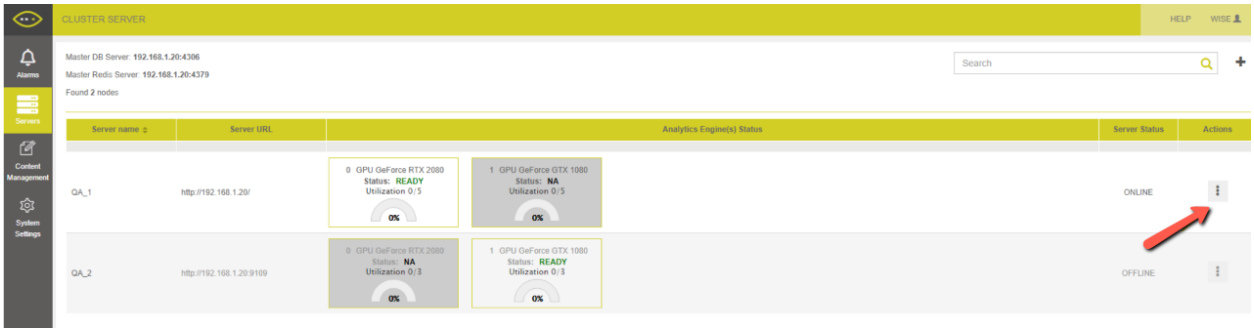
The analytics Engine(s) Status, shows available GPUs per server.
Each GPU box displays the following information:

1. GPU's model
2. GPU's status
3. GPU's utilization

Utilization = The allocated streams per GPU that were set-up previously

Server Related Actions

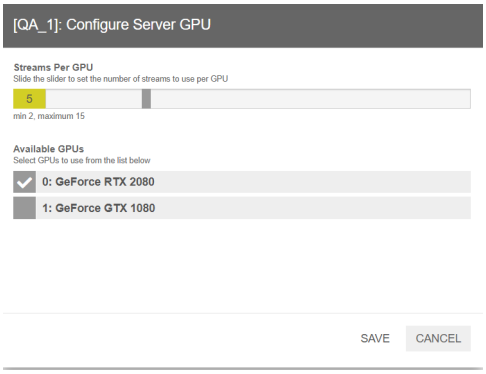
- By clicking on the three dotted menu, it is possible to perform various actions.



<u>The following Actions can be implemented:</u>

1. Edit Server meta data information - allowing the user to edit the server name & server URL.

b. Configuring GPU infomration - allowing the user to modify streams per GPU and selecting which GPU to utilize



c. Clicking on 'Restart GPU' - allowing the user to restart the Analytics Engine(s) (GPUs)

d. Clicking on 'Delete' - allowing the user to remove the server from the cluster.

8 - Content Management

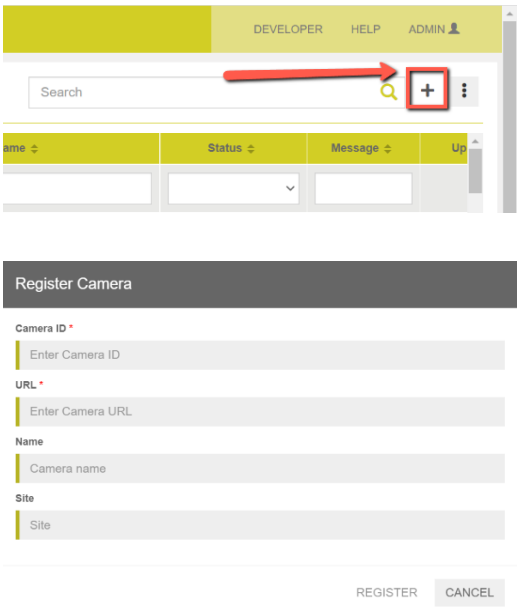
The Content Management displays a list of available video stream registered into the system. With this the user can configure the system behavior’s for specific video streams, as described below.

Main Page

Register a video stream

1. Click on the “+” button located on the right top corner of the window
2. A popup window appears

3. Input the Camera ID
4. In the **URL** field, enter either the public camera URL or the video URL
5. In the **Name** field, enter a title for the video stream
6. In the **Site** field, enter the site name
7. Click **REGISTER**



8. The status of the video changes to **Registered**.

⚠️ Note - the Camera ID designation should only consists of letters, numbers , underscores and dashes. Other characters will not be applicable

⚠️ Note – When using a user-password protected URL, make sure you are not using special characters, such as “@”

⛔ To delete a camera, click on the 3 doted menu and select the **Delete** option

Status of Video Streams

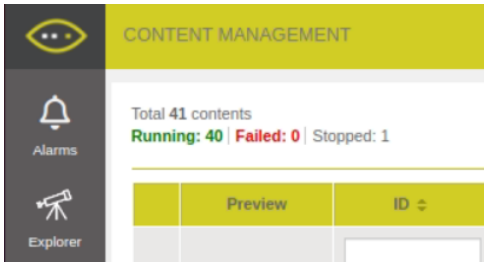
The **Content Status** column shows the status of this video stream in the system.

Status	Description
PENDING	A video stream has been registered to the system and is waiting to be started
INITIALIZING	This is a temporary status, after a stream has been started it will automatically changes to **RUNNING**

Status	Description
RUNNING	The video steam is being loaded and processed by the system. A live stream displays as **RUNNING** until it is stopped
STOPPED	A command has been given to stop the video stream
COMPLETED	A video file from a video store has completed processing by the system
FAILED	The video stream failed to be processed - in this case contact Viisights

Additional Indicators

The top-left corner shows the stream's status:



- **Running**
- **Failed**
- **Stopped**.

To start the video stream

- Click on the 3 dotted icon and then click on **Start**
- The Status tab displays RUNNING

To stop the video stream

- Click on the 3 dotted icon and then click on **Stop**.

Starting and stopping multiple video streams

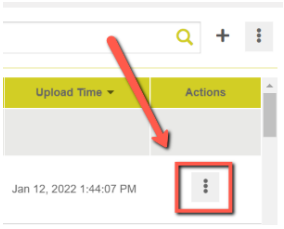
- The user can start or stop multiple streams at the same time by selecting the streams and then clicking the 3 dotted button at the top-right corner.

Disabling a video stream

- Click the 3 dotted button and select the **DISABLE** option to stop the stream from running. The stream will not start automatically after a server restart

General Tab

⚠️ To get into the general tab of a specific stream, click on the 3 dotted button and then click on **Settings**.



The **General** tab enables the user to define the settings of an existing video stream.

Define General tab settings

1. Input the following settings fields:

Input Field	Description
Camera ID	Displays the unique identifier assigned to this video stream during registration. This value cannot be changed here. The **Camera ID** can be changed, but only after the stream or video is finished or has stopped.
Camera Name	Displays the camera name used for UI presentation. Can be different from the Camera ID
Classes Profile	Displays the profiles of the classes. It is possible to view and modify the profiles that the user created with the relevant classes. If no unique profiles were created, the DEFAULT profile is chosen and displayed automatically.
Stream URL	Displays the URL video stream as defined in registration. This value cannot be changed here. The **Stream URL** can be changed, but only after the stream or video is finished or has stopped.
Site	Displays the site name
RTSP Setting	Displays the relevant communication protocol associated with the RSTP.
Short Description [Optional]	Additional information to appear as a short description of this video stream
Long Description [Optional]	Additional information to appear as a long description of this video stream

2. Click the **SAVE** button.

Location Tab

The **Locations** tab enables the user to draw a static polygons on to the video stream. The polygon's area is essentially an area of detection. there are several types of detection polygon that can be enabled:

- Junction
- Attention
- Exclusion
- Zone
- Loitering
- Car Zone

For example, this definition can be used as a geo-fence, so that events can be triggered when an object enters or exits this geo-fence.

Note that the polygon shape must be closed

Drawing a Polygon

1. Click on the image to create the first polygon segment
2. Continue to click on the image to create additional coordinates of the polygon
3. Finalize the polygon by clicking on the first polygon segment

⚠️ Make that no line overlaps with another line when establishing the polygon

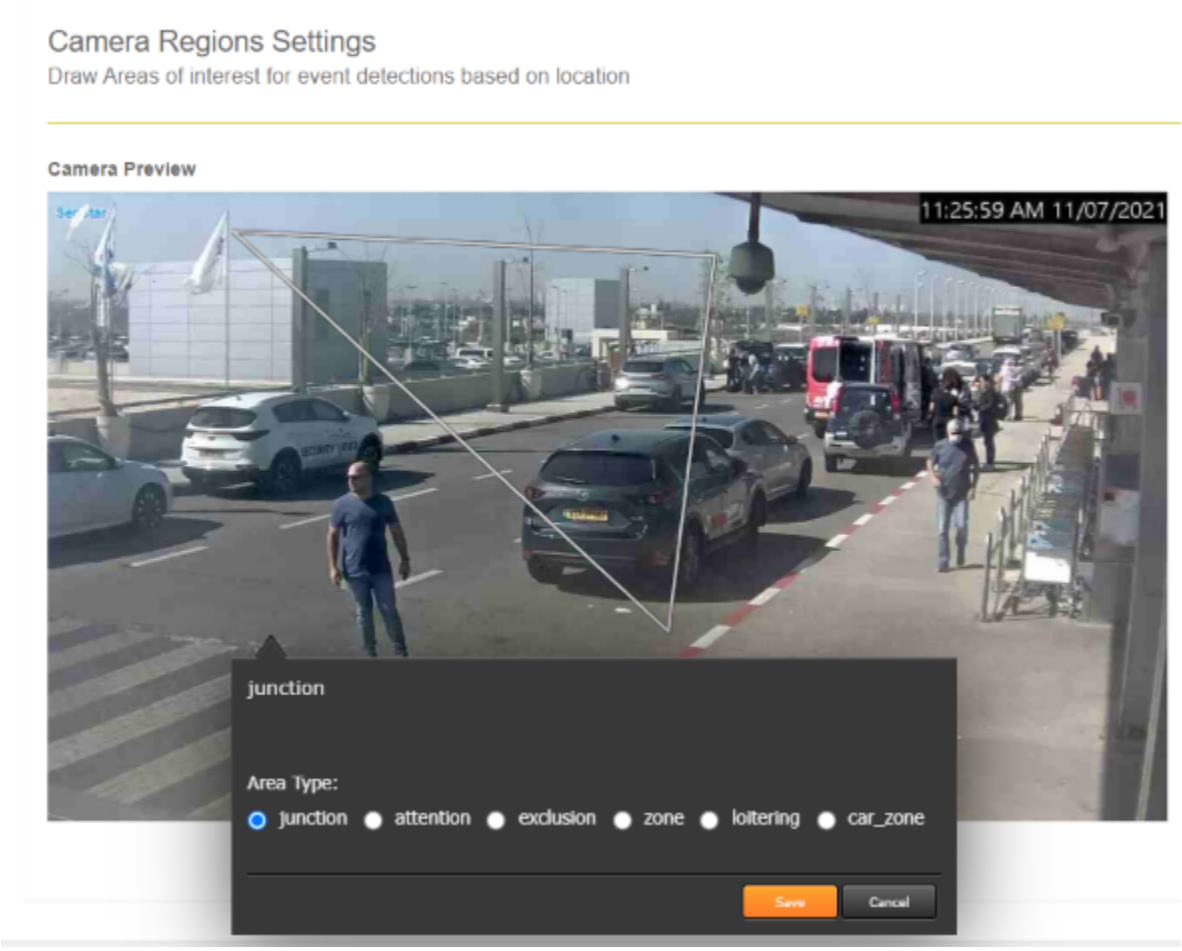
Polygon Types

Junction

The junction polygon defines an area within the video stream as a road junction.

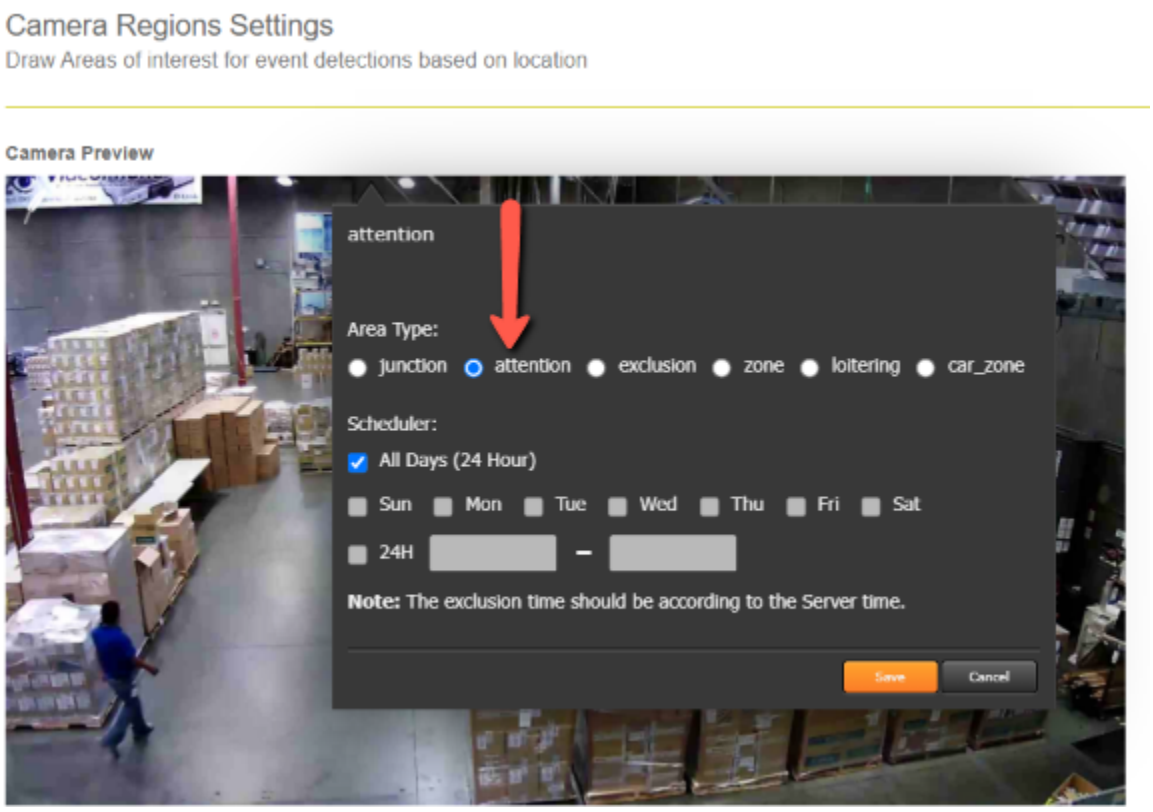
This feature allows the User to enable detections related to junction, such as:

- Car stopping in junction
- Car collision



Attention

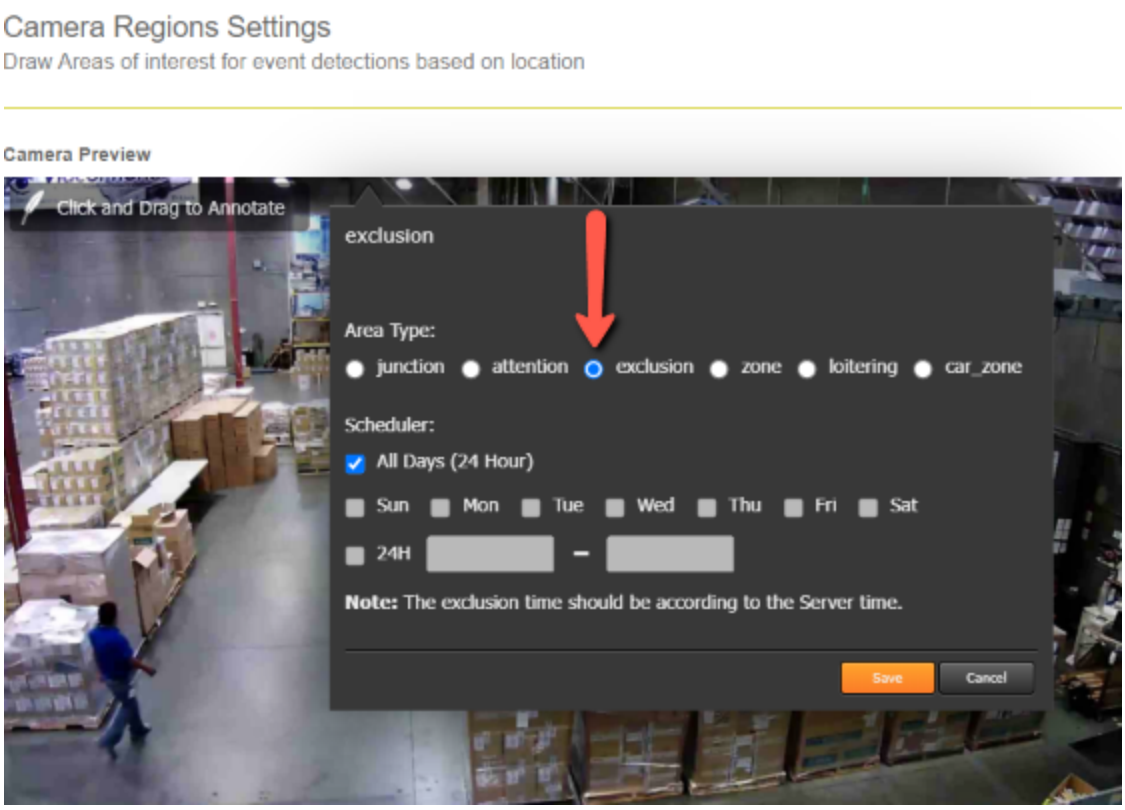
The Attention polygon defines an area within the video stream where all detections will **only** be generated in that specific location.



Exclusion

The exclusion polygon defines an area within the video stream, where all detections are excluded and will not be detected.

> Note that areas which were **not** excluded, will still provide general detections

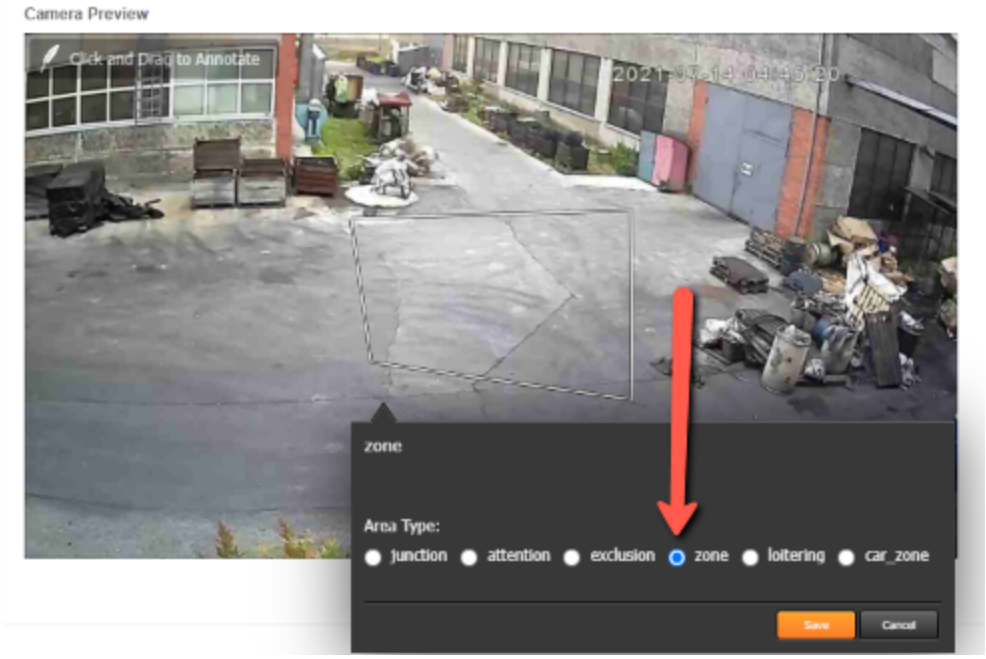


Zone

The Zone polygon defines an area within the video stream as a special zone.

This feature allows the User to enable detections related to zone, such as:

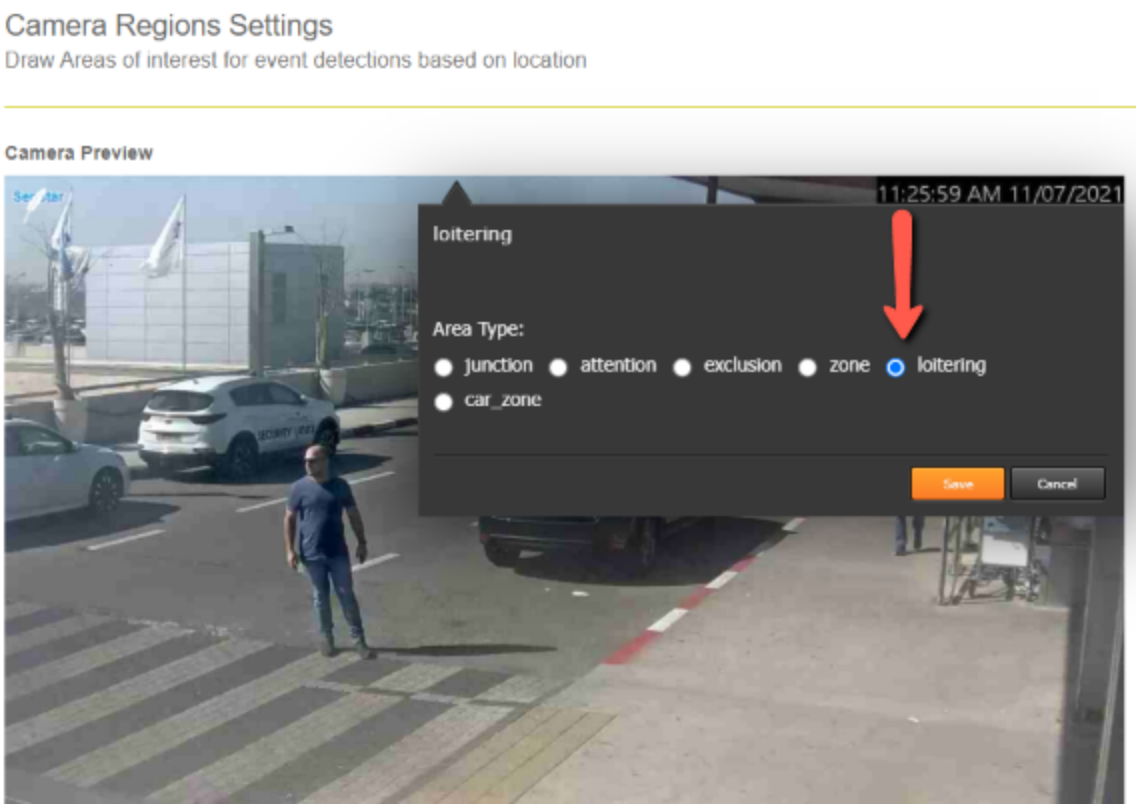
- PERSON_GETS_INTO_ZONE
- PERSON_GETS_OUT_FROM_ZONE
- CAR_GETS_INTO_ZONE
- CAR_GETS_OUT_FROM_ZONE



Loitering

The Loitering polygon defines an area within the video stream, detecting situations where people are conducting loitering behavior.

> Loitering = when a person stands or waits around idly without any apparent purpose.



⚠️ When defining a time range, note that it should be according to the server time on the lower-left side

💾 Make sure you click on the save button when creating any polygon

---

Occupancy Tab

The Occupancy Location tab allows the user to draw a yellow line within the video stream, functioning as a threshold. The line consists of an arrow which indicates the direction:

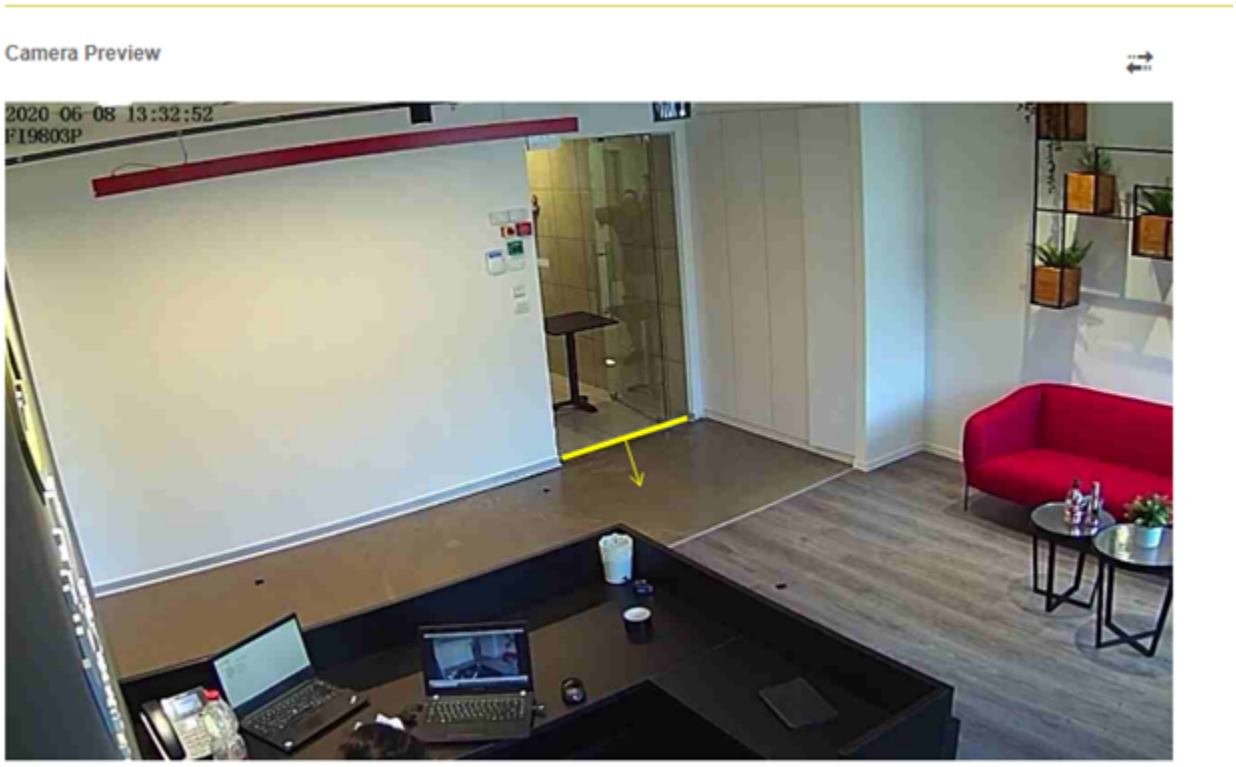
- “IN” is considered as the direction of the arrow
- “OUT” is considered the opposite direction of the arrow

This line is used to provide live and an aggregated history reports on area occupancy, by counting people entering and leaving the area.

Setting up the occupancy location

1. In the image, click on the position where you would like to start setting the Occupancy line, keep dragging the line to the required position until you have finished defining it.

2. Set the direction of the arrow using the “Toggle Direction” button



💡 An individual crossing the line towards the direction of the arrow will be considered as **PERSON_IN**, while a person crossing the line in the opposite direction will be considered as **PERSON_OUT**

💾 Make sure you click on the save button when creating the Occupancy line

---

Thresholds Tab

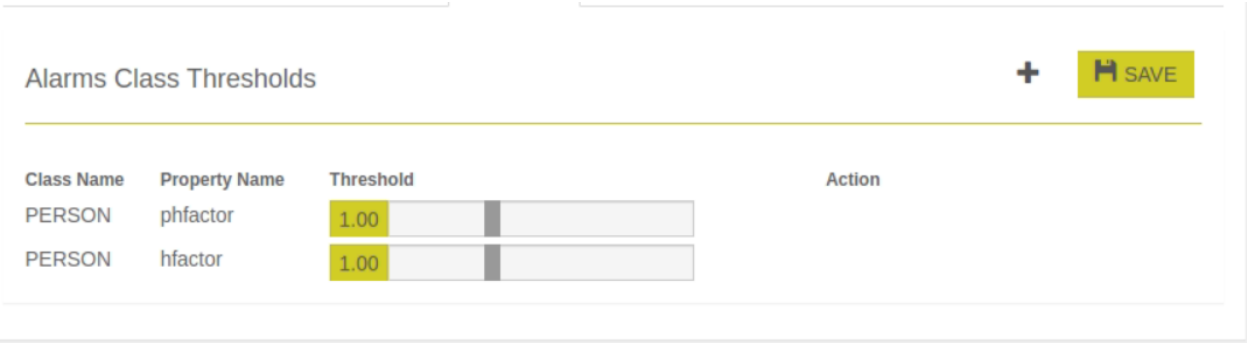
The Threshold tab enables the user to adjust proximity (distance) between persons to determine whether or not they belong to a group.

This proximity can be adjusted using two independent factors which multiply the distance and can be adjusted separately.

Input Range	Description
Phfactor	Factor which classifies the oval parameter of an object
Hfactor	Factor which determines the distance between objects

Proximity may need adjustments due to the viewpoints (Angles) of the camera.

The default value of the factors is set to 1.0 and the user can increase or reduce it by 80% (From 0.2 to 1.8). After making the adjustments click on **SAVE** button.



The **Threshold** tab also enables the user to set or change the level of detection accuracy in attributes.

Click on + button to add a new threshold. Then, select the preferred attribute from the dropdown list and set the threshold number.

Click **SAVE**.

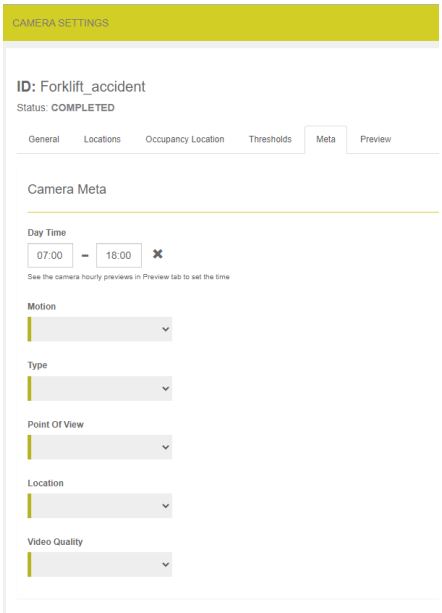
The user can add multiple attributes from the list.

Click the following icon to remove a threshold from the list.

Meta Tab

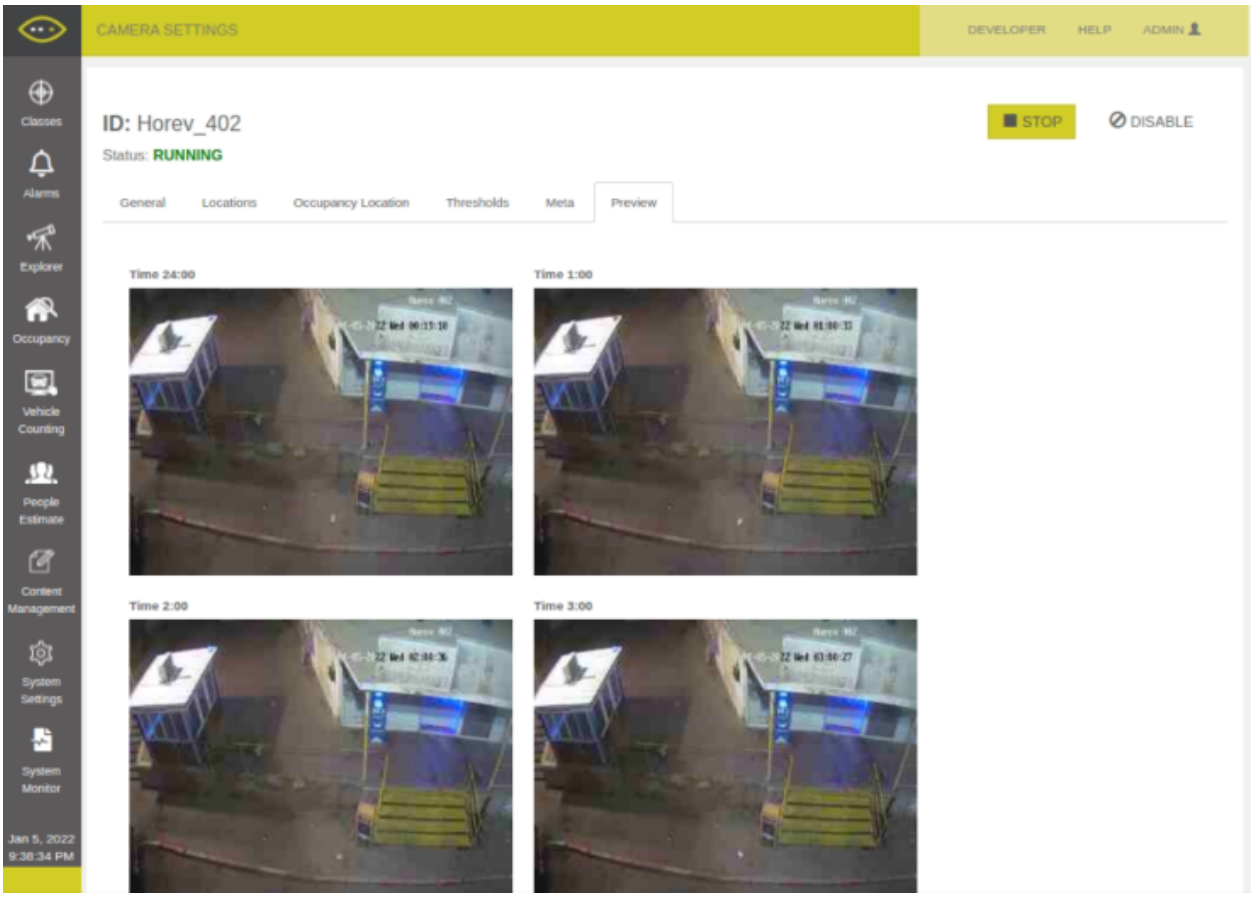
The **Meta** tab enables the user to add different data and parameters concerning the video, such as –

- Define daytime hours.
- Select the camera motion – still, ptz, zoom in, zoom out.
- Select the video type – rgb, ir, ir-rgb.
- Select the camera point of view – street view, aerial_90, aerial.
- Select the camera location – indoor, outdoor, none.
- Select the **Video Quality** – low, medium, high.



Preview Tab

The Preview tab shows an image thumbnail for every hour from the specific video stream



9 - System Settings

Classes Tab

Introduction

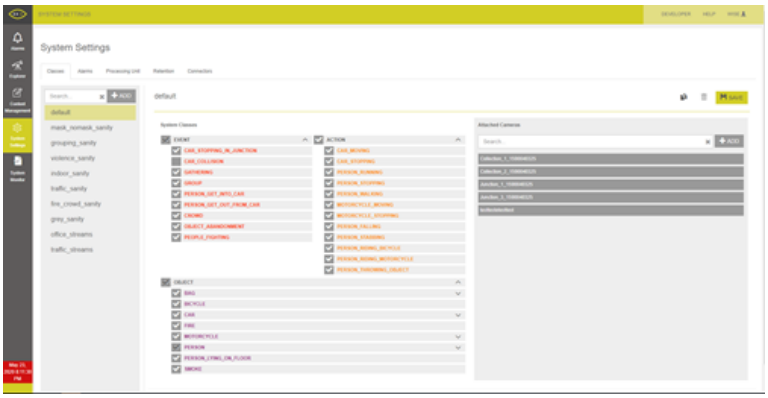
The **Classes** tab allows you to enable or disable the classes that the system detects.

This includes the following:

- Objects & attributes
- Actions
- Events

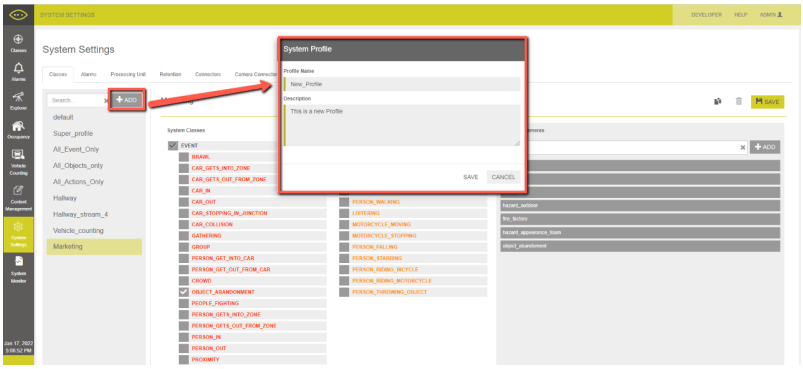
The system provides a predefined list of classes that is based on the user's license. In this tab, you can define several profiles. Each profile defines the classes to be detected, afterwards simply add the relevant video sources to each profile.

For example, unchecking the **CAR COLLISION** event means that the specific profile will not include the car collision detection.

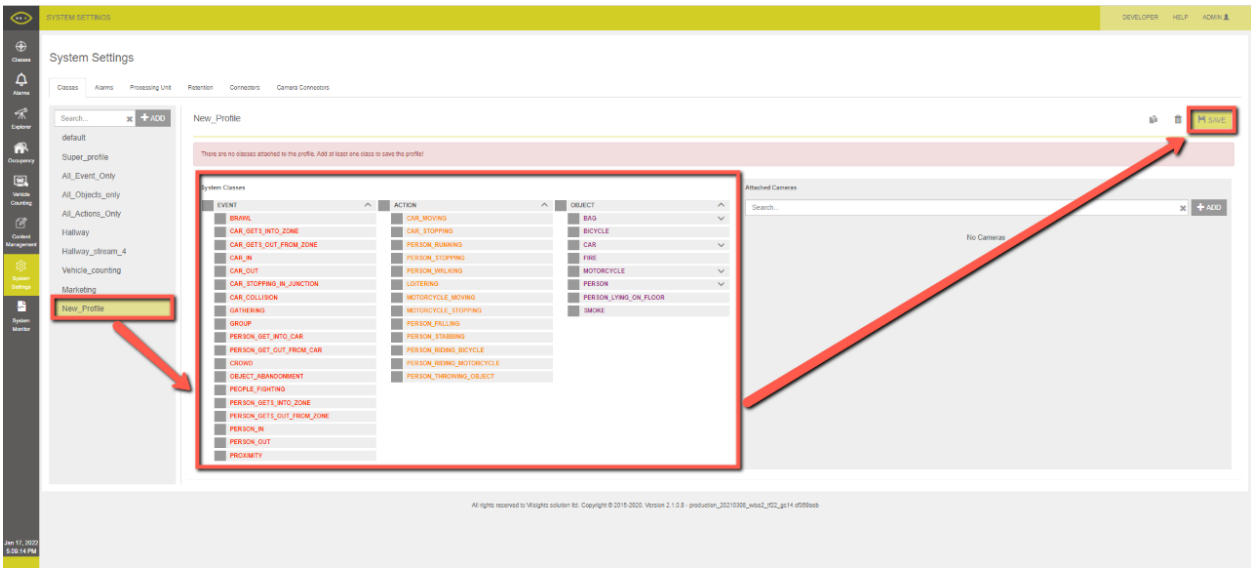


Creating a new profile

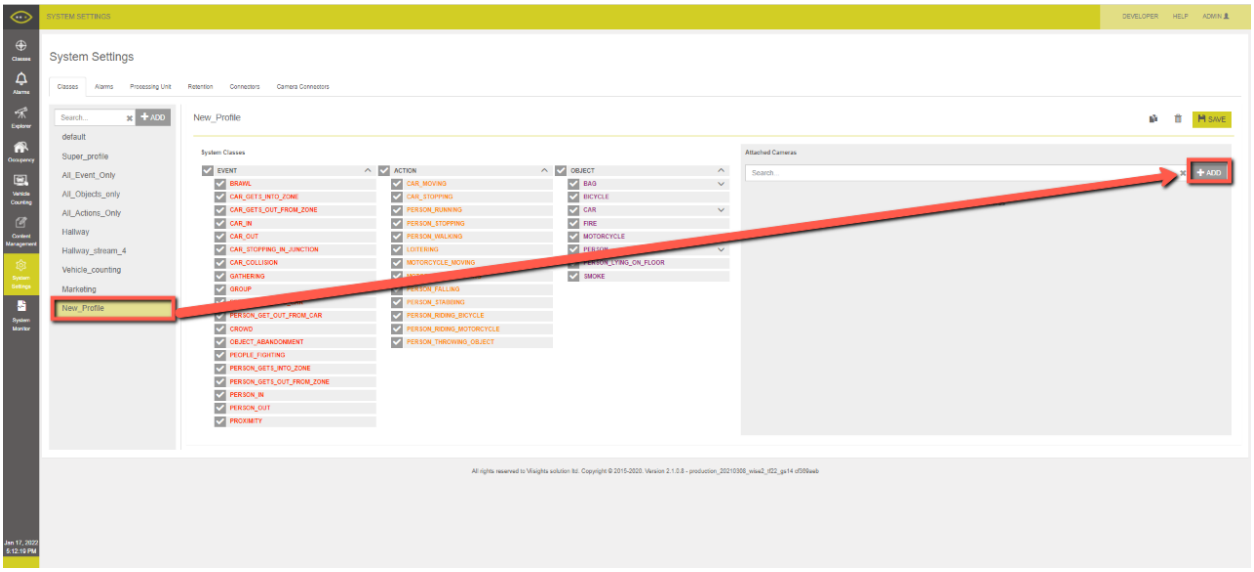
1. Click the ADD button in the left column
2. Input a custom **Profile Name** and a **Description**
3. Click **SAVE**.



4. While the Profile is selected, Check the relevant Events, Actions and Objects you want to include in the profile
5. Click the Save button



6. While the Profile is selected, click on the ADD button to apply the profile detections on specific video streams



7. Select the relevant video streams and click on the Add button

8. Click on the Save button to finalize the process

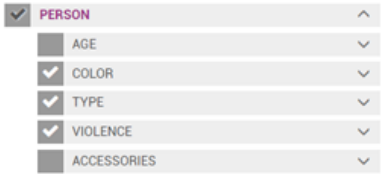
Modify an existing profile

1. Select the relevant profile you want to modify

3. Locate the relevant **EVENTS**, **ACTIONS** and **OBJECTS** you wish to add/remove
    - To enable the detection - check the relevant selection
    - To disable the detection - uncheck the relevant selection
    - By default, all options appear with a checkmark
    - Objects that contain attributes will have a vertical grey arrow on the right hand side of the option, e.g.

When clicking the arrow, this displays the attributes.
Note that these options can also be unchecked –

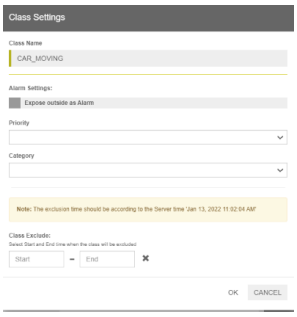
If some of the attributes are selected and others are not, then the object appears with a black checkmark. e.g.



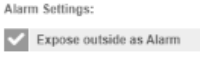
4. Click the **SAVE** button.

Configuring alarms

1. Hover over the right side of a class name and then click the gear icon - the following will display:

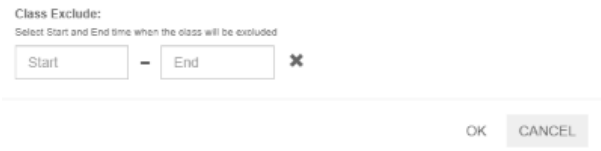


2. Check the “**Expose outside as Alarm”** check box



3. Adjust the time slider to set the alarm threshold.

4. Choose the priority of the alarm
5. Choose the category of the alarm
6. The user can exclude a class during a defined time range by setting the time frame



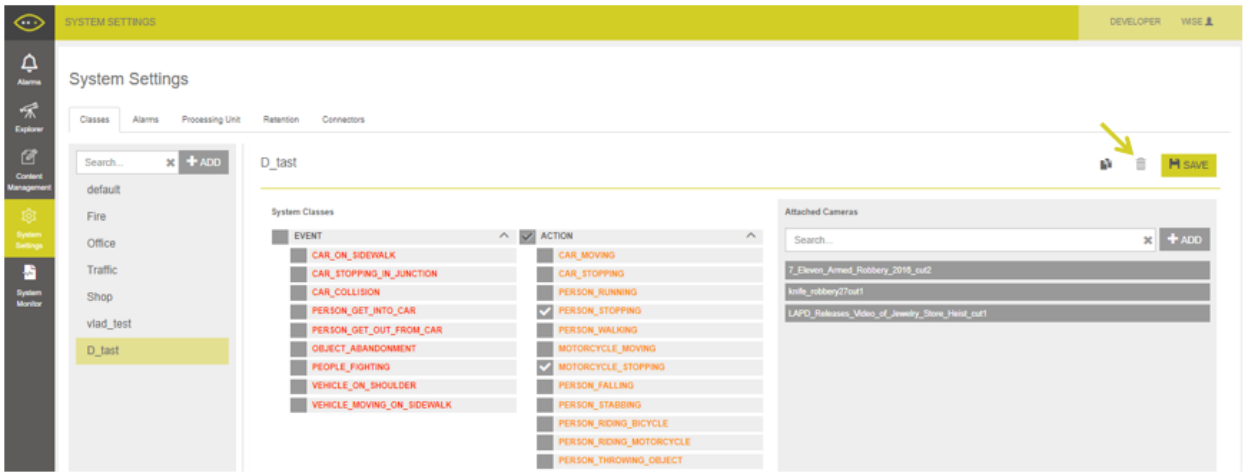
⚠ Attributes cannot be excluded using the time frame

⚠ Note the time range must be set according to the server time at the lower-left side.

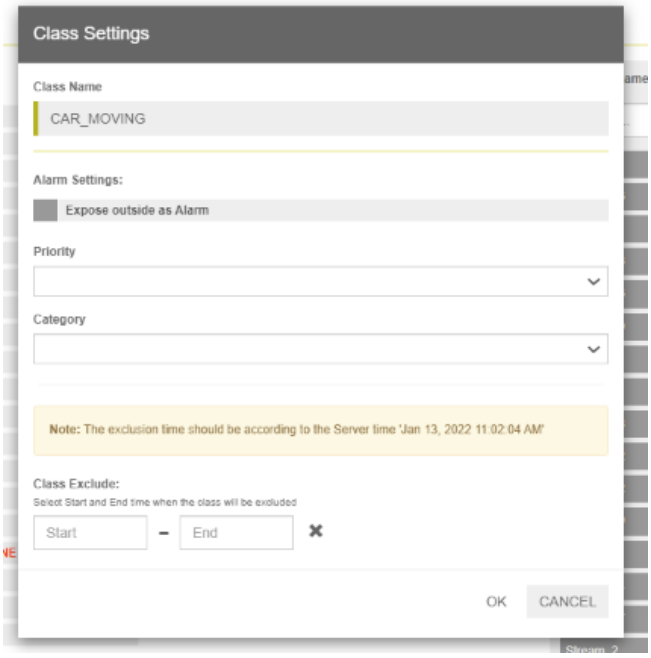
Deleting an existing profile

To delete an existing profile and redirect the video sources back to their default location

1. Click the **DEFAULT** group, add the video sources that you want to redirect and click **SAVE**.
2. Click the profile that you want to delete and then click the trash icon.



⚠ **Note –** Changes made in the **Classes** tab only take effect after you stop and then restart the video streams using the API.
The settings defined here affect the functionality of the entire system.



Additional Classes Settings

Hazard detection

Hazard definition -

The Hazard class is a special detection mechanism which allows the system to record various abnormal objects entering the field of vision, mainly, by observing the background during a predefined period of time which creates a “steady” profile of the surrounding.

In ideal conditions, the background learning period should be substantially long, so that any short temporary changes in the background, will not be considered as actual detections.

An authentic Hazzard detection will occur, when there is a genuine significant vista change in the background, mainly in terms of size and presence.

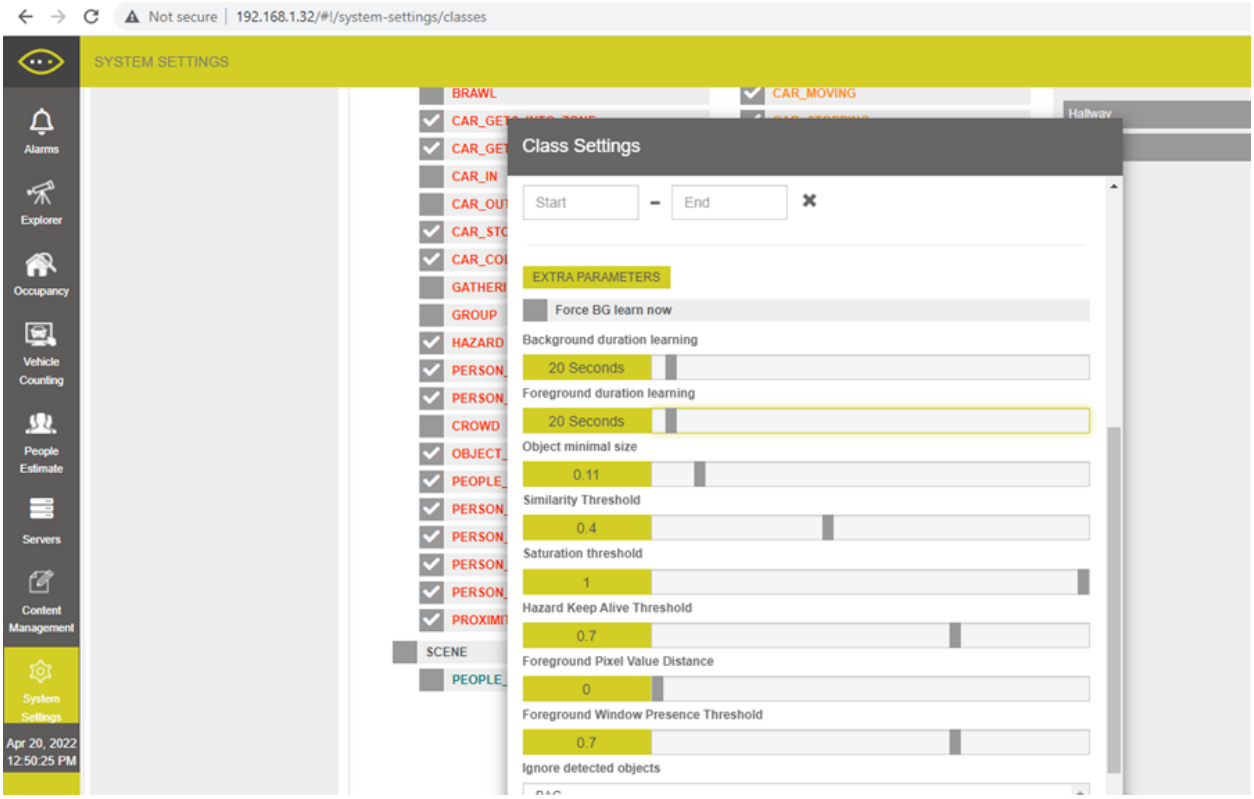
Example for use cases for Hazard detection:

- A pieces of furniture placed on the street during an undesignated collection day
- A hazard situation within a factory such as an obstacle or oil stain

hazard detection logic:

When an object larger than the ***<object_Size>*** appears in the scene for approximately the ***<Foreground_Appearance_Time>*** a Hazard detection triggers. The hazard will be signaled for at least ***<Foreground_Appearance_Time>*** (*continuously* evaluated every ***<Foreground_Appearance_Time>***).

Hazards settings system parameters can be configured in the following location
settings → HAZARD class configuration:



UI Name	UI Tool Tip
Force BG learn now	Force background learning process
Background duration learning	Time to learn the Background in seconds
Foreground duration learning	Time to learn the Foreground in seconds
Object minimal size	Percentage of object area out of frame
Similarity Threshold	Hazard candidate similarity confidence. The higher the confidence threshold, the more candidates will be marked as Hazard.

UI Name	UI Tool Tip
Saturation threshold	The ratio between the number of pixels in a given foreground frame that differ from the background (based on Foreground Pixel Value Distance) and the total number of pixels in a frame. If the ratio is above Saturation threshold then a force background reset is performed.
Hazard Keep Alive Threshold	Hazard keep similarity confidence. The higher the confidence threshold, the harder it gets to maintain an ongoing hazard detection.
Foreground Pixel Value Distance	Significance level of pixel gray level value between a given foreground image and background image. Value range from 0 to 255. The lower the level is, the higher to tolerance for subtle differences.
Foreground Window Presence Threshold	The difference between Foreground frames and Background are accumulated over the time of the Foreground duration learning window (this is done for each frame and pixel based on Foreground Pixel Value Distance). The presence ratio defines the number of frames in which difference occurs out of the number of frames in the foreground window.
Ignore detected objects	Objects the are filtered out as hazards

⚠️ Background resets automatically when updating <bg_duration_learning> or <fg_duration_learning> or by a manual request.

There are 2 additional cases where background reset is performed by force:

(a) on going foreground frame differ from the background in ratio greater then Saturation threshold

(b) embedded reset frames were encountered

Object Abandonment -

An abandon object is an unknow prop, similar to the hazard detection, dictated by the following criteria:

1. The prop is a stationary object
2. Initially a person is located in a predefined distance from the prop – the event is detected.

3. The person is in close proximity to the prop, for a certain amount of time
4. The same person walks away from the prop

The logic of the detection is similar to the Hazard detection. In practice this means the a person carries an object, while the object is carried it is not detected, however, once the object is placed in close proximity to the same person, and it is stationary, the system start monitoring it as a potential candidate for object abandonment detection.

Once the system establishes that a given person is in close proximity to a certain stationary object, the system defines a parameter called "**person to object relationship**" which is monitored in seconds (od_person_hazard_relationship_num_seconds).

Once this information is assets, the system defines a distance parameter between the person and the object. If this parameter is greater than the defined distance for a period of time (od_person_hazard_disconnection_num_seconds) an object abandonment alert is raised. Alert is raised for a predefined period of time (abandonment_keep_alive_num_seconds).

UI Name	UI Tool Tip
tracker body similarity threshold	Similarity confidence level based on person upper and lower body
tracker gradients similarity threshold	Similarity confidence level based on person contours
tracker spatial distance factor	Distance search area for person tracking. The larger it is the larger the search area is
association factor	Distance search area for linking hazard to a particular person. The larger it is the larger the linkage search area is
association number of seconds	Person to Hazard proximity duration
disassociation number of seconds	Person to Hazard disassociation duration
keep alive number of seconds	Number of seconds to keep the alert of abandonment on

Alarm Tab

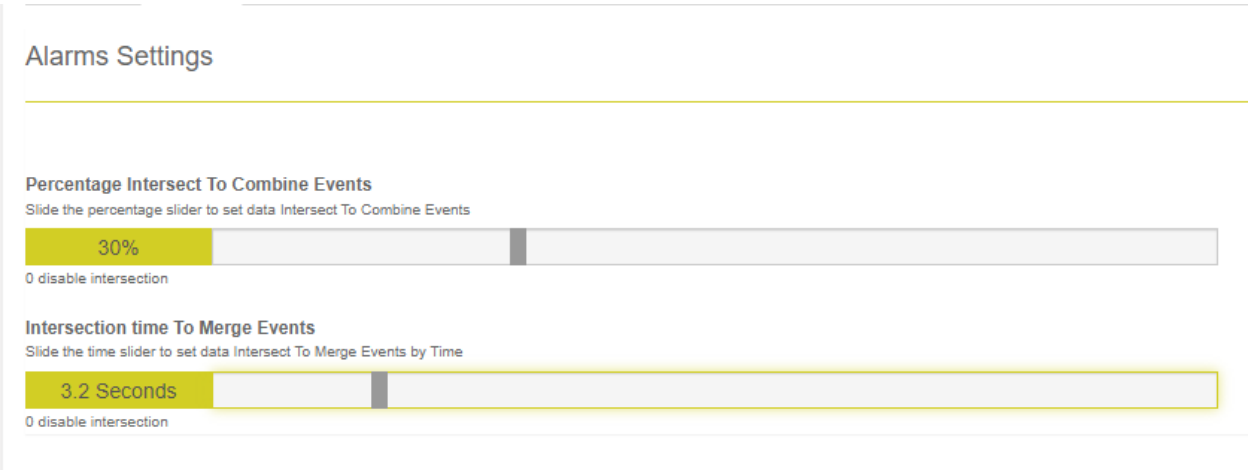
Alarm Settings

There are situations in which multiple alarms can be triggered, due to the settings of the real-time events, such as a closed vicinity and adjacent time frames.

In order to avoid overwhelming the operator, the user can set up the parameters, merging the multiple alarms into a single alarm.

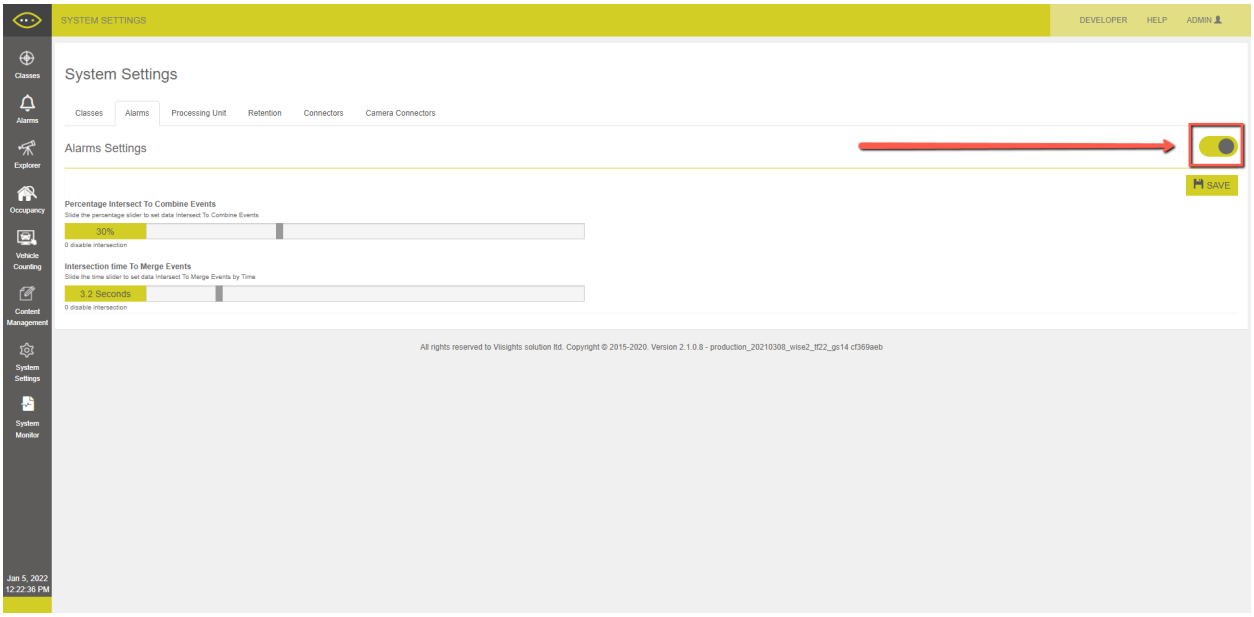
The alarm settings allows the user to set specific time and distance (percentage) parameters, combining events that will ultimately minimize multiple alarms into one alarm.

For example, if two events that intersect within 3.2 seconds and/or have a 30% intersection, they will be merged into a single alarm

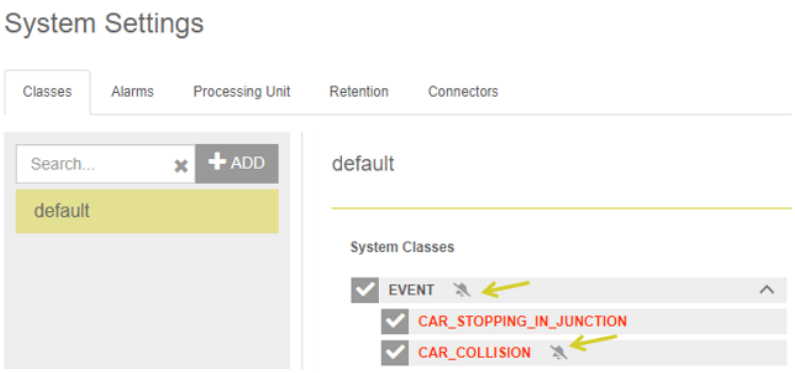


Alarm Toggle Button

Use the toggle switch to enable or disable all alarms that were set up in the system.



Once disabled, the bell icon, which indicates that an alarm was set up, will appear as crossed in the classes screen.



Enabling the alarms again will return the bell icon to the original status.

Processing Unit Tab

> ❗ Warning - before conducting any changes in this section, make sure that you consult your solution expert

The processing units tab is divided into three distinct columns:

1. Advance detection settings
2. Steams and GPU settings
3. Analytics Engine status

Advance Detection Settings

Analytics Engine Settings

The following table includes the settings option with their description

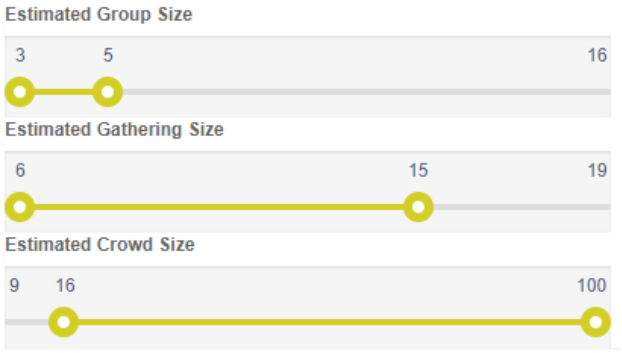
Settings	Description
Apply Attention Before Tracker	**?Ask Nitsan/Menash/Gaby?**
Apply Exclusion Before Tracker	**?Ask Nitsan/Menash/Gaby?**
Apply Collision	**?Ask Nitsan/Menash/Gaby?**
Check if frame are freezed	**?Ask Nitsan/Menash/Gaby?**

Group Size Settings

The system can classify 3 types of people clusters, setting them according to certain defined range of detected individuals:

- Group
- Gathering
- Crowd

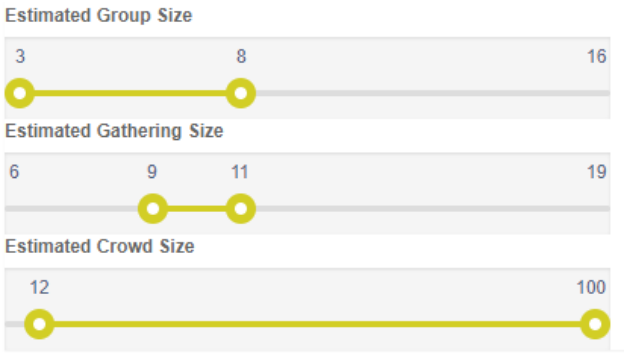
> **Our default values are:**
> Group - between 3 to 5 persons
> Gathering - between 6 to 15 persons
> Crowd - 16 and above



It is possible to adjust the sizes of all categories by specifying the lower and upper boundary.

If one of those categories has been adjusted, other categories will automatically change accordingly to avoid any overlapping ranges.

For example, if the category of **Gathering** is between 9 and 11 persons, **Group** will automatically be between 3 and 8 and **Crowd** will automatically be between 12 and 100.

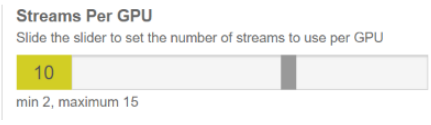


The minimum difference between the low and high range of a category is 2 persons.

After making the adjustments click on the **SAVE** button.

Define streams & GPU settings

1. In the **Streams Per GPU** field, use the slider to specify how many video streams one GPU could support

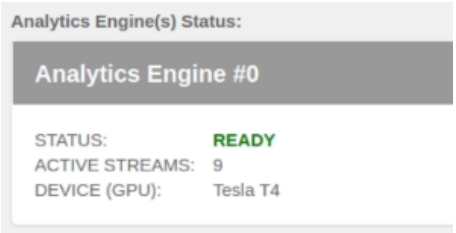


2. In the list of A**vailable GPUs,** Check the relevant GPUs you wish to enable

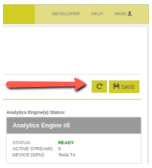
3. Click the **SAVE** button.

Status of the Analytics Engine

Before running the video stream, verify the **Analytics Engine(s) Status** section, make sure the status mode is **READY** or **RUNNING** .



When necessary, click the **Refresh** icon at the top right corner to restart the Analytics Engine(s). Consult viisights support before using this feature.



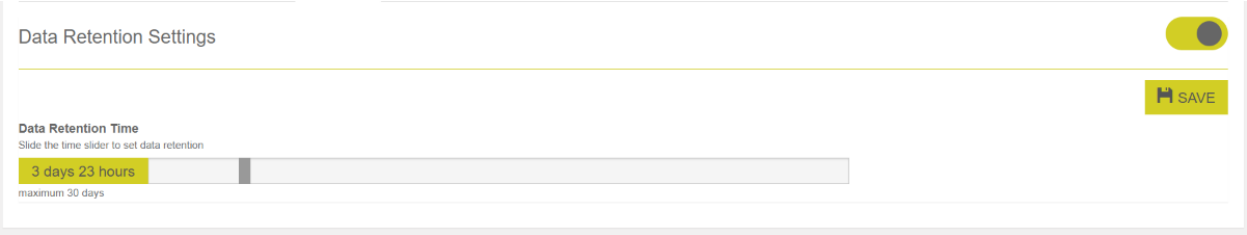
Retention

The **Retention** tab enables the user to define the amount of time (up to 30 days) that the system retains its videos and detections for review.

> ⚠️ Nota bene, that the average video stream hour disk space consumption may vary due to the camera settings.

Define Retention settings

1. In the **Data Retention Time** field, specify the number of hours or days that detected data is retained in the system.
2. Click the **SAVE** button.



Connector Tab

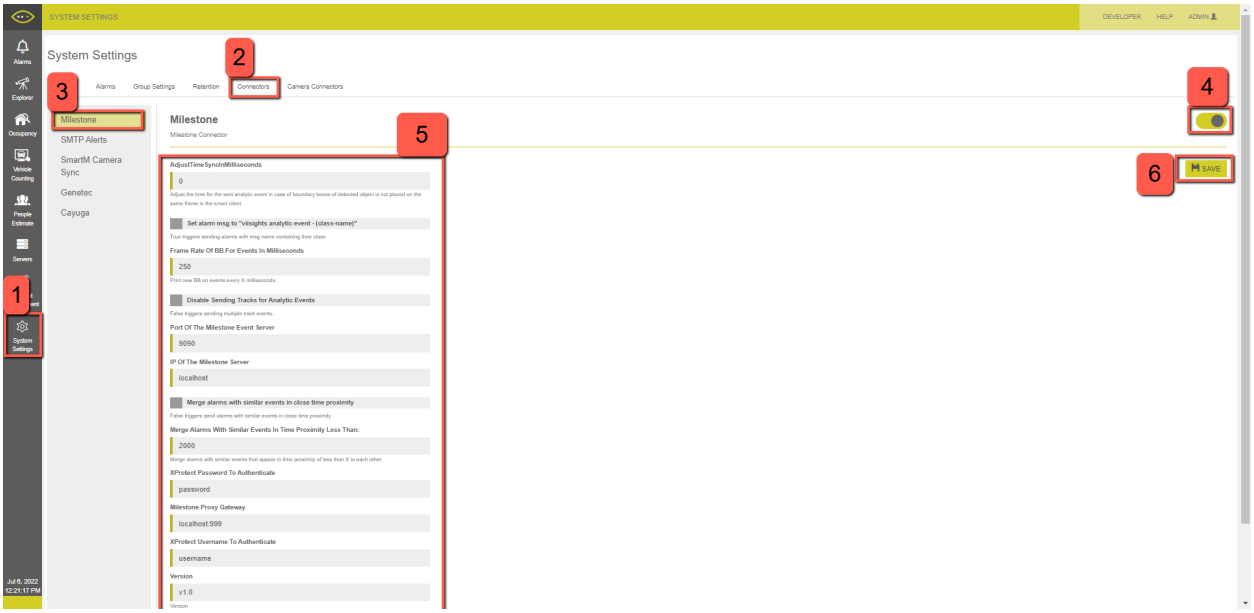
In this tab, the User can configure various available connectors, each of them is relevant for a specific Video Management System. The following VMS integration is available in wise:

1. Milestone
2. SMTP Alerts
3. SmartM Camera Sync
4. Genetec
5. Cayuga (QVMS)

Configuring VMS connectors:

Milestone:

1. Browse to System Settings —> Connectors —> Milestone
2. Turn on the toggle button to enable the integration from the Wise side
3. Fill in the relevant parameters of the Milestone server and configurations
4. Save the settings



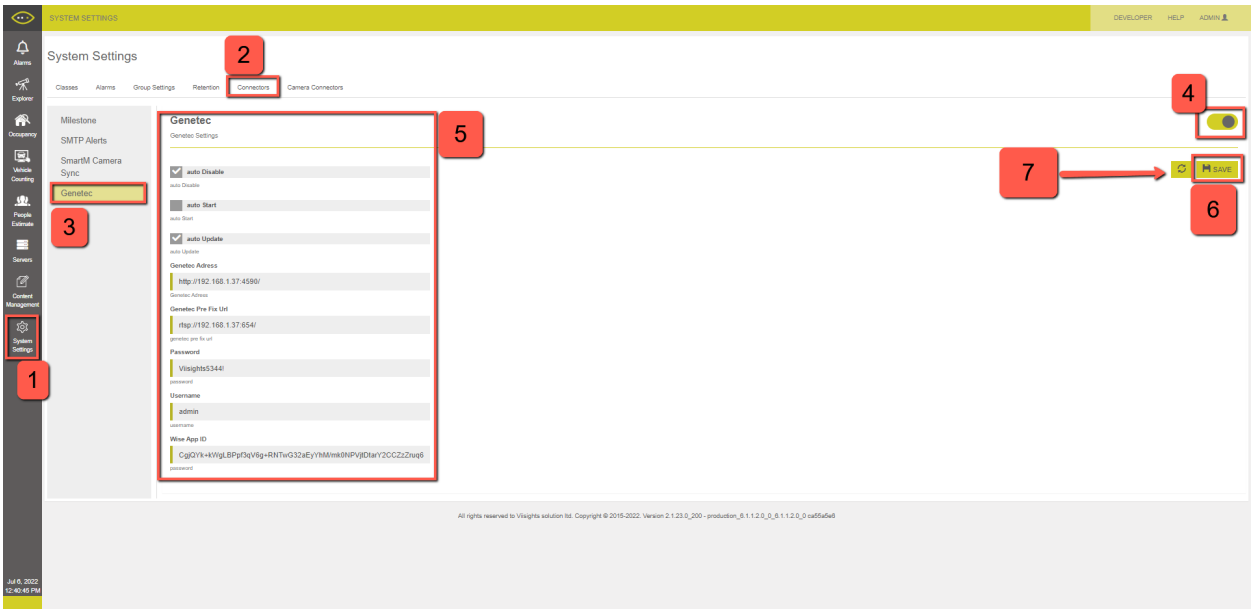
Field Name	**Description**	Note
AdjustTimeSyncInMilliseconds	Adjust the time for the sent analytic event in case of boundary boxes of detected object is not placed on the same frame in the smart client	Units are rounded seconds values only
Set alarm msg to “viisights analytic events - (class-name)”	True triggers sending alarms with msg name containing their class	default value unchecked
Frame Rate Of BB For Events In Milliseconds	Frame Rate Of Boundary Box For Events In Milliseconds	default value 250
Disable Sending Tracks for Analytic Events	False triggers sending multiple track events.	default value unchecked
Port number of Milestone Event Server		default value 9090
IP of Milestone Server		default value localhost
Merge alarms - checkbox	Merge alarms with similar events in close time proximity	default value unchecked
Merge Alarms - threshold value	Merge Alarms With Similar Events In Time Proximity Less Than:	default value 2000
XProtect Password	XProtect Password To Authenticate	
Milestone Proxy Gateway		default value localhost:999
XProtect Username To Authenticate		
v1.0		
Xprotectport number		80

Genetec

1. Browse to System Settings —> Connectors —> Genetec
2. Turn on the toggle button to enable the integration from the Wise side
3. Fill in the relevant parameters of the Genetec server and configurations

4. Save the settings

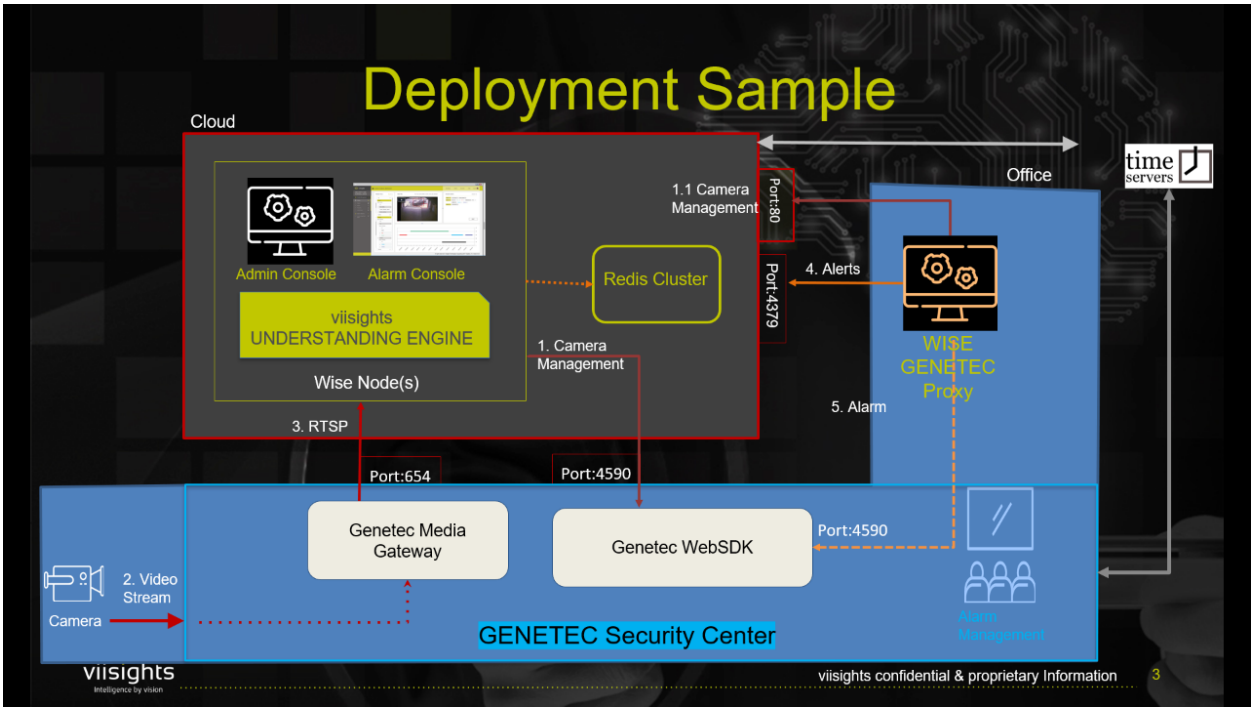
1. Refresh the stream connection by using the “two arrow” Icon 



Field **Name**	**Description**	**Notes**
Auto Disabled	Auto Disabled	Default value is checked
Auto Start	Auto Start	Default value is unchecked
Auto Update	Auto Update	Default value is checked
Genetec Address	The IP address and port of the Genetec machine e.g http://192.168.1.2:4590	* Conveys analytic infomration via SDK * Utlizes port 4590
Genetec Pre Fix URL	The designated RTSP URL address and port of the Genetec machine e.g rtsp://192.168.1.2:654	* Conveys RTSP URL * Always utilizes port 654
Password	The Password of the installed Genetec program	Config Tool & Security Desk
Username	The Username of the installed Genetec program	Config Tool & Security Desk

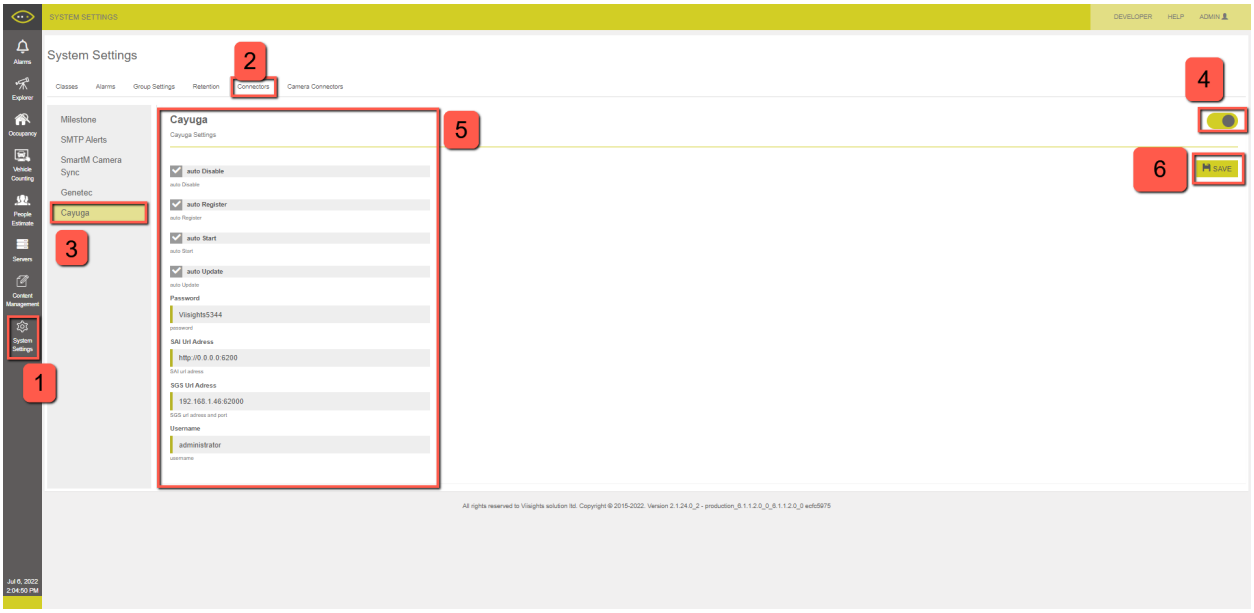
Field **Name**	**Description**	**Notes**
Wise App ID	Certification code, provided by Genetec per wise integration	**code:** CgjQYk+kWgLBPpf3qV6g+RNTwG32aEyYhM/mk0NPVjtDtarY2CCZzZruq6QAMH9b

Network Architecture:



Cayuga:

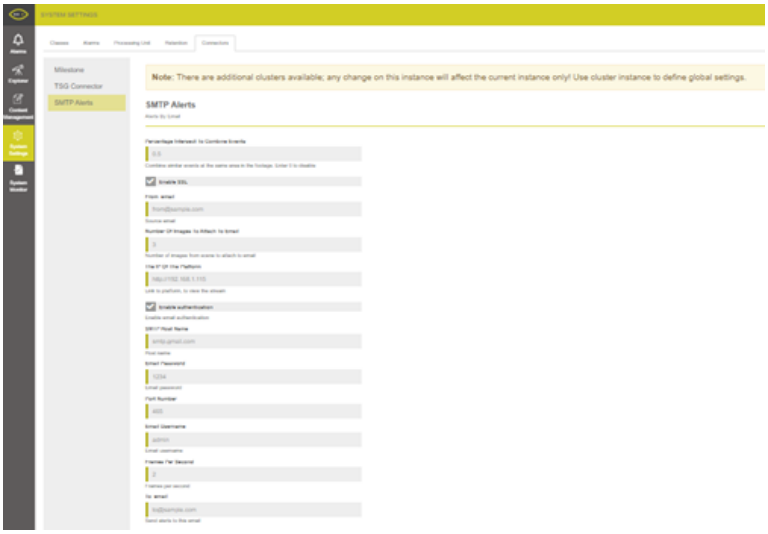
1. Browse to System Settings —> Connectors —> Cayuga
2. Turn on the toggle button to enable the integration from the Wise side
3. Fill in the relevant parameters of the Cayuga server and configurations
4. Save the settings



Field Name	Description	Notes
Auto Disable	Auto Disable	Default value checked
Auto Register	Auto Register	Default value checked
Auto Start	Auto start	Default value checked
Auto Update	Auto Update	Default value checked
Password	The Password of the Cayuga Client	
SAI URL Address	**Not relevant do not touch**	
SGS URL Address	The IP address and port of the Cayuga Machine	* This port conveys RTSP URL from GSC to Wise * Always utilizes TCP & UDP 62000
Username	The username of the Cayuga Client	

SMTP Alerts:

To set mail alerts for alarms –



Change the following fields –

- **From_email –** Specify the email address sending the alarms (the source email).
- **Number of Images To Attach To Email –** Select how many alarm images to attach to the email (optional).
- **Email Password –** Insert the password of the source email.
- **Email Username –** Insert the source email username.
- **To_email –** Enter the email address to receive the alarms.

10 - System Monitor

This chapter describes how a system administrator can monitor the system health. This information should be used when consulting viisights' support engineer for customer support

System Monitor

The **System Monitor** displays an overview of the system's behavior and health. This section enables you to monitor detections, stream and events delays.

When choosing the required **Delay** type from the dropdown list, select the preferred time frame in order to track the delay, in order to monitor the time delay between the actual time when the event occurred and the time when it is reported by the system.

The detection delay is an internal measurement that is relevant when the streaming delay is high, in order to pinpoint the root cause of the streaming delay.

11 - Developer

Introduction

This is the viisights WISE integration API Reference. It provides descriptions, syntax, and usage examples for each of the actions and data types for viisights API.

The viisights engine processes live streams, analyzes them and performs detections. Some of the detections can be configured to raise an alarm in case they are detected in the stream e.g. PEOPLE FIGHTING.

The API is targeted for External system such as Control Center or VMS that needs to integrate with the Wise platform to receive those alarms e.g. PEOPLE FIGHTING, PERSON WITH MASK.

Third party systems can get the detection either by pulling the detections using REST API or by subscribing to the wise alarm channel and receive the the alarm messages by push mechanism.

When using push mechanism, each message to the subscriber represents a single alarm with the same Alarm model. The channel is redis for more details see https://redis.io/topics/pubsub and it supports a large set of clients see https://redis.io/clients. The name of the topic to subscribe is analytics_alarms.

The alarms in both mechanisms have the same data model but they are received the different ways.

There are several alarm types:

Analytics	Alarms detected by the WISE Analytic engine by processing the camera stream(s) .e.g. PEOPLE FIGHTING
System	Alarms about the system healthy e.g. Analytics engine stopped/started.
Device	Alarms about the devices e.g. Added new camera, stopped camera

Clients that are interested to get alarms using push mechanism should subscribe for the redis topic as follows:

-

Alarm type redis topic name
Analytics analytics_alarms
System system_alarms
Device device_alarms

Terms and Definitions:

Detection Type	Description	Examples
Object	The entity being detected on the screen	Person, Car
Attribute	A property of an object	Color, type
Action	Define Object's behavior	Person walking, car driving
Event	Defines interaction between two or more objects	people fight, person get into car
Alarm	A detected class/es with attribute(s) that it is configured in Wise to raise an alarm	people fighting
Class	A low level labeling of a frame or a sequence of frames.	Object, Attribute, Action, Event

The available API calls are divided into five groups:

- **Camera:**

Name	Description	Type
Camera List	Get Cameras list	Get
Register a Camera	Register one or more cameras in viisights Wise	Post

Register cameras by csv file	Register one or more cameras by csv file for viisights Wise	Post
Start the camera stream	Starts an already registered Camera Stream	Post
Stop the camera stream	Returns the camera status	Post
Pause alarm	Pause alarm/Uncaused alarm - value in minutes	Post

- **Alarms:**

Name	Type
List of analytics alarms	Get
List of statistic alarms stat	Get
List detected alarms	Get
List system alarms	Get
List detected alarms	Get
Get alarm by alarm id	Get
Updated alarm	Put
List of event type notification alarms	Get

- **NN:**

Name	Type
Return the List of the GPU devices	Get
Save the active GPU	Post
Return NN status	Get
Return NN status	Get

- **Connectors:**

Name	Type
List of cameras per connector	Get
Connect cameras to connector	Post
Get cameras per connector	Get

Update cameras to connector	Put
Delete cameras from connector	Post

- **Applications:**

Name	Type
Get people estimated system setting	Get
Update people estimated application system setting	Post
Get estimated people counting	Get
Get camera that related to estimated application.	Get
Update camera estimated application	Post

12 - Help

The Help menu includes the latest user manual available on the Wise platform

https://s3-us-west-2.amazonaws.com/secure.notion-static.com/4f36fd14-f48d-4d65-90da-baf6c257e56f/viisightsWiseUserGuidev2.0.pdf

13 - User Name

User Settings

The system is provided with a predefined **WISE** user.

This user can define additional users, as needed.

There are several types of Wise users:

User name	Designation	Available Tabs	Manage Users list
admin	Viisights Operations usage	All	Yes
director	Viisights Sales usage	All	Yes
operator	Customers' usage	All	No
Wise	Customer' usage	**No access to:** Content Management System Settings System Monitor	No

How to define user settings:

1. Click on your **User type** at the top right corner of the screen.
2. Select the **User Settings** option
2. Modify the username and/or password.

3. Click the **SAVE NEW PASSWORD** button.

https://s3-us-west-2.amazonaws.com/secure.notion-static.com/582f8940-b097-48a5-bd21-2e0fd31a21d9/User_Settings.webm

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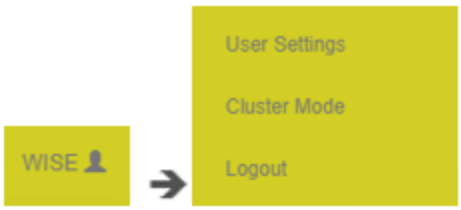
Manager Users

Cluster Mode

Accessing Cluster Mode

Cluster mode enables the user to view, register and control all video streams across all servers in one control panel. To access the cluster, click the user button at the top-right of the window —

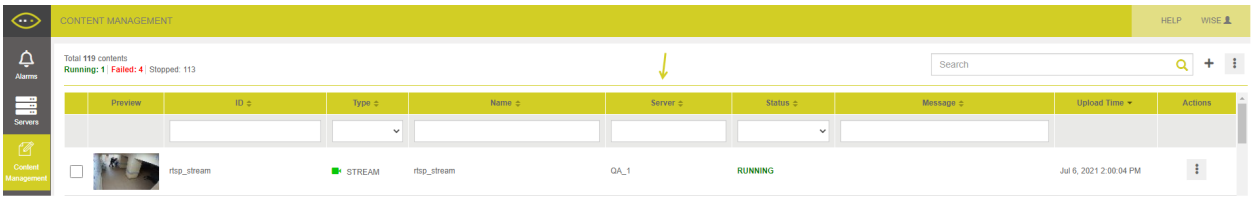


Operate Cluster Mode

Content Management

The Content Management tab lists all the registered video streams across all servers that have been registered.

The '' column will indicate on which server the stream is currently running.



System Settings

System Settings must be configured in order to get started working with the system for the first time and then from time to time, if needed.

The system Settings enable you to define various settings that affect the system's behavior across all servers.

Log out

To log out of the system, select your username in the top-right corner of the page and then the **Logout**

https://s3-us-west-2.amazonaws.com/secure.notion-static.com/c5648f47-6bdd-4433-ac95-6e52efd43aef/Logout_of_the_system.webm

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