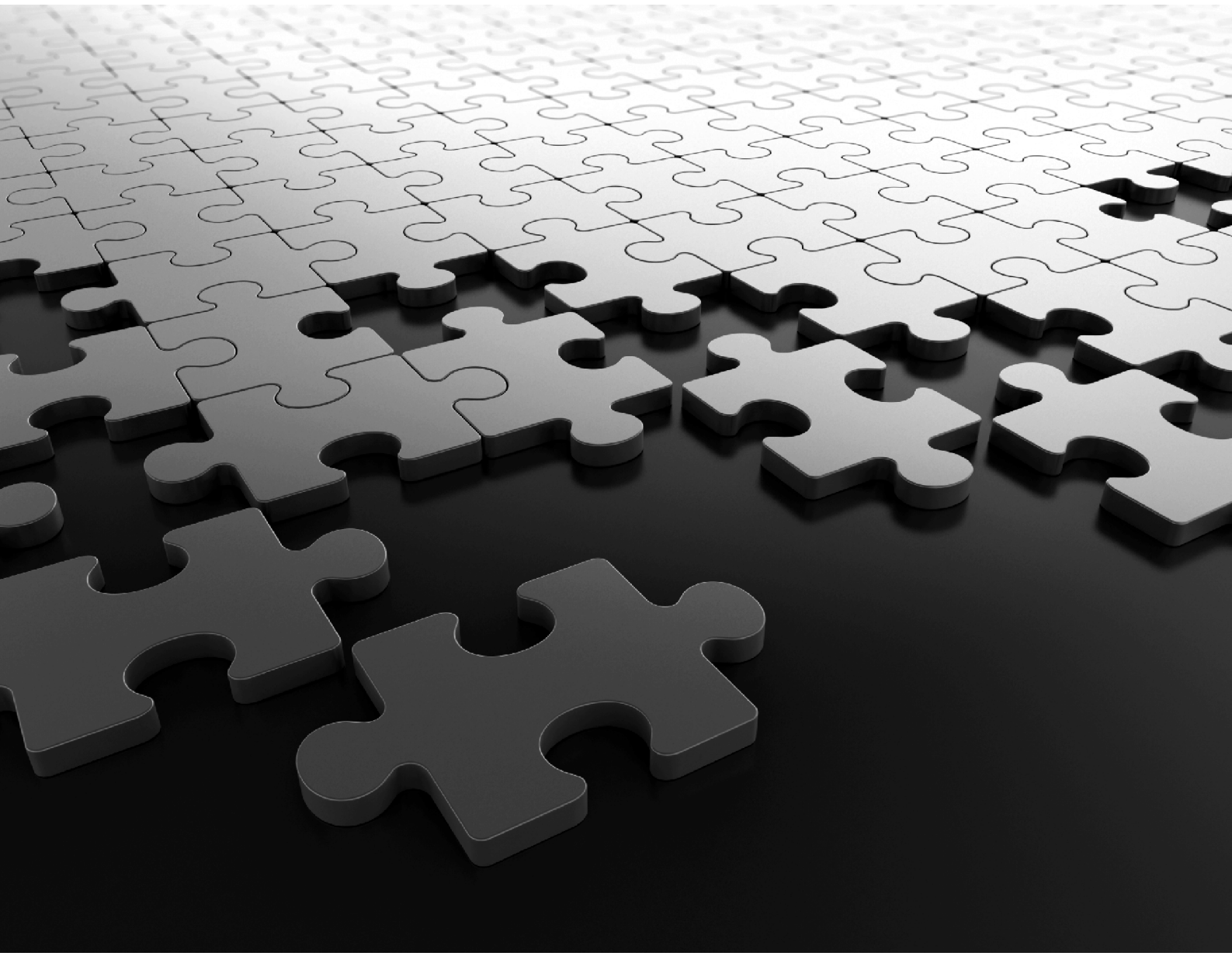
SATATYA SAMAS
Smart Client



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Matrix SATATYA SAMAS Smart Client

System Manual

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Warranty

For product registration and warranty related details, visit us at;

https://www.matrixcomsec.com/warranty/#IP-video-surveillance

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CHAPTER 1

Introduction

Welcome

Thank you for choosing the Matrix SATATYA SAMAS for Video Surveillance Management Solution!

Organizations are places with constant activity. Such places require uninterrupted, real-time surveillance to track all the activities in their premises. While most organizations today have stepped up with technology, they essentially lack smart analytics and features, when it comes to video surveillance. The SATATYA SAMAS is a new-age Video Management Solution designed for large enterprises with multi-site surveillance requirements. It is specifically designed to meet the all-round security and surveillance needs of organizations. Large enterprises have diverse and complex needs, all of which are seamlessly addressed by SATATYA SAMAS.

SATATYA SAMAS is a smart video surveillance tool, packed with intelligent features and video analytics. The suite of applications provides comprehensive management and support with centralized monitoring and control. It also supports a large number of cameras and other video surveillance devices. The application is optimized to support different languages. It also supports UTF-8 characters, allowing the users to provide inputs in their local language using international keyboards. This makes it an ideal solution for worldwide usage.

This helps business owners and managers to avoid unwanted accidents with proactive monitoring and management. In addition to this, SATATYA SAMAS can be linked with multiple solutions like POS, Weighbridge, Parking Management, Access Control, Fire Alarm and so on to strengthen the security on premises.

The Smart Client is a comprehensive video-surveillance application for viewing playback and live-view of the configured cameras. Security managers can take appropriate actions and keep an eye on the premises using Investigator to detect Events. Real-time Alerts for Event detection and Alarms notify the security managers to help them take actions in time. Smart Client also supports Dashboards that let users manage various widgets to navigate seamlessly across large number of slots, parking premises, perimeter zones, etc. for quick monitoring.

Please read this document carefully before proceeding with the configuration and operation of the Matrix SATATYA SAMAS Smart Client. Also, note that the configurations done in Admin Client are reflected in the Smart Client. The terms Matrix SATATYA SAMAS Smart Client, SATATYA SAMAS Smart Client and Smart Client are used interchangeably and refer to Matrix SATATYA SAMAS Smart Client.

About this Document

This is a common document providing detailed information and instructions for installing, configuring, managing and using the Matrix SATATYA SAMAS Smart Client as well as a general overview of the product functionality.

Certain information may appear blur in the documents due to security reasons.

Intended Audience

This System Manual is aimed at:

- **System Engineers**, who will install, maintain and support the SATATYA SAMAS System. System Engineers are people who are responsible for configuring the SATATYA SAMAS System to meet the requirements of the organization/users. It is assumed that they are experienced in the installation of SAMAS and its components and are familiar with the cabling of such systems. They are expected to be aware of its working and the various technical terms and functions associated with it. The System Engineers must have undergone training in the installation and configuration of the SATATYA SAMAS System. No one, other than the System Engineers are permitted to make any alterations to the configuration of the SATATYA SAMAS System.

- **System Administrators**, who will monitor, manage and use the SATATYA SAMAS System after installation. Generally, an employee of the IT department in an organization or establishment is selected as the System Administrator. The System Administrators are not expected to setup and install the system hardware, but only know about the configuration of the system including its functionalities and features.

- **Users**, persons/organizations who will use the SATATYA system. They may be executives, including security personnel of small and medium businesses, large enterprises, front desk and service staff of hotels/motels, hospitals and other commercial and public organizations/institutions.

Organization of this Document

The SATATYA SAMAS Smart Client manual is organized into the following chapters:

Chapter 1: Introduction provides detailed information on the nature and content of this document, intended users, and terms and conventions used to present information and instructions.

Chapter 2: Know Your Smart Client provides detailed information on the product and its functioning.

Chapter 3: Getting Started with Smart Client provides detailed description of the installation, start-up and common user interface elements of the SATATYA SAMAS Smart Client application.

Chapters 4: Smart Client Applications provides detailed information about the various functionalities of the Smart Client.

Chapters 5-12: provide detailed description of each functionality of the Smart Client application, its features, functionality and configurations therein.

How to Read this Document

This document is organized in a manner to help you get familiar with the SATATYA SAMAS Smart Client to use its functionalities and perform configurations wherever required.

This System Manual is presented in a manner that will help you find the information you need easily and quickly.

You may use the Table of Contents and the Index to navigate through this document to the relevant topic or information you wish to look up.

SATATYA Devices refers to the Device (NVR, DVR, HVR) that you may have added to SATATYA SAMAS.

The word IP Cameras is used through-out the document and it represents IP Cameras as well as Mobile Cameras, unless specified. Mobile Cameras may not support certain features, the same is mentioned explicitly.

- **Instructions**: The instructions in this document are written in a step-by-step format. Each step, its outcome and indication/notification, wherever applicable, have been described.
- **Symbols**: The following symbols are used in the document to draw your attention to important items.

Important: *to indicate something that requires your special attention or to remind you of something you might need to do when you are using the system.*

Caution: *to indicate an action or condition that is likely to result in malfunction or damage to the system or your property.*

Warning: *to indicate a hazard or an action that will cause damage to the system and or cause bodily harm to the user.*

Tip: *to indicate a helpful hint giving you an alternative way to operate the system or carry out a procedure, or use a feature more efficiently.*

Technical Support

For additional information or technical assistance with SATATYA SAMAS Smart Client and other Matrix products, contact our Technical Support Help Desk. We are available from Monday to Saturday - 9.00 AM to 6.00 PM (GMT +5.30), except company holidays.

Phone	(+91) 1800 258 7747
Internet	www.MatrixComSec.com
Phone	Tech.Support@MatrixComSec.com

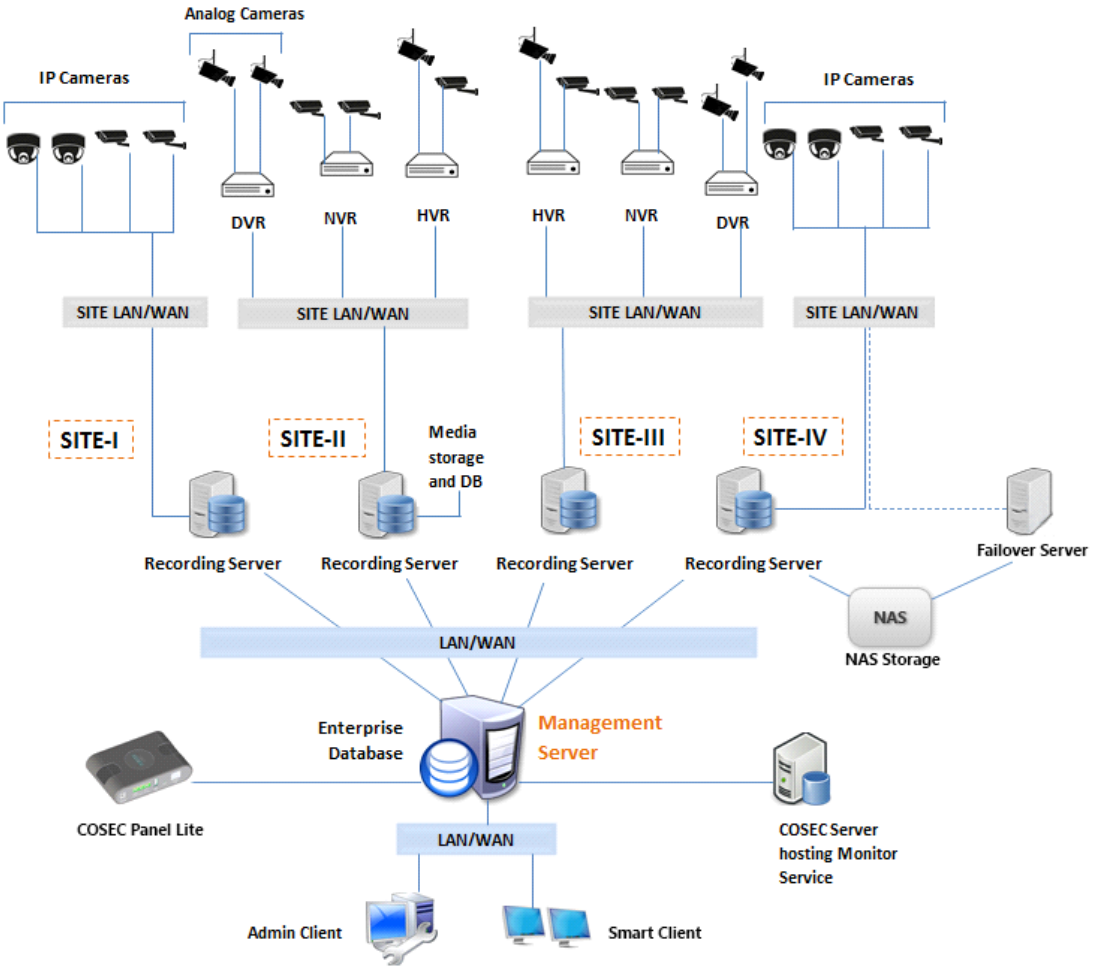
CHAPTER 2

Know Your Smart Client

The SATATYA SAMAS is a tool for centralized video surveillance management and monitoring which is centrally controlled by the Management Server. The Smart Client along with the Admin Client interacts with the Management Server in request- response manner through LAN/WAN. After successful user login, the Smart Client interacts with the Recording Servers in request-response format for the live camera streams.

The Smart Client provides live viewing and playback of recorded videos from the Recording Server connected to Devices and Cameras in the LAN/WAN network. It connects to the multiple site Recording Servers in Matrix Surveillance System at the same time after authentication at the central Management Server. Smart Client provides many features such as Window Sequence, My Views, Manual Triggers, PTZ Controls, Camera Controls and so on for quick monitoring. It also supports Event detection and Evidence lock for efficient Investigation.

The system architecture of the SATATYA SAMAS based on a typical multi-site setup is illustrated below.



Features and Advantages

The features[1] of the SATATYA SAMAS Smart Client are as follows.

- **Central Management System:** The Management Server is the command and control authority of the system and it is installed at one location. The Recording Server is responsible for communicating with cameras and streaming their live video. This network of Recording Servers centrally connected with a single Management Server forms a Central Management System for a large enterprise.

- **Bookmark:** During live monitoring or playback of a video, any particular section which is of interest or importance can be bookmarked for future reference. These can be searched and navigated easily using the bookmark name.

- **Sequence of Specific Cameras:** The sequence of desired cameras can be configured in Smart Client. These can be viewed in both pack and unpack form. For example, a security operator who wants to monitor all the cameras at the entry gates in a sequence can use this feature.

- **Groups:** The cameras and devices connected to different Recording Servers can be logically grouped for easy navigation in the system.For example, in multi-storied headquarters of a company, the logical grouping of devices floor-wise makes it easy for the users to navigate through the desired group of devices.

- **Alarm Monitoring:** You can view the Alarms triggered in the system on the Alarm Monitoring window. You can acknowledge the Active Alarms, add comments to the Alarms as well as view details in the Alarm reports.

- **Playback:** You can record the videos and play them back afterwards, if required for investigative or monitoring purpose.The records can be searched by specifying user search criteria like specific date and time, a particular bookmark. Also, actions like playback, loop play and export can be performed.

- **Instant Playback:** You can view the instant playback of the recording in the Live Monitoring tab, if any suspicious activity is found during live monitoring of camera.

- **Synchronous Playback:** The recorded videos of different cameras can be monitored with respect to a definite time period in order to have an all-round investigation for a particular Event. You can switch over from Synchronous mode to Asynchronous mode in the same Playback Menu.

- **Custom Event/Alarm Alert:** You can manually trigger a Custom Event/Alarm to provide an alert to other users about any suspicious activity or incident observed during the Live Monitoring.

Custom Events feature is supported till Software Release V5R6 as well as from Software Release V6R2 and onwards.

- **Emap Monitoring:** You can add a multilayer 2D map of the Organization where the system is installed as well as add cameras to this map using a simple drag and drop function. Any Event or alarm is notified via Emap Monitoring, so that you are able to locate the exact spot in the organization where the Event or Alarm is triggered. A live video of the selected camera can also be viewed from this feature by just clicking the camera placed on the Emap.

1. *Object Detection Event, Object Type in all IVA Events, Object Classification License and Face Detection features are not available in the current Software Release. These will be included in the upcoming release.*

- **Joystick Support:** The PTZ (Pan Tilt Zoom) cameras can be controlled by a USB joystick. You can assign actions on various buttons of joystick.

- **Evidence Lock:** You can lock/unlock the evidence for future use, by defining a locking period through the Evidence Lock feature. There are certain video recordings which are necessary to store even after its normal retention time and might help in investigation of cases.

- **Dashboard:** You can view the live status of different entities by adding widgets at a glance, through the Dashboard feature. This feature enables you to monitor the different Smart Client entities such as Parking Slots, Emaps and Vehicle Counter simultaneously at a single place.

- **SAMAS and ONVIF User Status:** You can view the status and details of the SAMAS and ONVIF users. You can also disable/enable users as per your requirement.

- To enhance security from SAMAS V6R1 and onwards, we have introduced data security for data at rest as well as in transit (applicable only when Matrix proprietary protocol is used). Hence, if you are upgrading SAMAS to V6R1, then make sure all the components are also upgraded to the same version to ensure smooth functioning.

CHAPTER 3

Getting Started with Smart Client

The SATATYA SAMAS offers a simple and easy-to-use installer utility for all components including the Smart Client. Run the SATATYA SAMAS installation setup on the selected system to install the Smart Client component. For details, refer to the *SATATYA SAMAS Installation Guide* as it consists of the complete installation procedure along with the system requirements.

The current chapter will help you get started with the basic elements of the Smart Client, once the installation is completed successfully.

Login into the Smart Client

For step-by-step installation instructions, refer to **SATATYA SAMAS Installation Guide.**

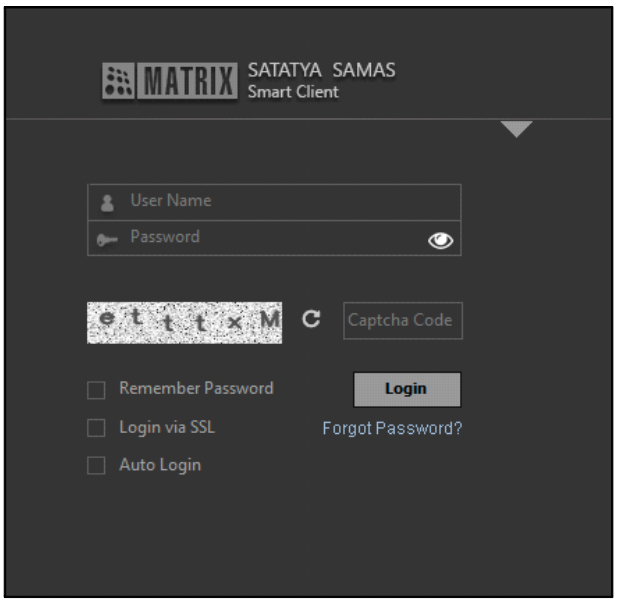
On completion of the installation, the Smart Client shortcut icon

appears on your Windows Desktop.

Make sure you have provided full access rights (manually) to the SATATYA SAMAS Smart Client Folder you installed.This is applicable for Software Release V5R4 and later only.

For other Software Releases, windows authentication pop-up will appear to provide administrative rights.

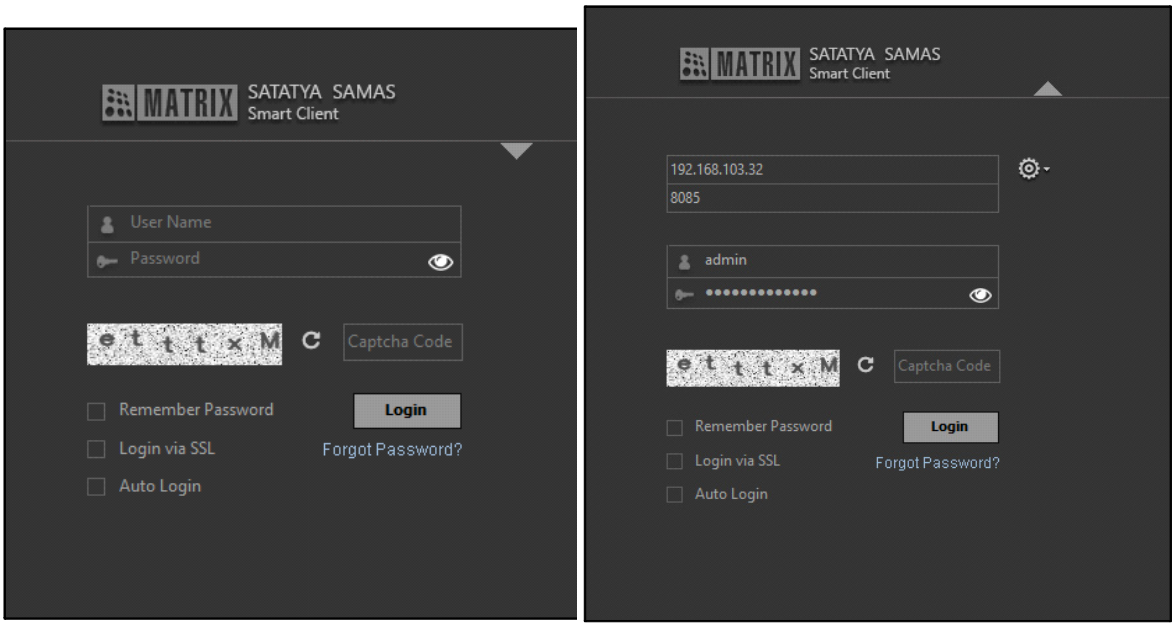
- Double-click on the icon to launch the Smart Client Application. The login page appears.



*Customized logo will be displayed on the Login page, Set Password and Forgot Password page instead of **MATRIX** logo, if it is configured in Admin Client. Refer to the SATATYA SAMAS Admin Client Manual, General Settings > System Settings > Logo Personalization.*

Follow the steps given below to configure the network parameters.

- Click to expand the panel. Enter the **IP Address** and **Port**.

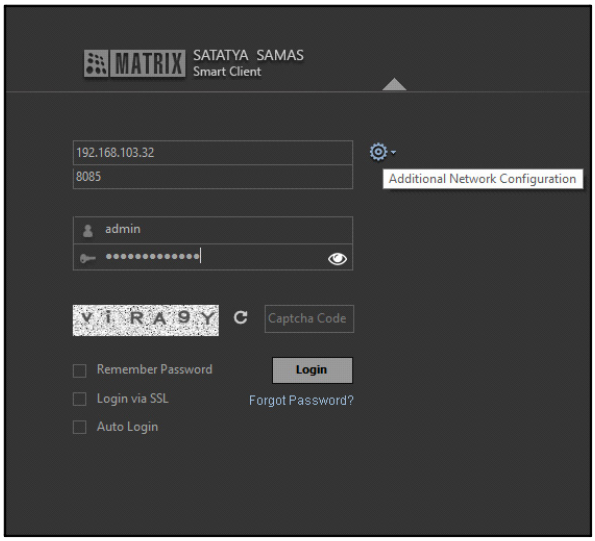


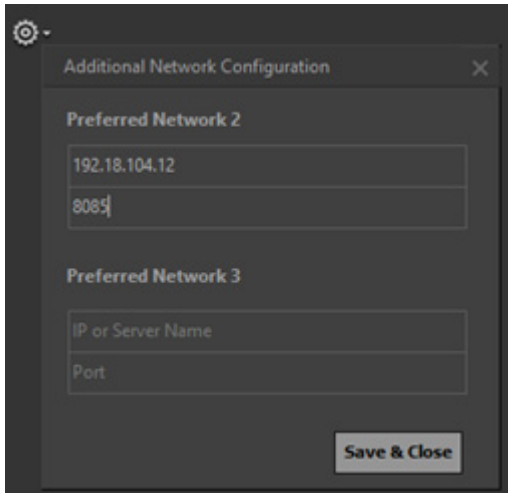
- **IP Address** or **Server Name:** Configure Private or Public IP Address of the Management Server. You can also enter Host Name, Domain Name or Server Name of the ISP. By default this is Preferred Network 1.

- **Port:** Configure the Private or Public Port.

You can add two more Preferred Networks, that is, Preferred Network 2 and Preferred Network 3. In case Preferred Network 1 fails, the connection is established via Preferred Network 2 or Preferred Network 3. In these three preferred networks, you can either configure Private Network or Public Network (ISPs) for the Management Server.

- To add Preferred Network 2 / 3, click **Additional Network Configuration** .





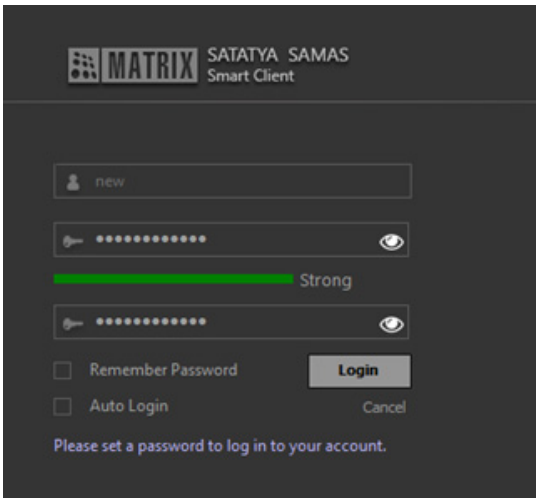
- Configure the IP Addresses and Ports of the respective Preferred Networks.
- Click **Save & Close** to save the configurations.You return to the login page.

Configure the network with the highest priority as Preferred Network 1.

- Enter the User Name and Password. The first login can be performed using the default administrator User Name; **admin**.
- Enter the Captcha code. The Captcha code helps in increasing security of application by differentiating between real and automated users. Click **Refresh** to refresh the Captcha code.
- Click **Login**.
- At the time of first login, you will be prompted to set a new password. The SAMAS stores a list of frequently used passwords in a database and compares the new password with the same. SAMAS will not allow you to configure such frequently used passwords to enhance security.

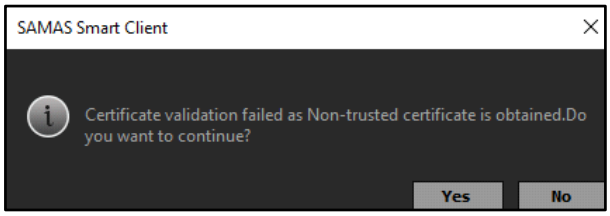
  To create a strong password make sure you enter one special character, one number, one lowercase and one uppercase character. The Password Meter displays the strength of the password you enter. Make sure you enter 12 characters (default value) as the password length. Make sure you note down the created password at a secure place for future reference. For details, refer to SATATYA SAMAS Admin Client Manual, General Settings > System Settings > Password Settings.

- Click **Show** to view the password. The icon toggles to **Hide** . Click **Hide** to hide the password.



- While logging into the Smart Client, you can select the **Remember Password** check box, if you wish the application to remember your password for successive logins.
- You can also select the **Auto Login** check box to login into the application automatically from Admin Client. When **Auto Login** is enabled, no login credentials and Captcha need to be entered.
- You can also select the **Login via SSL** check box to login into the application securely via SSL. If the Management Server is running on SSL mode, then it is mandatory to enable this check box to login into the Smart Client.

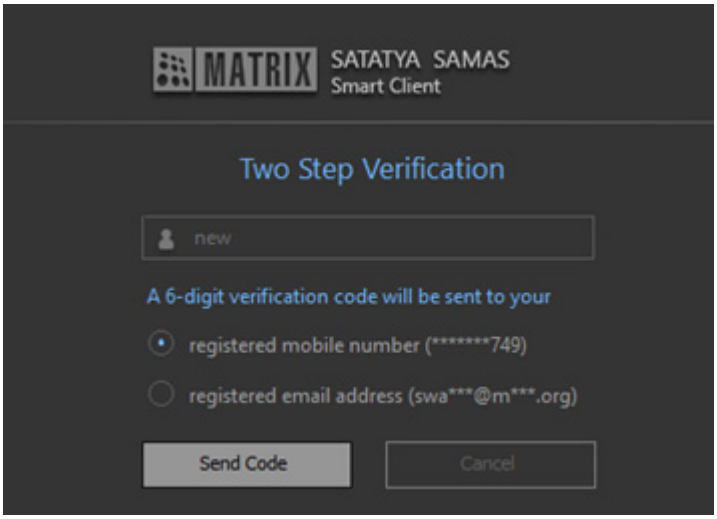
If **Login via SSL** check box is selected and the SSL certificate is not available and/or expired, accordingly a pop-up appears.



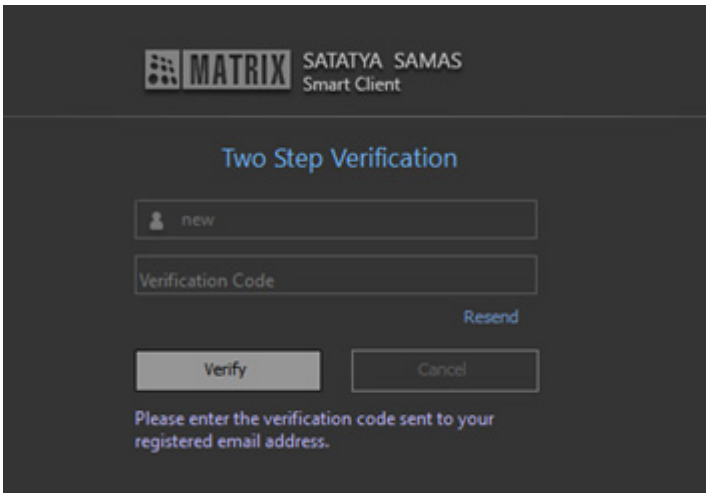
- Click **Yes** to continue to login with untrusted/expired certificate.

  The events for unavailable/expired SSL certificate will be visible if the Event Monitoring Rights are assigned to your User Group. Make sure you have selected the **Online Event** check box against the desired Events in “Event Alerts” in “General Settings” to view these Events. To view the event details, refer to “Bottom Pane Functionality-Online Events”.

If **Enable Multi-factor Authentication** is enabled in Admin Client for the Smart Client user, then on clicking **Login**, the **Two Step Verification** page appears. For details, refer to SATATYA SAMAS Admin Client Manual, General Settings > System Accounts > Users.



- Select the desired option — registered Mobile Number or Email Address — on which you wish to receive the 6-digit verification code, that is, OTP. Click **Send Code**.



- Enter the verification code received on the registered Mobile Number or Email Address. The code is valid for 10 minutes only. Click **Verify**.

The Maximum Failed OTP Allowed, Maximum OTP Regeneration Allowed and Lock Account will be as per the OTP Policy for Multi-factor Authentication. For details, refer to SATATYA SAMAS Admin Client Manual, General Settings > System Settings > Password Settings > OTP Policy.

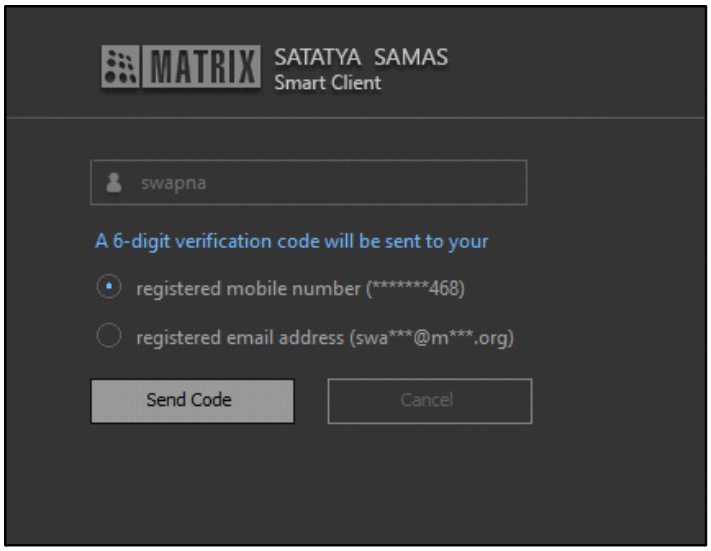
- Click **Login**. The Smart Client Home page appears.

Forgot Password

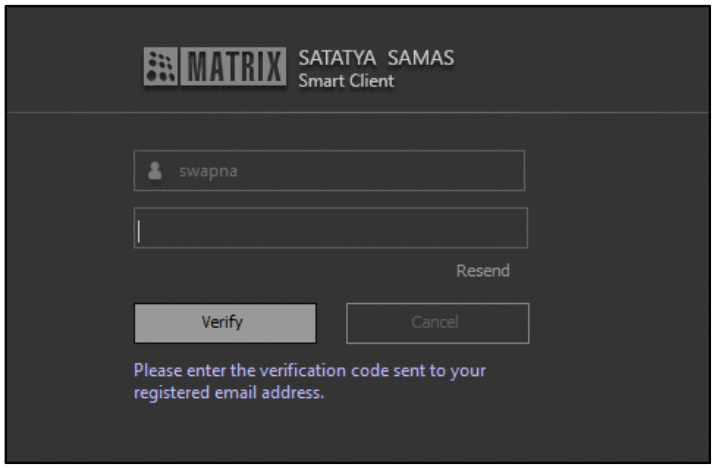
If you forget your current password, **Forgot Password** enables you to receive an OTP and set a new password. The OTP (One Time Password) will be sent either to the registered Mobile Number or Email Address.

To do so,

- Click the **Forgot Password** link on the Login page.

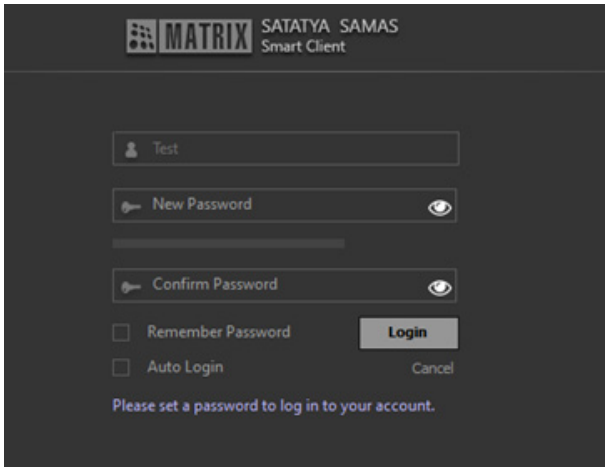


- Select the desired option — registered Mobile Number or Email Address — on which you wish to receive the 6-digit verification code, that is, OTP. Click **Send Code**.



- Enter the verification code received on the registered Mobile Number or Email Address. The code is valid for 10 minutes only. Click **Verify**.

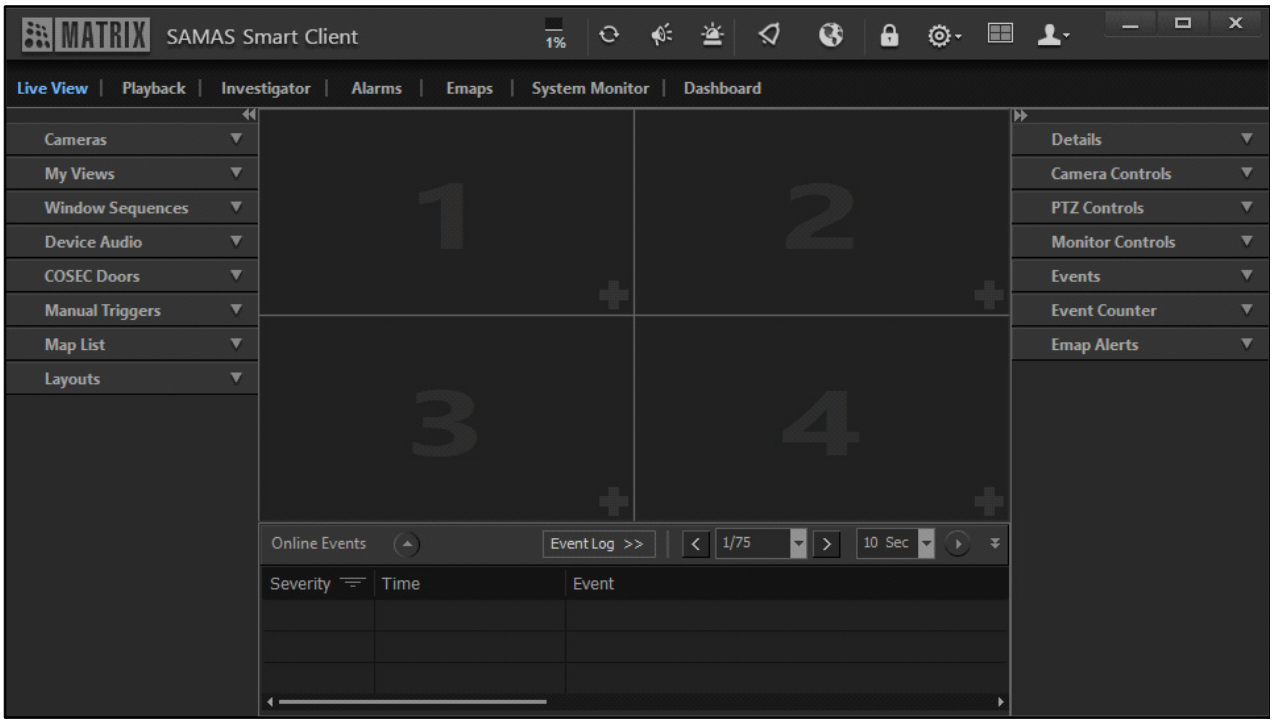
The Maximum Failed OTP Allowed and Maximum OTP Regeneration Allowed on Resend depends on the configured OTP Policy. For details, refer to SATATYA SAMAS Admin Client Manual, General Settings > System Settings > Password Settings > OTP Policy.



- The Login page appears. Enter the **New Password** and re-enter it in **Confirm Password**.
- Click **Login**. You are logged into the Smart Client.

Smart Client Homepage

Once you login, the SATATYA SAMAS Smart Client Homepage appears.



Your accessibility of various features/functionalities in the Smart Client will depend on the rights — Application, Configuration, Media, Entity, Event Monitoring, Report — assigned to the User Group to you from the Admin Client. To know more, refer to SATATYA SAMAS Admin Client Manual.

Servers and Device Icon Representation

In SATATYA SAMAS, let us get acquainted with the icon representation of the servers and devices.

Icons	Description
Servers status icons	
	Management Server is connected
	Management Server is disconnected
	Recording Server is connected
	Recording Server is disconnected
	Failover Server is connected
	Failover Server is disconnected
	IVA Server is connected
	IVA Server is disconnected
	Transcoding Server is connected
	Transcoding Server is disconnected
	ONVIF Server is connected
	ONVIF Server is disconnected
Recording Server (RS) Devices Icons	
	Device is neither connected via RS or FoS
	Device is connected with RS
	Device is kept under maintenance
	Device is disconnected with RS, while it is connected with FoS
	Device is connected with RS and Device audio is ON
	Device is neither connected with RS nor FoS and Device audio is ON

Icons	Description
	Device is kept under maintenance and Device audio is ON
	Device is not connected with RS and Device audio is OFF
	Device is neither connected with RS nor FoS and Device audio is OFF
	Device is kept under maintenance and Device audio is OFF
Failover Server (FoS) Devices Icons (System Monitor)	
	Device is connected via FoS and disconnected from RS. ***Note:*** *In this case, RS will be disconnected.*
	Device is connected via RS and not via FoS.
	Device is neither connected via RS nor FoS.
	Device is connected with FoS and Device audio is Off.
	Device is connected with FoS and Device audio is ON.
Server Version Mismatch icons	
	FoS version mismatch (Connected)
	FoS version mismatch (Disconnected)
	IVA server version mismatch (Connected)
	IVA server version mismatch (Disconnected)
	Recording Server version mismatch (Connected)
	Recording Server version mismatch (Disconnected)
	Transcoding Server version mismatch (Disconnected)

Icons	Description
	Transcoding Server version mismatch (Disconnected)
	ONVIF Server version mismatch (Disconnected)
	ONVIF Server version mismatch (Disconnected)
Mobile Camera Icons	
	Mobile Camera is connected with RS It will be enabled only when the Push Video feature is being accessed from the associated Mobile Client.
	Mobile Camera is disconnected from RS
	Mobile Camera is connected via FoS and not via RS. It will be enabled only when the Push Video feature is being accessed from the associated Mobile Client.
	Mobile Camera is disconnected from FoS

Title Bar

The Title Bar enables you to view Emap Alerts, Emap Alerts, Alarms etc. For more details, refer to “Title Bar Functionality”.

Title Bar Functionality

The Title Bar enables you to view and configure Alarms alerts, Emap alerts, General Settings, Broadcast, etc. The following options appear in the Title Bar.

*Customized logo will be displayed on the Login page, Set Password and Forgot Password page instead of **MATRIX** logo, if it is configured in Admin Client. Refer to SATATYA SAMAS Admin Client Manual, General Settings > System Settings > Logo Personalization.*

Refer to the following links for the configuration and functional details of the different features.

- "CPU Usage"
- "Sync Configuration"
- "Broadcast"
- "Emergency Event"
- "Alarms Active"
- "Emap Alert"
- "Lock Client"
- "Settings"
- "Multi Display"
- "User Details"

CPU Usage

CPU Usage

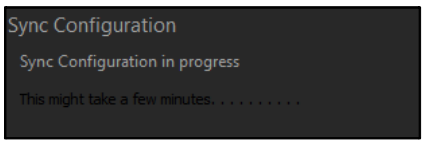
displays the system's CPU utilization by the Smart Client on which it is running.

Sync Configuration

Sync Configuration enables you to manually sync the configuration changes done in the Admin Client with the Smart Client.

The Sync Configuration icon appears Orange in color whenever there are configuration changes done in the Admin Client but the same have not been synced with the Smart Client.

- To sync the changes, click **Sync Configuration** and the following pop-up appears.



Broadcast

Broadcast enables you to send audio signals from the Smart Client to multiple entities like Cameras and Devices at the same time. It will turn On the **Audio-Out** feature by turning-on the microphone for multiple entities at the same time and then audio input can be easily sent to all of them.

*To Turn-on the **Audio-Out** feature for the entity means to enable the Audio to be played through the Audio-Out device connected with it.*

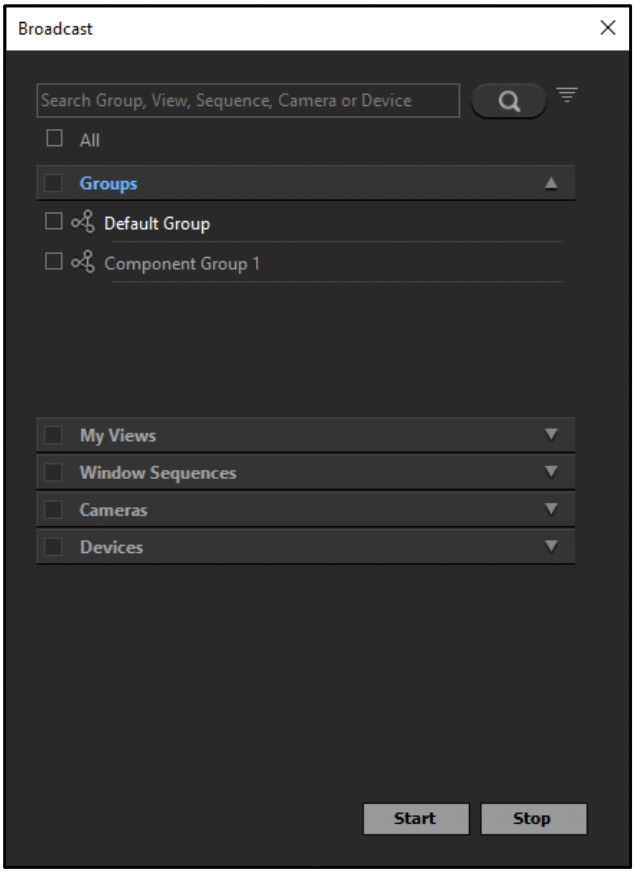
If you wish to broadcast any audio message, you must connect a Mike to the system in which Smart Client is installed. The audio can be heard through the Audio-Out devices (For example, speaker) connected on to the Audio-Out port of the camera/device.

Broadcast is useful in emergency situations or when the user wants to convey some message through audio to multiple cameras and/or devices at the same time. For example, if a school principal wants to convey some important message to the cameras connected in all classrooms, it is possible to do so by turning on the Audio-Out for each camera one by one from the web page of the individual camera and then convey the message. This is a very cumbersome process to do. Instead of doing that, the principal can broadcast and easily convey the message to individual cameras connected in all classrooms at the same time.

Make sure you have the Microphone rights and Entity rights of Camera and/or Devices (HVR/NVR/DVR) to enable Audio-Out for single/multiple entities.

To configure Broadcast,

- Click **Broadcast** . The **Broadcast** pop-up appears.



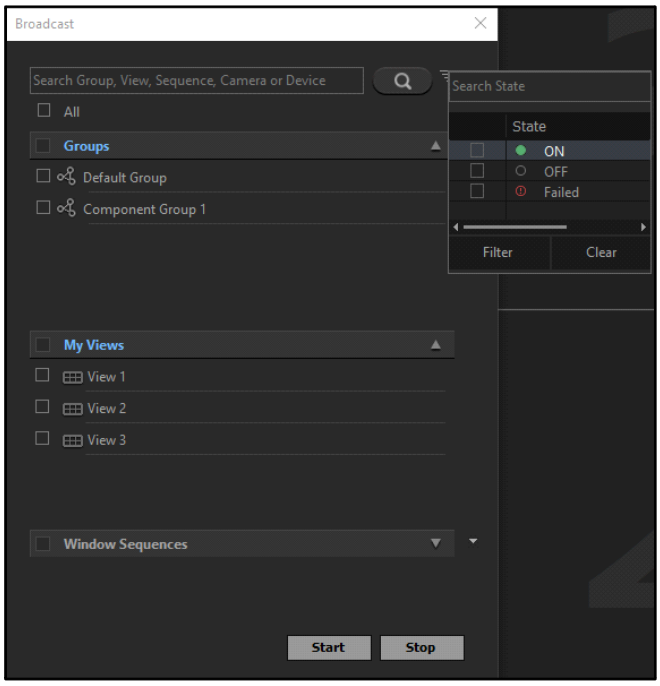
The Broadcast pop-up contains five collapsible panels — Groups, My Views, Window Sequences, Cameras and Devices.

All the Groups, My Views, Window Sequences, Cameras and Devices appear in their respective collapsible panels.

- Select the check boxes for the desired entities to Broadcast. You can also search for the required entities using the search bar.

You can also filter the entities on the basis of their Audio-Out Status.

- Click **Filter** to filter the entities. The following pop-up appears.

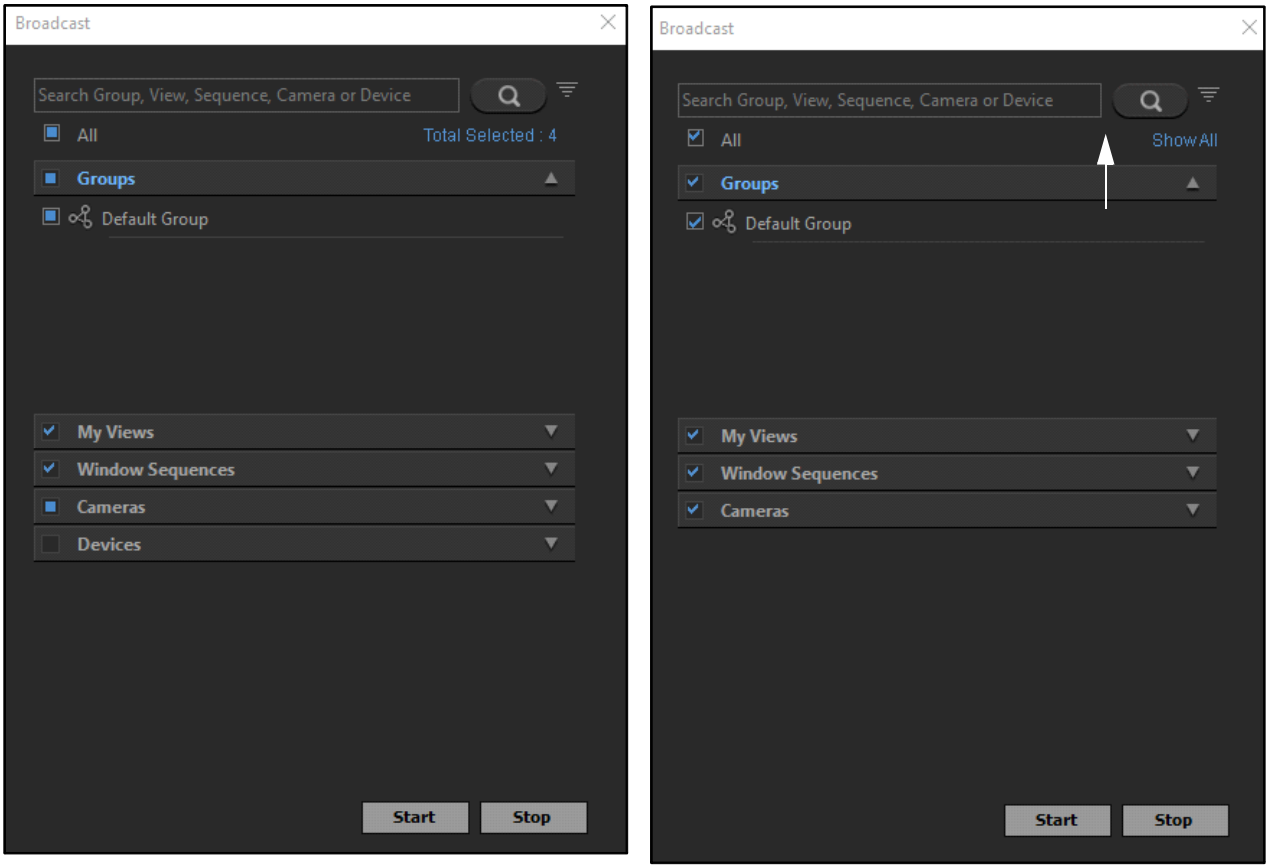


- The entities can be filtered on the basis of the status of Audio-Out. Select the check boxes of the desired status on the basis of which you wish to filter.
- Click **Filter** to view the entities as per the set filter or click **Cancel** to discard.
- Click **Clear** to clear the set Filters.

If you select an entity under any one collapsible panel — Groups, My Views, Window Sequences, Cameras and Devices — and it is present under another then it will be selected automatically. For example, if you select the view First Floor under My Views which has the device named 6-cam. Now, this device is present in Window Sequence named Monitor1, then this sequence will be enabled automatically.

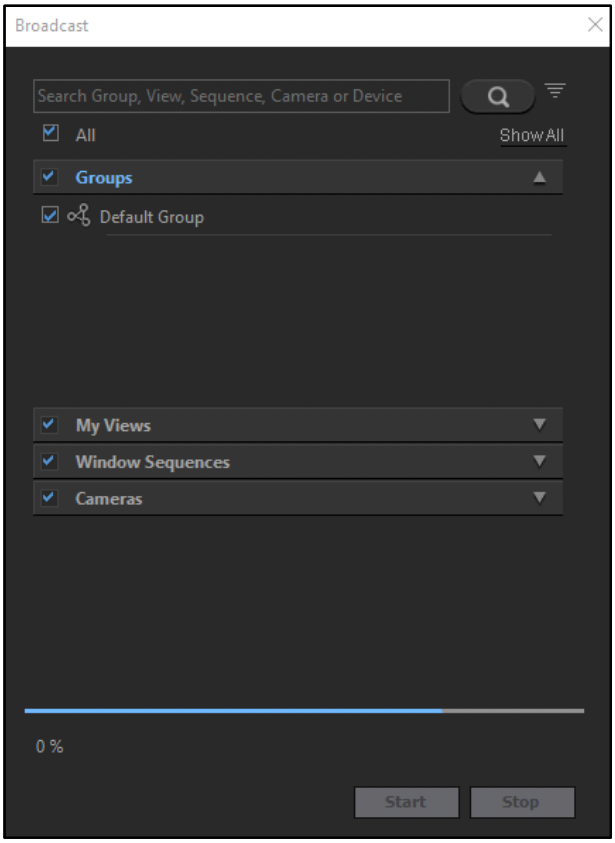
Total Selected on the top-right corner of the pop-up displays the total number of selected entities.

- Click **Total Selected** to view the list of selected entities. Once clicked, it toggles to **Show All**.



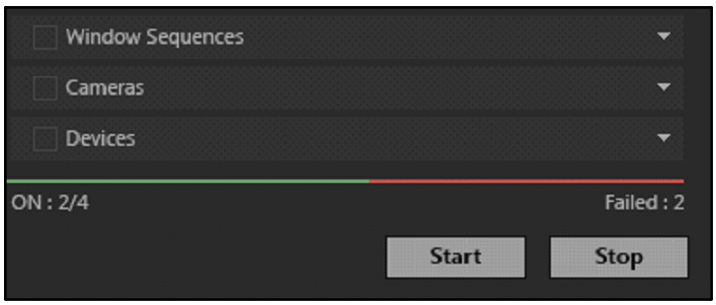
- Click **Start** to start the Audio-Out of the selected entities.

  A progress bar appears that displays the status in percentage at the bottom of the pop-up above the **Start** and **Stop** options.



Once the process is complete, the result is displayed. The result displays the number of entities for which the Audio-Out is On in green color. The number of entities for which the Audio-Out failed is displayed in red color. For example, in the image below, the Audio-Out is On for 2 entities and it failed for 2 entities out of a total of 4 entities, that is, ON: 2/4.

Entities that have their Audio-Out turned-on already will not be counted by the system while displaying the result.



- Now, click **Start** again to start broadcasting the message.

  The Broadcast icon turns red once the Audio-Out starts or Broadcasting starts.

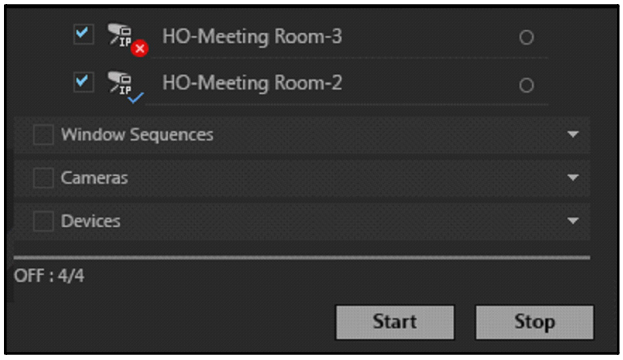
Broadcasting can be done to maximum 255 entities (cameras/devices) at the same time.

You can turn off the Audio-Out for the selected entities once the Broadcast is completed.

- Click **Stop** to turn-off the Audio-Out of the selected entities.

Once the process is complete, the result is displayed. The result displays the number of entities for which the Audio-Out is stopped out of the total number of selected entities.

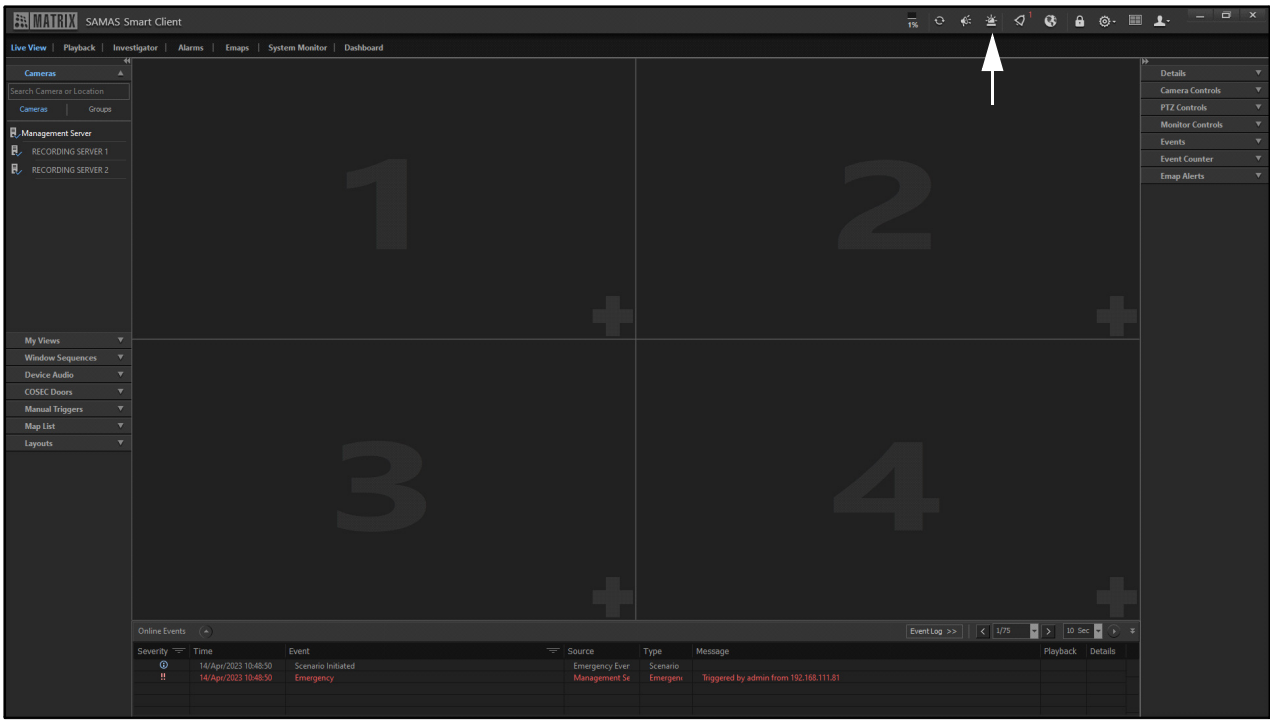
Entities that have their Audio-Out turned-off already will not be counted by the system while displaying the result.



Emergency Event

Emergency Event enables you to trigger an Emergency Event to all the Smart Client users in case of an emergency. Make sure you have configured the Scenario with the desired Action in the Admin Client. You can configure one scenario with multiple actions or you can configure multiple scenarios with a single action. However, in both the conditions all the actions configured against the Event Source Type as Emergency Event and Event as Emergency will be executed at the same time. For details, refer to SATATYA SAMAS Admin Client Manual, Cognitive Response Engine with Automated Monitoring > Basic Scenario.

When you click Emergency Event , the action configured will the executed in the Smart Client. Make sure you have selected the **Online Event** check box against this Event in “Event Alerts” in “General Settings” to view the Event in this section.



Alarms Active

Active Alarms displays the system generated alarms which are currently active and need to be addressed. It also displays Active System Alarms which are triggered against the Events as configured in Admin Client. For details, refer to “Alarms”.

Emap Alert

Emap Alerts displays notifications received for Emap alert. For details, refer to “Emaps”.

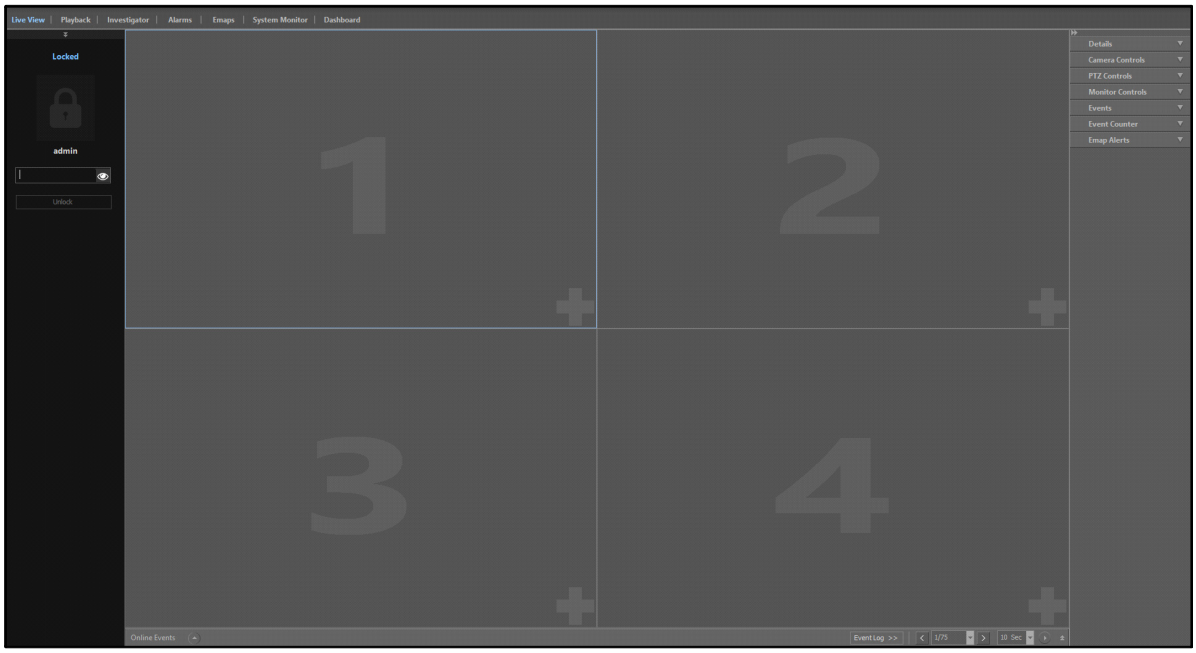
Lock Client

Lock Client enables you to lock the Smart Client screen to avoid unauthorized access. This is useful when the intended user is away from the screen for any reason while the Smart Client is logged in.

Users who are monitoring the screen can lock the client, and return to the same page from where they left. Here the system will not logout and the same session will remain active for the user.

To lock the Smart Client screen,

- Click **Lock Client** . The screen is locked and the following pop-up appears.



- To unlock the Smart Client screen, you must enter the Smart Client Login Password and then click **Unlock**.

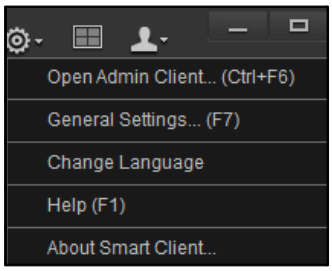
In the Admin Client, if the **Lock Client** time is configured, the Smart Client will be locked automatically after the expiry of the configured time. For details, refer to SATATYA SAMAS Admin Client Manual, General Settings > Password Settings.

The SAMAS shortcut keys will not function when the client is in locked state.

Settings

Settings enables you to perform certain configurations for the Smart Client application as a whole.

- Click **Settings** . The following options appear.



- **Open Admin Client:** It enables you to open the **Admin Client** application from the Smart Client.

*Windows User Account Control Settings must be set as **Never notify** for smooth functioning of **Open Admin Client**.*

- **General Settings:** It enables you to configure the general settings for alerts, application, media and joystick. For more details, refer to "General Settings".

- **Change Language:** It enables you to use the Smart Client application in language you prefer. The language can be changed for the current login session only. On every login, the language is changed to the preferred language.

  Preferred language can be configured from Admin Client from **General Settings > System Account > Users** or from the **Title Bar > Settings > Change Language**.

*While the language is being changed, a message stating **Translating...** appears and the user is not allowed to perform any activity till the process is completed.*

- **Help:** It displays the SATATYA SAMAS Smart Client System Manual.

- **About Smart Client:** It displays the Version of the Smart Client.

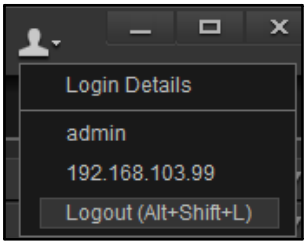
Multi Display

Multi Display enables you to assign a different entity to each monitor. These monitors must be connected to the same PC on which the Smart Client is running. This cuts down the hassle of navigating to the desired page every time on each monitor when you are using the Smart Client. For more details, refer to "Application".

User Details

User Details enable you to view the details of the user currently logged into the Smart Client.

- Click **User Details** . The following details appear.



- The Login Details display the User Name and the IP Address of the system from where the Smart Client is logged in.

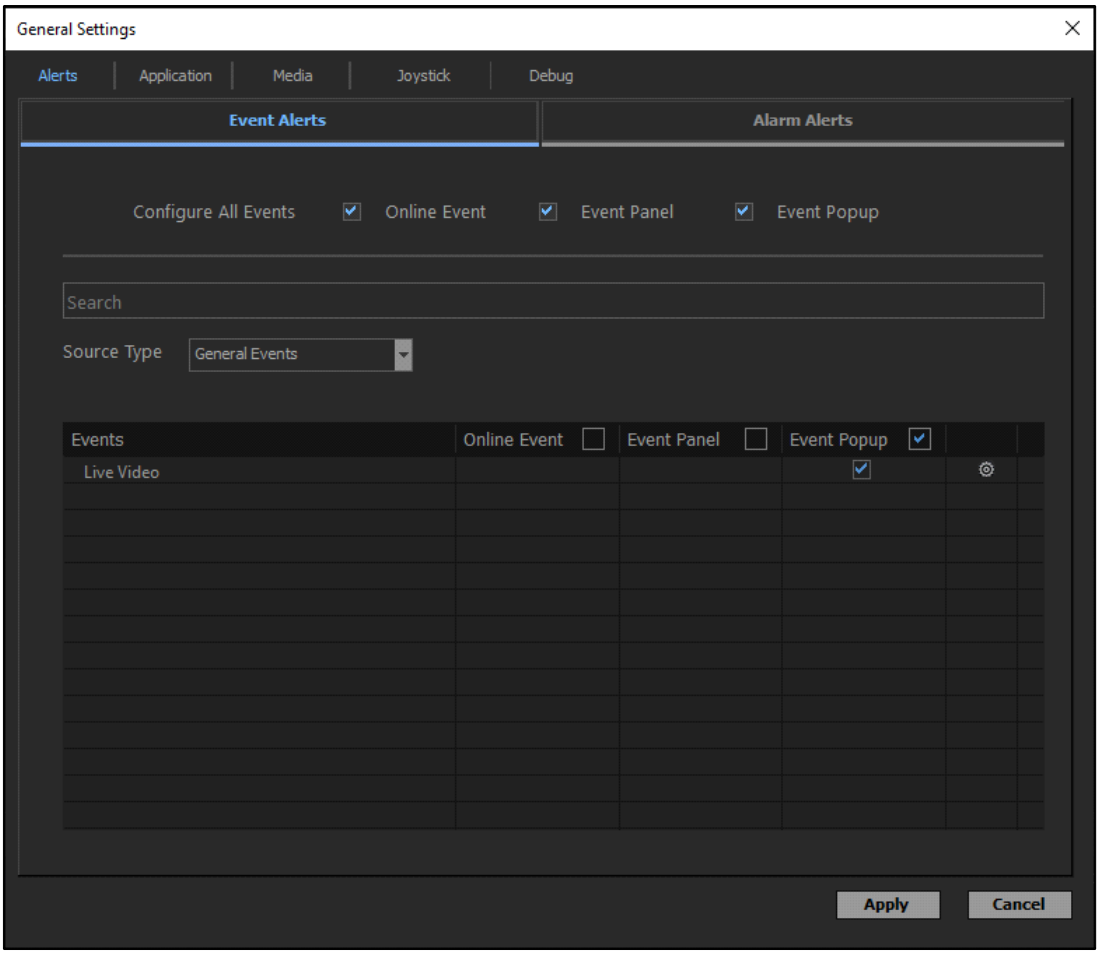
- **Logout:** It enables you to logout from the Smart Client.

General Settings

The General Settings option appears under Settings. You can configure the Event and Alarm Alert parameters, Application settings, Media storage and Joystick settings from this section.

To configure General Settings,

- Click **Settings > General Settings**.The **General Settings** pop-up appears.



The General Settings pop-up consists of the following tabs.

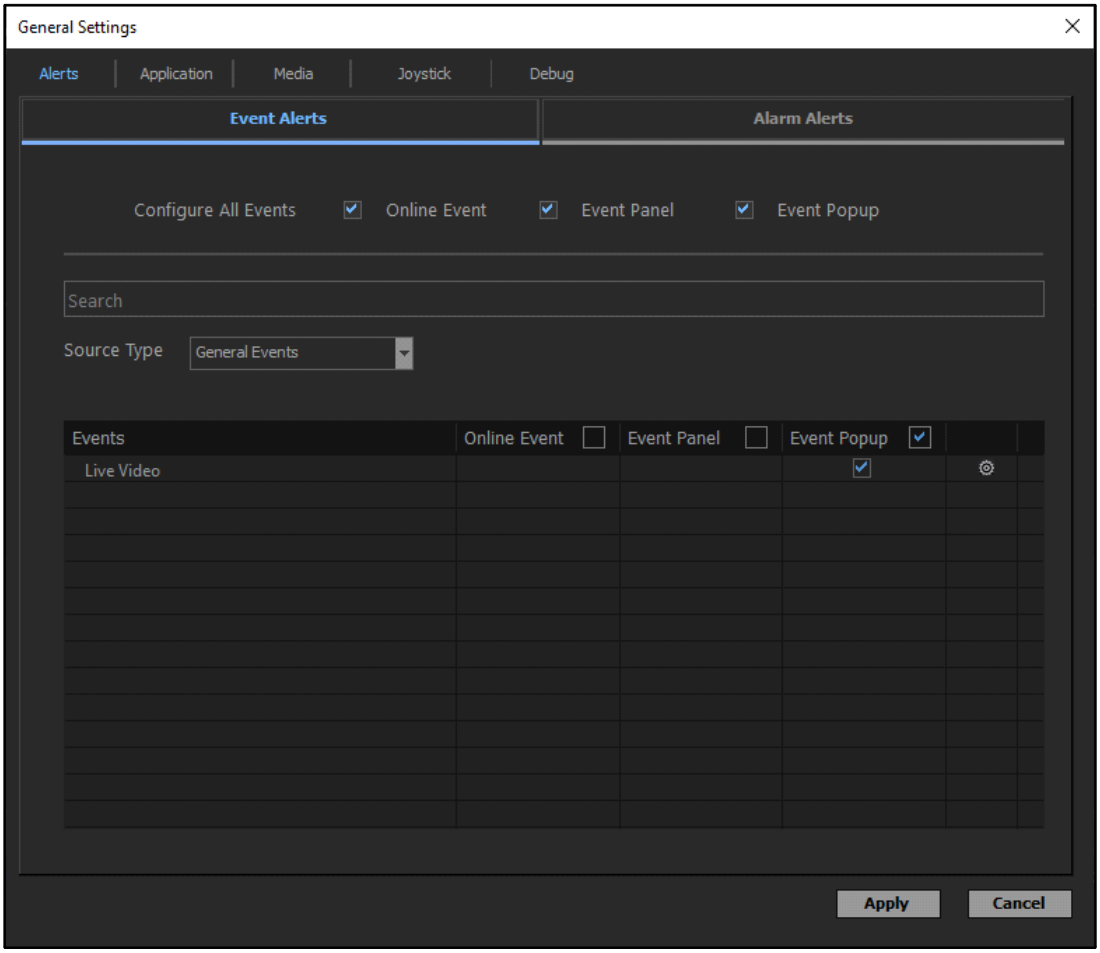
- "Alerts"
- "Application"
- "Media"
- "Joystick"
- "Debug"

Alerts

This tab allows you to configure Alerts for Events and Alarms.

To configure Alerts,

- Click **Settings > General Settings > Alerts**.



The Alerts tab is further divided into two tabs — "Event Alerts" and "Alarm Alerts".

Event Alerts

You can configure the Event Alerts for all those Events for which Event Monitoring Rights are granted to your User Group in the Admin Client. For details refer to the SATATYA SAMAS Admin Client Manual, General Settings > System Account > User Groups.

Make sure you have configured the scenarios with the desired Action/Event. For details refer to the SATATYA SAMAS Admin Client Manual, Cognitive Response Engine with Automated Monitoring > Basic Scenario.

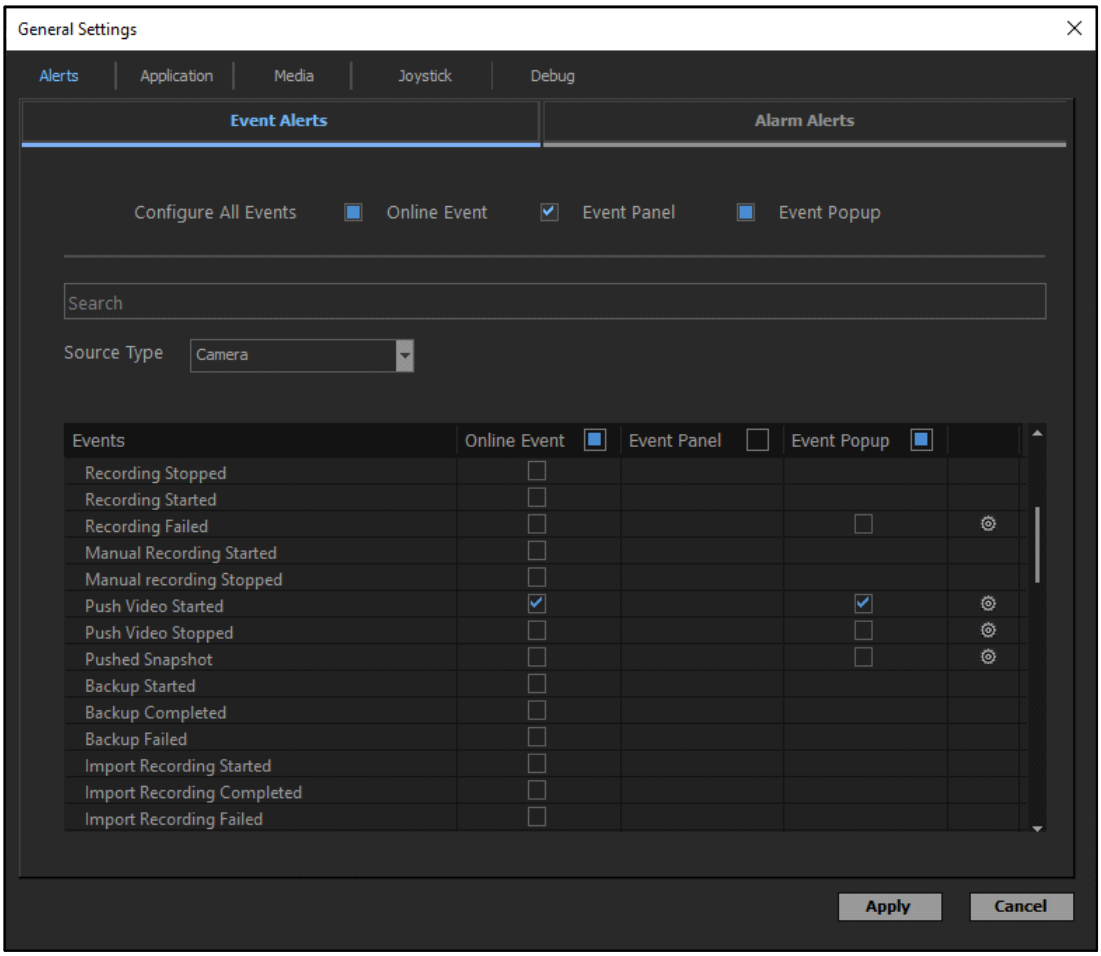
You can configure the Event Alerts for all the Events at once or for each event separately.

If you wish to configure Event Alerts for all the Events at once, configure the following parameter:

- **Configure All Events**: Select the check boxes — Online Event, Event Panel, Event Popup — if you wish to receive "Online Events", event details in the "Event Panel", Event Popup respectively for all the events. In this case the parameter values in **Advanced Settings** for Event Popup will be set as default. However, if required you can make changes in the configurations.

For certain Events, the check boxes — Online Event, Event Panel, Event Popup— do not appear. These Events appear only under "Event Log". Such Events will only be displayed if Event Monitoring Rights for the same are assigned in the Admin Client.

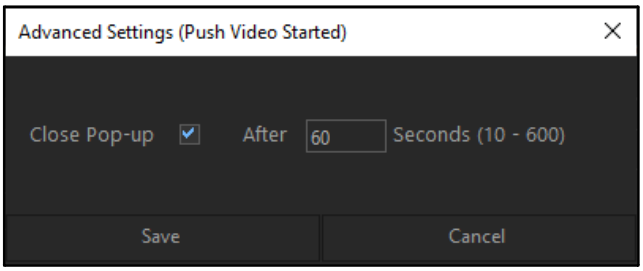
If you wish to configure Event Alerts for a specific Event, configure the following:



- **Source Type**: Select the Source Type of the desired Event from the drop-down list. You can also search for the desired Event using the search bar.

  All the Events for the selected Source Type are displayed in the Event list. For the desired Event, you can select the check boxes — Online Event, Event Panel, Event Popup — if you wish to receive "Online Events", event details in the "Event Panel", Event Popup respectively. The options will differ according to the Event.

  Advanced Settings: If you have selected Event Popup check box, click **Advanced Settings** against the desired Event. The **Advanced Settings (Event Name)** pop-up appears.



The Advanced Settings parameters will differ according to the Event.

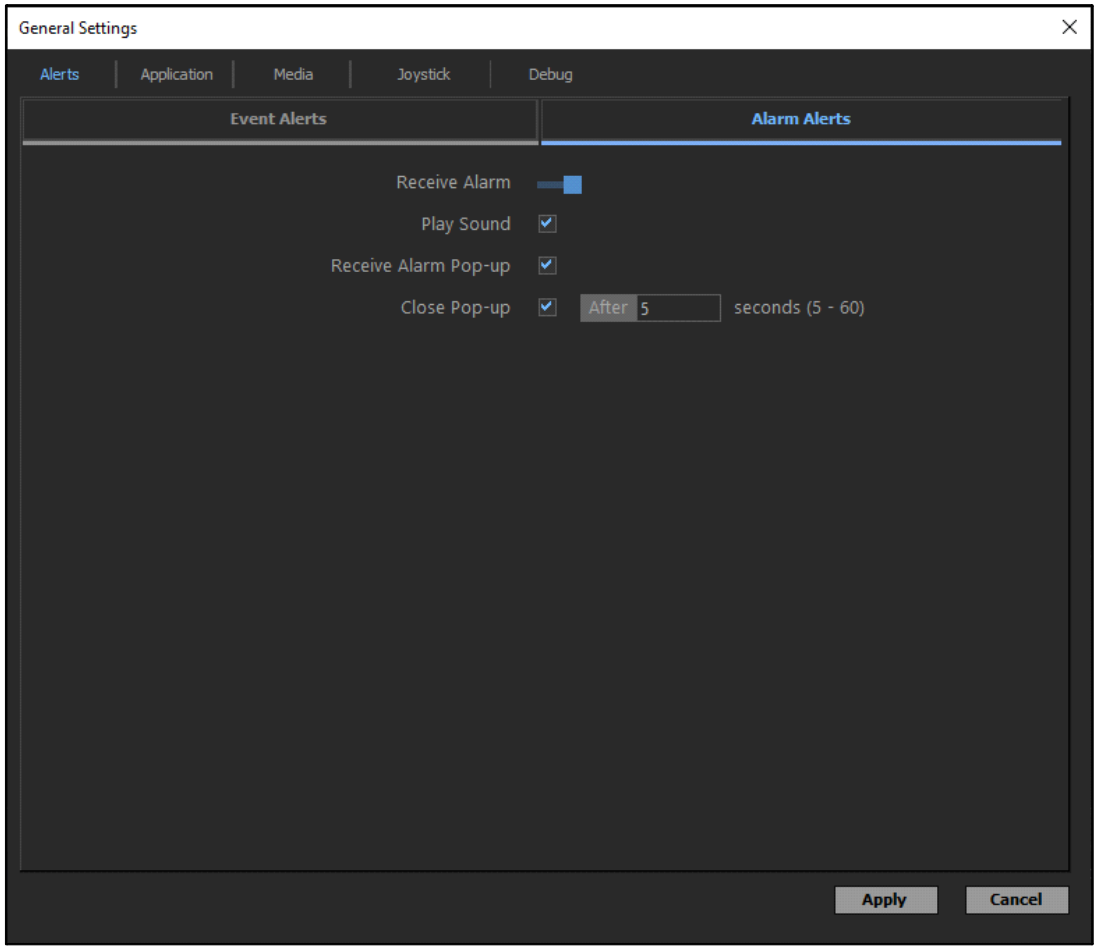
- **Close Pop-up**: Select the check box to close the pop-up after a specific time period. Specify the time after which the pop-up should close.

*If you have selected the Event as **Vehicle Identified**, **Vehicle Unidentified**, **Blacklisted Vehicle Identified**, **Whitelisted Vehicle Identified**, **Suspected Vehicle Identified, Entry Transaction Initiated** or **Exit Transaction Initiated**, you need to configure Take Auto Action feature. For more details, refer to "Take Auto Action".*

- Click **Save** to save the settings or click **Cancel** to discard.

Once the Advanced Settings are saved, click **Apply** to apply the settings or click **Cancel** to discard.

Alarm Alerts



- **Receive Alarm**: Click the Switch to turn it on. You will receive alerts for alarms.
- **Play Sound**: Select the check box, if you wish that a sound must be played whenever any alert for alarms is received.
- **Receive Alarm Pop-up**: Select the check box to receive pop-up on Alarm generation.

- **Close Pop-up**: Select the check box to close the pop-up after a specific period of time. Specify the time after which the pop-up should close.

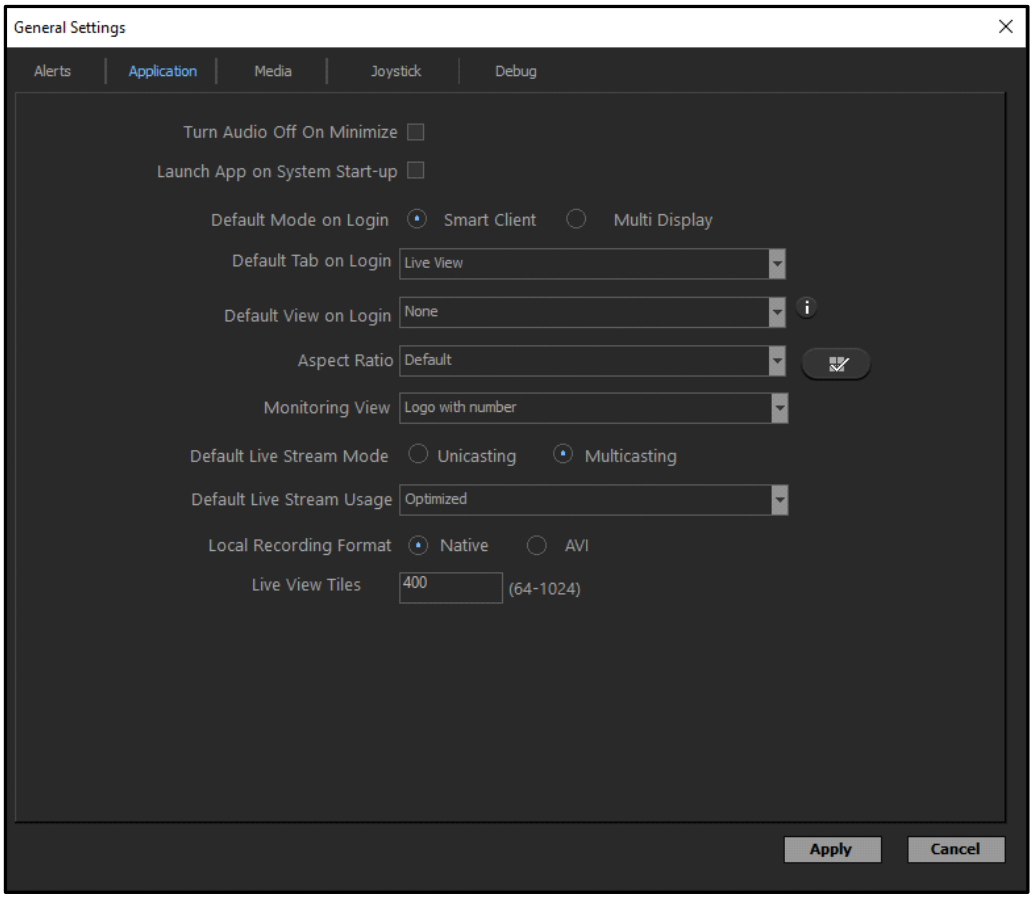
- Click **Apply** to apply the settings or click **Cancel** to discard.

Application

This tab allows you to configure parameters for the Smart Client Application.

To configure Application parameters,

- Click **Settings > General Settings > Application**.



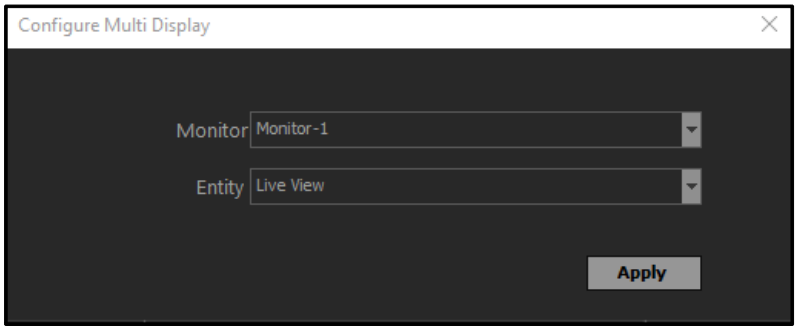
- **Turn Audio Off On Minimize**: Select the check box if you wish to turn the audio off when the application is minimized.

- **Launch App on System Start-up**: Select the check box if you wish to start the application as soon as the system is turned on.

- **Default Mode on Login**: Select the default mode — Smart Client, Multi Display — in which you wish the application to function on login.

  If you select **Multi Display**, the Multi Display icon appears on the Title Bar on next login. Multi Display allows you to assign specific entities to individual monitors.

  - Click **Multi Display**. The **Configure Multi Display** pop-up appears.



Configure the following parameters.

- **Monitor**: Select the monitor to which you wish to assign an entity from the drop-down list.
- **Entity**: Select the entity that you wish to assign to the selected monitor from the drop-down list.

- Click **Apply**.

All the monitors assigned with specific entities will display the same only and the Smart Client will not allow any other functionality in the Multi Display mode.

- **Default Tab on Login**: Select the tab from the drop-down list, that you wish to display by default each time you log into the Smart Client.
- **Default View on Login**: If you select Live View as the Default Tab, select the desired **My View** from the drop-down list which you wish to display by default each time you log into the Smart Client. This will enable you to view the live view of a selected set of cameras every time you login into the Smart Client.

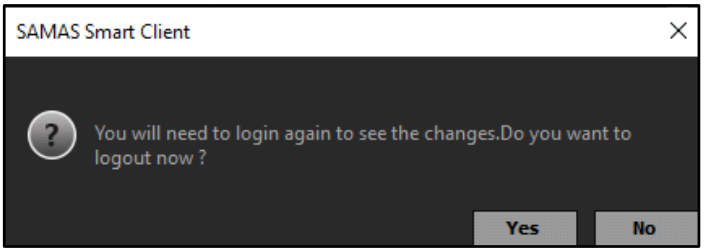
Make sure you have configured the desired My Views. For details, refer to "My Views".

- **Aspect Ratio**: Select the Aspect Ratio that you wish to assign to the monitoring window from the drop-down list. You can also apply these settings to all the tabs of the application. To do so, click **Apply to all** .
- **Monitoring View**: Select the desired monitoring view from the drop-down list — Number or Logo with Number.
- **Default Live Stream Mode**: Select the desired live stream mode from the options — Unicasting or Multicasting. The Smart Client will request for streams from the RS/FoS as per the selected option.
- **Default Live Stream Usage**: Select the desired stream usage from the drop-down list — Low, Medium, High or Optimized. If you select Optimized, the stream usage will be applied as per the selected Layout.

Default Live Stream Usage is not applicable to Mobile Cameras.

- **Local Recording Format**: Select the desired format — Native, AVI — in which you wish to save the local recording from the Smart Client.
- **Live View Tiles**: Specify the total number of tiles that should be visible on the Live View page. The number of pages will depend on the selected Layout and number of Live View Tiles.

- Click **Apply** to apply the settings. If you have configured Live View Tiles, the following pop-up appears.



- Click **Yes** to logout and login again to view the changes. Click **No** to save the configuration. The changes will be visible once you logout and login again.

*If you have configured the number of tiles such that these do not fall in the available layout options, then as per the **Live View Tiles** configured and **Layout** selected, the system sets the number of pages. However in this case the extra tiles will be displayed as blank. For example: **Live View Tiles** value is set to 70 and **Layout** selected is 8X8, then the system will set the number of pages to 2. Page 1 will have 64 tiles where you can add 64 cameras. On Page 2, 64 tiles will be visible but you can add only 6 cameras and rest 58 tiles will remain blank.*

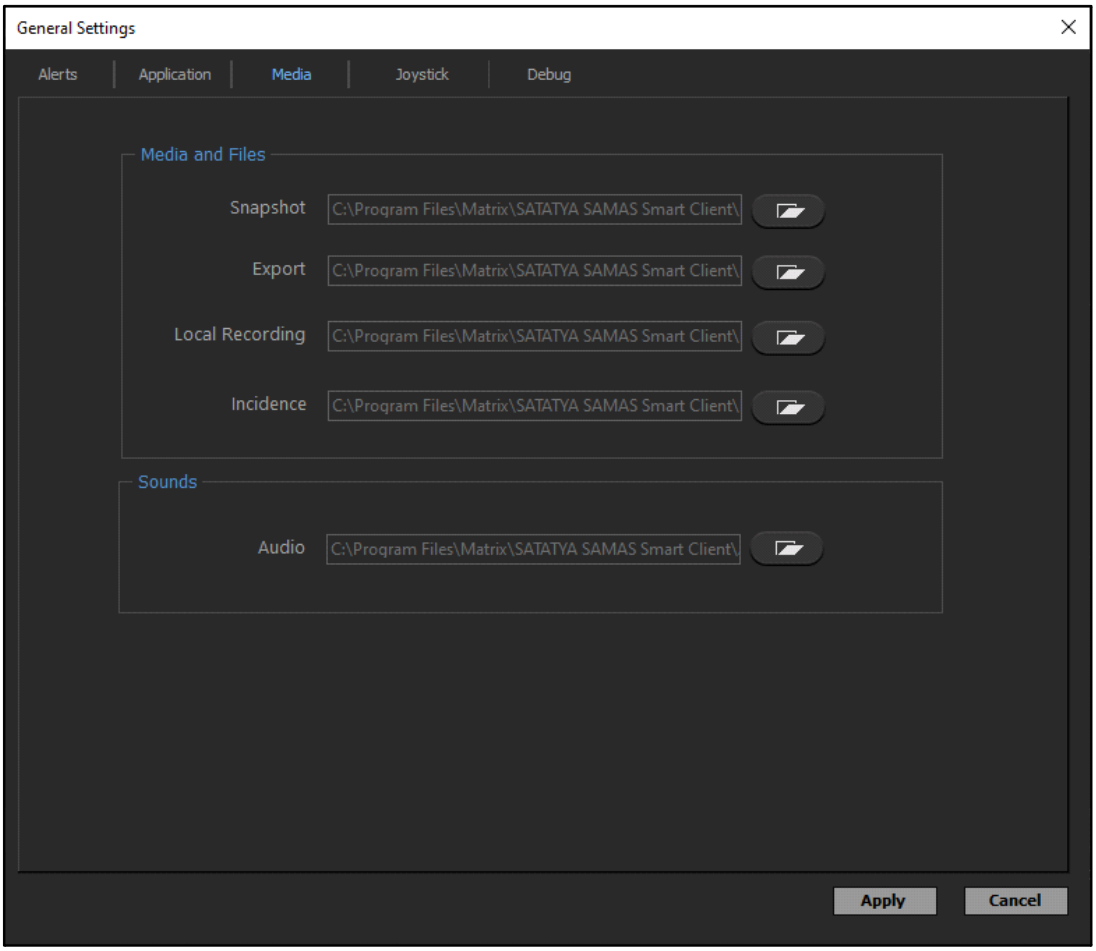
*Dropping cameras in Live View will depend on the **Live View Tiles** configured, **Layout** selected as well as the number of cameras to be dropped. Let us understand the same with the help of an example: **Live View Tiles** value is set to 70 and **Layout** selected is 8X8, then the system will set the number of pages to 2. You wish to drop 72 cameras, then on Page 1, 64 cameras will be dropped. On Page 2, you will be able to add only 6 cameras and remaining 2 cameras will be over-written on camera 1 and 2 of Page 1.*

Media

This tab allows you to configure Media parameters for the Smart Client Application.

To configure Media parameters,

- Click **Settings > General Settings > Media**.



The Media parameters are divided into two sections — Media and Files, Sounds. You can configure the storage path for the exported Log files, downloaded media files and sounds here.

Media and Files

- **Snapshot**: Click **Browse** to select a path where you wish to store the snapshots. It displays all folders which are there in the drive. Select the desired folder.
- **Export**: Click **Browse** to select a path where you wish to store the exported data. It displays all folders which are there in the drive. Select the desired folder.
- **Local Recording**: Click **Browse** to select a path where you wish to store the local recording. It displays all folders which are there in the drive. Select the desired folder.
- **Incidence**: Click **Browse** to select a path where you wish to store the Clips/Images fetched from the Incidence. It displays all folders which are there in the drive. Select the desired folder.

Sounds

- **Audio**: Click **Browse** to select a path where you wish to store the audio files alarm to be used for Trigger Alarm and Live View on Event sound alerts. It displays all folders which are there in the drive. Select the desired folder.

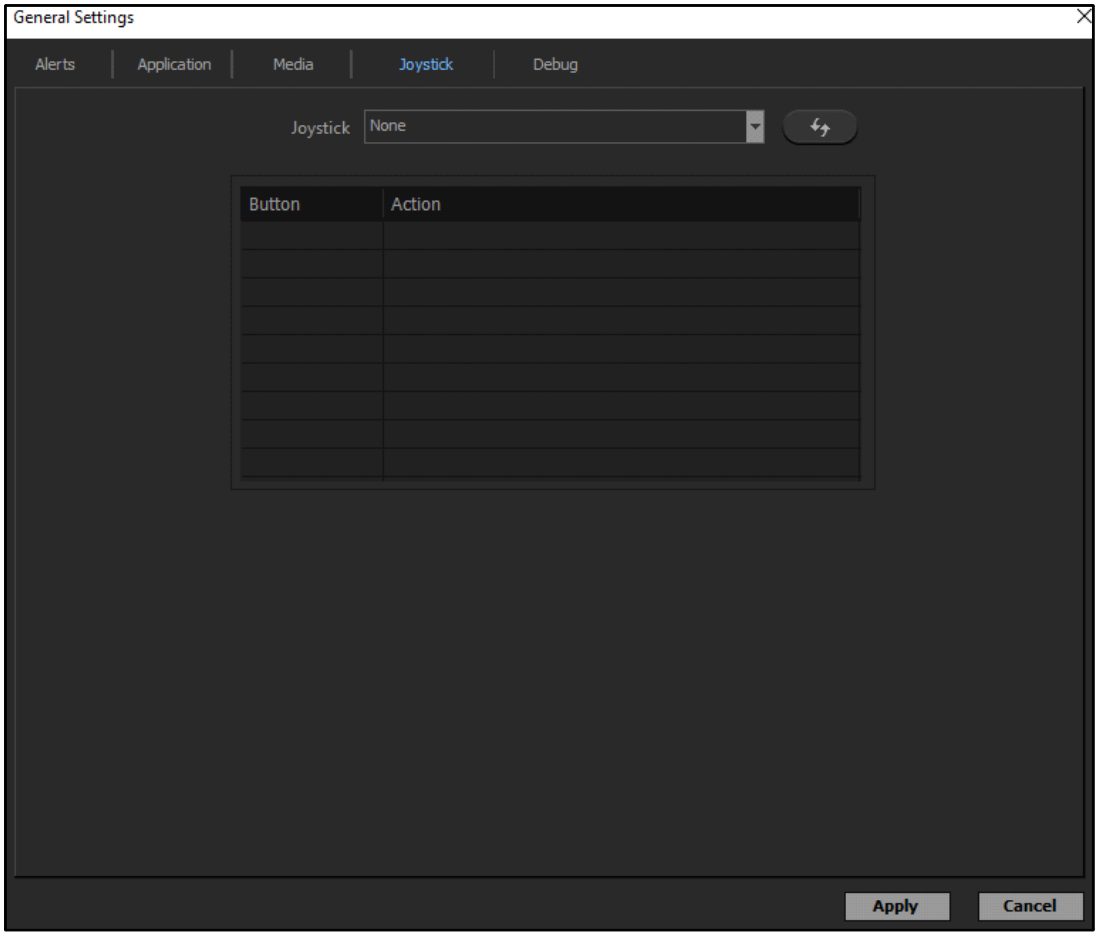
- Click **Apply** to apply the settings or click **Cancel** to discard.

Joystick

SAMAS Smart Client supports all standard USB joysticks and gaming controllers which are compliant with Microsoft Windows operating system to operate PTZ cameras. Joystick is connected to the system via USB port. This tab allows you to configure Joystick parameters for the Smart Client Application.

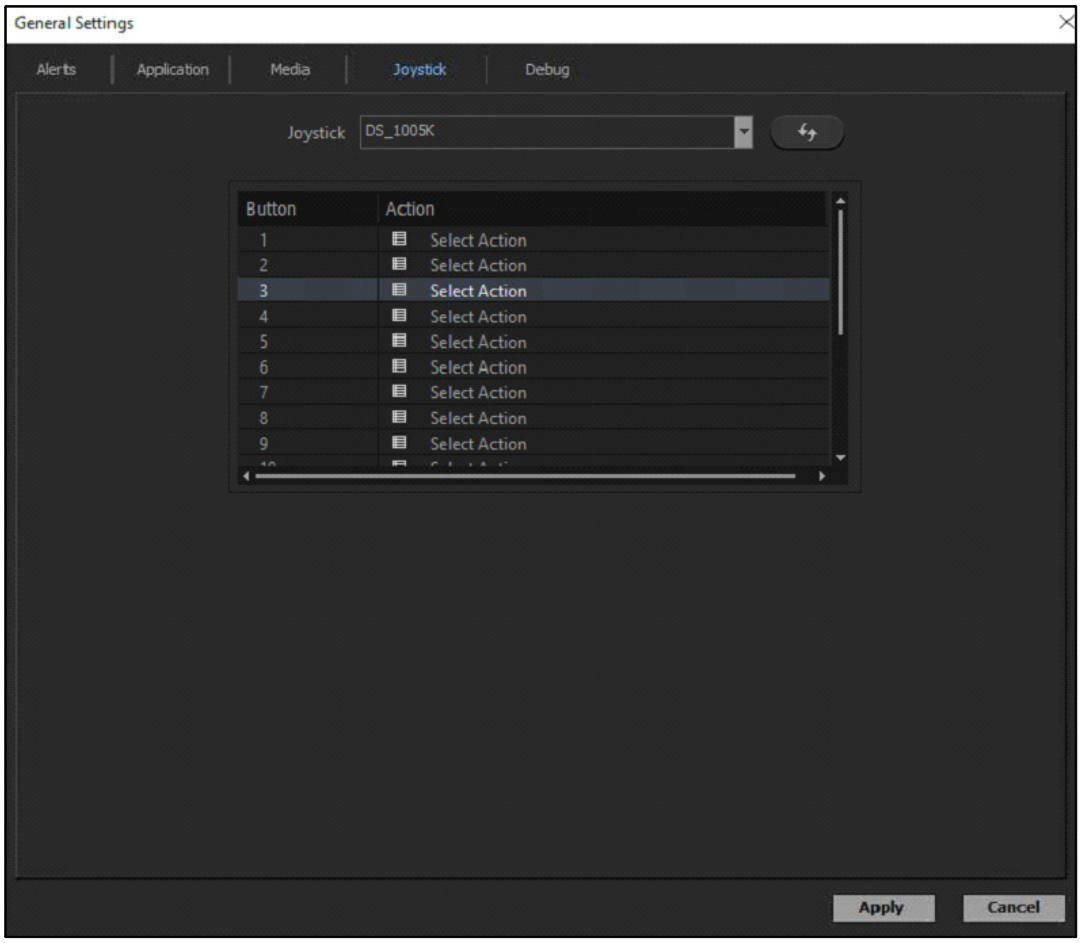
To configure the Joystick parameters,

- Click **Settings > General Settings > Joystick**.



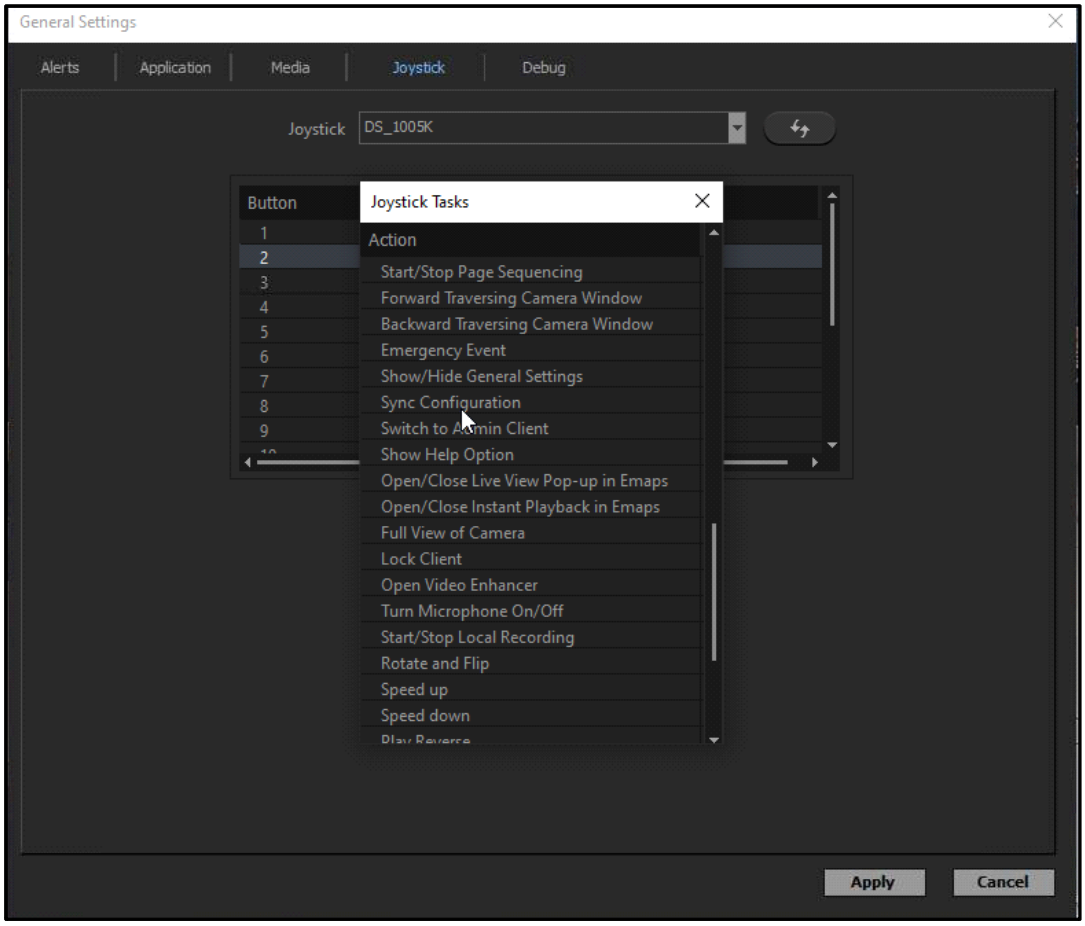
- **Joystick**: Select the required Joystick from the drop-down list.

  If no Joystick is visible in the drop-down list, click **Refresh** to detect the joysticks connected to the system.



All the Buttons and Actions supported by SAMAS will be listed in the action list. Assign the required action on various identified buttons of joystick.To do so,

- Click **Select Action** corresponding to the desired button to assign a action. The **Joystick Tasks** list appears.



- Select the desired action to be assigned to the selected button.
- Similarly, you can assign actions against all the desired buttons.

For example: If you have to assign Sync Configuration action on Button 1, follow the below steps:

- Double-click on **Select Action**.
- A list of actions appears. Select the Sync Configuration option from the Action list.
- Click **Apply** to save the configuration.

Now, when you press Button 1 of the joystick, Sync Configuration action will be performed by SAMAS.

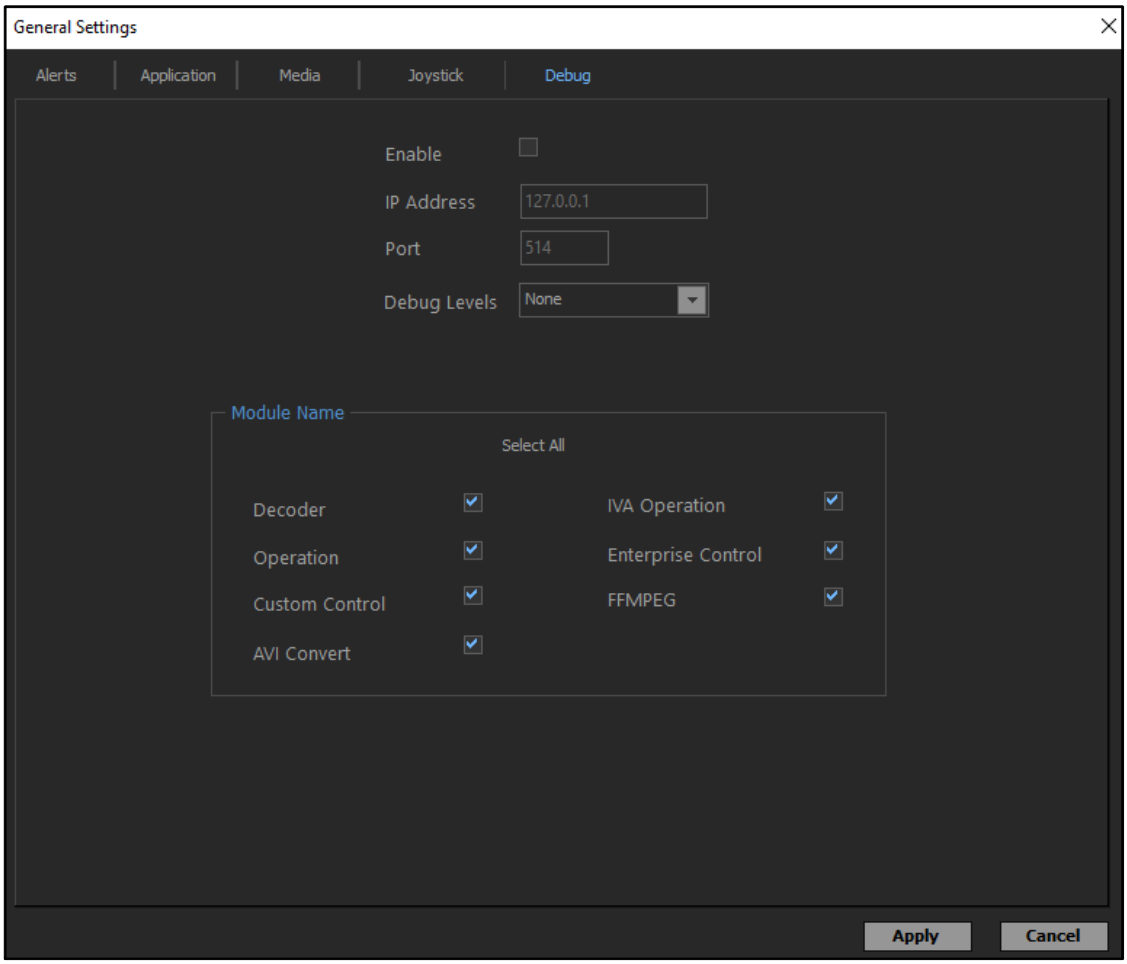
- Click **Apply** to save the actions or click **Cancel** to discard.

Debug

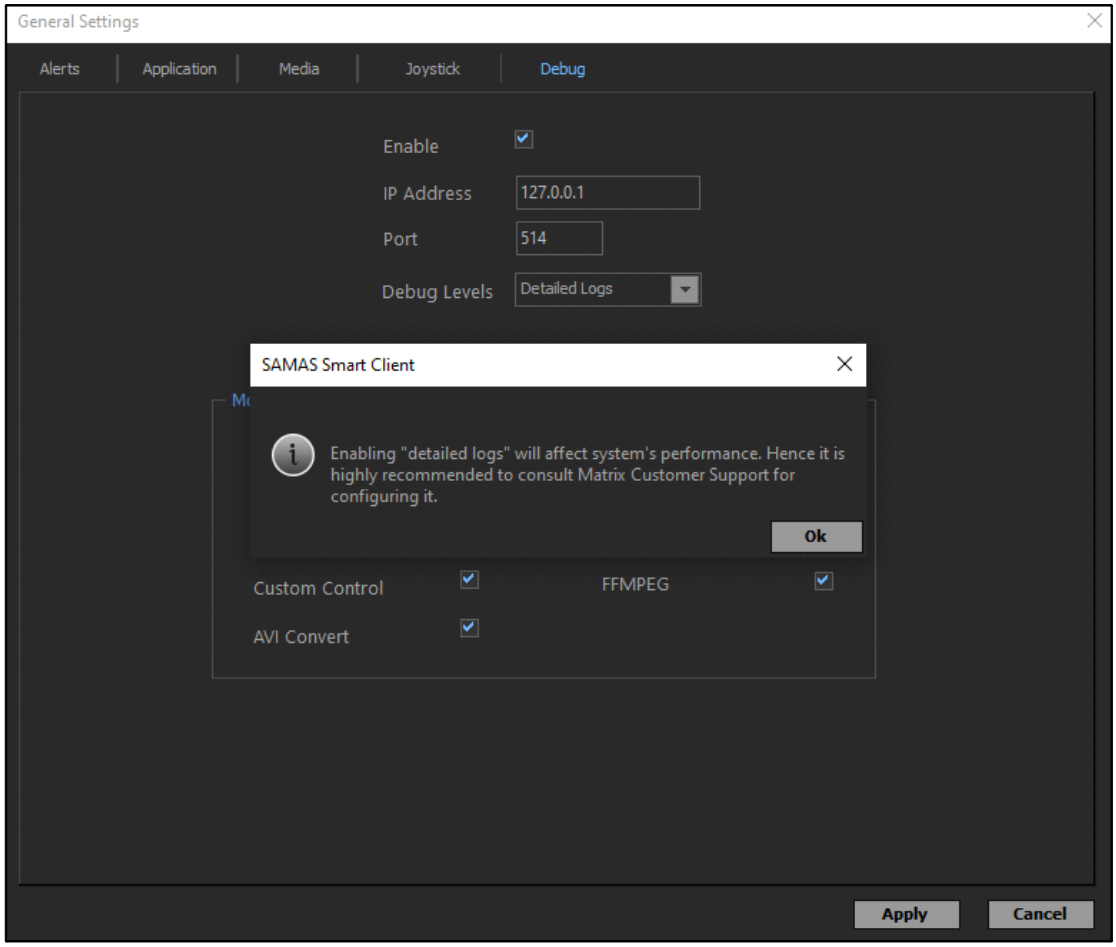
This tab allows you to configure Debug parameters for the Smart Client Application.

To configure Debug,

- Click **Settings > General Settings > Debug**.



- **Enable:** Select this check box to enable debugging for respective modules of the Smart Client.
- **IP Address:** Default local **IP Address** of your server is displayed on the screen. You can change the same as per your requirement.
- **Port:** Default **Port** number of your server is displayed on the screen. You can change the same as per your requirement.
- **Debug Levels:** Select the debug levels to be assigned to the respective modules of the Smart Client from the drop-down list — None, Information Logs, Detailed Logs.
    - If you select **Detailed Logs**, a pop-up appears.



- Click **Ok.**

- **Module Name**: Select the check boxes of desired modules of the Smart Client for which you wish to enable debug.Click **Select All** if you wish to select all the modules of the Smart Client.

- Click **Apply** to save the changes or **Cancel** to discard.

Take Auto Action

If you have selected the Event as **Vehicle Identified**, **Vehicle Unidentified**, **Blacklisted Vehicle Identified**, **Whitelisted Vehicle Identified**, **Suspected Vehicle Identified**, **Entry Transaction Initiated** or **Exit Transaction Initiated**, you need to configure Take Auto Action feature. **Take Auto Action** feature enables you to allow or reject the user with a particular Vehicle Number automatically without any manual intervention. It also enables you to modify the weight detected of a vehicle at the Weighbridge. You can modify Vehicle Number/Weight only if Media Rights — Modify License Plate Number and Modified Weight Data— have been enabled from Admin Client.

Take Auto Action is applicable for the following Events:

- "Vehicle Identified"
- "Entry Transaction Initiated"
- "Exit Transaction Initiated"

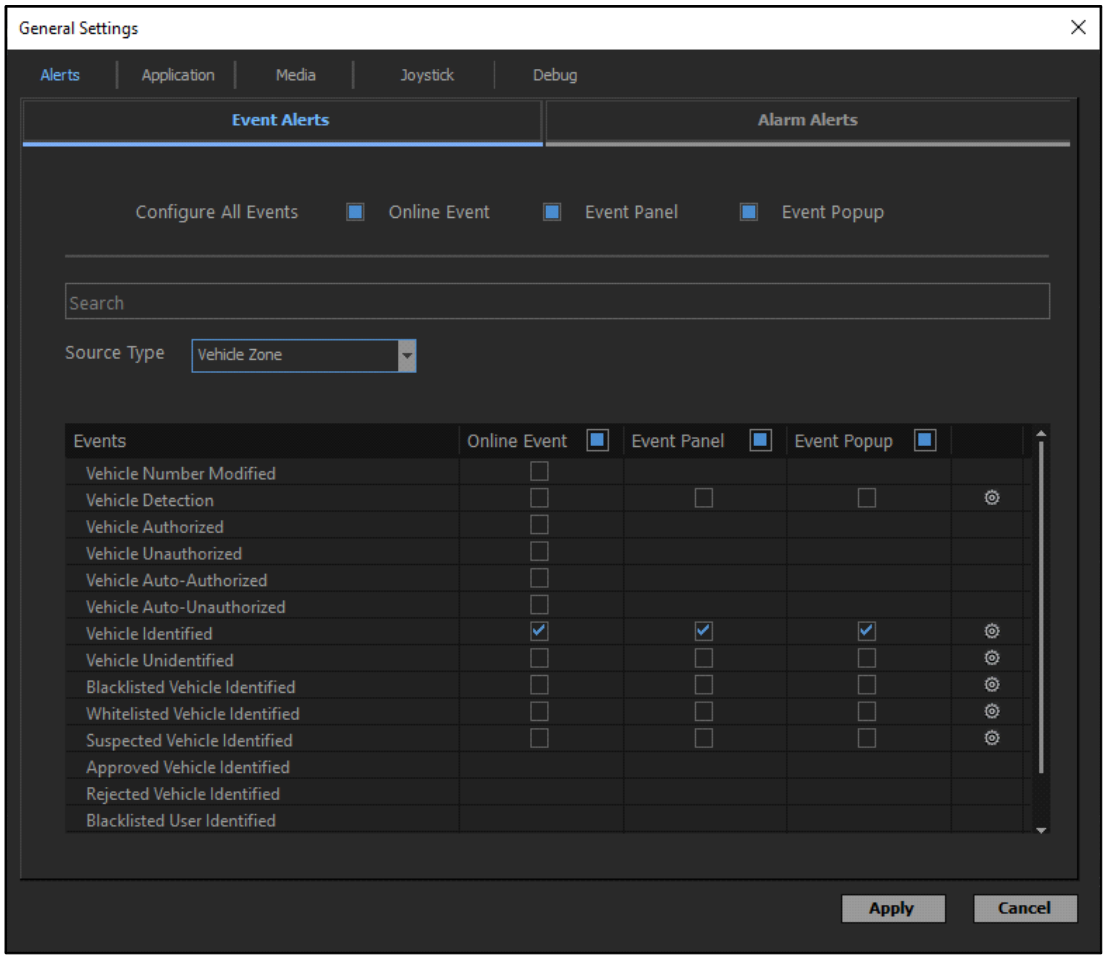
The Vehicle Number and Weight can be modified from the various places. For details, refer to "Vehicle Number/ Weight Modification".

Vehicle Identified

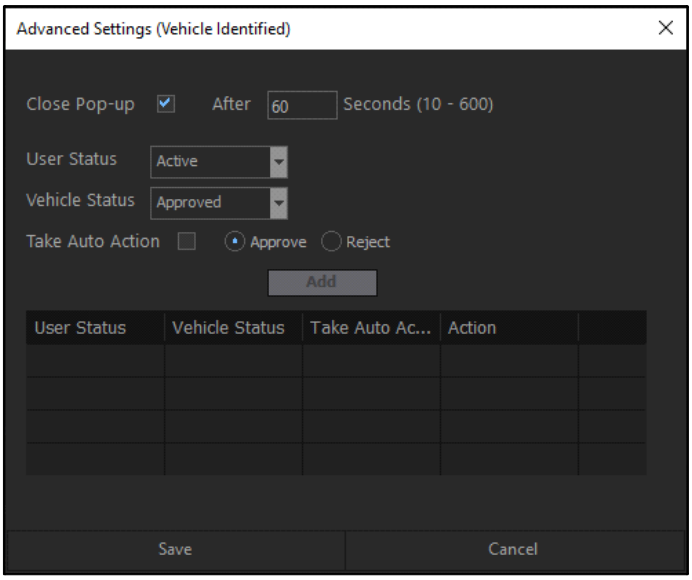
If Take Auto Action feature is enabled and the Vehicle Identified event occurs, a pop-up appears in the Smart Client that displays Vehicle Auto-authorized or Vehicle Auto-rejected. Make sure you have enabled the **Authorize Vehicle** check box and selected **Manual** as the **Authorization Mode** in **Vehicle Detection** Event in Admin Client to configure Auto Action for Vehicle Identified Event from Smart Client.

To configure Auto Action,

- Click **General Settings > Alerts > Event Alerts**.



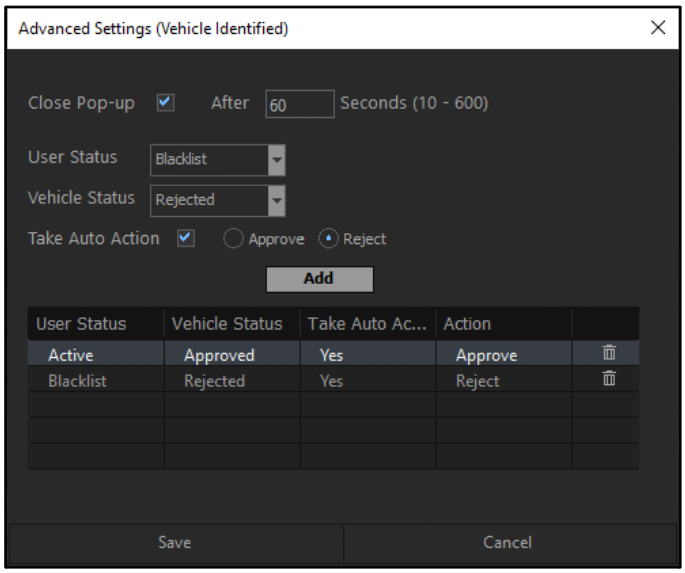
- **Source Type**: Select the Source Type as **Vehicle Zone** from the drop-down list. You can also search for the **Vehicle Identified** Event using the search bar.
- For the Vehicle Identified Event, select the **Event Popup** check box and click **Advanced Settings** . The **Advanced Settings (Vehicle Identified)** pop-up appears.



- **Close Pop-up**: Select the check box to close the pop-up after a specific period of time. Specify the time after which the pop-up should close.
- **User Status**: Select the User Status for which you wish to enable Auto Action feature from the drop-down list options —Active, Inactive, Blacklist, Unknown User.
- **Vehicle Status:** Select the Vehicle Status for which you wish to enable Auto Action feature from the drop-down list options—Approved, Rejected.
- **Take Auto Action**: Select the check box to enable **Auto Action** and select the Action as **Approve** or **Reject**.

- Click **Add** to add the Action to be taken for the selected User and Vehicle Status to the grid.

All the Auto Actions as configured will appear in a list. You can delete the action if required.



- Click **Delete** to delete the action.

- Click **Save** to save the settings or click **Cancel** to discard.

If Vehicle Identified Event occurs when the User Status is **Active** and Vehicle Status is **Approved**, and Auto Action is configured, a pop-up displaying the authorized vehicle will be displayed. In this pop-up, you can modify the Vehicle Number before the expiry of Close Pop-up timer. For details refer to “Vehicle Number/ Weight Modification”.

Similarly, you can configure Take Auto Action for these Events — Vehicle Unidentified, Blacklisted Vehicle Identified, Whitelisted Vehicle Identified, Suspected Vehicle Identified.

Entry Transaction Initiated

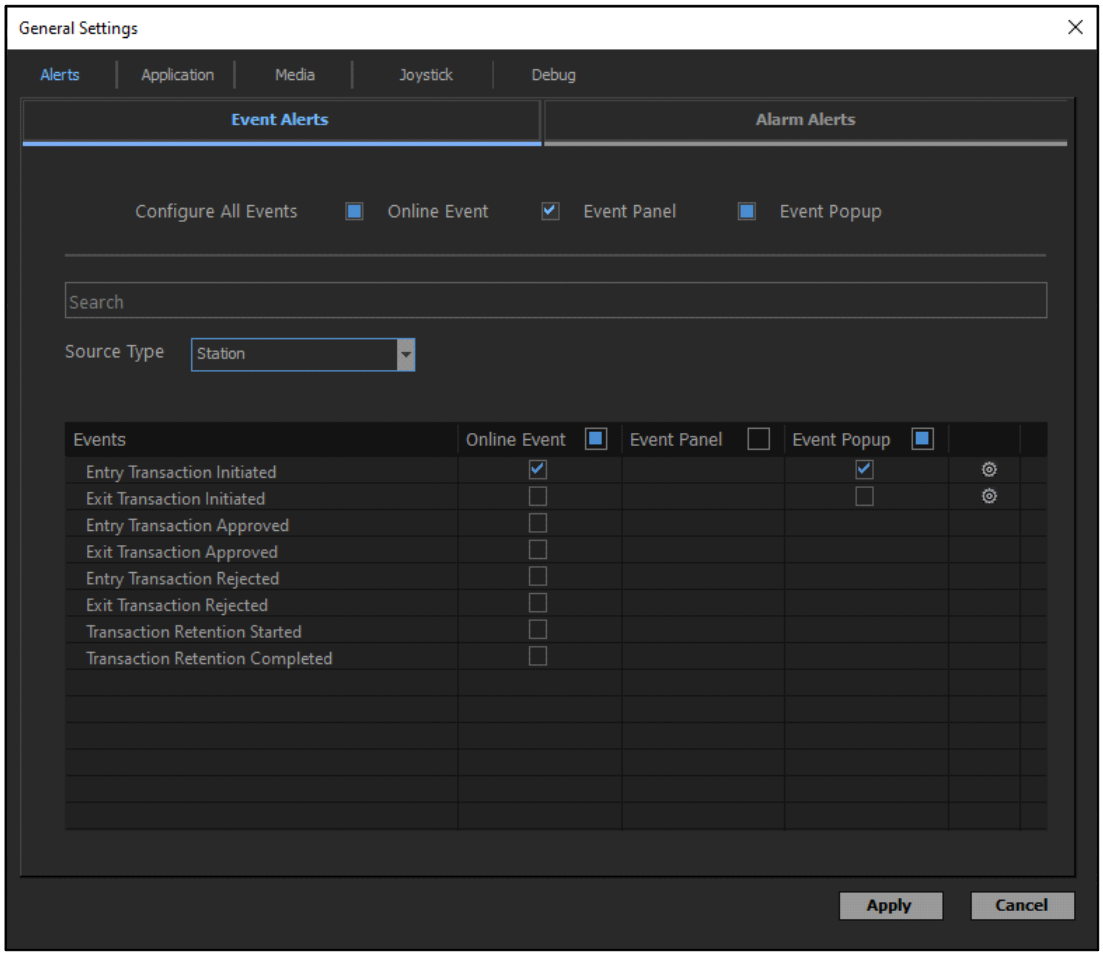
If Take Auto Action feature is enabled and the Entry Transaction Initiated event occurs, a pop-up showing Entry Transaction Auto-authorized or Entry Transaction Auto-rejected appears in the Smart Client.

Make sure you clear the Manual Transaction Reference check box in Admin Client to enable the Take Auto Action feature.

Make sure the MS and Smart Client are of the same version to use this feature.

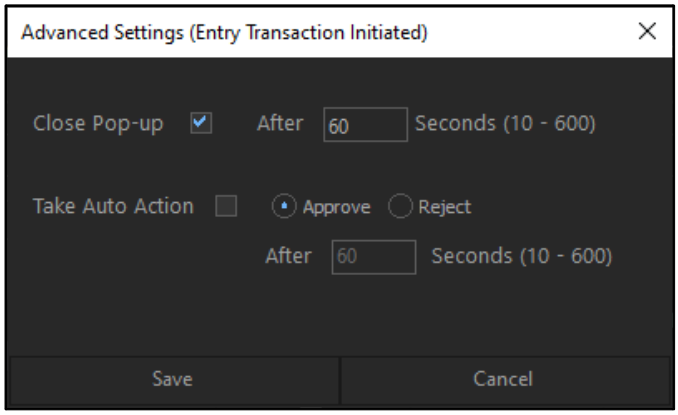
To configure Auto Action,

- Click **General Settings > Alerts > Event Alerts**.



Configure the following parameters.

- **Source Type**: Select the Source Type as **Station** from the drop-down list. You can also search for the **Entry Transaction Initiated** Event using the search bar.
- For the Entry Transaction Initiated Event, select the **Event Popup** check box and click **Advanced Settings** . The **Advanced Settings (Entry Transaction Initiated)** pop-up appears.



- **Close Pop-up**: Select the check box to close the pop-up and specify the time after which the pop-up should close.
- **Take Auto Action**: Select the check box to enable **Auto Action** and select the Action as **Approve** or **Reject**. Specify the time till which the system should wait to take the action. The system will take action after the expiry of this time.

- Click **Save** to apply the action or click **Cancel** to discard.

If Entry Transaction Initiated Event occurs, the Entry Transaction pop-up will be displayed. For more details, refer to “Entry Transaction Receipt”.

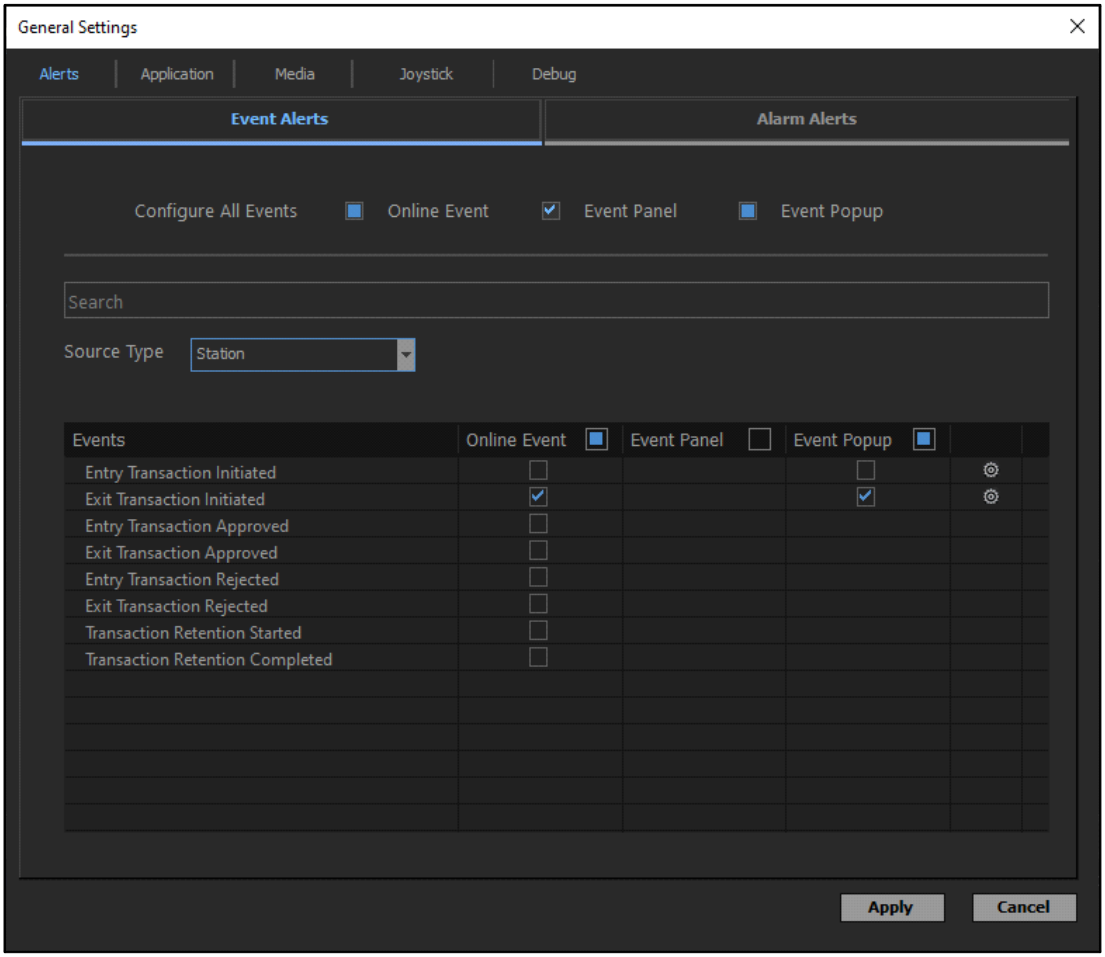
Exit Transaction Initiated

If Take Auto Action feature is enabled and the Exit Transaction Initiated event occurs, a pop-up showing Exit Transaction Auto-authorized or Exit Transaction Auto-rejected appears in the Smart Client.

Make sure you clear the Manual Transaction Reference check box in Admin Client to enable the Take Auto Action feature.

To configure Auto Action,

- Click **General Settings > Alerts > Event Alerts**.



The configurations of Take Auto Action for Exit Transaction Initiated is similar to that for the Entry Transaction Initiated. For more details, refer to “Entry Transaction Initiated”.

If Exit Transaction Initiated Event occurs the Exit Transaction pop-up will be displayed. For more details, refer to “Exit Transaction Receipt”.

Vehicle Number/Weight Modification

Smart Client allows you to modify the vehicle number and weight in case detected incorrectly due to any reason. It can be corrected from different places depending on the event.

Vehicle Number can be modified for the following events:

- Vehicle Identified
- Vehicle Unidentified
- Blacklisted Vehicle Identified
- Suspected Vehicle Identified
- Unauthorized Parking
- Improper Parking
- Prohibited Parking
- Wrong Way Detection
- Slot Occupied
- Slot Available
- Vehicle Overstay

- Parking After Closing Hours

For the events — Vehicle Identified, Vehicle Unidentified, Blacklisted Vehicle Identified, Suspected Vehicle Identified — the Vehicle Number can be modified from “Authorization Pop-up”, “Online Events Panel” and “Events Panel”.

For the events — Unauthorized Parking, Improper Parking, Wrong Way Detection, Slot Occupied, Slot Available, Vehicle Overstay, Parking After Closing Hours — the Vehicle Number can be modified from “Online Events Panel” and “Events Panel”.

The Vehicle Number can also be modified from the Entry/Exit Evidence Receipts. For details, refer to “Weight Modification”.

Weight can be modified from the Weight Detection event as well as Entry/Exit Evidence Receipts. For details, refer to “Weight Modification”.

Vehicle Number Modification

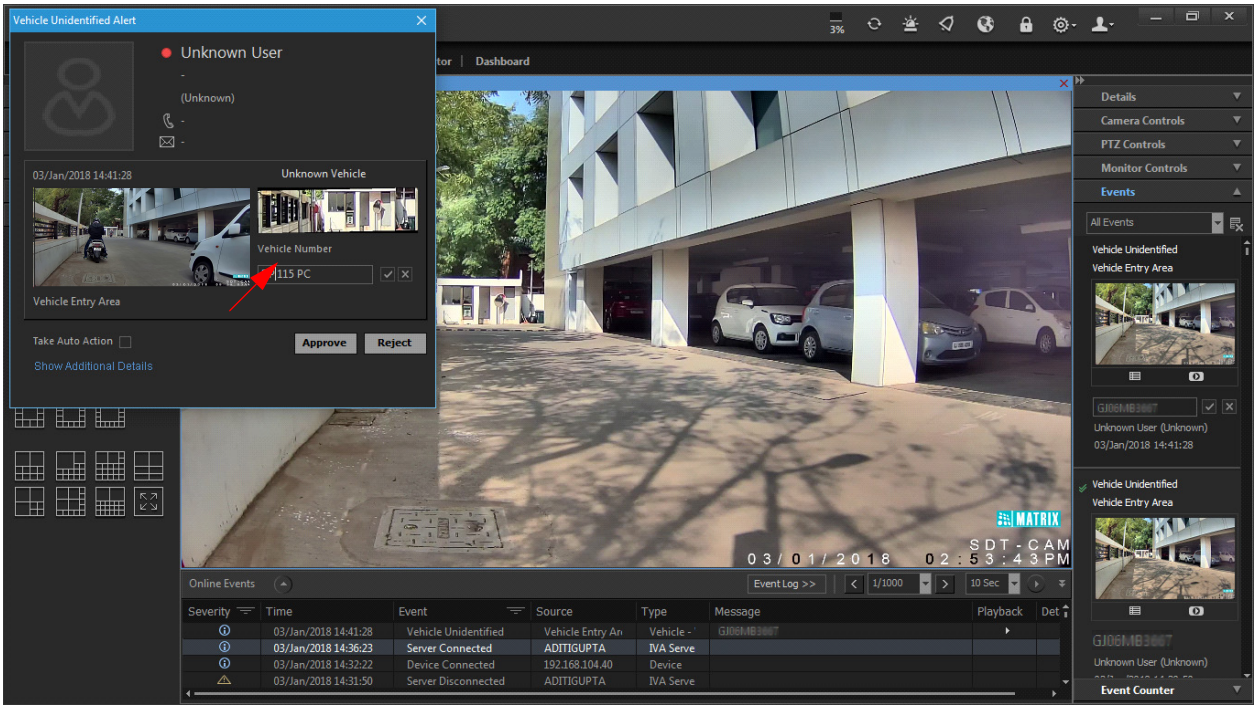
There are various methods via which Vehicle Numbers can be modified.Each of them is explained below:

- “Authorization Pop-up”
- “Online Events Panel”
- “Events Panel”
- “Entry/Exit Evidence Receipts”

Authorization Pop-up

Vehicle Number can be modified from the Authorization pop-up alert.

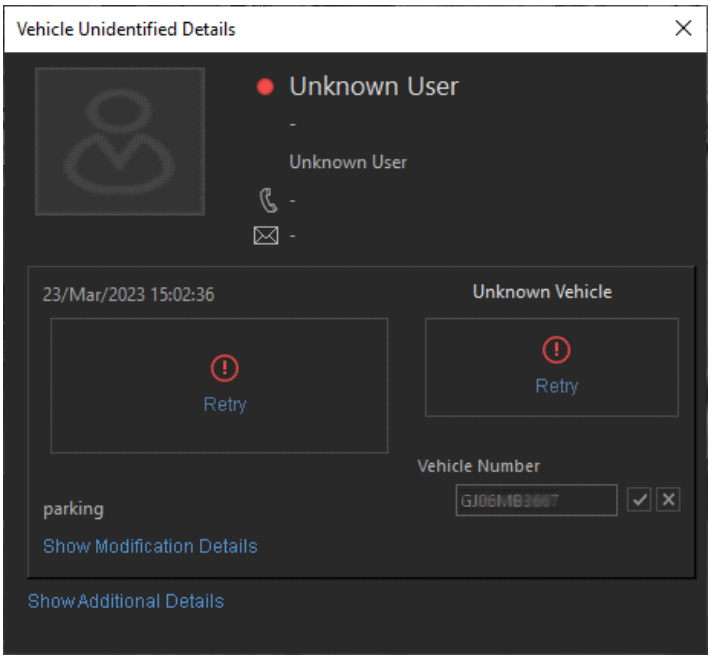
When the event occurs, the Authorization pop-up appears. You can modify the vehicle number from this pop-up.



Make sure the vehicle number is modified before giving the Authorization verdict— Approve, Reject. Once the verdict is given, the vehicle number cannot be modified.

*If the images do not upload, click **Retry** to reload the images. The system will retry to fetch the images from configured Image Storage Drive.*

You can see the possible reason for failure by hovering the mouse on failure icon.

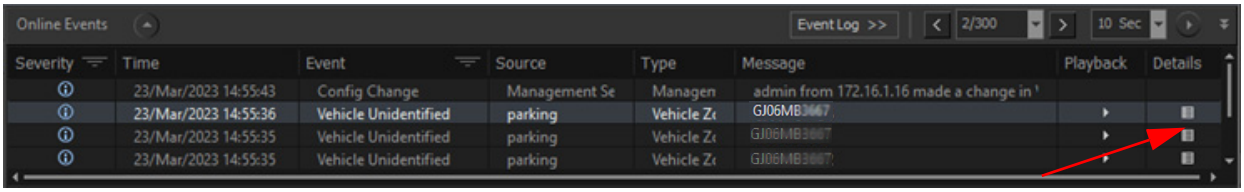


Click ✓ to save.

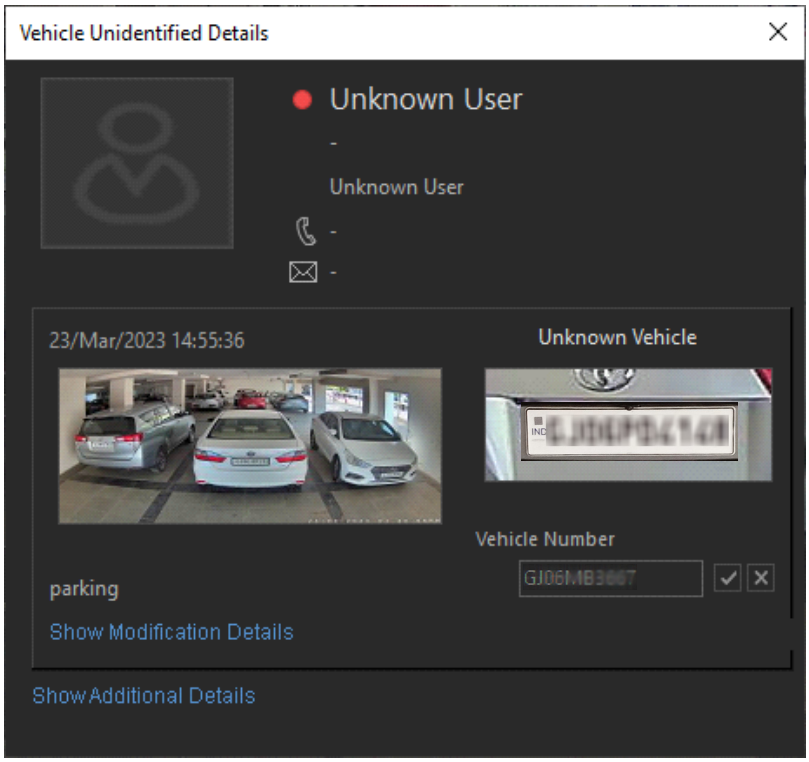
Online Events Panel

To modify the Vehicle Number,

- When the event occurs it appears in the Online Events Panel, click **Details** of the respective event.

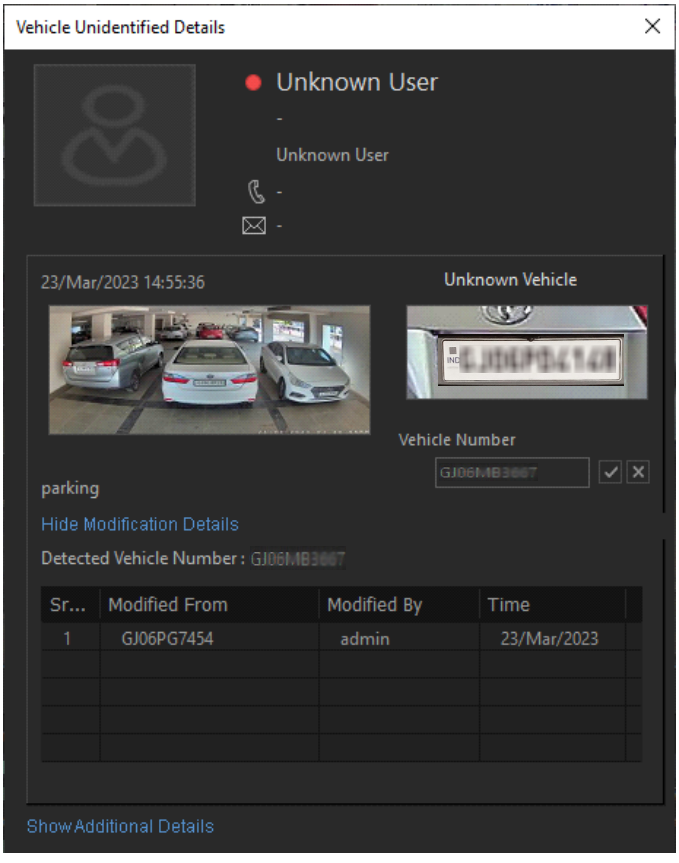


The **Details** pop-up appears.



- Modify the Vehicle Number as per your requirement.
- Click ✓ to save.

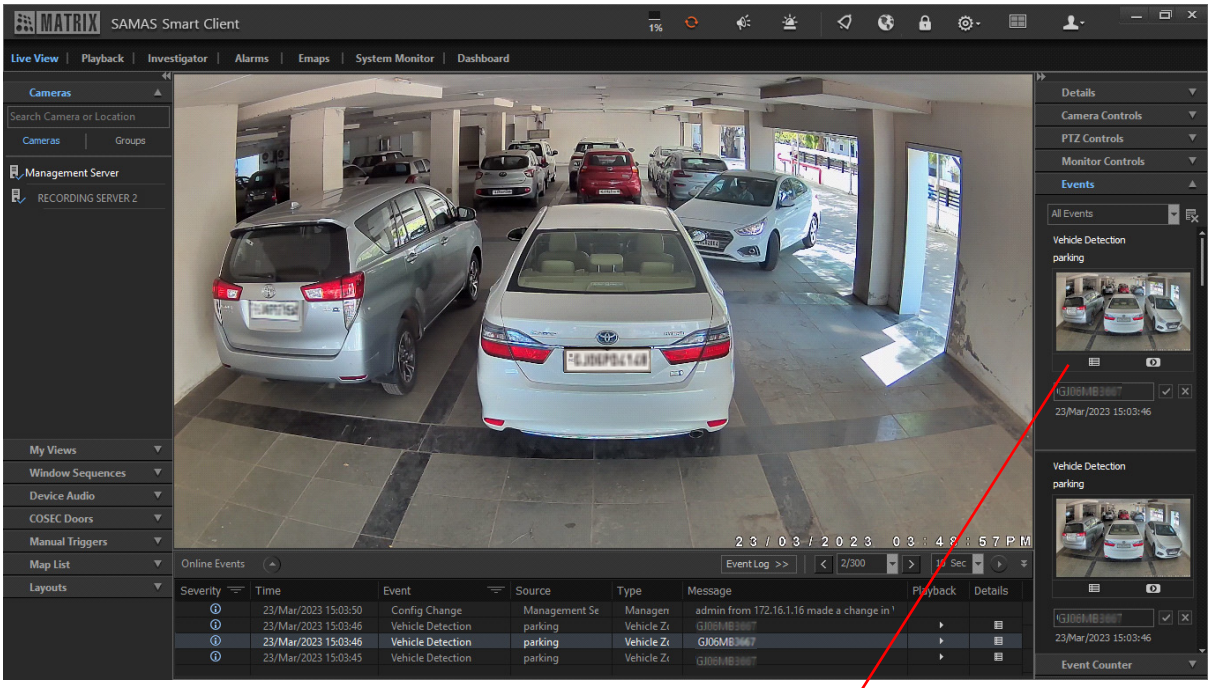
To verify the modified number, click **Show Modification Details**.

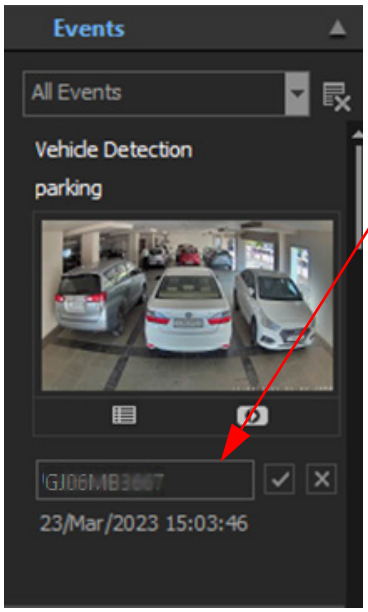


Events Panel

To modify the Vehicle Number,

- When the event occurs, it appears in the Events Panel.





- Modify the Vehicle Number as per your requirement.
- Click to save.

Entry/Exit Evidence Receipts

The vehicle number can also be modified from the Entry/Exit Evidence Receipts. For details, refer to"Evidence Receipt for Weighbridge Application".

Weight Modification

Smart Client allows you to modify the weight of the vehicle in case the weight is detected incorrectly due to any reasons.Weight can be modified for the Weight Detected event.

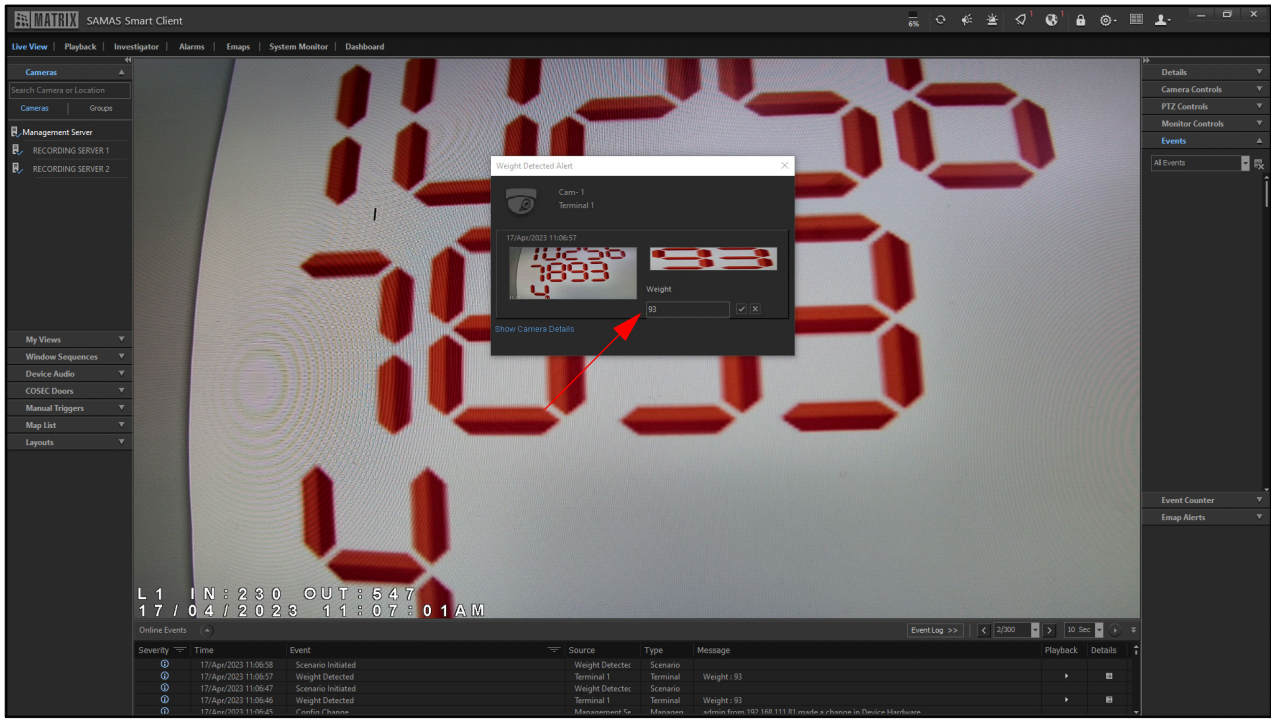
There are various methods via which Weight can be modified.Each of them is explained below:

- “Authorization Pop-up”
- “Online Events Panel”
- “Events Panel”
- “Entry/Exit Evidence Receipts”

Authorization Pop-up

Weight can be modified from the Authorization pop-up alert.

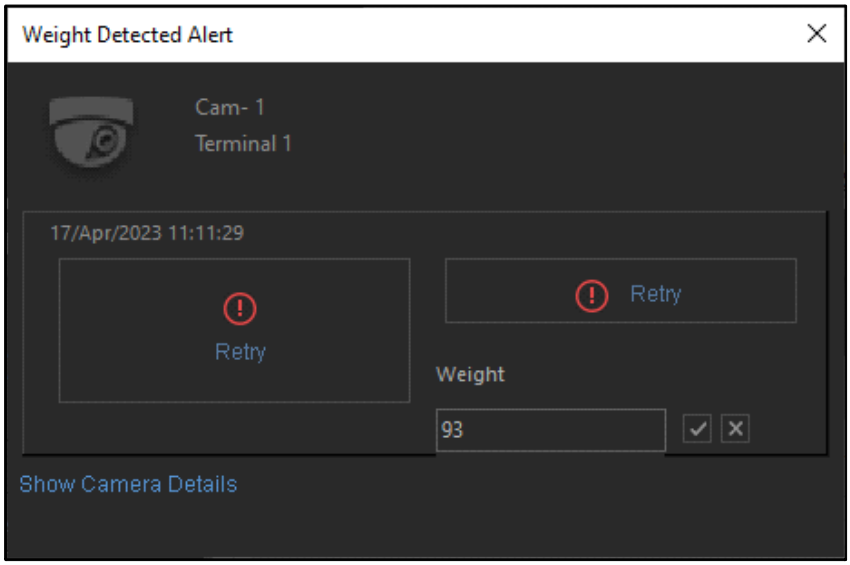
When the event occurs, the Authorization pop-up appears. You can modify the weight from this pop-up.



Make sure the weight is modified before giving the Authorization verdict— Approve, Reject. Once the verdict is given, the weight cannot be modified.

*If the images do not upload, click **Retry** to reload the images. The system will retry to fetch the images from configured Image Storage Drive.*

You can see the possible reason for failure by hovering the mouse on failure icon.

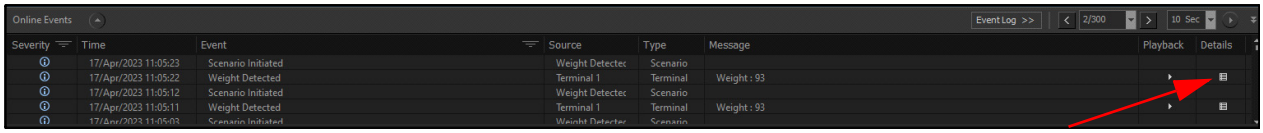


Click to save.

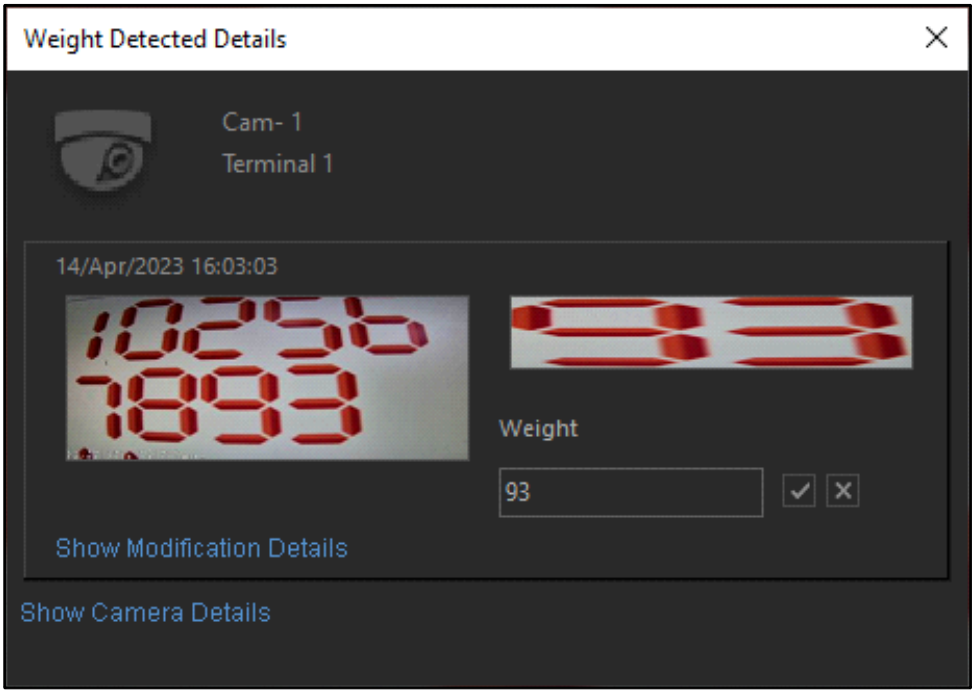
Online Events Panel

To modify the Weight,

- When the event occurs it appears in the Online Events Panel, click **Details** of the respective event.

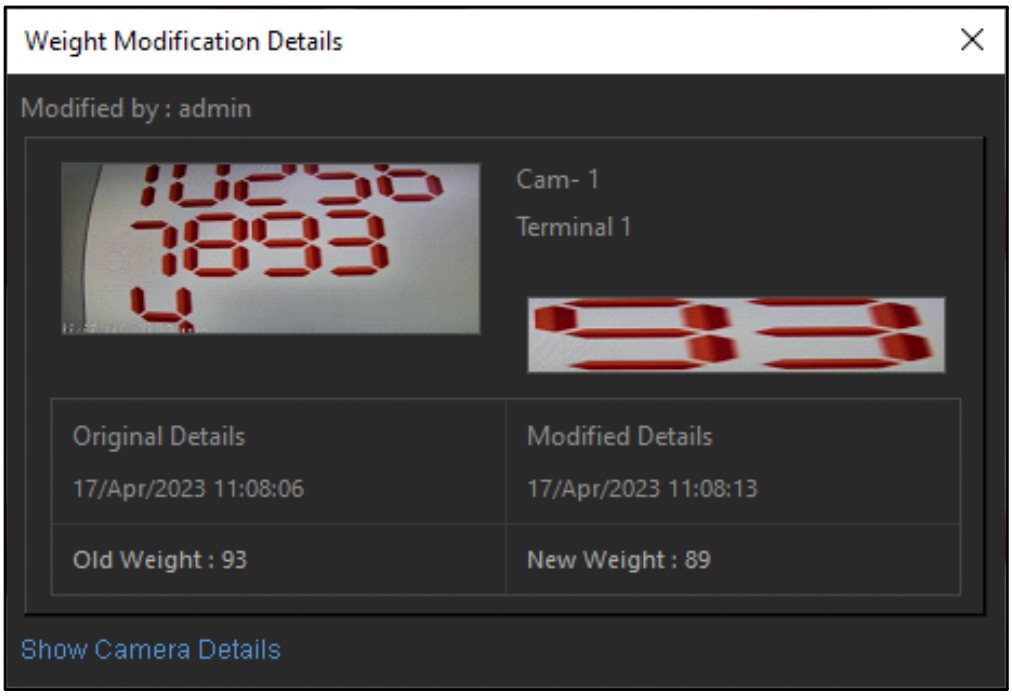


The **Details** pop-up appears.



- Modify the Weight as per your requirement.
- Click to save.

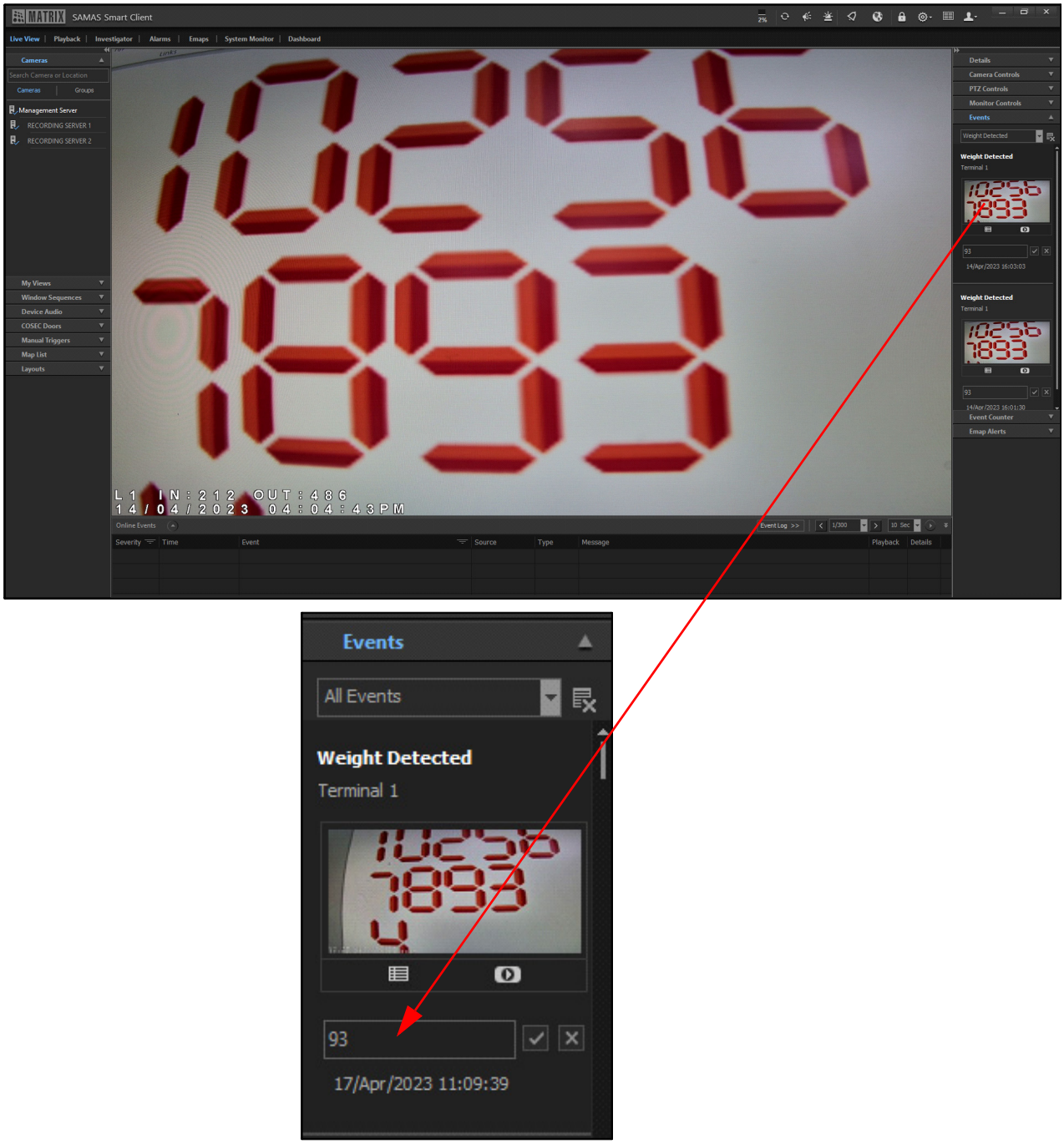
The modified weight appears.



Events Panel

To modify the Weight,

- When the event occurs it appears in the Events Panel.



- Modify the Weight as per your requirement.
- Click to save.

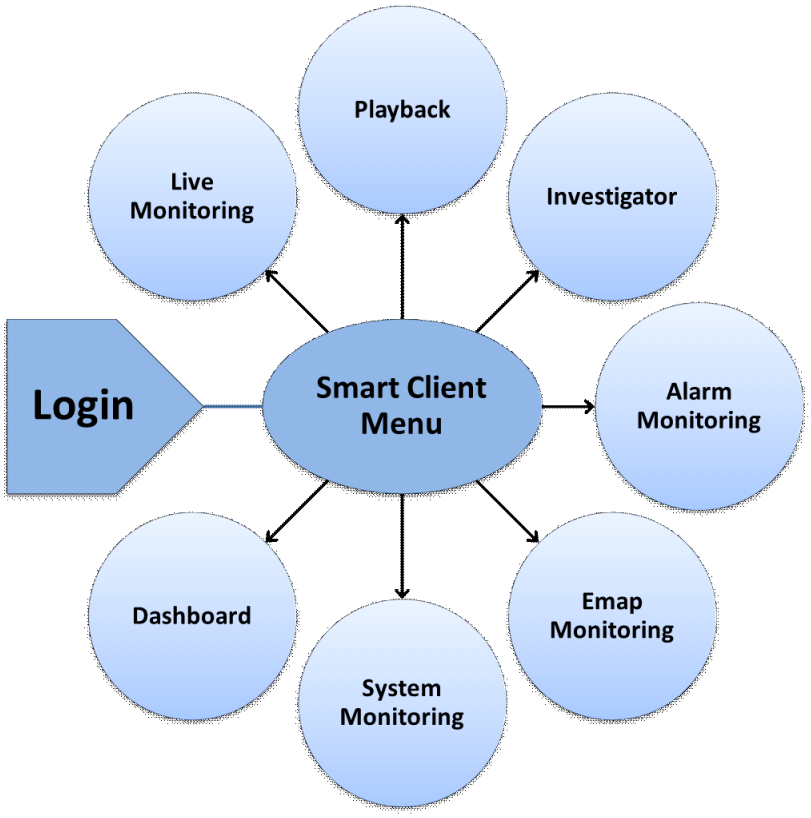
Entry/Exit Evidence Receipts

The weight can also be modified from the Entry/Exit Evidence Receipts. For details, refer to“Evidence Receipt for Weighbridge Application”.

CHAPTER 4

Smart Client Applications

The **Smart Client** home screen provides various functionalities for the video surveillance system.



After the successful login, you can access the various features. Refer to the following links for the configuration and functional details of these features.

- "Live Monitoring"
- "Playback"
- "Investigator"
- "Alarms"
- "Emaps"
- "System Monitoring"
- "Dashboard"

The user's accessibility of various features/functionalities in the Smart Client will depend on the rights — Application, Configuration, Media, Entity, Event Monitoring, Report — assigned to the User Group of the user from the Admin Client. To know more, refer to SATATYA SAMAS Admin Client Manual.

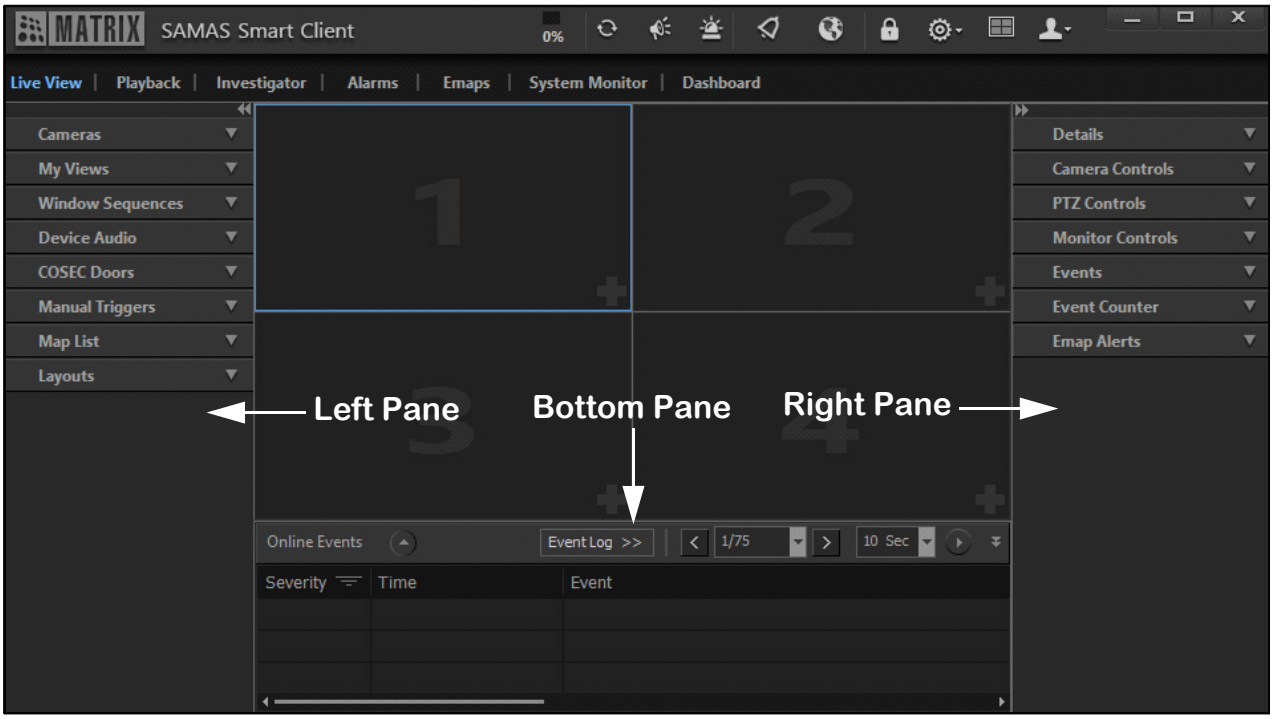
CHAPTER 5

Live Monitoring

The Smart Client provides an interface to view the live video of the cameras added to the system. This enables continuous live monitoring of the premises. Live View enables you to manage the live monitoring by creating My Views and Window Sequences. You can also execute Manual Triggers, keep a track of Events, view Emap Alerts and change camera controls using this feature.

To configure Live View,

- Click **Live View**.



The Live View tab is divided into the following sections.

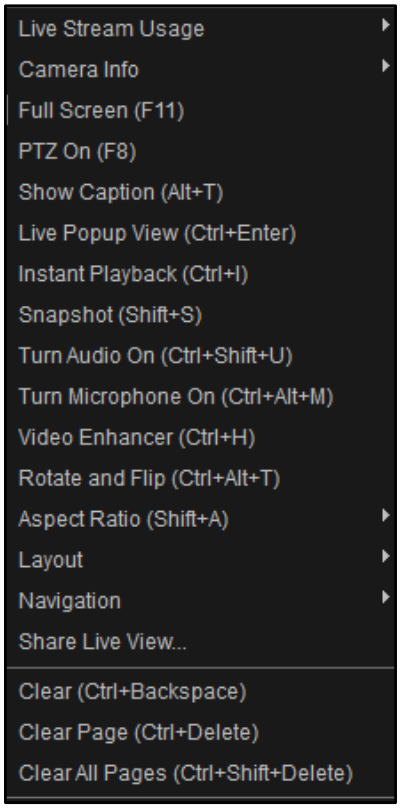
- Left Pane. For details, refer to “Left Pane Functionality”.
- Right Pane. For details, refer to “Right Pane Functionality”.
- Bottom Pane. For details, refer to “Bottom Pane Functionality-Online Events”.

Once a camera is assigned to the monitoring window, you can configure a few parameters by right-clicking on the camera view. For more details, refer to “Camera Live View: Right-click Options”.

Camera Live View: Right-click Options

You can configure a few parameters on a right-click on the monitoring window when the camera live view is running.

- Right-click over the desired camera live view to view and configure the following options.



- **Live Stream Usage:** Select the required Live Stream which you want to assign to the selected camera from the options — High, Medium and Low.
- **Camera Info:** Click Camera Info to view the camera details. These details are displayed — Camera Name, Recording Server and Failover Server.
- **Full Screen (F11):** Click Full Screen to view the camera in full desktop view. You can also press F11 on the keyboard to go to the full screen. You can also select **Back to Normal Screen** from the right-click menu or press F11 to go back to the normal view. You can double click on the desired monitoring window to view it in full screen and double click again to return to the normal view.
- **PTZ On/Off (F8):** Click PTZ On to enable the PTZ functions. This will work only if the feature is supported by the respective camera. You can perform Pan, Tilt and Zoom functions through the PTZ camera. Click PTZ Off to stop the PTZ functions. For more details, refer to “PTZ Controls”.
- **Show Caption/Hide Caption (Alt +T):** Click Show Caption to display the Camera name and other details on the top of the monitoring window. These details are displayed — Camera Name, Microphone status and Audio status. Click **Hide Caption** to hide these details from the window.

- **Live Popup View (Ctrl+Enter):** Click Live Popup View to open the live view of camera in pop-up window. The pop-up window of the live view for the respective camera will appear. For more details, refer to “Live Popup View”.

- **Instant Playback (Ctrl+I):** Click Instant Playback to play back the recording of the selected camera. The Instant Playback window will appear. For more details, refer to “Instant Playback”.

- **Snapshot (Shift+S):** Click Snapshot to take a picture of the live view of the camera. You can print or save the snapshot and also add a watermark to it. For more details, refer to “Snapshot”.

- **Turn Audio On (Ctrl+Shift+U):** Click Audio On to start the audio of the camera. You can see the Audio On icon for the camera where the audio is currently playing on the bottom left corner of the camera live view. For more details, refer to“Turn Audio On/Off”.

- **Turn Microphone On (Ctrl+Alt+M):** Click Turn Microphone On to enable the Audio-Out for the camera. Once enabled, the Smart Client will start sending audio signals to the camera. This will work only if the feature is supported by the respective camera. The microphone can also be turned On/ Off from the caption. For more details, refer to “Turn Microphone On/Off”.

- **Video Enhancer (Ctrl+H):** Click Video Enhancer to temporarily enhance the image through image enhancement settings like Brightness, Contrast, Hue and Saturation.For more details, refer “Video Enhancer”.

- **Rotate and Flip (Ctrl+Alt+T):** Click Rotate and Flip to rotate the live view of the camera manually using mouse or through the controls on Right-clicking the window. For more details, refer to “Rotate and Flip”.

- **Aspect Ratio (Shift+A):** Click Aspect Ratio to resize the viewing area in the monitoring window depending on your monitor. For more details, refer to “Change Aspect Ratio”.

- **Layout:** Click Layout to set a particular layout of the monitoring window from the drop-down list.The Layout option provides different combinations and monitoring window sizes for the live view.

- **Navigation:** Click Navigation to navigate through the pages to view the Next Page or Previous Page of the monitoring windows.

- **Share View:** Click Share View to share Live View of selected Cameras to other Online Smart Client Users. For more details, refer “Monitor Controls”.

- **Clear (Ctrl+Backspace):** Click Clear to remove the selected camera from the live monitoring window.

- **Clear Page (Ctrl+Delete):** Click Clear Page to remove all the cameras from the current page.

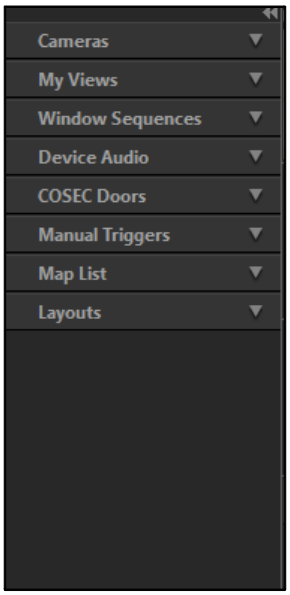
- **Clear All Pages (Ctrl+Shift+Delete):** Click Clear All Pages to remove all the cameras from all the pages. You will be automatically re-directed to the first page.

*The Status of the Microphone will be as it is when you click **Clear All Pages**.*

Make sure the Windows Sequence is in Pack mode to clear all the pages. For details, refer to “Window Sequences: Pack and Unpack”.

Left Pane Functionality

The left pane of the Live View page consists of the following collapsible panels — Cameras, My Views, Window Sequences, Device Audio, COSEC Doors, Manual Triggers, Map List and Layouts.



Refer to the following links for the configuration details of different sections.

- “Cameras”.
- “My Views”
- “Window Sequences”
- “Device Audio”
- “COSEC Doors”
- “Manual Triggers”
- “Map List”
- “Layouts”

Cameras

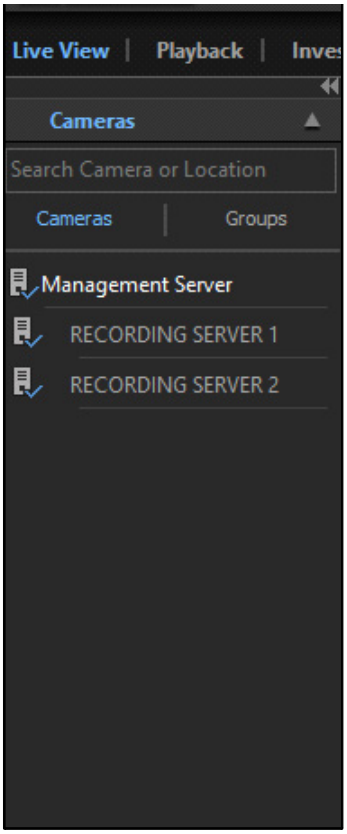
The Cameras section displays cameras and devices added to various Recording Servers and Component Groups. The cameras and devices are displayed in the hierarchy — Management Server > Recording Server > Cameras. The cameras, sensors and alarms added to various Component Groups appear under the Groups tab. All the Component Groups configured in the Admin Client appear here. For more details on Component Groups, refer to SATATYA SAMAS Admin Client Manual.

Component Groups that do not have cameras will not appear in Smart Client.The users can view the components of the Component Groups based on the Entity Rights of their User Group.Refer to the SATATYA SAMAS Admin Client Manual, General Settings > System Account > User Groups.

The Cameras section allows you to assign different cameras and/or Component Groups to the monitoring window. You can view the connection details of the Management Server and Recording Servers from this page. You can also perform various functions by right-clicking on the monitoring window.

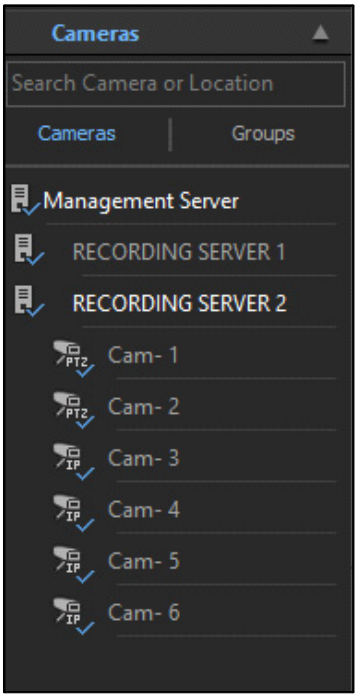
To view the camera live stream,

- Click the **Cameras** collapsible panel.

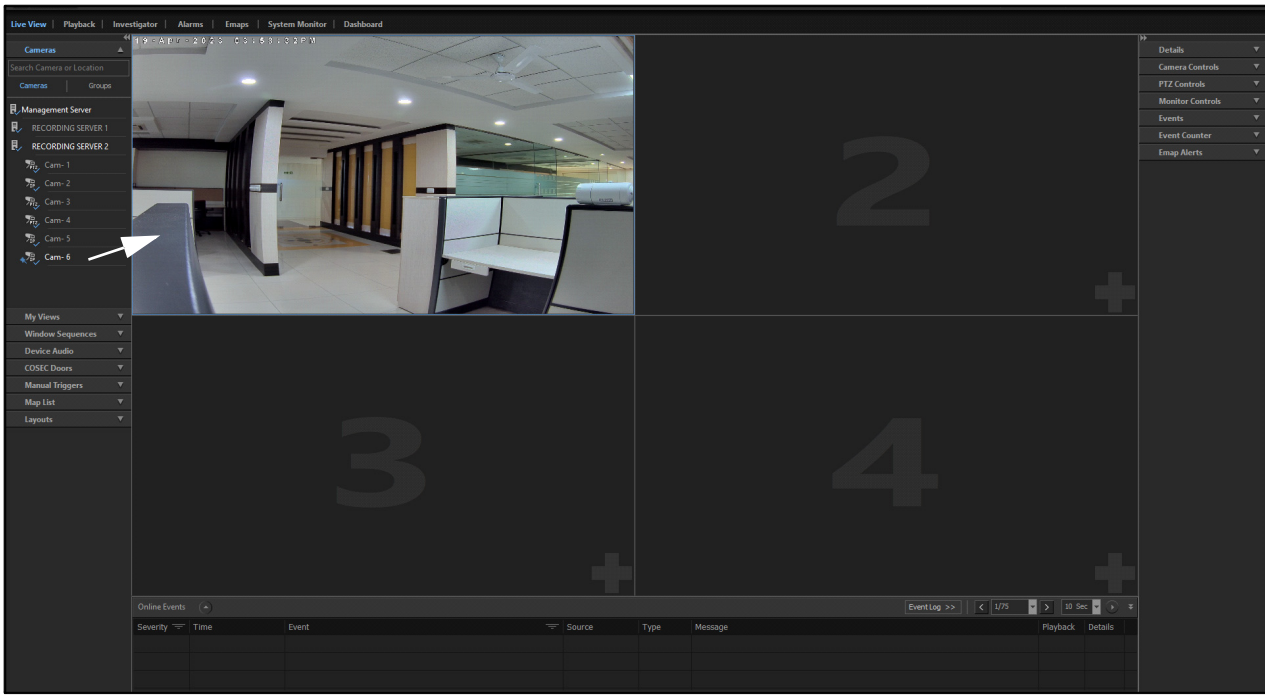


A hierarchial tree of all the Recording Servers, cameras and devices appear. All the Component Groups appear under the **Groups** tab. You can select cameras from under the **Cameras** tab or **Groups** tab. You can also select the entire Component Group and assign the same to the monitoring window.

- Click the **Cameras** tab and then click the desired Recording Server. The list of cameras and devices appear.



- Select the desired monitoring window and then select the desired camera. The camera live view begins in the selected monitoring window.



You can drag and drop the desired camera on the monitoring window to begin its live view. You can also search for the desired camera using the **Search Camera or Location** search bar.

Similarly, you can also assign Component Groups to the monitoring window.

Component Groups when dropped on the live view then they appear in the same order as created in the Admin Client.To ensure smooth functioning of this feature, make sure the Smart Client and MS are upgraded to the latest and same version.

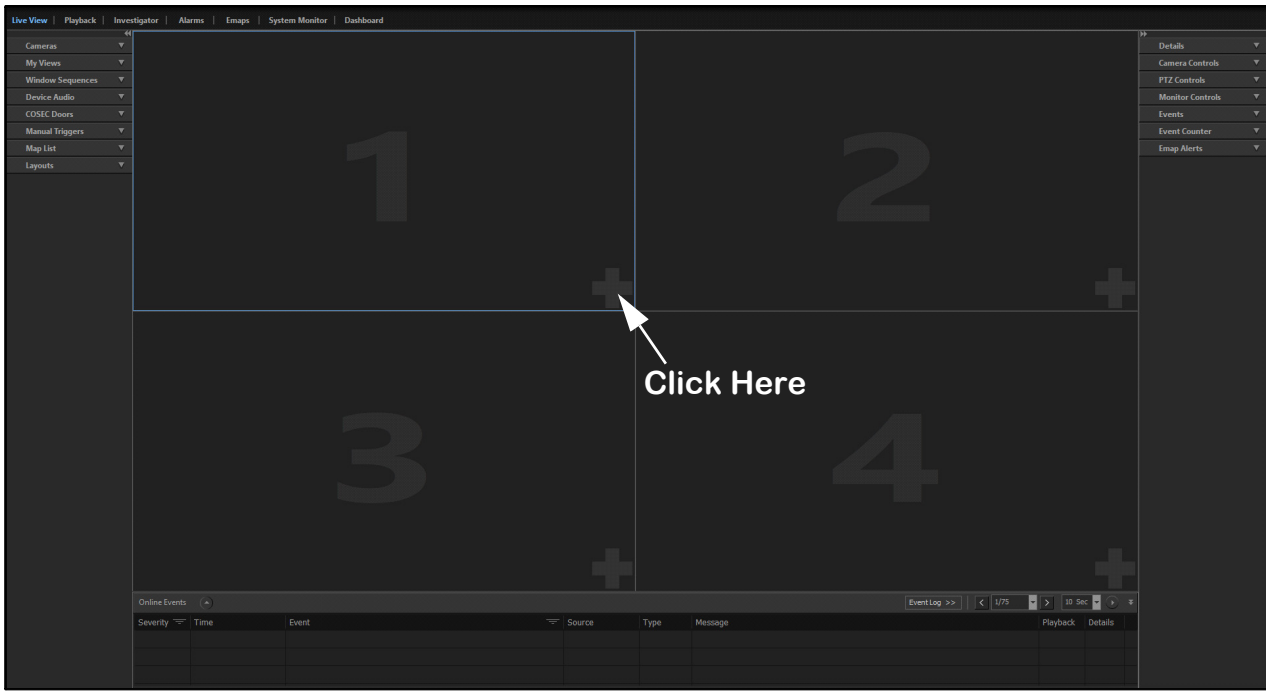
Make sure Page Sequencing is disabled when you drop Component Groups on the live view. For details, refer to "Page Sequencing".

Make sure the Windows Sequence is in Pack mode when you drop Component Groups on the live view. For details, refer to "Window Sequences: Pack and Unpack".

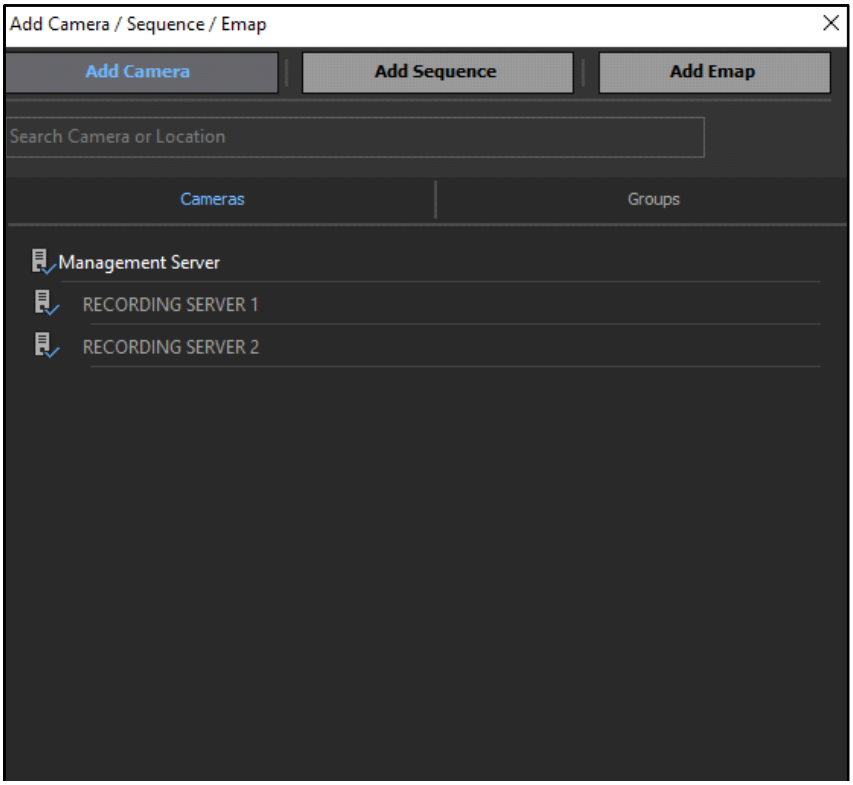
Alternatively, you can click **Add** on the monitoring window to add a camera to the live view. For details, refer to "Assigning Cameras from the Monitoring Window in Live View".

Assigning Cameras from the Monitoring Window in Live View

The **Add** icon appears on the monitoring window where neither Cameras, Window Sequences nor E-maps are assigned.

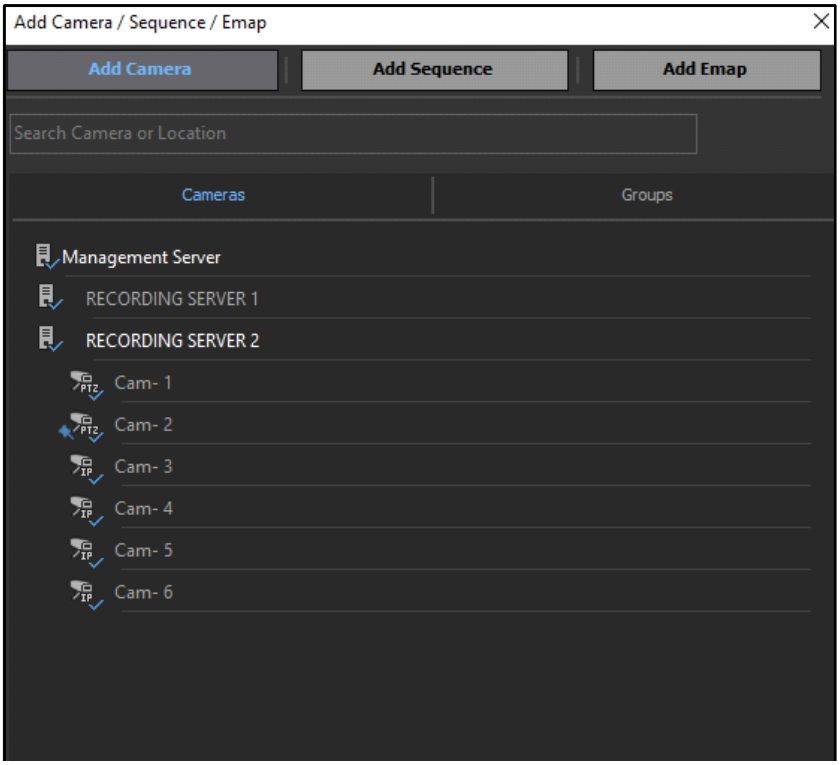


- Click **Add** . The **Add Camera/Sequence/Emap** pop-up appears.

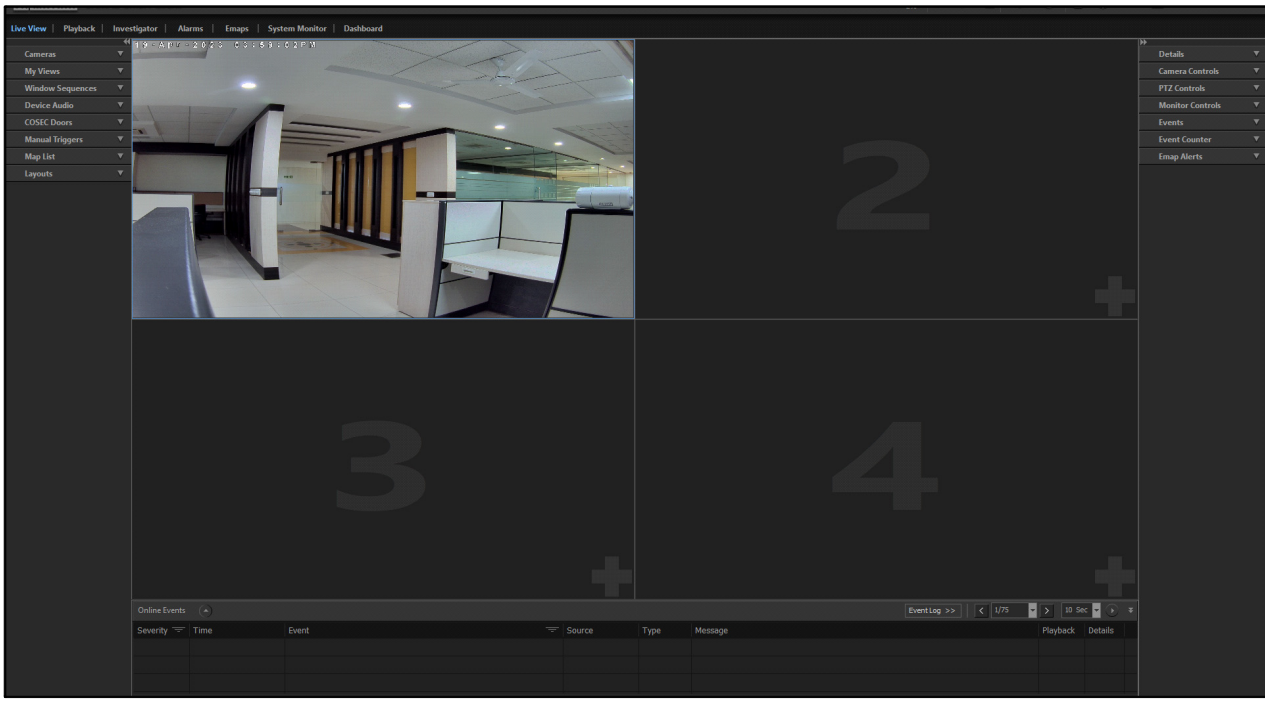


The pop-up consists of three tabs — Add Cameras, Add Sequence and Add Emap. You can add Cameras, Window Sequences and Emaps to the live view from this pop-up. For more details on adding Sequence and Emaps, refer to “Window Sequences” and “Map List”.

- Click **Add Cameras** tab. The Recording Servers and cameras appear in a list under the **Cameras** tab. All the configured component groups appear under the **Groups** tab.
- Under the **Cameras** tab, click the desired Recording Server. All the cameras added to that server appear.



- Select the desired camera from the list. You can also search the required camera using the **Search Camera or Location** search bar.
- Similarly, you can also select the desired cameras from the **Groups** tab.
- The live video stream begins in the monitoring window.

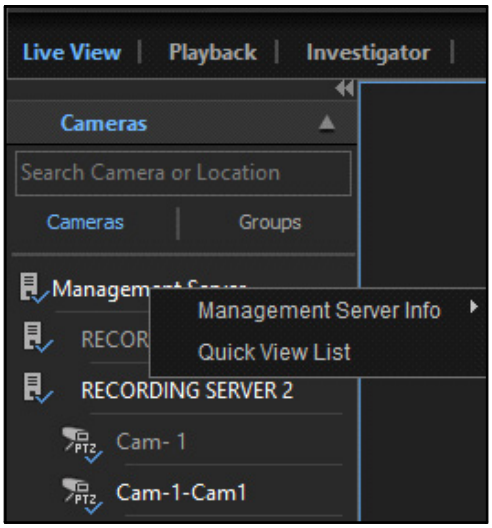


Left Pane- Right-click Options

You can configure a few parameters by right-clicking on the components of the **Cameras** tab — Management Server, Recording Server and Cameras.

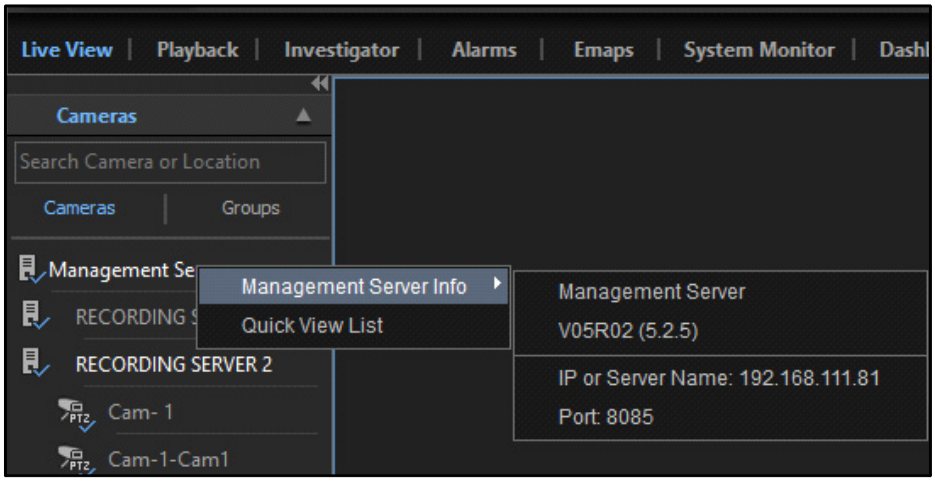
Management Server

- Right-click on the Management Server. The following options appear — Management Server Info and Quick View List.



- **Management Server Info:** Selecting Management Server Info enables you to view the connection details.

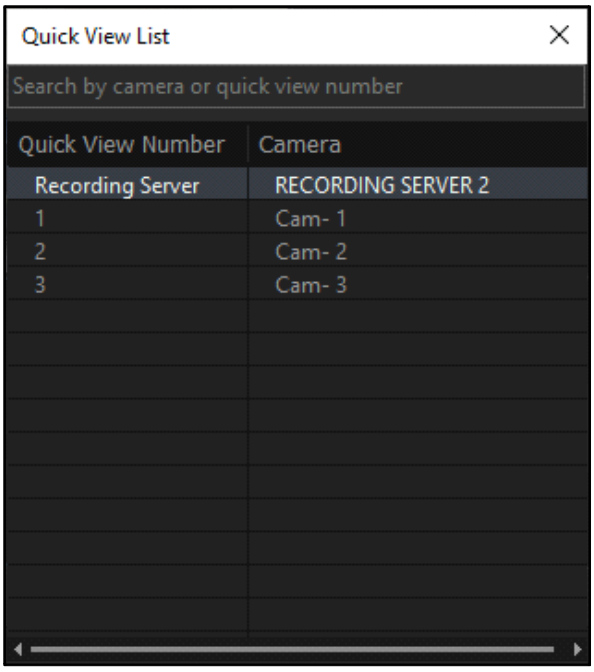
  - Click **Management Server Info**. The following pop-up appears.



  The Server details displayed are — Version, IP or Server Name and Port.

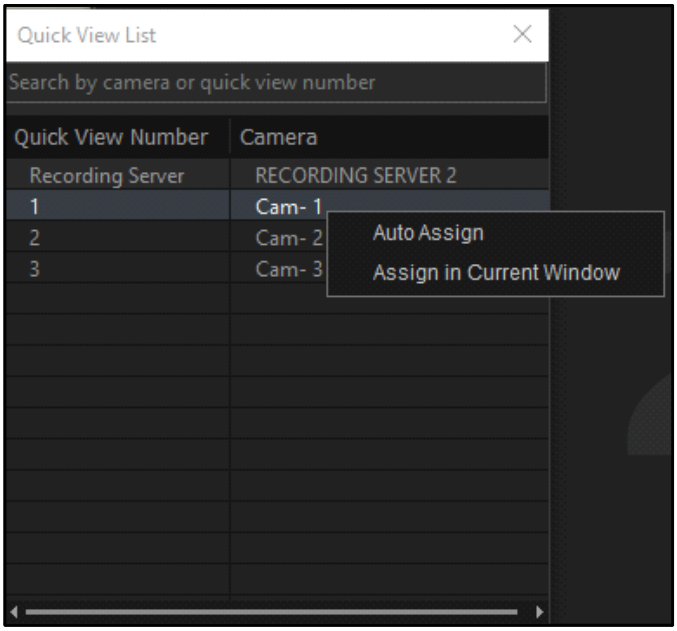
- **Quick View List*:*** The Quick View list enables you to view the numbers assigned to specific cameras from Admin Client. You can directly view the live view of these cameras using the shortcut — Ctrl + Camera Number.The live view of that camera begins in the monitoring window.

  - Click **Quick View List**. The **Quick View List** pop-up appears.



The Quick View List displays the Quick View Numbers assigned to the different cameras from **Servers & Devices > Camera > Profile tab**. The Recording Server name is also displayed.

- Right-click on the desired **Quick View** number. The following options appear— Auto Assign and Assign in Current Window.



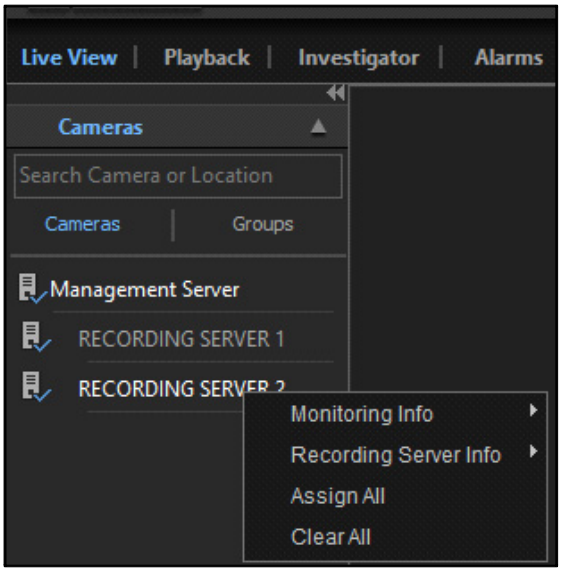
- **Auto Assign**: Select this option to auto assign the camera in the first monitoring window. The camera will be auto -assigned via this option only when the first monitoring window has no cameras, window sequence or Emap assigned to it.

- **Assign in Current Window**: Select this option to assign the camera to the selected window.

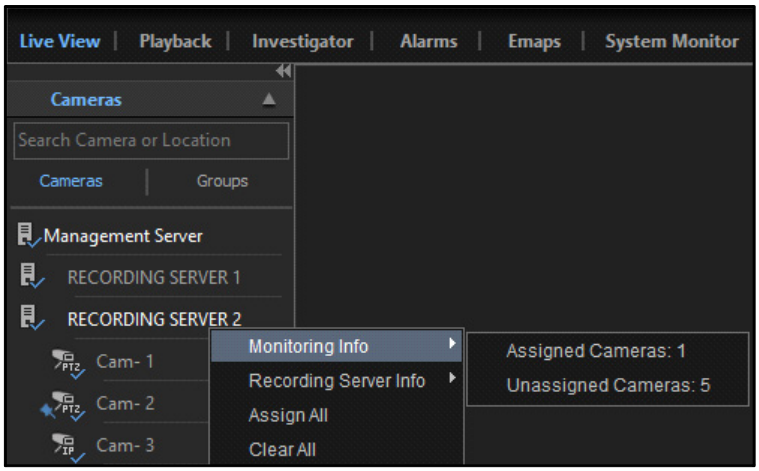
The live view of the camera assigned against the Quick View number appears in the monitoring window.

Recording Server

- Right-click on the desired Recording Server. The following options appear— Monitoring Info, Recording Server Info, Assign All and Clear All.

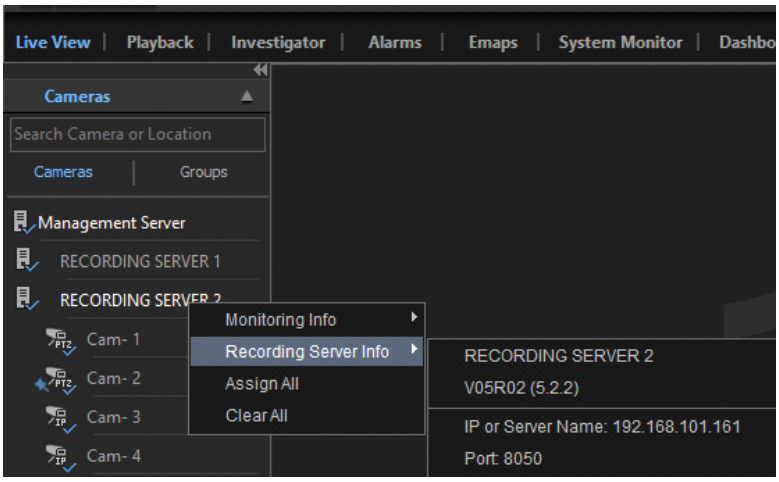


- **Monitoring Info:** Selecting Monitoring Info enables you to view the connection details.
    - Click **Monitoring Info**. The following pop-up appears.



The Monitoring details displayed are — Number of Assigned and Unassigned Cameras.

- **Recording Server Info:** Selecting Recording Server Info enables you to view the connection details.
    - Click **Recording Server Info**. The following pop-up appears.

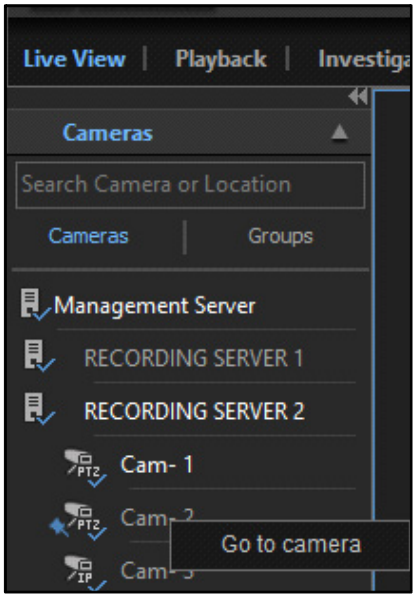


The Server details displayed are — Name, Version, IP or Server Name and Port.

- **Assign All:** Click **Assign All** to assign all the cameras to the monitoring window.
- **Clear All**: Click **Clear All** to clear all the cameras assigned to all the monitoring window.

Camera

- Right-click on the desired Camera. The **Go to Camera** option appears.



- **Go to Camera**: Selecting Go to Camera redirects you to the monitoring window where the camera is assigned. This option is useful when a lot of cameras have been assigned to the monitoring window. Go to Camera will navigate you to the camera monitoring window instantly.

My Views

The My Views section displays the configured My Views. My Views allows you to customize and create the desired views. The desired Cameras, Window Sequences as well as Emaps can be saved together using the My Views feature. These can be viewed by selecting the respective My View from the My Views list. You can also edit or delete the existing views.

Creating My Views

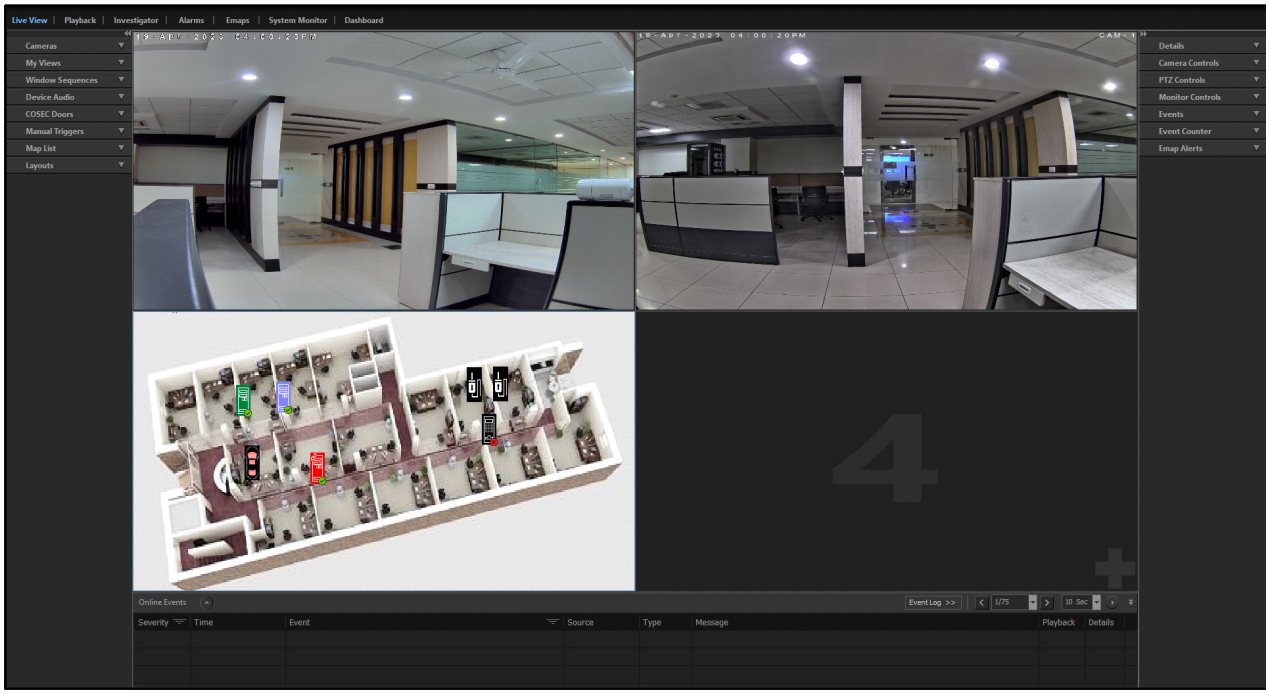
*My Views can be created, edited and deleted based on the rights assigned to the user from Admin Client from **General Settings > System Account**. For example, if a user is assigned the right of only viewing My Views, he/she will be able to only view the My Views and not create or edit it.*

When creating My View, the selected layout should be according to the number of entities to be added to the My View. For example, if you wish to create My View with 9 entities, the 3x3 layout should be selected.

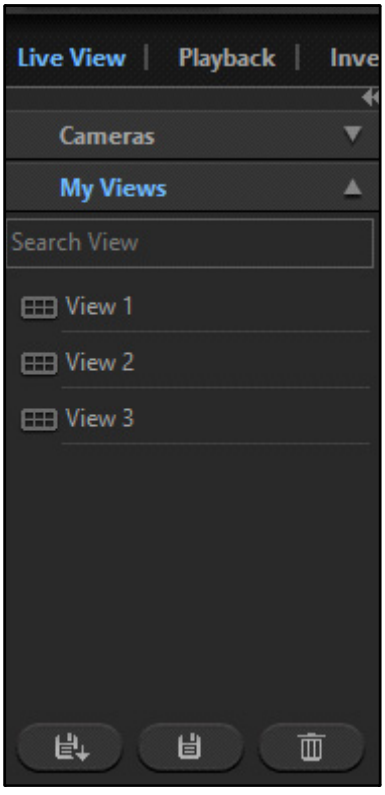
To configure My Views,

- Select the desired monitoring window.

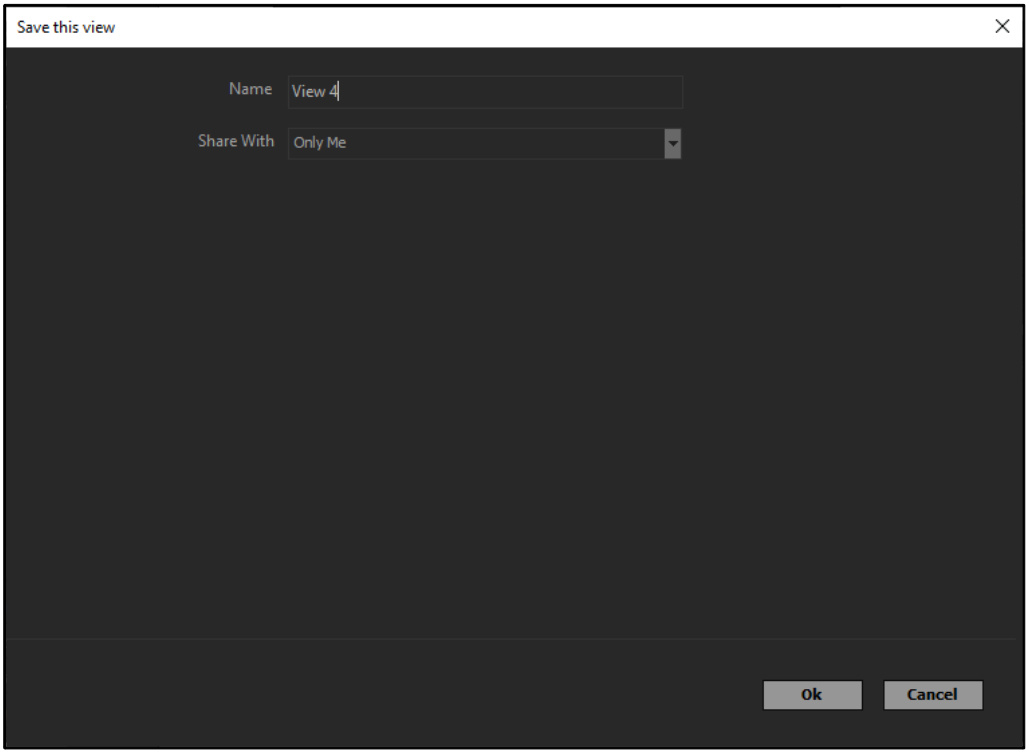
- Select the desired Cameras from the Cameras list, Window Sequences from the Window Sequences list and Emaps from the Map List and place them on the monitoring windows. You can either drag and drop the desired cameras or click **Add** on monitoring window where no entity is assigned. For more details, refer to “Cameras”, “Window Sequences”, “Map List”.



- Click **My Views** collapsible panel.



- Click **Save As** . The **Save this view** pop-up appears.



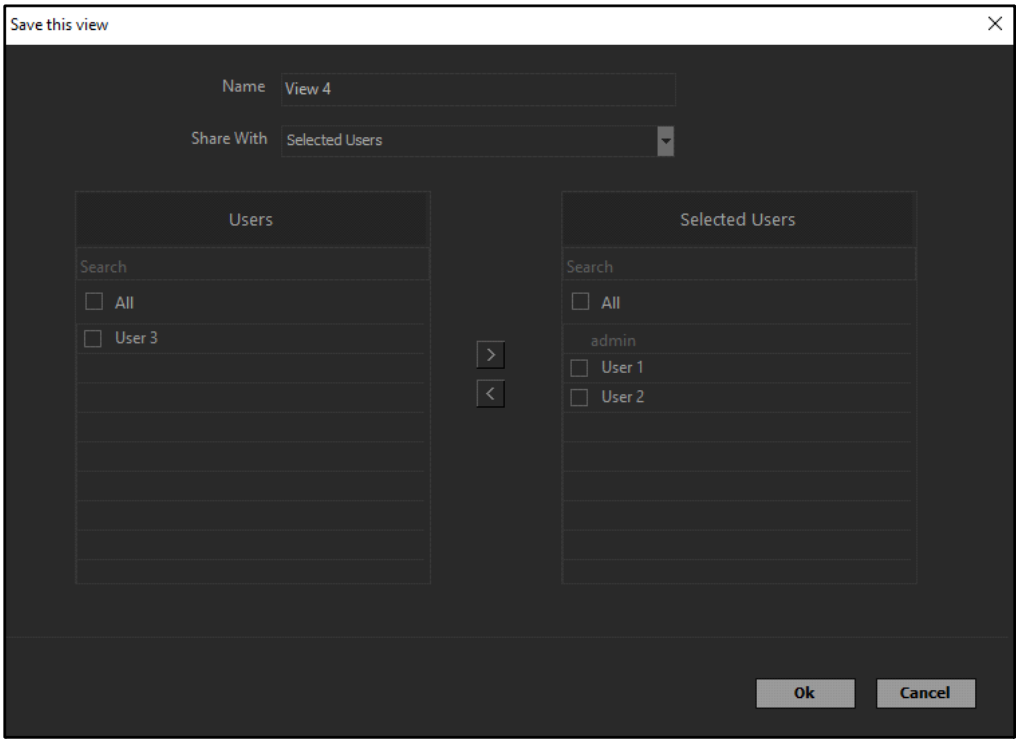
Configure the following parameters.

- **Name**: Specify a suitable name for the View.
- **Share With**: Select the users with whom you wish to share the View from the drop-down list — Only Me, All Users, Selected Users.

  If you select, **Selected Users**, you need to select the desired users from the Users list.

  The list of all the users as configured in Admin Client appear under the **Users** list. Select the required check boxes for the users you wish to add to the **Selected Users** list and click the **Right Arrow** button to add these users to the Selected Users list.You can also search for the required users using the search bar.

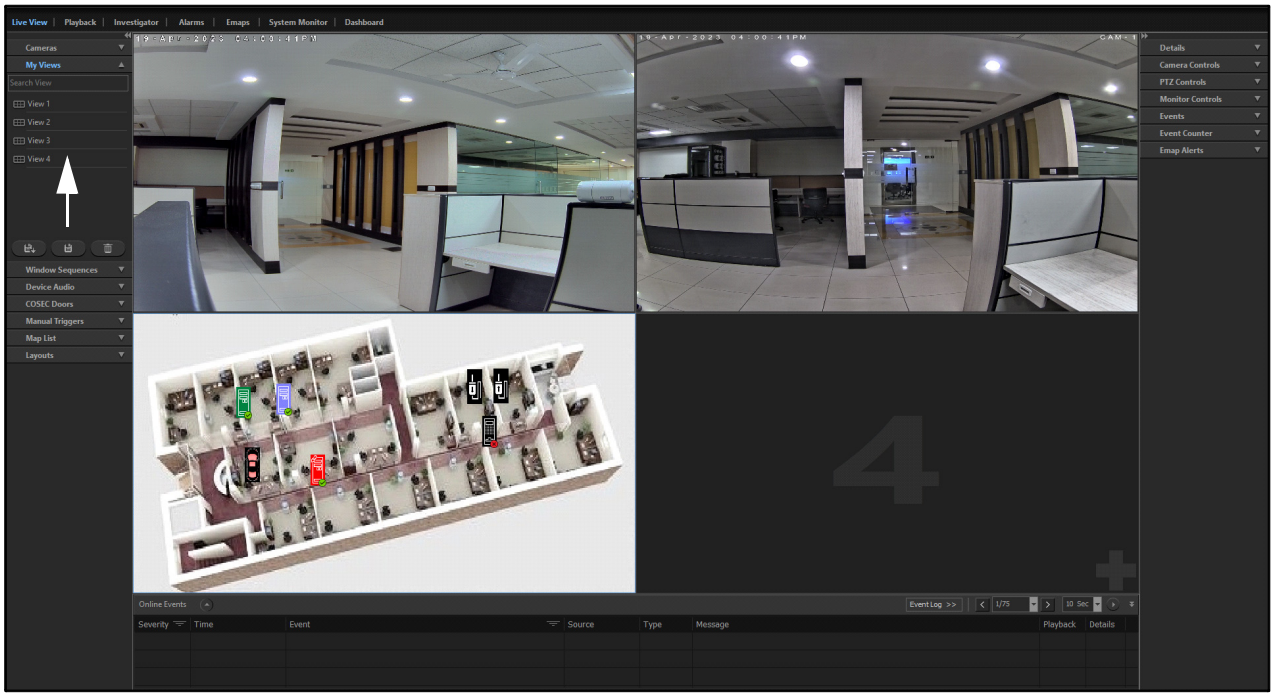
  To remove users, select the required check boxes for the users you wish to remove from the Selected Users list. Click the **Left Arrow** button to remove these users from the Selected Users list.



- Click **Ok** to confirm or **Cancel** to discard.

The new My View appears in the My Views list.

You can search for the desired view using the **Search View** search bar or delete it.

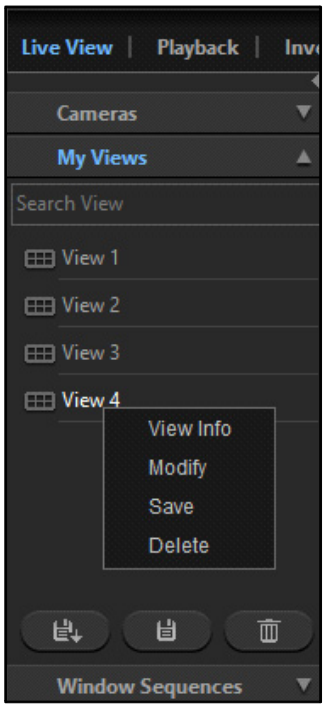


- **Delete**: Click Delete to delete the required My View.

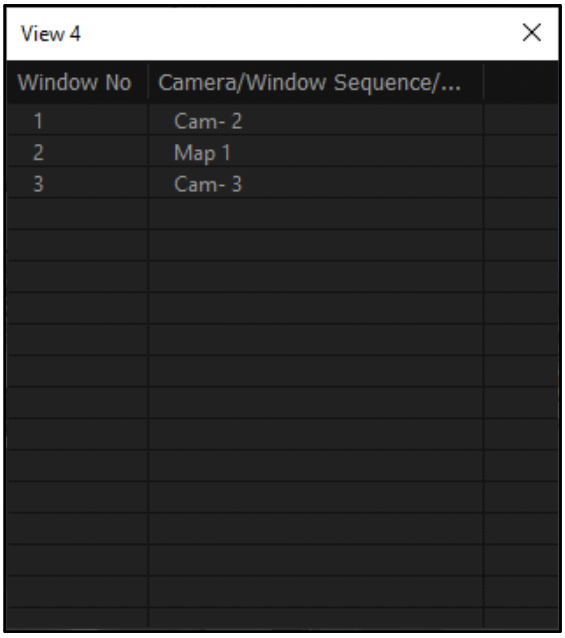
My Views: Right-click Options

You can configure a few parameters by right-clicking on the My View.

- Right-click over the desired view. The following options appear — View Info, Modify, Save and Delete.

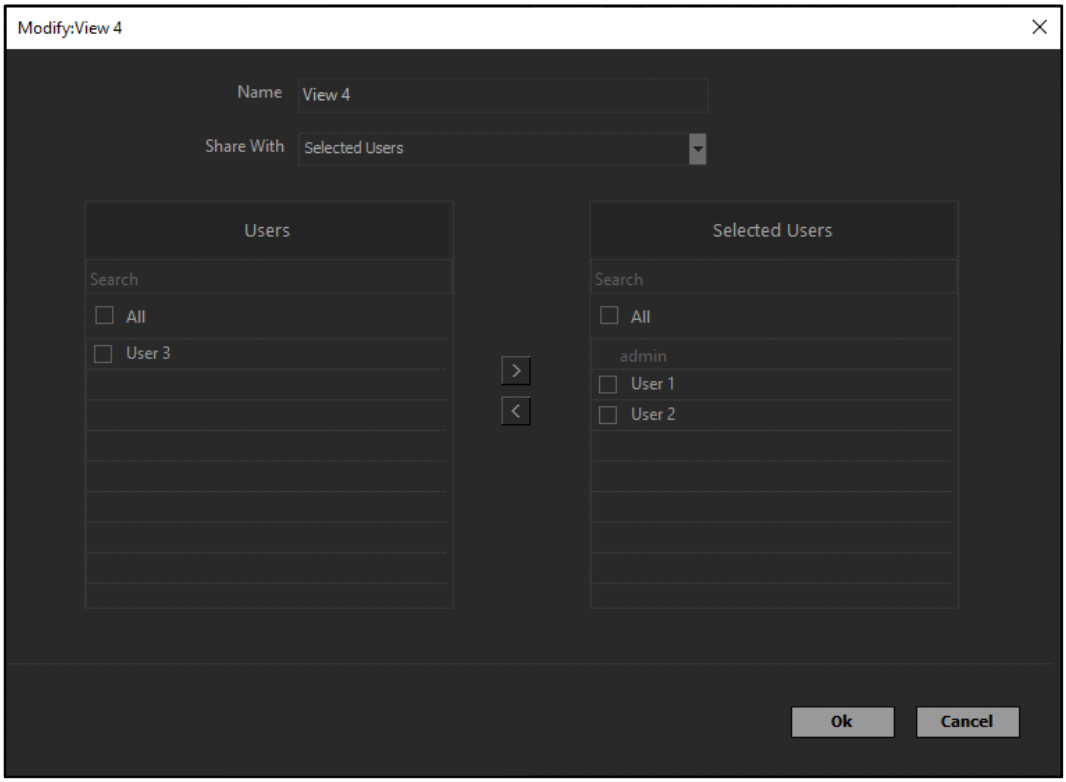


- **View Info**: Click **View Info** to view the details of the selected My View. The selected My View pop-up appears.



The My View entities are displayed in a list according to the monitoring window sequence.

- **Modify**: Click Modify to edit the **Name** and **Share With** details of the selected My View. The **Modify** pop-up appears.



The configurations for modifying the My View is similar to those of creating a view. For more details refer to “Creating My Views”.

- **Save**: Click Save from the options or the Save icon to save the selected View.
- **Delete**: Click Delete from the options or the Delete icon to delete the selected View.

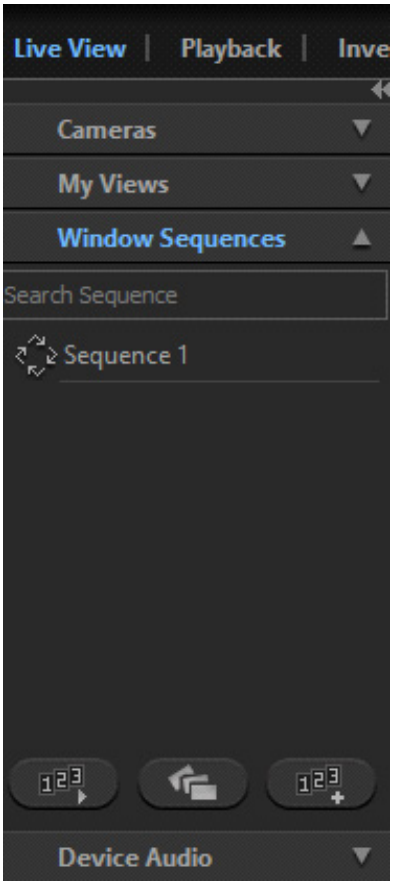
Window Sequences

The Window Sequences section allows you to add the desired cameras in a sequence for easy video surveillance of multiple cameras at once. The Window Sequence can be viewed in **Pack** or **Unpack** form as well. You can modify the sequence and play/pause the sequence as required.

Creating Window Sequences

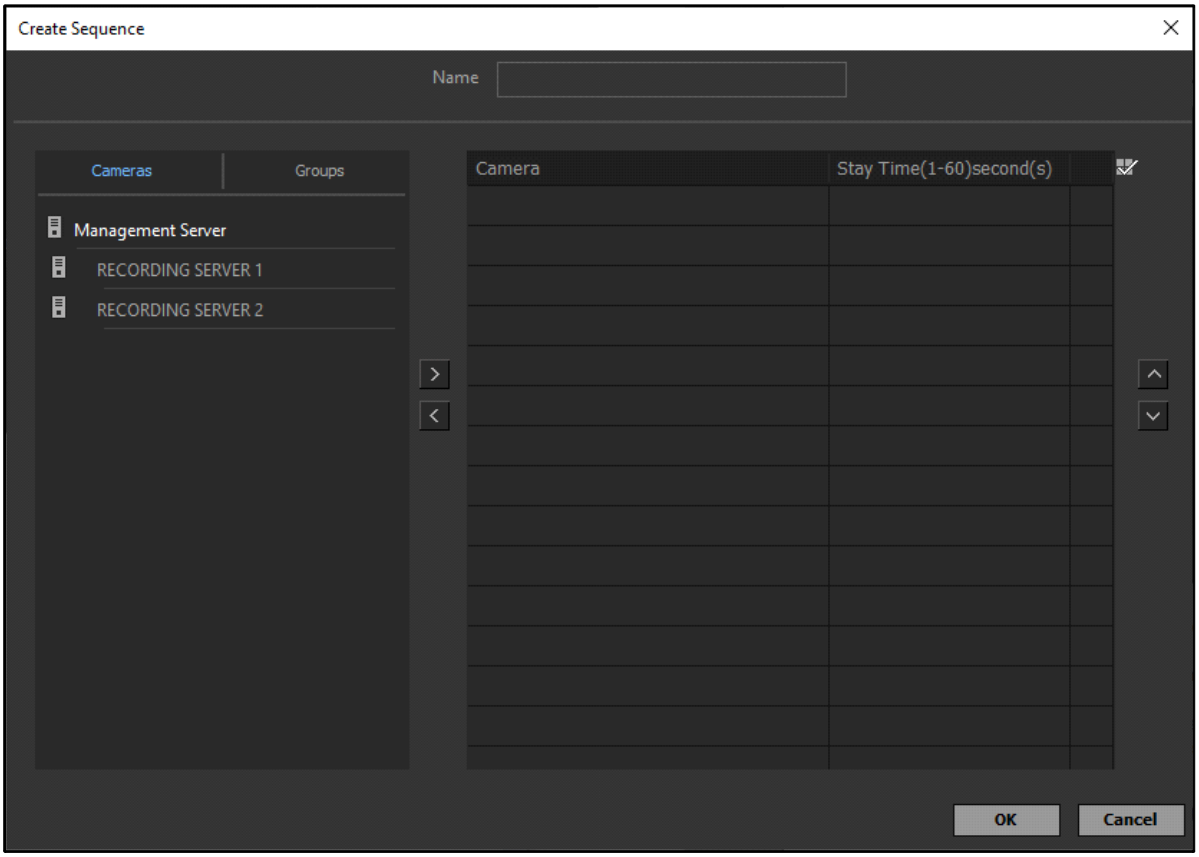
To configure the Window Sequences,

- Click **Window Sequence** collapsible panel.



- Click **Create Sequence** . The **Create Sequence** pop-up appears.

*Window Sequences can be created, edited and deleted based on the rights assigned to the user from the **Admin Client> General Settings > System Account**. For example, if a user is assigned the right of only viewing the Window Sequence, then he/she will be able to only view the Window Sequence and not create modify or delete it.*

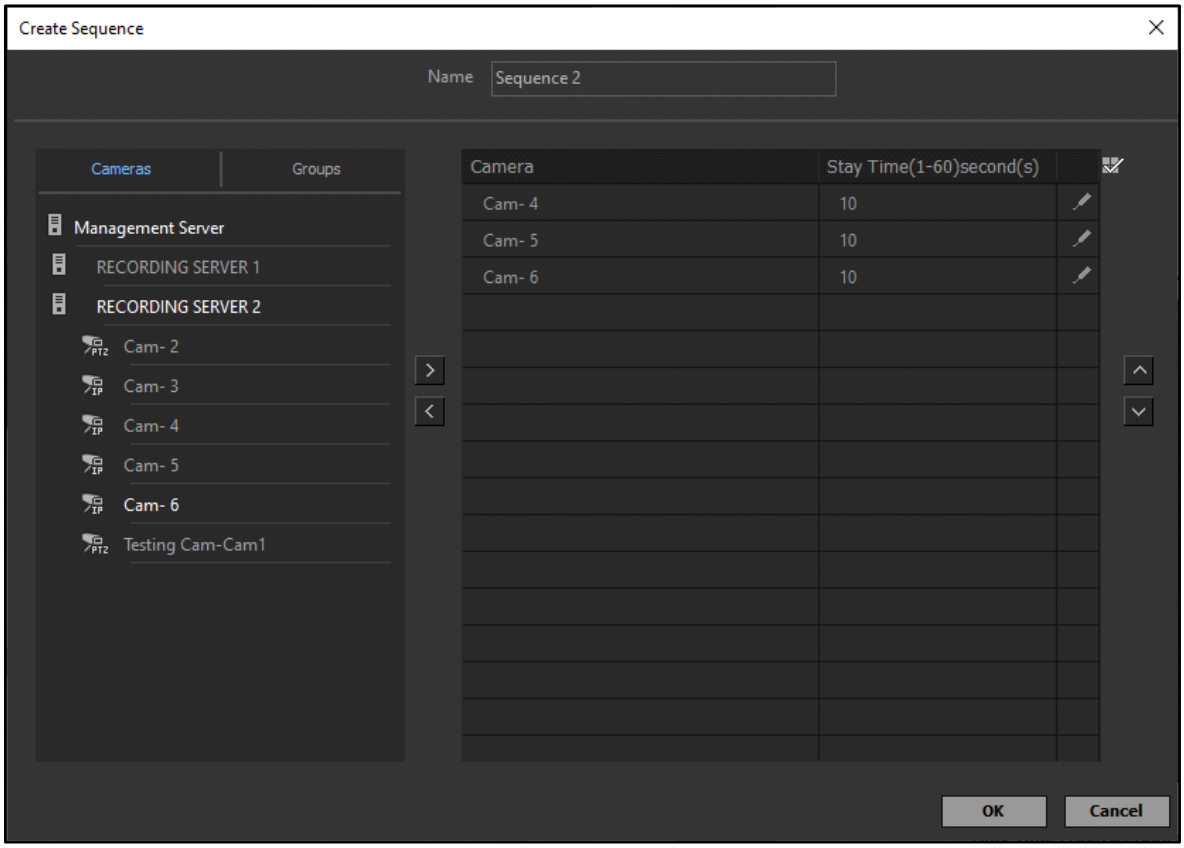


Configure the following parameters.

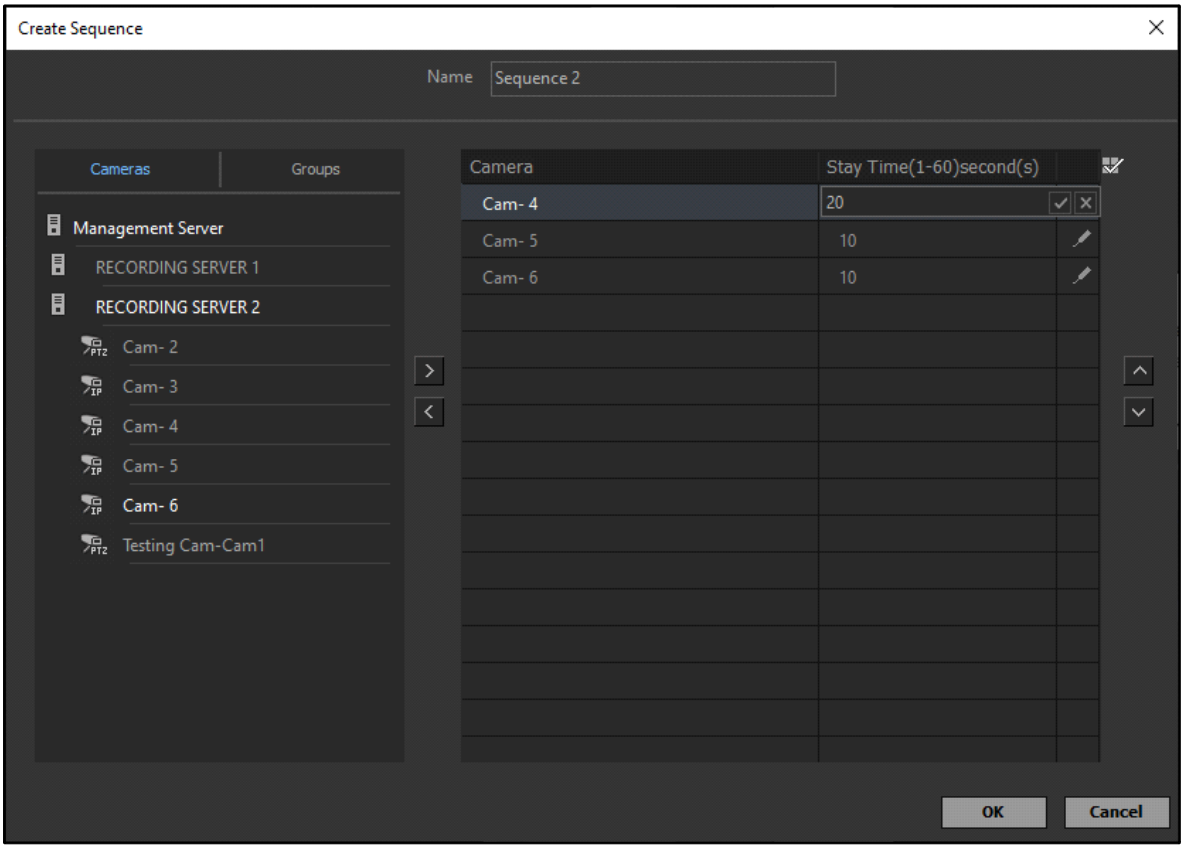
- **Name**: Specify a suitable name for the sequence.
- **Camera**: The list of cameras added to various configured Recording Servers appears under the **Cameras** tab. The cameras added to different groups appear under the **Groups** tab. Select the required Recording Server to view a list of the added cameras. Select the cameras you wish to add from the Cameras or Groups tabs. Click the **Right Arrow** button to add those cameras to the **Camera** list.

  To remove cameras, select the required cameras you wish to remove from the Camera list. Click the **Left Arrow** button to remove the cameras.

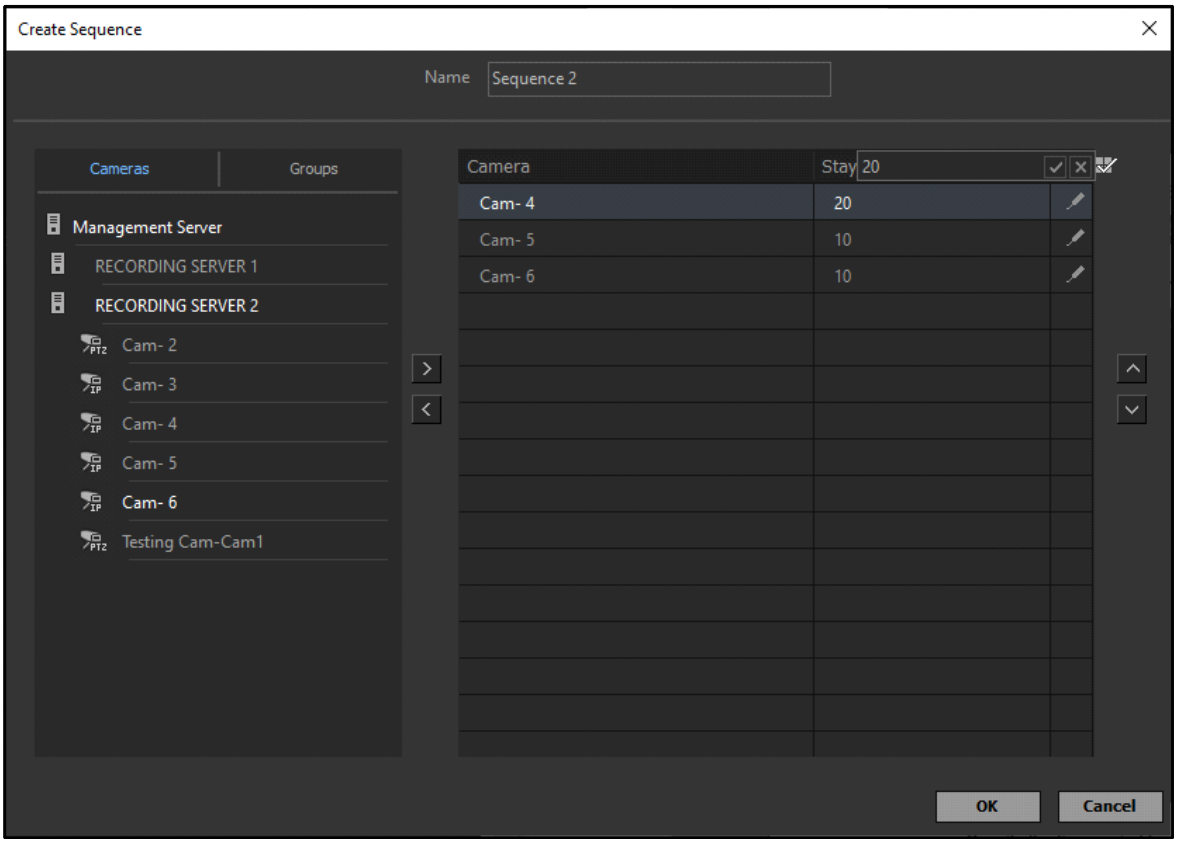
  You change the sequence of the cameras in the Camera list by clicking the **Up Arrow** or **Down Arrow** buttons.



- **Stay Time (1-60)second(s)**: Click **Edit** for the respective camera and specify the **Stay Time** period for which the live view of camera is to be displayed in the sequence. The default value is 10 seconds.

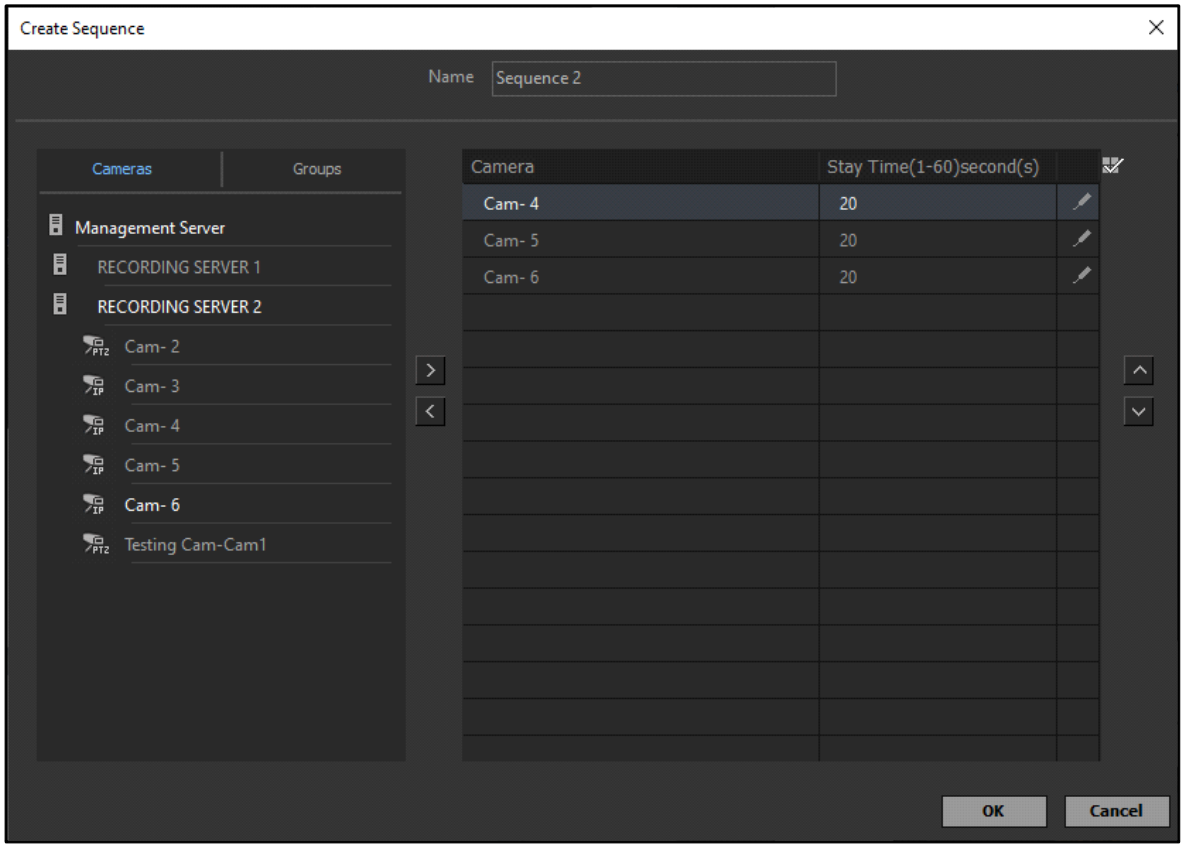


- Click **Save** to confirm or click **Cancel** to discard.



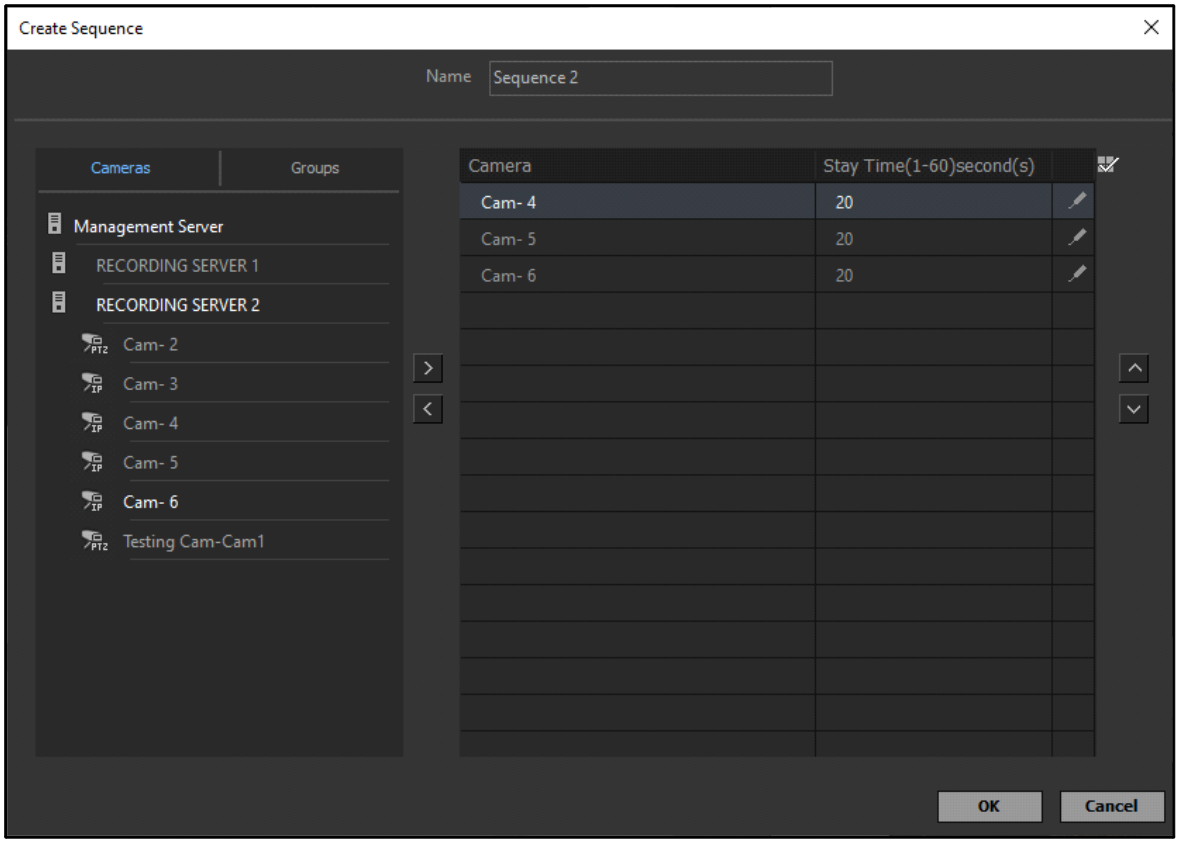
You can also apply the same Stay Time to all the selected cameras in the sequence at once.

- To do so, click **Apply All** .



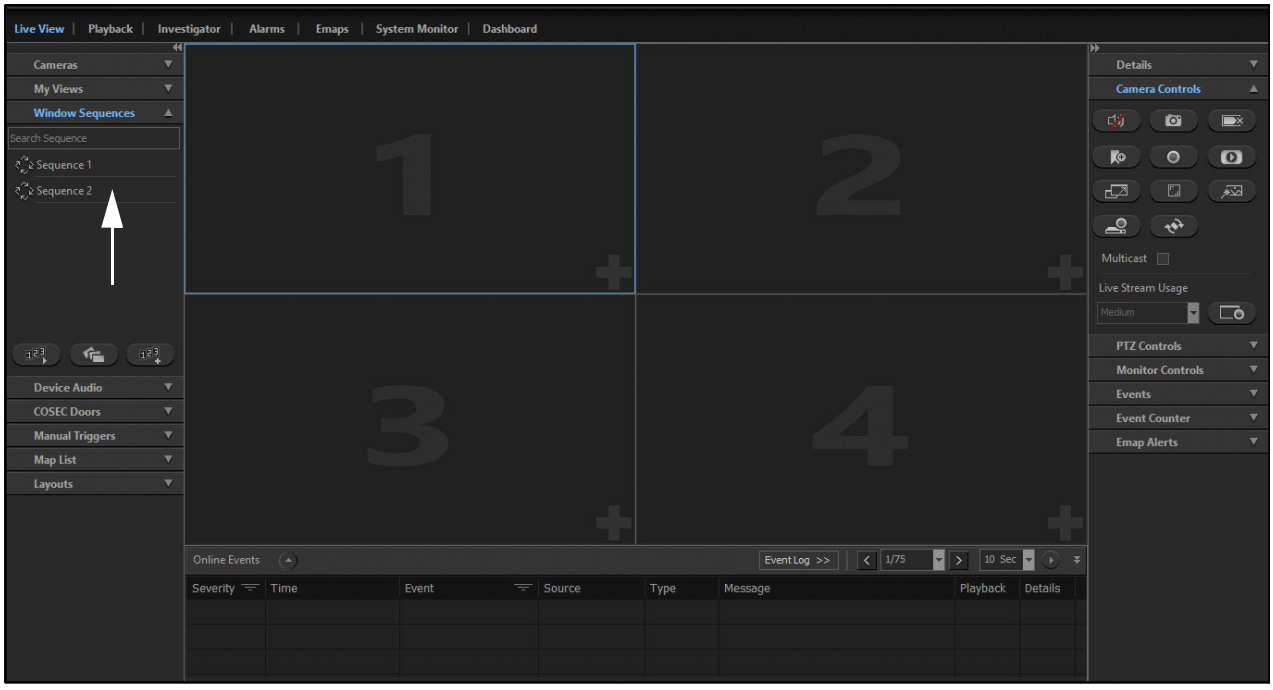
- Specify the time period for which each camera's live view is to be displayed in the sequence.

- Click **Save** to confirm or click **Cancel** to discard.



- Click **OK** to save the changes or click **Cancel** to discard.

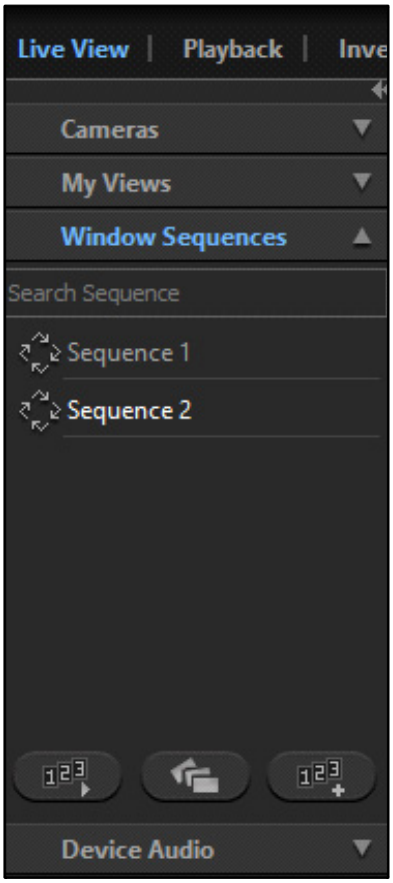
The new Window Sequence appears in the Window Sequences list.



Once you have created the Windows Sequence, you can configure the following Window Sequence parameters — Play/Pause, Modify, Delete, Sequence Info and Go to Sequence

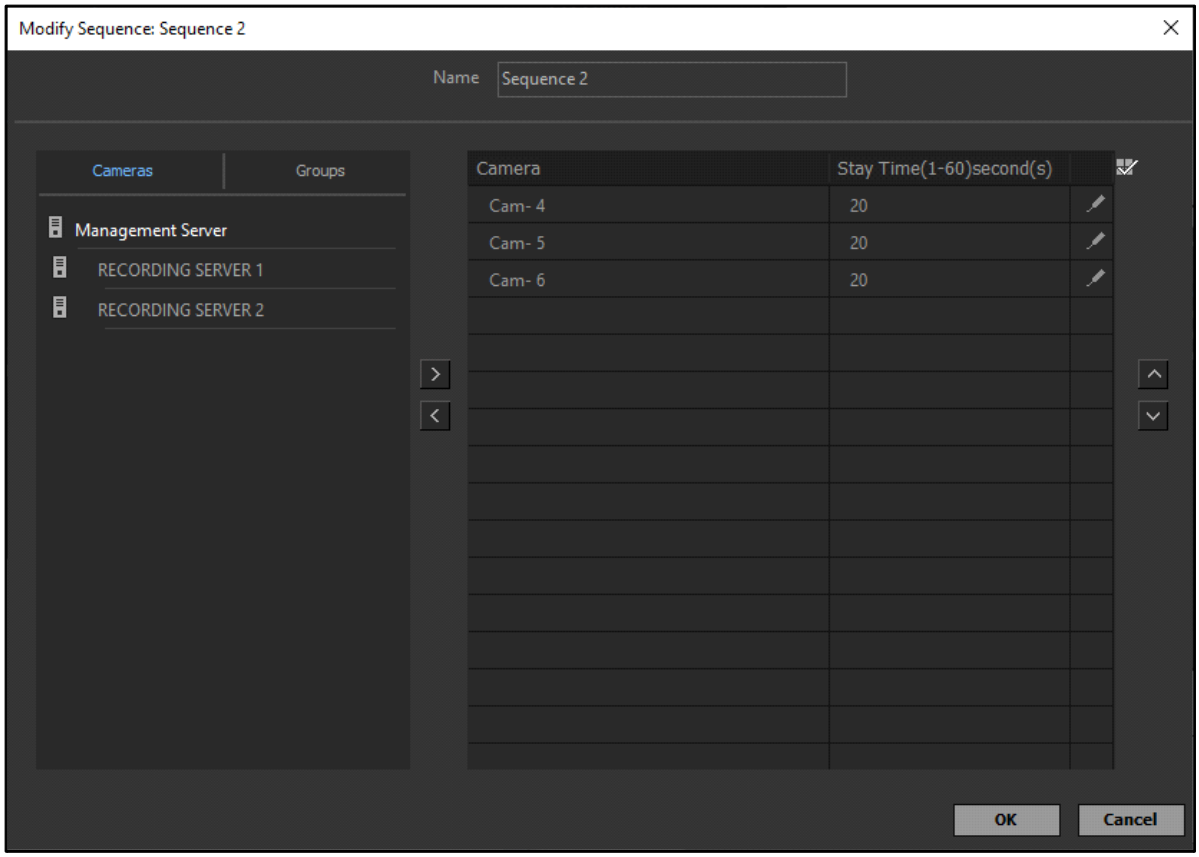
- **Play/Pause**: Select the desired Window Sequence from the Window Sequence list or drag and drop the desired Window Sequence on the desired monitoring window. You can also search for a sequence using the search bar.

  The Window Sequence starts playing in the monitoring window.



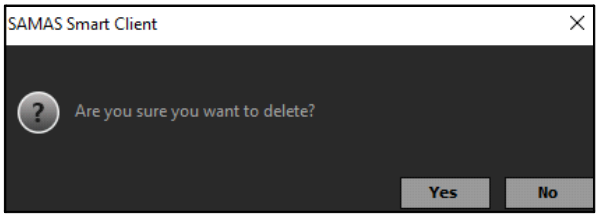
  - Click **Pause** to pause the Window Sequence.
  - Click **Play** to play the Window Sequence again.

- **Modify**: Right-click on the desired Window Sequence and select Modify. The **Modify Sequence** pop-up appears.



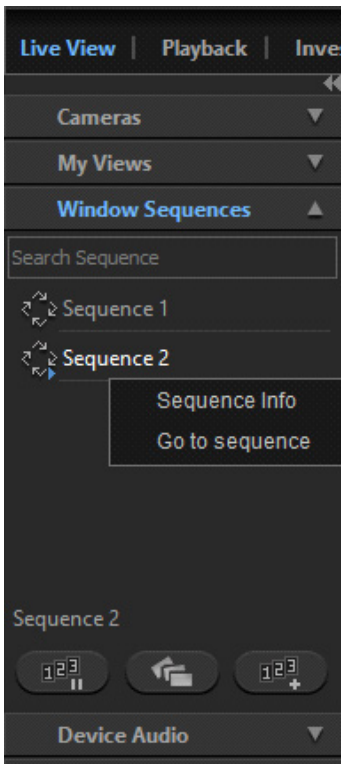
The configurations for modifying a window sequence are similar to creating a sequence. For details, refer to “Creating Window Sequences”.

- **Delete**: Right-click on the desired window sequence and select Delete. The following pop-up appears.

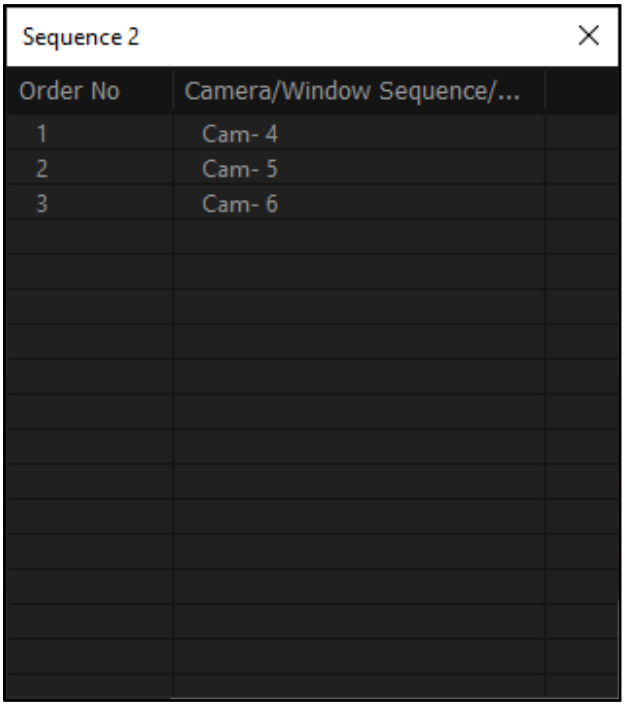


- Click **Yes** to confirm or click **No** to discard.

Right-click on the desired running Window Sequence. The following options appear — Sequence Info and Go To Sequence.



- **Sequence Info:** Right-click on the desired Window Sequence and select **Sequence Info**. The selected Sequence pop-up appears.



The Order Number and Entity Name against the monitoring window is displayed. The entities appear in this order when the sequence is running.

- **Go to Sequence:** Right-click the desired Window Sequence. Click Go to Sequence to return to the selected Sequence. This is useful to locate the desired sequence when too many sequences are running in the monitoring windows.

Window Sequences: Pack and Unpack

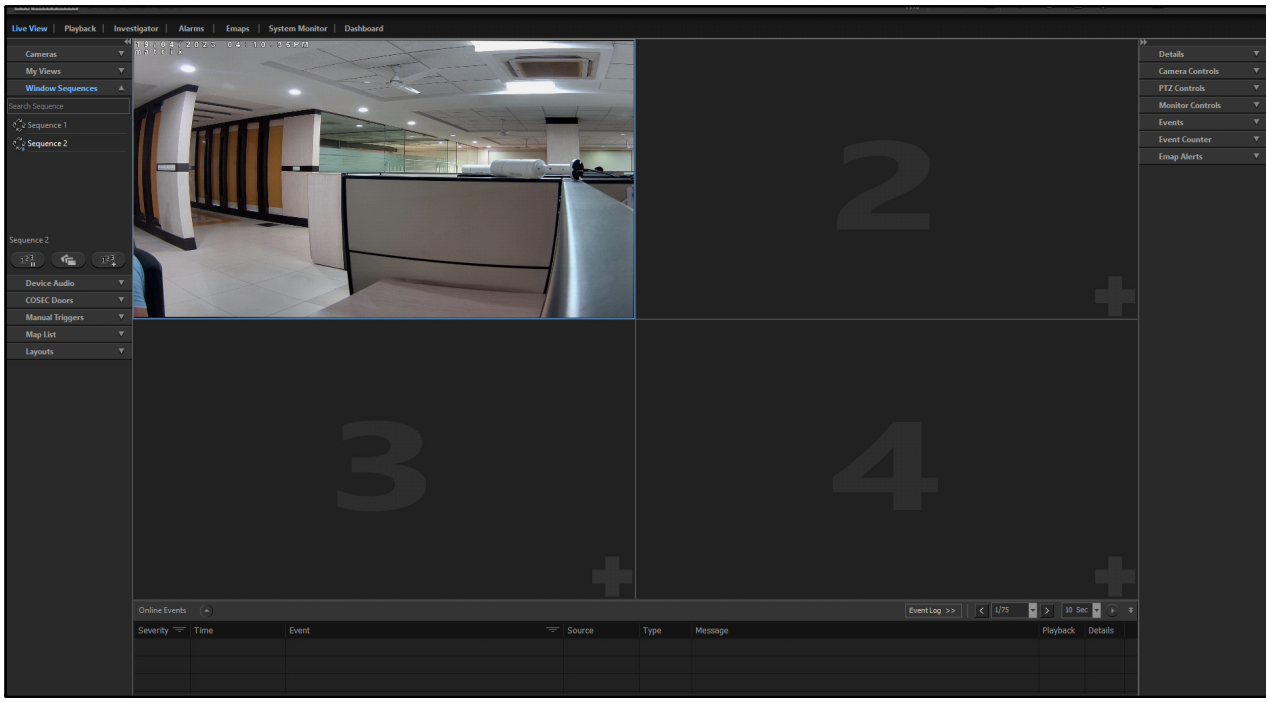
You can start a Window Sequence in two modes — Pack or Unpack.

In the Pack mode, the Window Sequence runs in a single monitoring window. The live video from each camera is displayed for a pre-defined period, that is, Stay Time as configured while creating the Window Sequence. After the Stay Time expires, the live video from the next camera assigned in the Window Sequence begins.

In the Unpack mode, the Window Sequence runs in a spread over layout. The live video from each camera is displayed in different monitoring windows as per the camera assignment in the Window Sequence.

You cannot change the layout when a sequence is running in Unpack mode. You must select the layout according to the number of entities in the sequence prior to running the sequence in Unpack mode.

- Select the desired Window Sequence from the Window Sequence list.



- Click **Pack** .

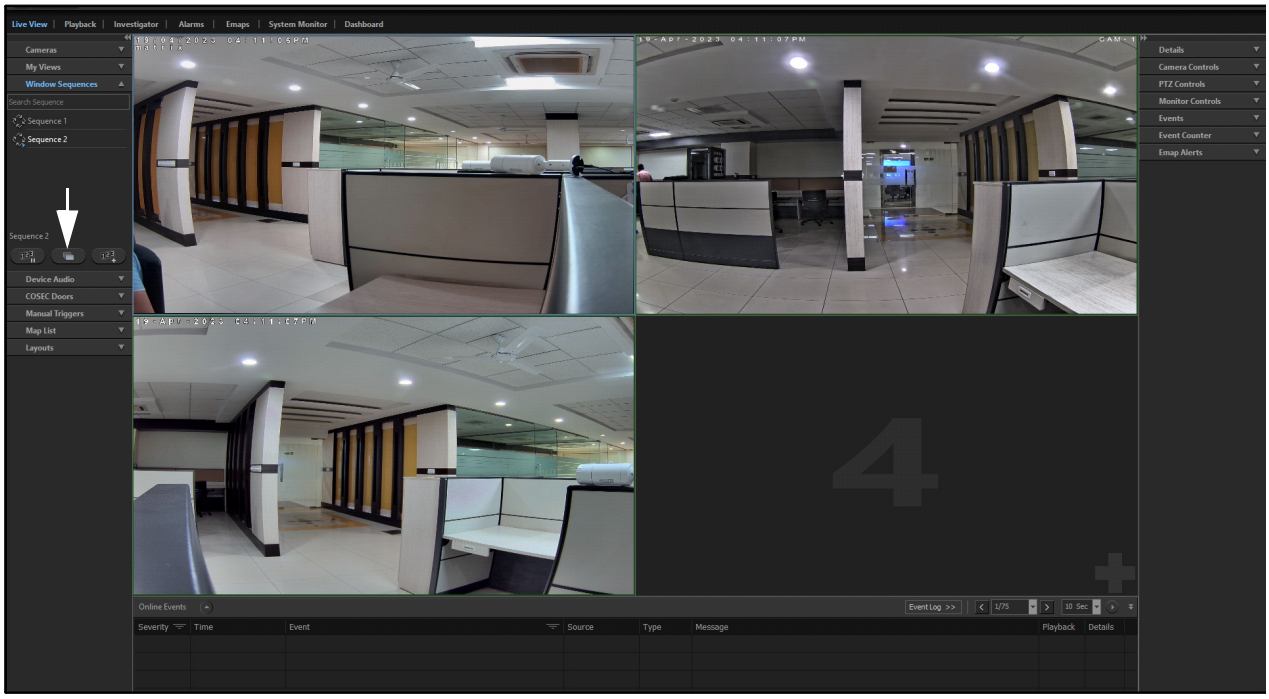
  The Window Sequence starts in the Pack mode.

You can change the layout when the sequence is running in Pack mode.

- Click **Unpack** .

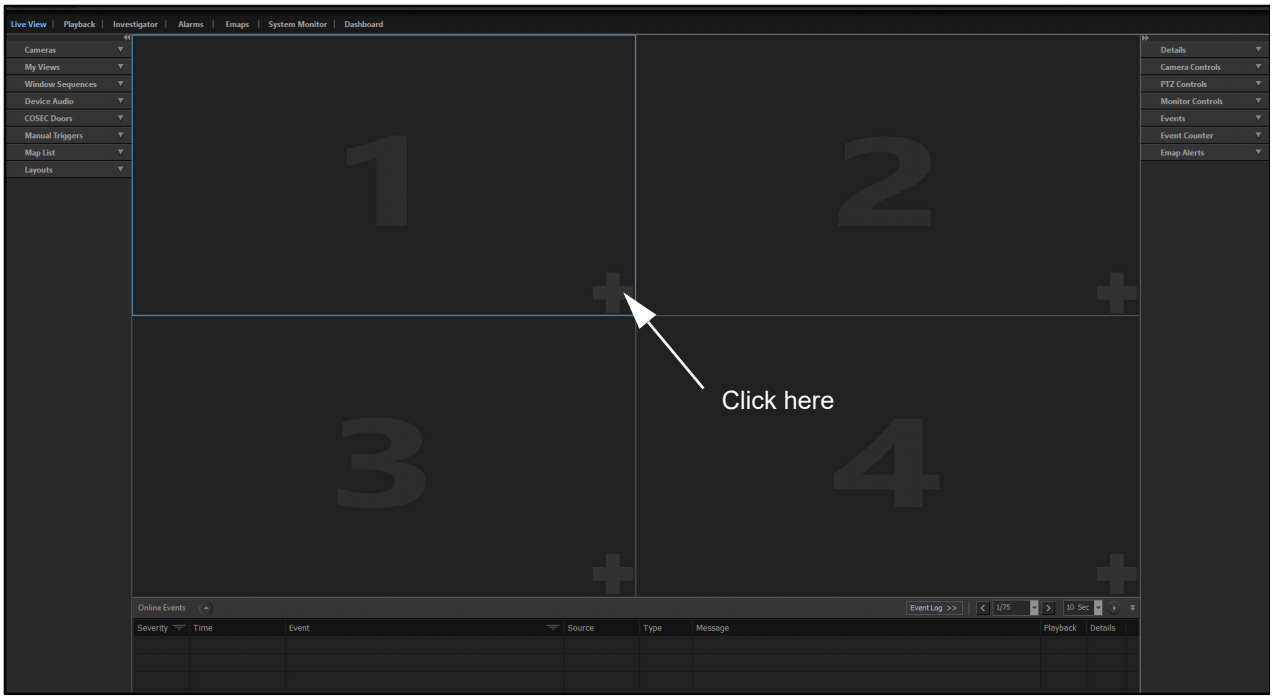
Make sure you select the layout as per the camera assignment in the Window Sequence. For example, if you have assigned eight cameras and selected 2x2 layout, the Window Sequence will not begin in the Unpack mode. To do so, you must first select 3x3 layout.

The Window Sequence begins in the Unpack mode.

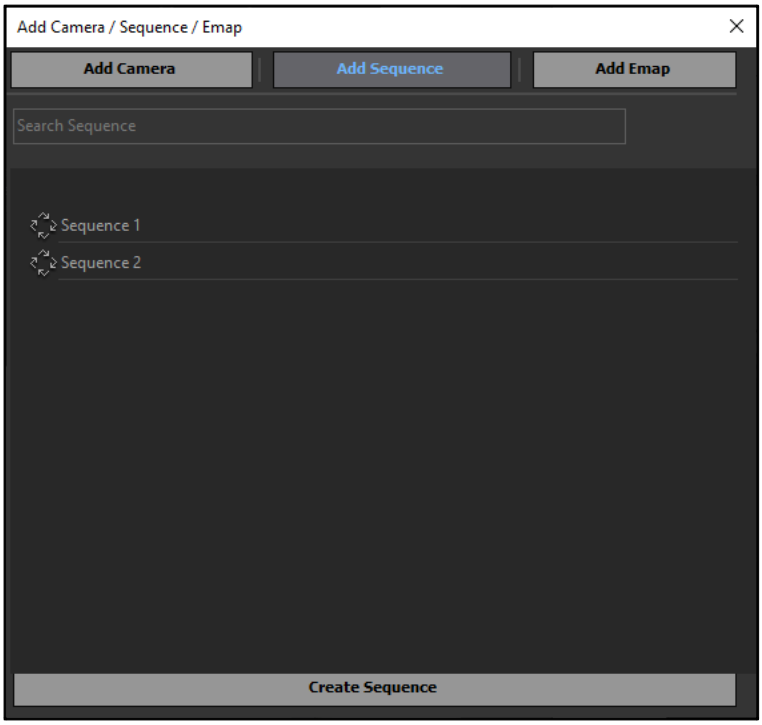


Assigning a Sequence to the Monitoring Window in Live View

The **Add** icon appears on the monitoring window where neither Cameras, Window Sequence nor Emaps are assigned.



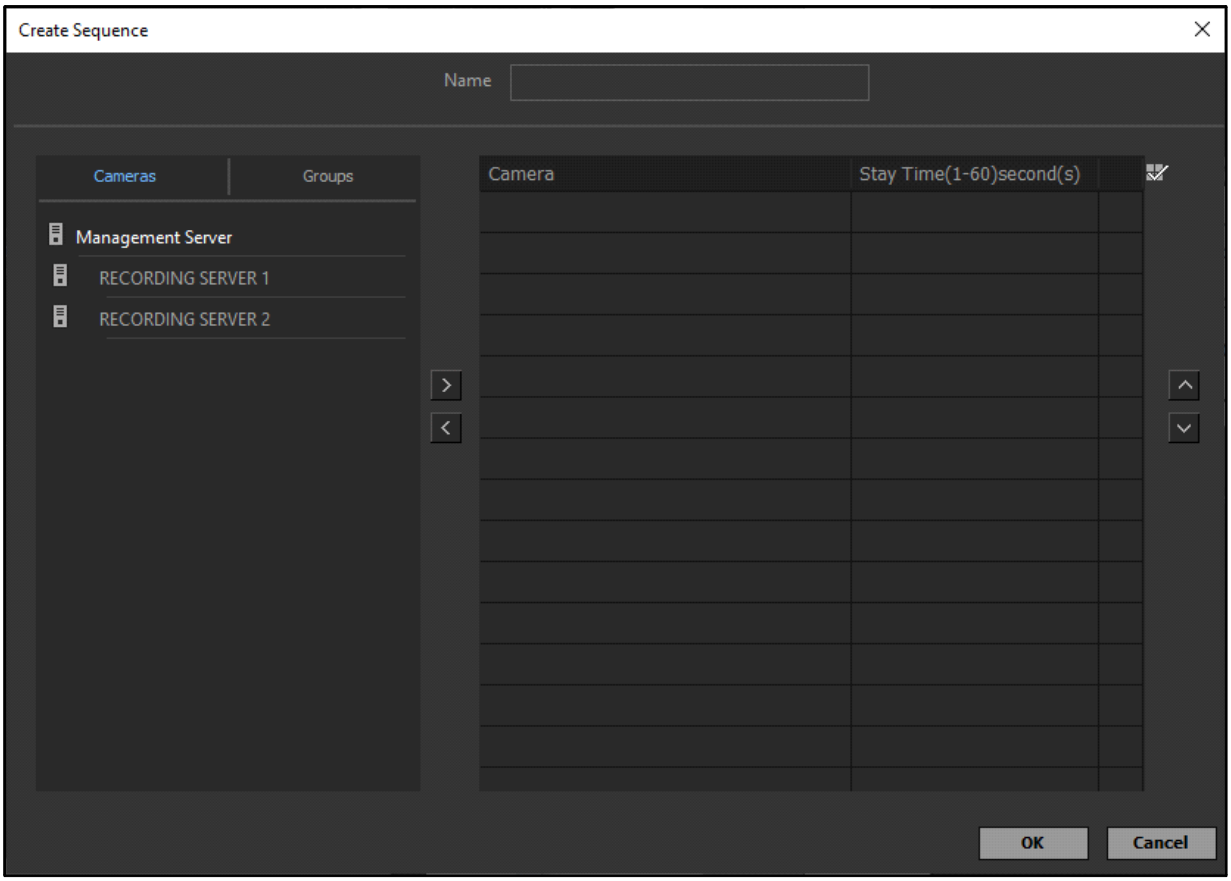
- Click **Add** .The **Add Camera/Sequence/Emap** pop-up appears



- Click **Add Sequence** tab. All the window sequences appear in a list. Select the desired sequence. You can also search for the desired sequence using the **Search Sequence** search bar.

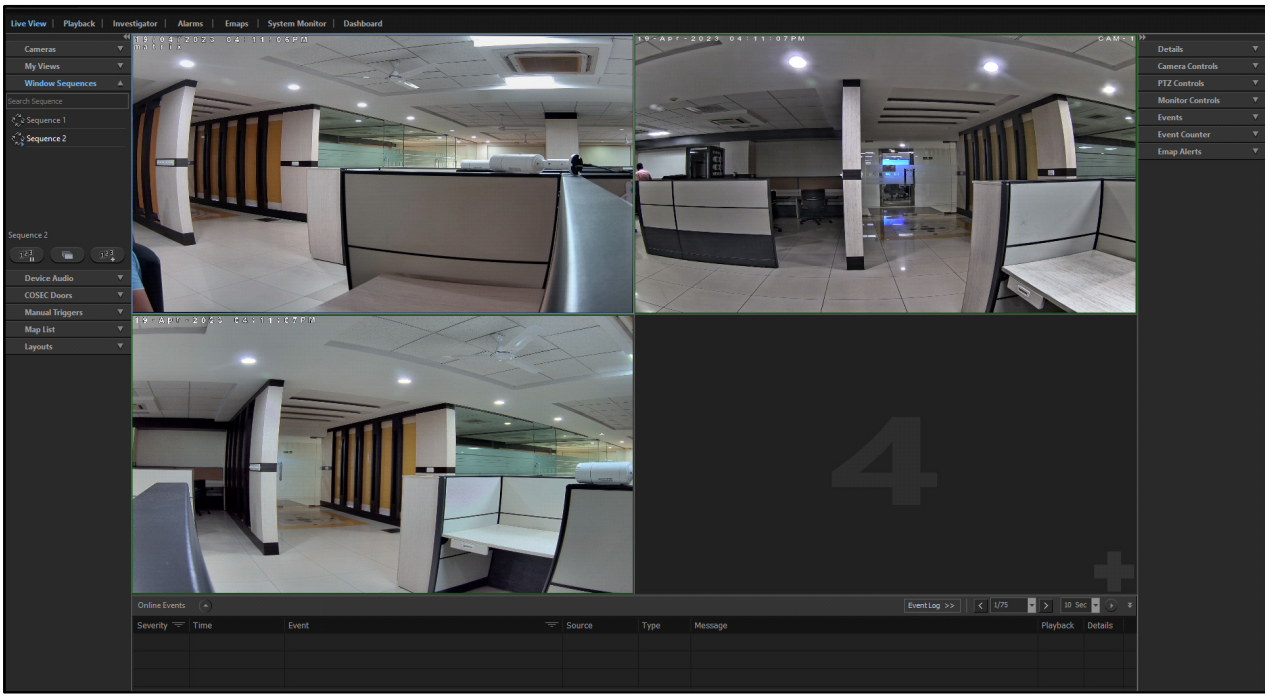
  You can also create a new sequence from this pop-up.

- Click **Create Sequence**. The **Create Sequence** pop-up appears.



This pop-up also appears when creating a window sequence by clicking **Create Sequence** . For details, refer to “Creating Window Sequences”. After you have created the desired sequence, select the same or you can also select the desired sequence from the Window Sequences list.

The Window Sequence begins in the monitoring window.



Device Audio

The Device Audio section allows you to send audio from the Smart Client to all the Satatya Devices. All the Satatya Devices configured in the Admin Client appear here. The Audio-Out feature allows you to send the audio through a microphone and play it through speakers connected to the Audio-Out ports of the Satatya Devices.

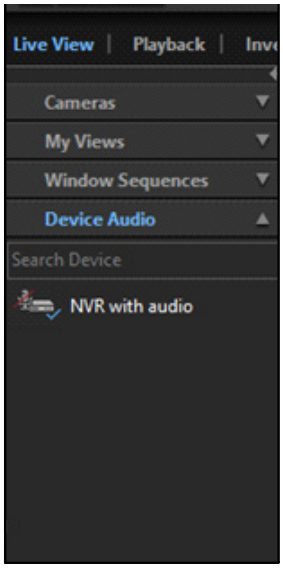
To configure the Device Audio,

- Click the **Device Audio** collapsible panel.

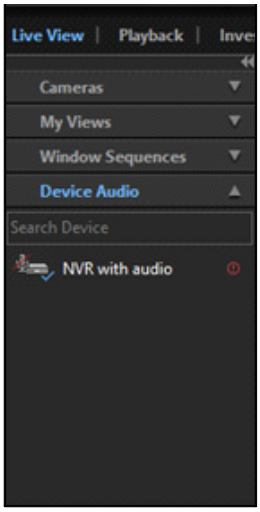
Make sure a Microphone is connected to the PC on which the Smart Client is installed.

To enable the Audio-Out of the Satatya *Device, user must have the Microphone rights and Entity rights of* Satatya *Device Camera.*

The microphone can be turned On for maximum 255 entities (Camera/Device) at a time.



- All the Satatya Devices added to the Admin Client appear in a list. You can also search for the desired device using the **Search Device** search bar.
- Click on the desired Satatya Device enable or disable the microphone attached to it.
- Click **Turn Device Microphone On** if you wish to enable the Audio-Out for the device.
- Click **Turn Device Microphone Off** if you wish to disable the Audio-Out for the device.
- Hover the cursor over Failed if you wish to know the reason of failure, that is, why the Audio-Out failed to start.


Live View
Playback
Cameras
My Views
Window Sequences
Device Audio
Search Device
NVR with audio

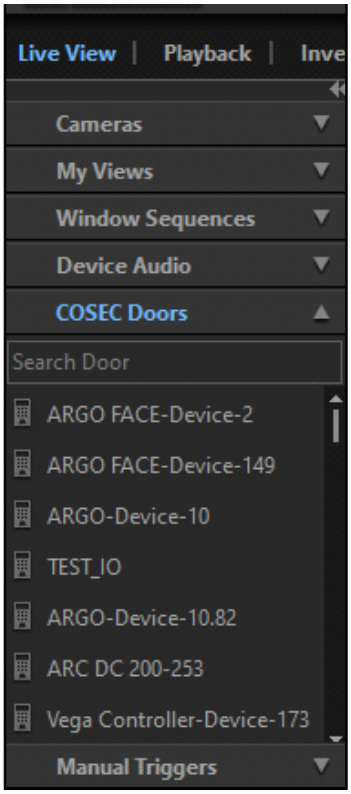
COSEC Doors

The COSEC Doors section allows you to take actions on COSEC Doors added to the COSEC Server, which in turn is integrated with the Admin Client. The cameras added to the COSEC Doors in the Admin Client also appear here. You can take actions on the COSEC Doors when Access Control Scenarios are triggered.

For Integrating SATATYA SAMAS with COSEC Devices refer to SATATYA SAMAS Admin Client Manual, Admin Client > Access Control.

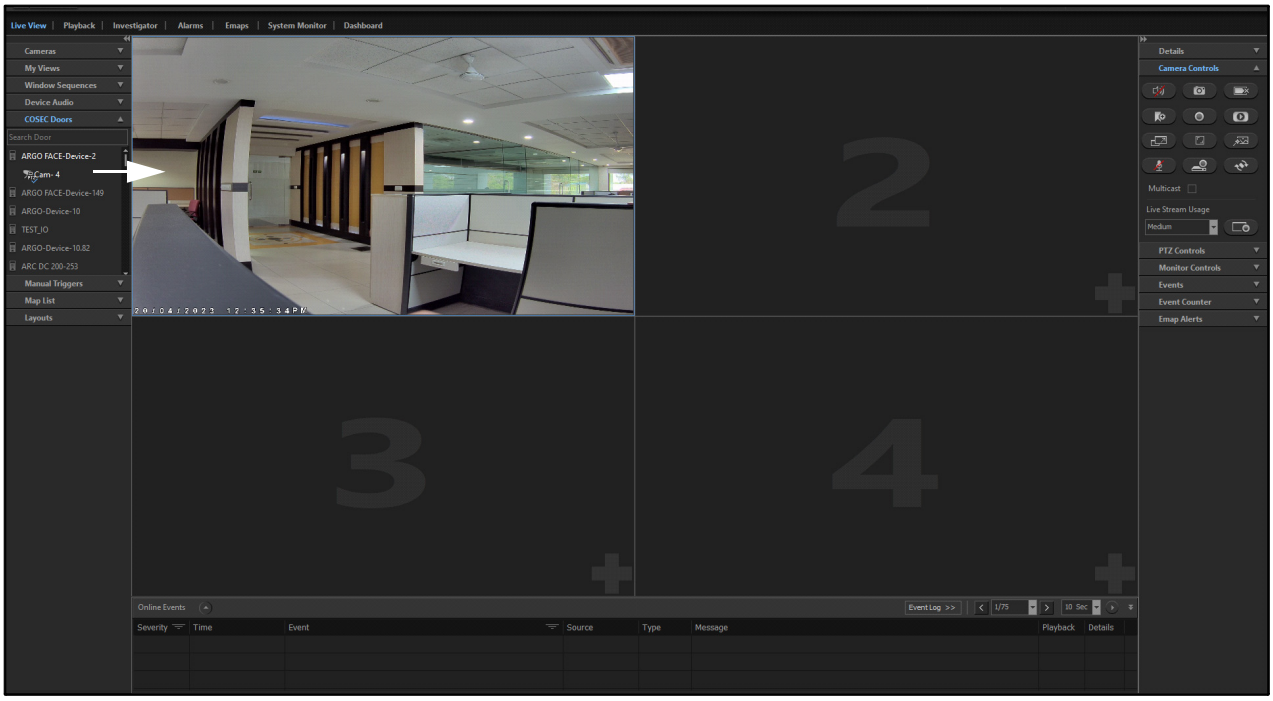
To view the COSEC Doors,

- Click the **COSEC Doors** collapsible panel.



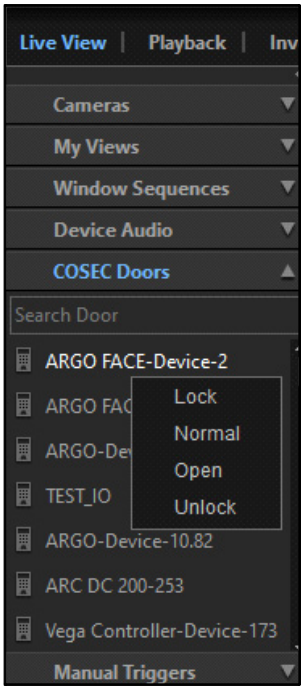
- All the COSEC Doors added to the integrated COSEC Server appear in a list. Click on the desired COSEC Door to view the camera added to it. You can also search for the desired door using the **Search Door** search bar.

- Click on the camera to view the live stream of the camera associated with the COSEC Door.



You can also configure parameters by right-click on the desired COSEC Door.

- Right-click over the desired Door. The following options appear — Lock, Normal, Open and Unlock.



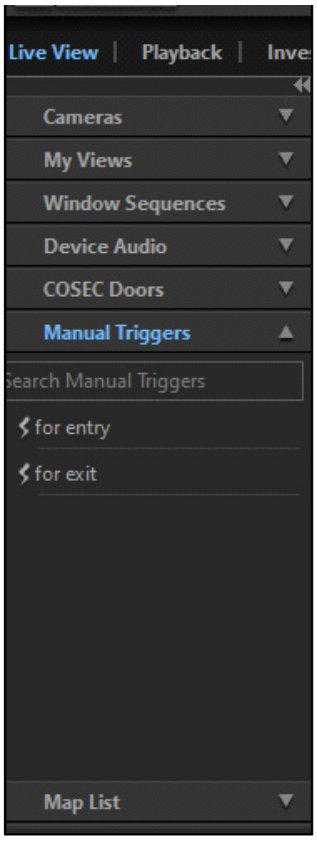
- **Lock**: Select Lock to lock the COSEC Door remotely. The door will be locked and cannot be opened even with valid user punches.
- **Normal**: Select Normal to change the COSEC Door's state to Normal. When the door is in Normal state, the door will open with a valid user punch.
- **Open**: Select Open to open a COSEC Door remotely. If you select Open, the door will open without a user punch.
- **Unlock**: Select Unlock to unlock the COSEC Door remotely. If you select Unlock, the door will remain unlocked until its state is changed manually.

Manual Triggers

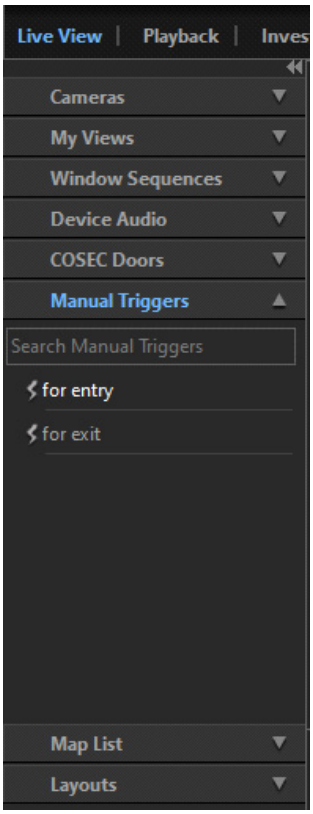
Manual Triggers are user-defined events that can be used for manually triggering specific actions like Triggering an Alarm. All the Manual Triggers configured in Admin Client appear here. You can also trigger a Scenario using the Manual Trigger and the action that is configured against the scenario will be triggered subsequently.

To view the Manual Triggers,

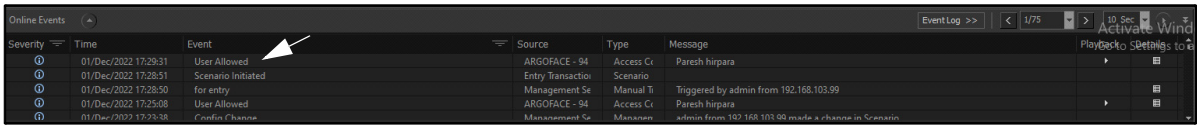
- Click the **Manual Triggers** collapsible panel.



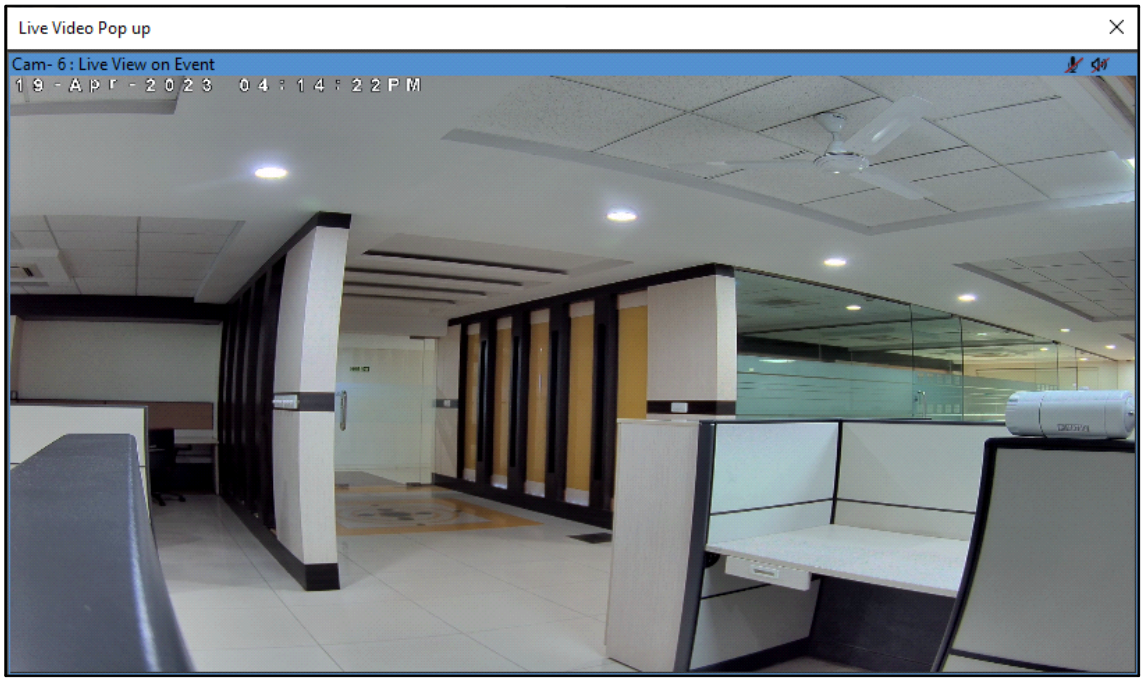
- All the Manual Triggers configured in Admin Client appear in a list. Click the desired Manual Trigger to trigger the Scenario configured for it.



- Once you click the Manual Trigger, the Scenario is executed and an Event Log for the same is generated. Make sure you have selected the **Online Event** check box against the Manual Trigger in “Event Alerts” in “General Settings” to view them in this section.



- The configured action is triggered as soon as the Scenario is executed, for example, Live View on Event.



Example: If a Manual Trigger **for entry** is configured from **Admin Client > General Settings > Manual Triggers** and a Scenario configured is **Entry Transaction** for which **Live View on Event** action is configured.

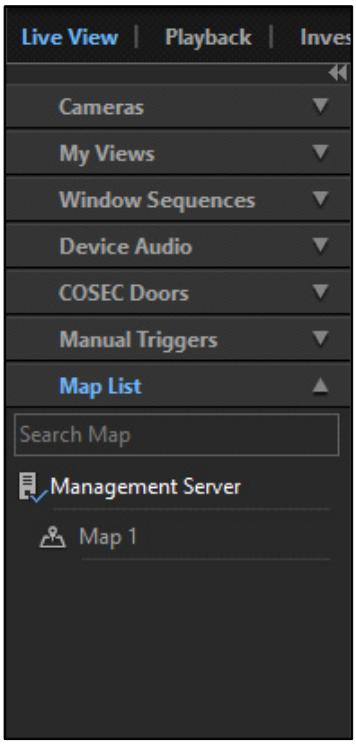
When you click the **for entry** Manual Trigger from Smart Client, the **Entry Transaction** Scenario is executed and the Live View on Event action will be triggered.

Map List

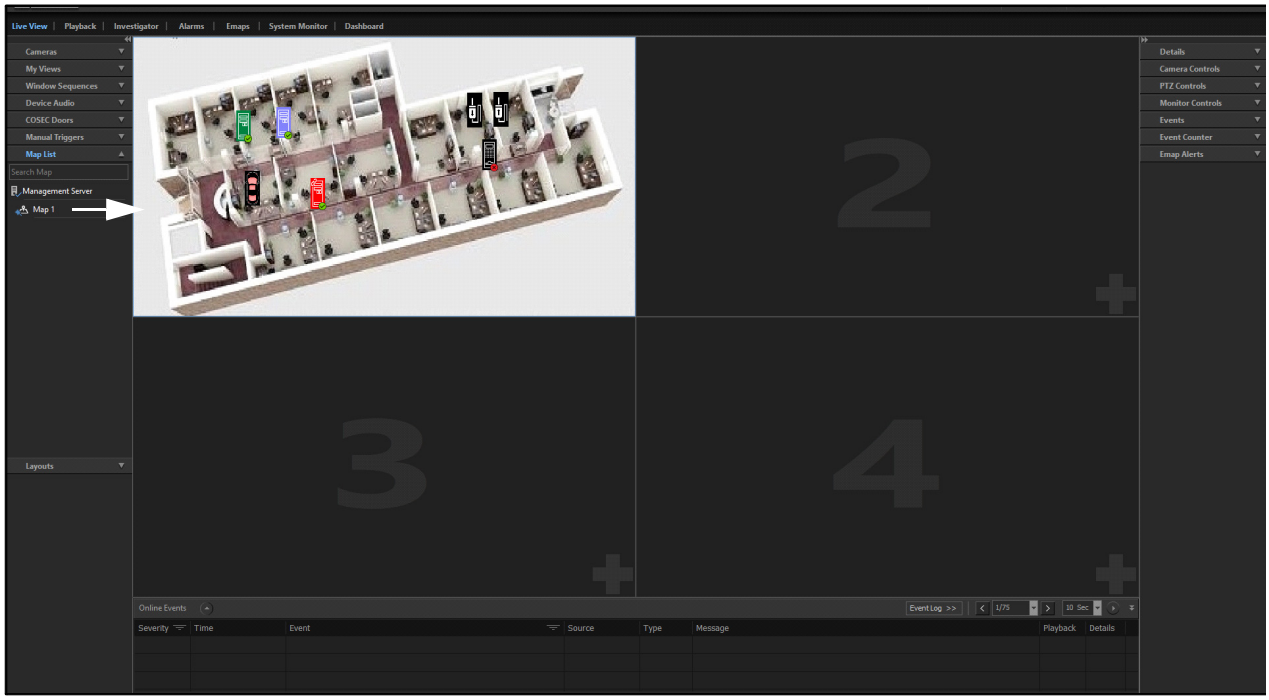
The Map List section allows you to view the Emaps as configured in Admin Client from Admin Client > Emap. All the Emaps configured in Admin Client appear here. You can add an Emap to My Views from this page. You can also view Emap alerts and take actions on entities placed on Emaps. For more details, refer to “Emaps”.

To view the Emaps,

- Click the **Map List** collapsible panel.

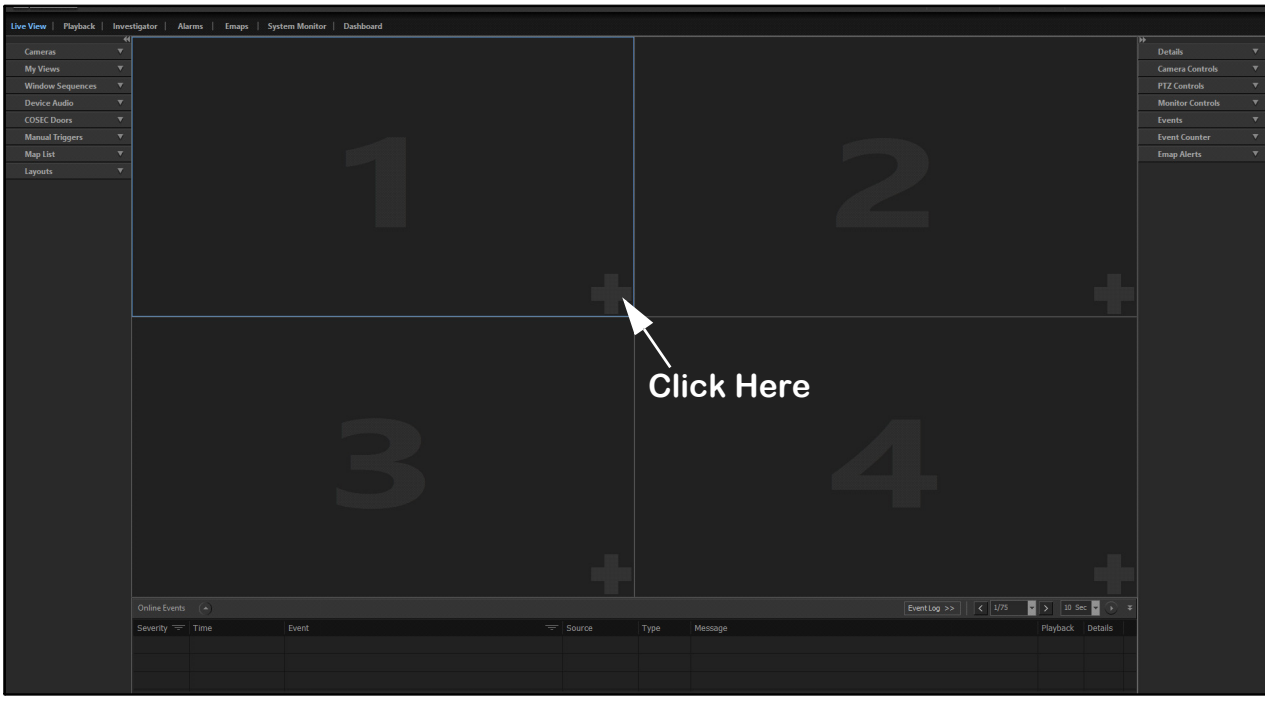


- All the Emaps configured in the Admin Client appear in a list. Click on the desired Emap to view the child maps added to it. You can also search for the desired Emap using the **Search Map** search bar.
- Select the desired Emap to view it in the monitoring window.

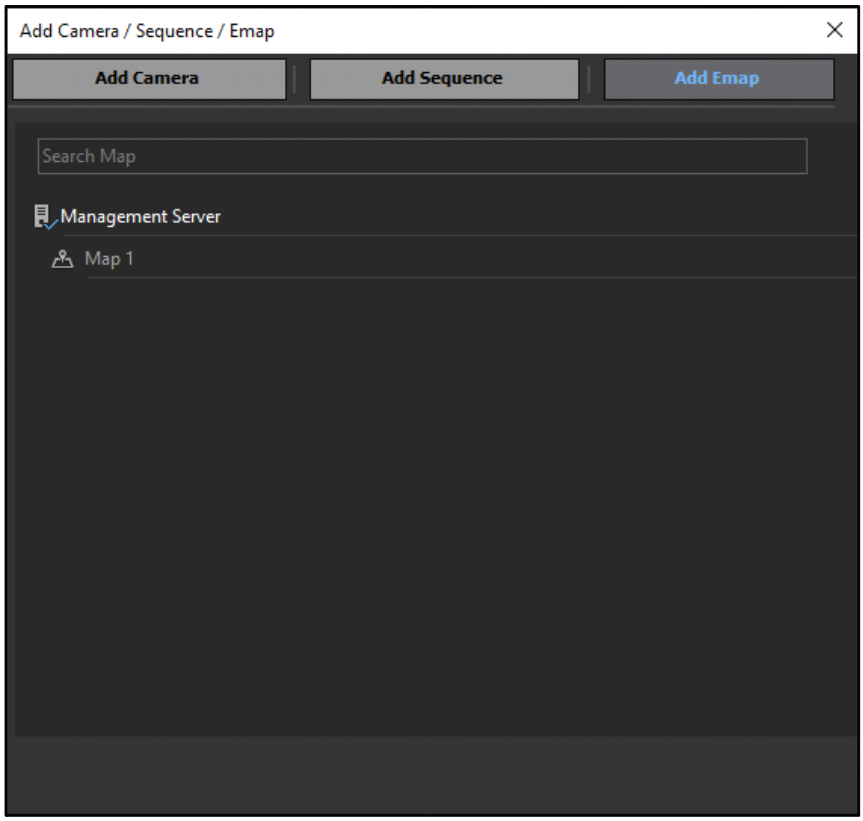


Assigning Emaps from the Monitoring Window in Live View

The **Add** icon appears on the monitoring window where neither Cameras, Window Sequence nor Emaps are assigned.

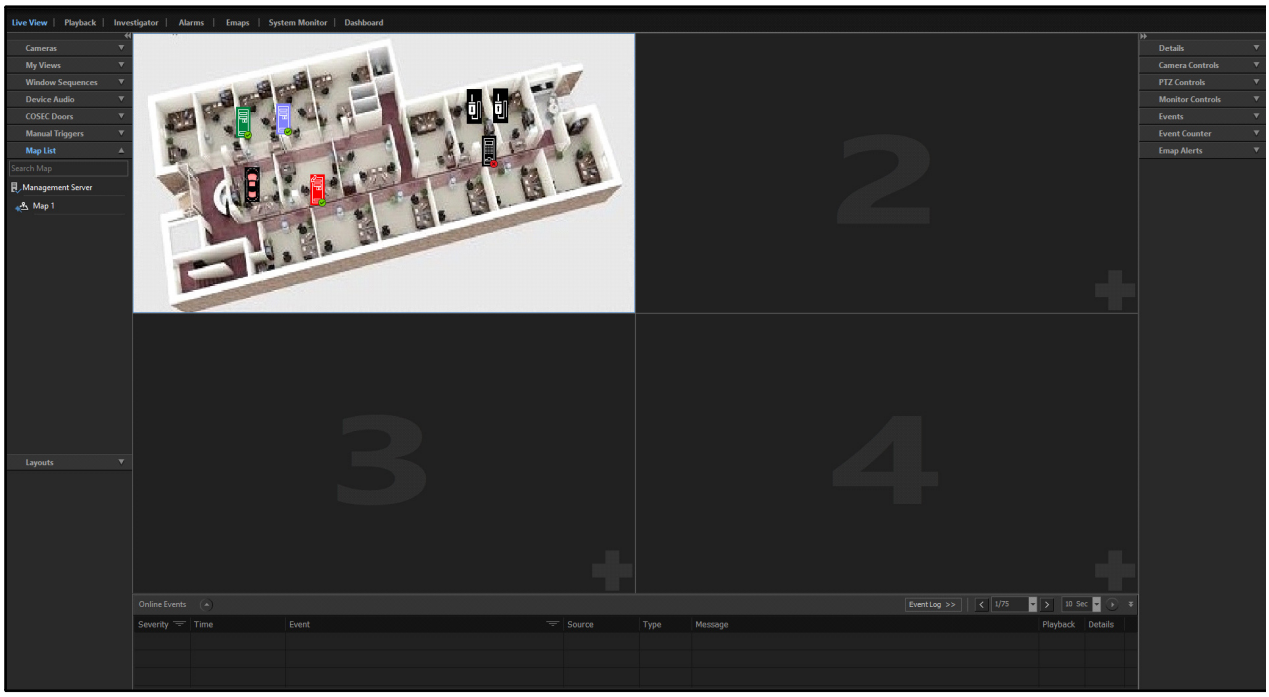


- Click **Add** . The **Add Camera/Sequence/Emap** pop-up appears



- Click **Add Emap** tab. All the Emaps appear in a list. Select the desired Emap. You can also search for the desired Emap using the **Search Map** search bar.

  The Emap is displayed in the monitoring window.

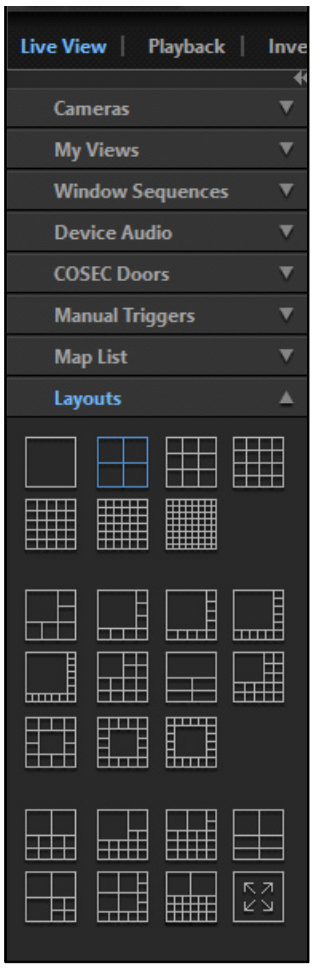


Layouts

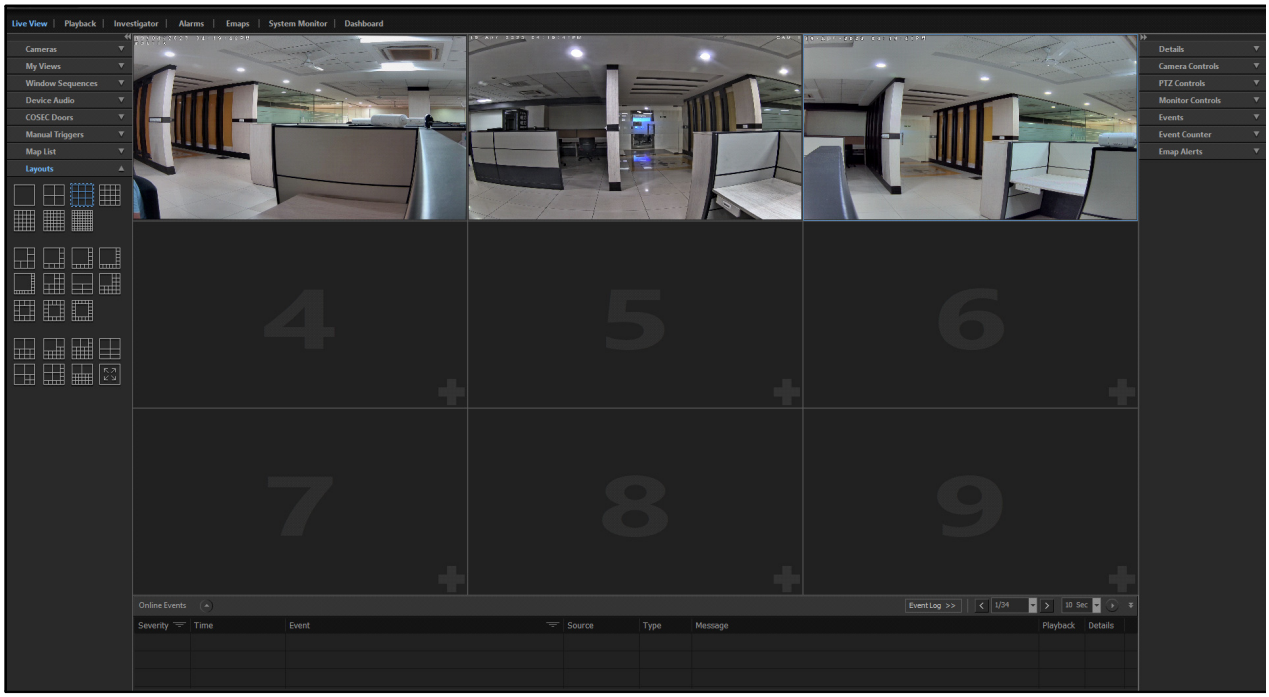
The Layouts section allows you to view the live stream of individual cameras, Component Groups, Window Sequence and/or Emaps in different combinations of monitoring windows. You need to select an appropriate layout before creating My Views and to view a Window Sequence in Unpack mode. For details, refer to “Creating My Views” and “Window Sequences: Pack and Unpack”.

To view the Layouts,

- Click the **Layouts** collapsible panel.



- All the Layouts appear in a list. SAMAS supports 26 pre-defined Layouts. By default the 2x2 layout is selected. You can select the desired Layout, for example 3x3.



- All the individual cameras, Component Groups, Window Sequence and/or Emaps assigned to the monitoring windows get re-distributed according to the selected layout. If the number of entities assigned to monitoring windows is more than the number of monitoring windows the layout supports, the entities will be shifted to the next page.

When a Component Group is assigned to the live view, the layout will change automatically according to the number of cameras in the Component Group. For example, if the Component Group assigned to the live view has 2,3 or 4 cameras, the layout will change to 1x1.

When a Component Group is assigned to the live view, the cameras of the Component Group will replace the cameras already assigned to the live view, if any. This is also applicable when a Window Sequence is already assigned to the live view.

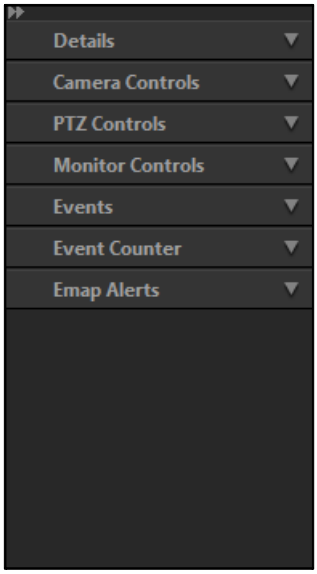
You can also view the monitoring windows in Full Screen mode. To do so,

- Select the **Full Screen** layout. All the monitoring windows appear in the Full Screen mode.

- Press **F11** on the keyboard or right-click on any monitoring window and select **Back to Normal Screen (F11)** from the menu options to return to the normal view.

Right Pane Functionality

The right pane of the Live View page consists of the following collapsible panels — Details, Camera Controls, PTZ Controls, Monitor Controls, Events, Event Counter and Emap Alerts.



Refer to the following links for the configuration details of different sections.

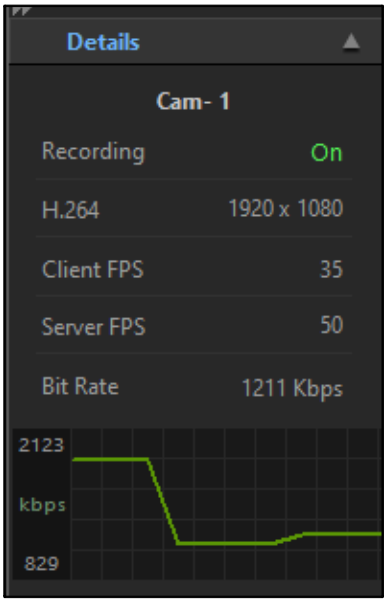
- “Details”
- “Camera Controls”.
- “PTZ Controls”.
- “Monitor Controls”.
- “Event Panel”.
- “Event Counter”.
- “Emap Alerts”

Details

The Details section displays the information of the camera selected in the monitoring window. You can view the Recording status, Compression format, Bit Rate, etc. of the selected camera.

To view the Details,

- Select the monitoring window to which the desired camera is assigned.
- Click the **Details** collapsible panel.



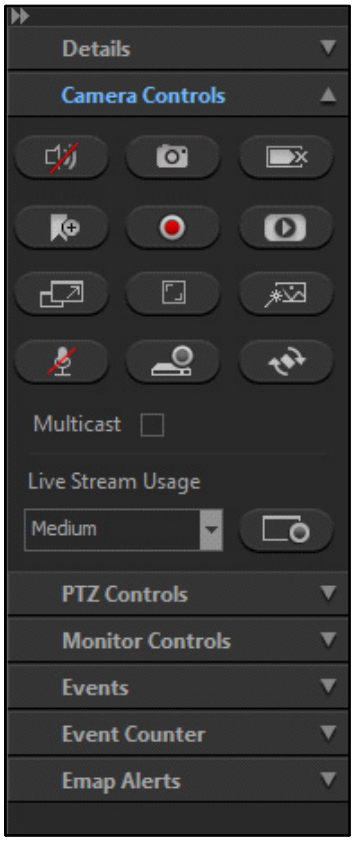
- The following details are displayed — Camera Name, Recording Status, Compression Format, Resolution, Client Frames Per Second (Client FPS), Server Frames Per Second (Server FPS) and the Bit Rate.The graphical representation of bit rate is also displayed.

Camera Controls

The Camera Controls section allows you to perform specific operations on the camera in the selected monitoring window. You can add a bookmark, change the aspect ratio, start manual recording and so on from this section.

To configure the Camera Controls,

- Select the monitoring window to which the desired camera is assigned.
- Click the **Camera Controls** collapsible panel.



Refer to the following links for the configuration details of different options.

- “Turn Audio On/Off”
- “Snapshot”
- “Clear”
- “Add Bookmark”
- “Start/Stop Manual Recording”
- “Instant Playback”
- “Live Popup View”

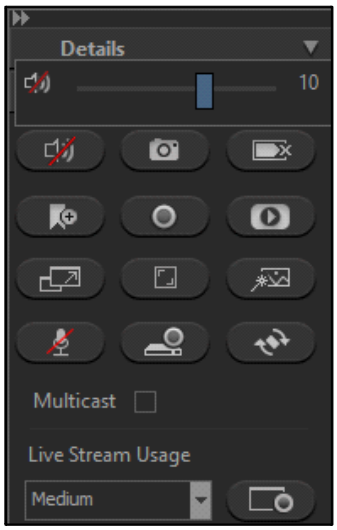
- “Change Aspect Ratio”
- “Video Enhancer”
- “Turn Microphone On/Off”
- “Local Recording On/Off”
- “Rotate and Flip”
- “Multicast”
- “Live Stream Usage”
- “Recording Preview On/Off”

Turn Audio On/Off

The Turn Audio On/Off feature allows you to turn the camera audio on and off as required. This is useful when the audio output is required along with the live stream. Listening to audio will be possible only when a speaker is connected to the system where the Smart Client is running. Also, this feature will work only for those cameras that support Audio.

To configure Audio On/Off,

- Select the desired camera.
- Click **Turn Audio On** . The following pop-up appears.



- Drag the slider towards right to increase the volume or towards left to decrease it.

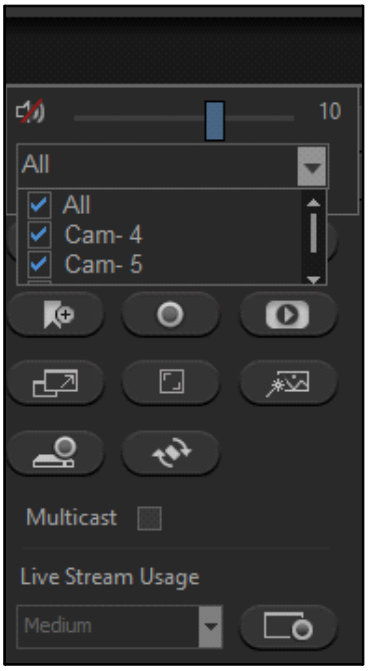
Once the audio of camera is turned On, the icon will toggle to **Turn Audio Off**.

- Click **Turn Audio Off** to stop the audio of the camera.

At a time, the audio can be enabled for a single camera. For example, if you are viewing three cameras in the monitoring windows, then, at a time the audio can be enabled for one of the three cameras only.

If you are streaming the live view with Window Sequences, then audio can be turned **On/Off** for selected cameras.

- Select a Window Sequence to assign it to the monitoring window.
- Click **Turn Audio On** . The following pop-up appears.



- Select the check boxes for the camera for which you wish to turn on the audio or select **All** to turn on the audio for all the cameras in the sequence.

  If the audio is enabled for All the cameras in the sequence, the audio of each camera can be heard according to the streaming sequence.

Two Way Audio support from Live Video Pop-up

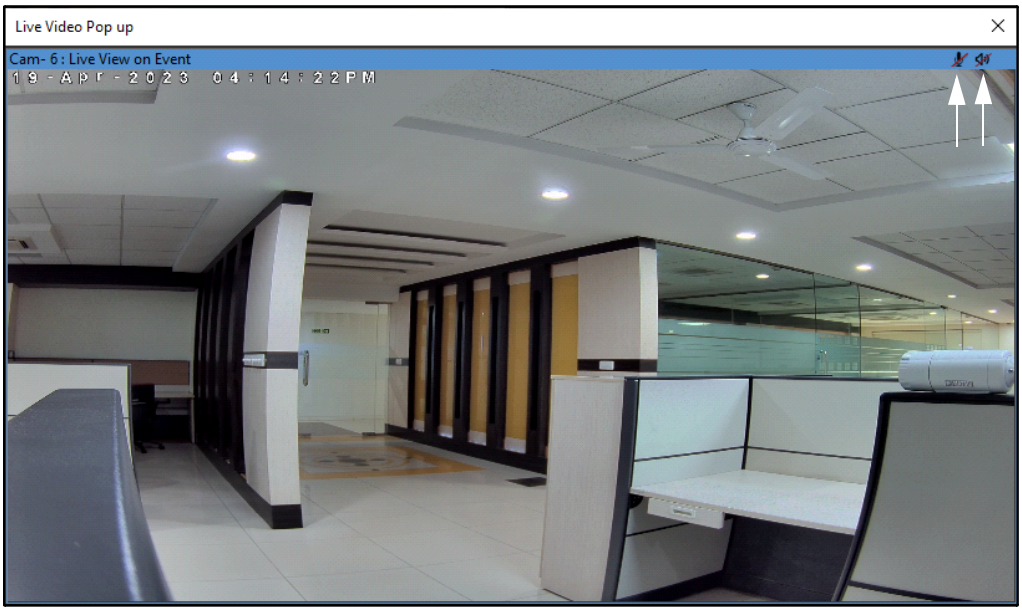
Smart Client allows you to turn on the Microphone and Audio On/Off from the live video pop-up as well. This is useful when communication needs to be done remotely or in situations of emergency.

*To get the Live Video Pop-up alert for an event, you need to configure the **Live View on Event** action from the Admin Client. For more information, refer to SATATYA SAMAS Admin Client Manual.*

Let us understand this with the help of an example.

Example: At the entrance of a confidential area, a camera is mounted. From the CREAM module, a Smart Client user has configured Motion Detection Event for that camera and added Live View on Event action to get the notification about the event.

Now, when a person tries to enter that area, the Smart Client user is notified about it via Live Video Pop-up. Now from this pop-up, the Smart Client user can enable the microphone and ask the person at the door for his/her identity. At the same time, the user can also enable the audio to listen to the person present at the camera side.

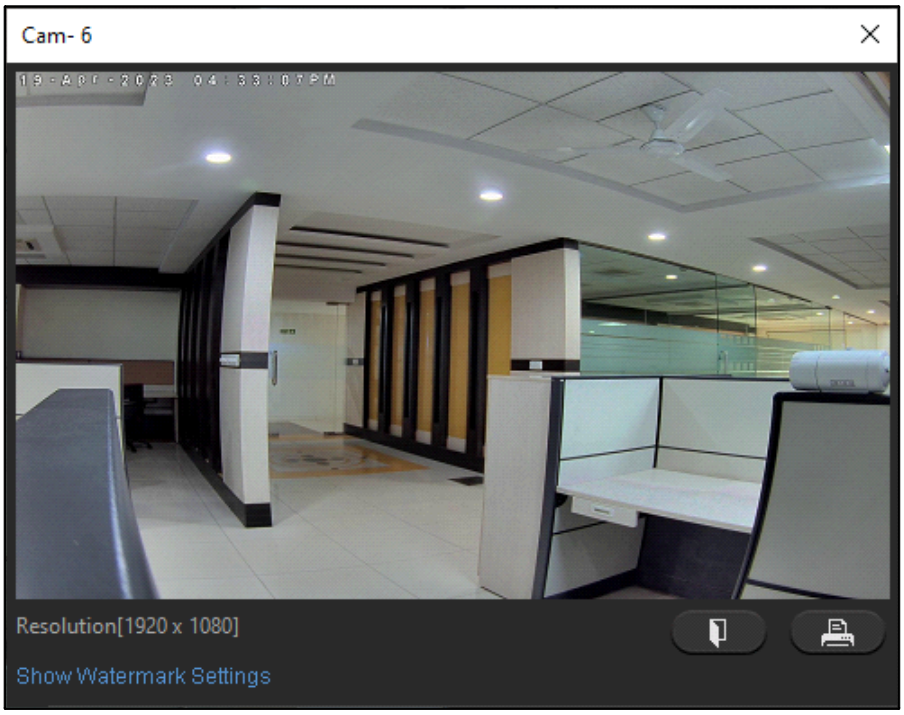


Snapshot

The Snapshot feature allows you to capture a snapshot of the live view of the camera. This is useful when you want to capture a single frame in the video stream. All the snapshots are stored in the local drive as configured in General Settings of the Smart Client. To configure the storage, refer to “Media”.

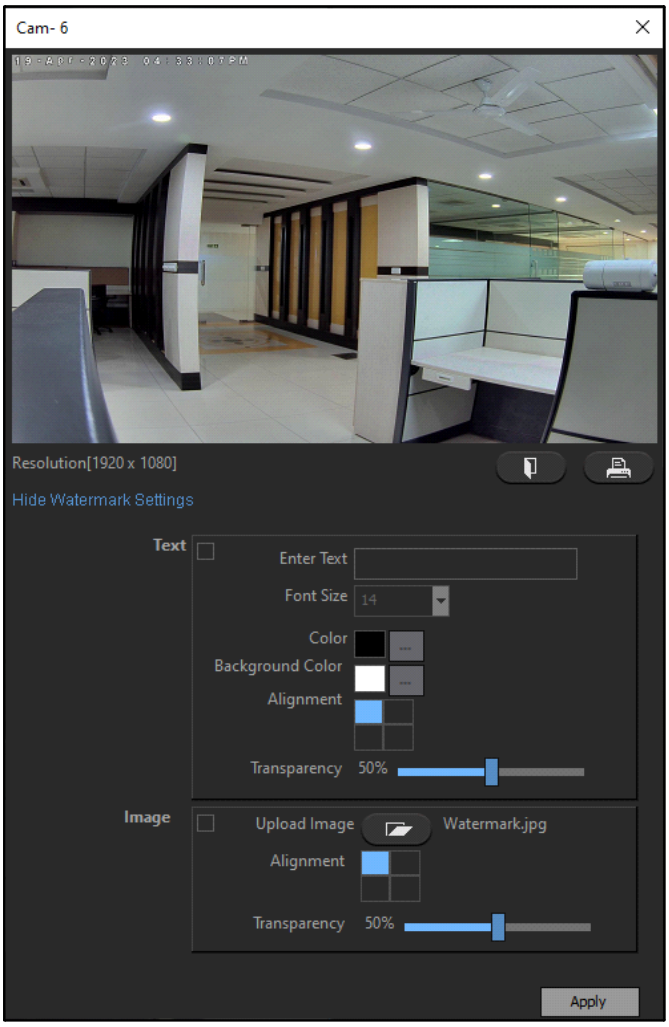
To configure Snapshot,

- Select the desired camera.
- Click **Snapshot** . The following pop-up appears.



You can add text and image as watermark to the captured Snapshot.

- Click **Show Watermark Settings**. The Watermark Settings parameters appear.



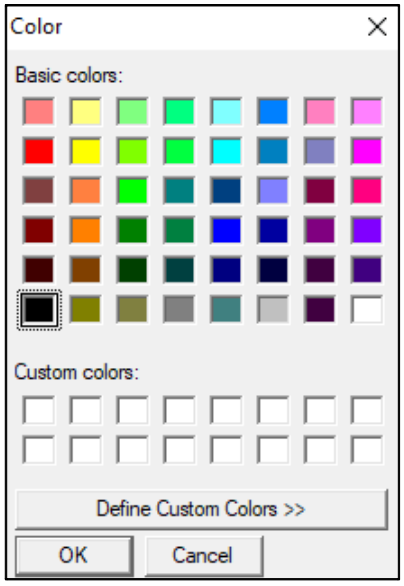
Configure the following parameters:

Text

- Select the **Text** check box to enable the configuration of the Text parameters.
  - **Enter Text:** Specify the watermark text that you wish to display in the snapshot.
  - **Font Size:** Select the required font size of the watermark text from the drop-down list.
  - **Color:** Click on ... to select the color of the watermark text. The **Color** pop-up appears.

- Select the desired color.

- Click **OK** to confirm or click **Cancel** to discard.
- **Background Color**: Click on ... to select the background color of the watermark text. The **Color** pop-up appears.



- Select the desired color.

- Click **OK** to confirm or click **Cancel** to discard.
- **Alignment:** Select the alignment of the watermark text by selecting the desired direction from the alignment box.
- **Transparency:** Set the required transparency of the watermark text by dragging the slider towards left or right.

Image

- Select the **Image** check box to enable the configuration of the Image parameters.
  - **Upload Image:** Browse the path in the selected drive from where you wish to upload the watermark image. Clicking **Browse** will display all the folders in the drive. Select the desired folder. Make sure the image is less than 32KB in size.
  - **Alignment:** Select the alignment of the watermark image by selecting the desired direction from the alignment box.
  - **Transparency:** Set the desired transparency of the watermark image by dragging the slider towards left or right.
- Click **Apply** to apply the settings to the snapshot.

Once the watermark settings are applied to the snapshot, you can print it or view the folder where the snapshots are stored.

- Click **Browse** to navigate to the folder where the snapshot is stored.
- Click **Print** to print the snapshot. The **Print Preview** pop-up appears.

The Print preview of the snapshot displays the following details — Camera Name, Resolution, Generated On, User Name and Note.

- You can configure the **Note** to be printed along with the snapshot, if required.

- Click **Print** to print the snapshot.

Clear

The Clear feature allows you to un-assign the selected camera from the monitoring window.

To configure Clear,

- Select the monitoring window of the desired camera.
- Click **Clear** to stop the camera's live monitoring.

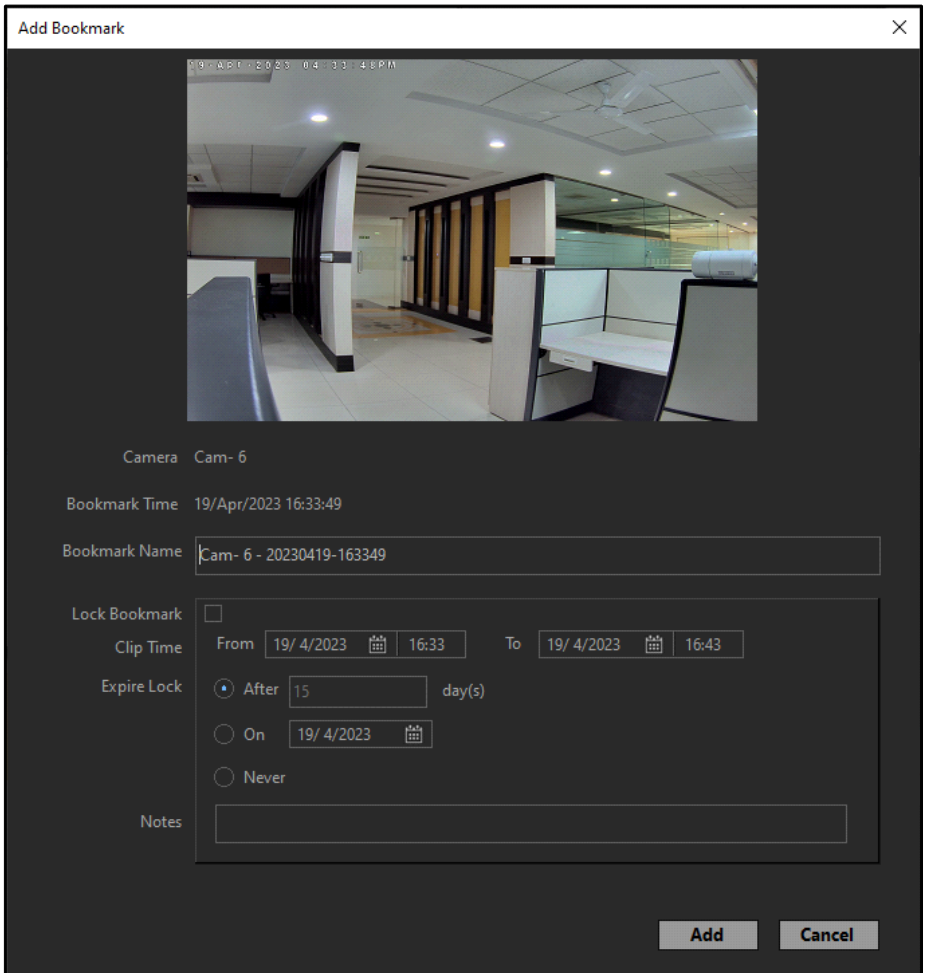
Add Bookmark

The Bookmark feature allows you to save a particular clip from the live stream for future reference. This is useful in case of an incident and can be used for a quick search at the time of investigation.

To configure Bookmark,

- Select the desired camera.
- Click **Add Bookmark** . The **Add bookmark** pop-up appears.

Cameras once assigned in a Bookmark Lock cannot be modified after the Bookmark Lock has been created.



Configure the following parameters:

- **Camera**: The Camera field displays the name of the camera for which the bookmark is being added.
- **Bookmark Time**: The Bookmark Time field displays the time and date on which the bookmark is created.
- **Bookmark Name**: Specify a user-friendly bookmark name.

Lock Bookmark

*If Lock Bookmark is enabled in Admin Client from **Servers & Devices > Recording Server > Default Settings**, the lock duration is not user-editable.*

*If Lock Bookmark is enabled in Admin Client from **General Settings > User Groups > Media Rights**, the lock duration is user-editable.*

- Select the **Lock Bookmark** check box to enable the configuration of Lock Bookmark parameters.
  - **Clip Time**: Select the **From** and **To** dates from the calendar and specify the time until which you wish to lock the bookmark.
  - **Expire Lock**: Select the Expire Lock duration from the options — After, On or Never.
    - **After**: Select this option to enable the lock expiry after a certain number of days. Specify the number of days after which the lock should expire.
    - **On**: Select this option to enable the lock expiry on a particular date. Select the date from the calendar on which the lock should expire.
    - **Never**: Select this option if the lock should never expire. In this case, the bookmark will be locked permanently.
  - **Notes**: Specify the comments or remarks regarding the bookmark, if required.
- Click **Add** to add the bookmark or click **Cancel** to discard.

Start/Stop Manual Recording

The Manual Recording feature allows you to record a clip from the live view of a camera. This is useful when you want to capture a particular incident while it is occurring. This cuts down the hassle of screening through long playback recordings of camera to locate the particular incident.

*Make Sure the **Enable Manual Recording** check box is enabled in Admin Client from **Servers & Devices > Recording Server > Camera > Recording Tab** to enable Manual Recording for that particular camera.*

If Continuous or Event recording (in the Admin Client) is On for a particular camera and Manual Recording is turned On, Manual Recording will be given priority.

To configure Manual Recording,

- Select the monitoring window of the desired camera.

- Click **Start Manual Recording** to start the manual recording. This icon toggles to **Stop Manual Recording** once the Manual Recording starts.

All the Manual Recordings can be viewed from the **Playback** tab in the Smart Client. For more details, refer to “Manual Recording”.

You can stop the Manual Recording, if required.

- Click **Stop Manual Recording** to stop the manual recording.

If Manual Recording is not stopped, the clip will be recorded for the duration as configured in **Maximum Manual Recording Duration** in the Admin Client.

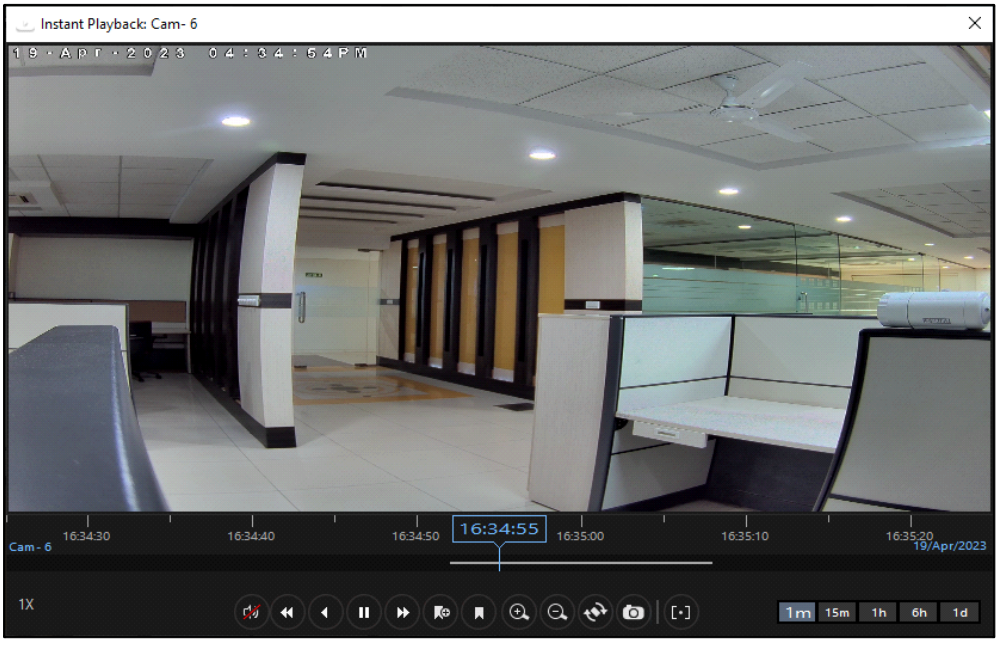
Instant Playback

The Instant Playback feature allows you to view the recent playback of a camera. This is useful when you want to view the camera recording that were done few moments ago.

*For Instant playback make sure the Recording Mode is On. The Instant Playback will not be available for those cameras whose **Recording Mode** is Off.*

To configure Instant Playback,

- Select the monitoring window of the desired camera.
- Click **Instant Playback** to view the playback video. The **Instant Playback** pop-up appears.



- The date, time and camera details are displayed in the playback as configured. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

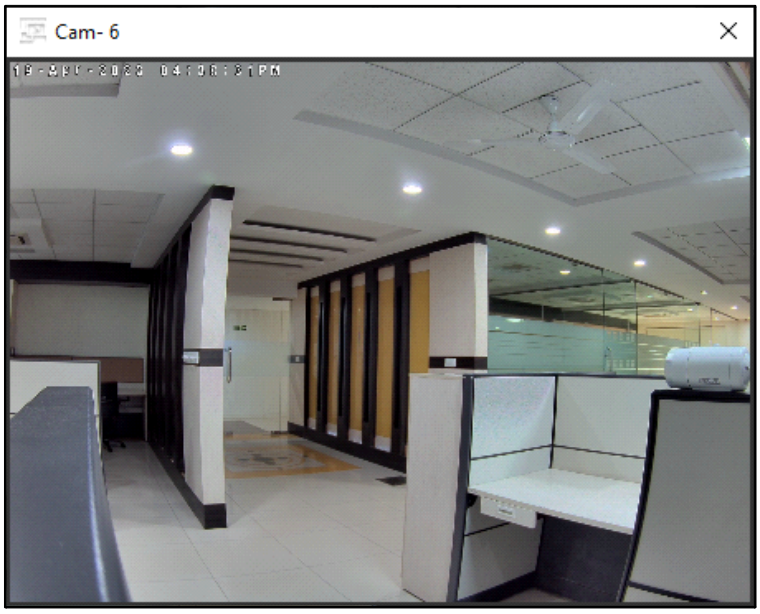
Only one Instant Playback window can be opened at a time.

Live Popup View

The Live Popup View feature allows you to view the live stream of a camera in a pop-up view.

To configure Live Popup View,

- Select the desired camera.
- Click **Live Popup View** to view the live stream in a pop-up. The Live Popup View of the respective camera appears.

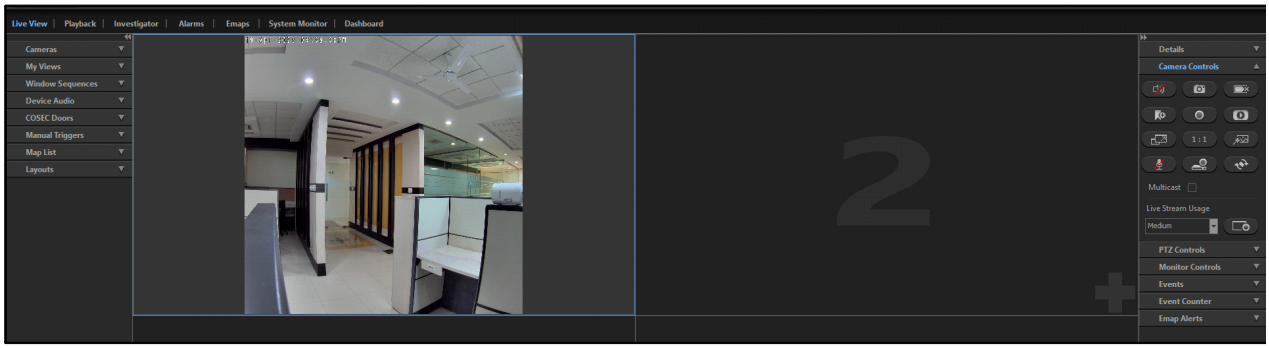


Change Aspect Ratio

The Change Aspect Ratio feature allows you to change the ratio of the length and breadth of the live view of a camera within the monitoring window.

To configure Aspect Ratio,

- Select the monitoring window of the desired camera.
- Click **Change Aspect Ratio** to change the ratio. The Aspect ratio can be set as 1:1, 4:3, 16:9 and full. You need to click multiple times to set the desired option.



- The selected aspect ratio is displayed on the **Change Aspect Ratio** icon.

Video Enhancer

The Video Enhancer feature allows you to enhance the video stream of a camera. This is useful as sometimes the camera does not provide proper view due to environmental issues. For example, during evening, the view can become dull and the video lacks clarity.You can enhance the video quality to improve the visibility and clarity using this feature.

To configure Video Enhancer,

- Select the monitoring window of the desired camera.
- Click **Video Enhancer** to change the video quality. The Video Enhancer pop-up of the respective camera appears.

Configure the following parameters:

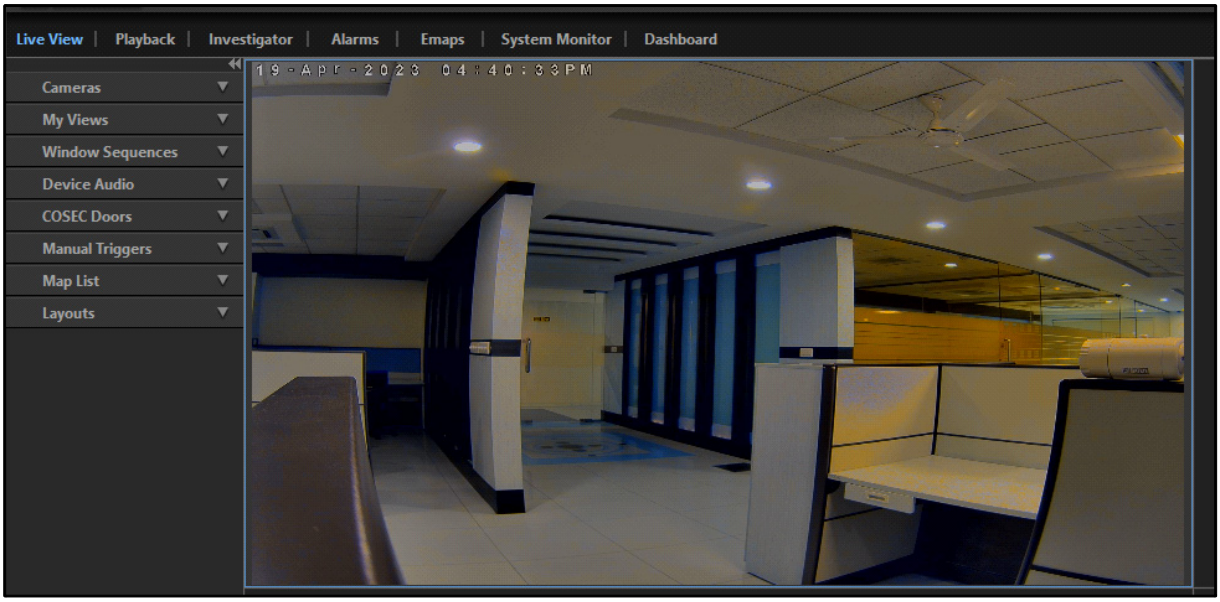
- **Brightness:** Drag the slider towards left or right to set the desired brightness for the video.
- **Contrast:** Drag the slider towards left or right to set the desired contrast for the video.

- **Hue:** Drag the slider towards left or right to set the desired hue for the video.
- **Saturation:** Drag the slider towards left or right to set the desired saturation for the video.

- Click **Set to Default** to apply the default values of the parameters to the live stream.

After applying the changes you can see the enhanced image on screen but video will be stored in original format as these settings are applied temporarily to the client and user.

For example, when the Brightness is set as -3, Contrast as 0, Hue as 7 and Saturation as -5, the live view appears as below.



Turn Microphone On/Off

The Microphone feature allows you to send audio signals to the cameras. This is useful when audio message needs to be delivered to the respective camera. This feature is functional only when a microphone is connected to the Audio-Out port of the cameras or to Satatya devices.

Microphone feature is not applicable for Mobile Cameras.

To send the audio to the camera or device, user must have Microphone rights and entity rights of Camera. Also the Audio-Out must be enabled from the camera stream profile.

The microphone can be turned On for maximum 255 entities (Camera/Device or both) at a time.

To configure Microphone,

- Select the desired camera.
- Click **Turn Microphone On** to turn on the Microphone for that particular camera. The icon toggles to **Turn Microphone Off** .

You can turn off the Microphone, if required.

- Click **Turn Microphone Off** to turn off the microphone.

Microphone can be Turned On/Off from the camera caption as well.

Local Recording On/Off

The Local Recording feature allows you to record the live video of an event in the local system where the Smart Client is running. This is useful when the central recording is disabled. In this case, recordings done locally can be used as a proof for any events that occurred.

To configure Local Recording,

- Select the monitoring window of the desired camera.
- Click **Local Recording On** to start the local recording for that particular camera. The icon toggles to **Local Recording Off** **.**

All the Local Recordings can be viewed from the **Playback** tab in the Smart Client. For more details, refer to “Local Recording”.

You can stop the Local Recording, if required.

- Click **Local Recording Off** to stop the local recording.
  The local recordings are saved in AVI or Native format. You can configure the format of the local recordings to be saved from the **Smart Client > General Settings > Application** tab.

  You can configure the path where the local recordings are to be saved from the **Smart Client > General Settings > Media** tab.

  Refer to “Application” and “Media” for details.

Rotate and Flip

The Rotate and Flip feature allows you to rotate and flip the camera view. This is useful when the camera position does not cover the live view in normal position.

To configure Rotate and Flip,

- Select the monitoring window of the desired camera.
- Click **Rotate and Flip** to enable the rotation and flipping of the camera view.

  Hover the cursor over the monitoring window, the Rotate icon appears.

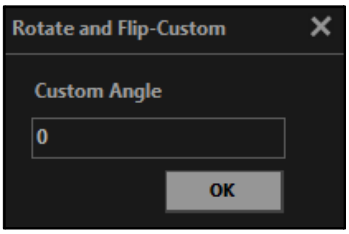
  - Click and drag on the right side on the window to rotate the window clockwise. Click and drag on the left side on the window to rotate the window anti-clockwise.
  - Hover the cursor over the center of the window to view the Flip icon. Hover and click to flip the view vertically. Click again to flip the view horizontally.

- Click **Rotate and Flip** again to stop the rotation and flipping of the camera view once the desired angle is achieved.

You can rotate and flip the view through the right-click options of the camera live view — Rotate 90°, Rotate 180°, Rotate 270°, Custom, Flip Horizontally, Flip Vertically or Reset View.

For example, if you select **Rotate 180°**, the live view is rotated to 180 degrees as shown below.

- Select **Custom** from the right-click options. The **Rotate and Flip- Custom** pop-up appears.



- Specify the custom angle at which you wish to rotate the view. Click **OK.**

- Once the desired angle and flip is set, select **Exit** from the right-click options.

Multicast

If this option has been enabled in the General Settings, then the check box will be enabled by default. You can disable it, if required. For more details, refer “Application”.

If Multicasting is enabled and there are network issues, then the live view may not be displayed.

If Multicasting is enabled then Transcoding for Live View will not be functional.

Live Stream Usage

The Live Stream Usage feature allows you to change the Live stream of the camera. The Live Stream option selected in the General Settings is displayed here by default. For more details, refer to “Application”.

Live Stream Usage is not applicable to Mobile Cameras.

To configure Live Stream Usage,

- Select the monitoring window of the desired camera.
- Select the **Live Stream Usage** from the drop-down list — High, Medium or Low.

If the Stream Usage selected is Low and Transcoding is enabled, then the transcoded stream (as per the Transcoding Mode selected in the Admin Client) is available in the Live View. For more details, refer to the SATATYA SAMAS Admin Client Manual.

Recording Preview On/Off

The Recording Preview option allows you to view the quality of recording that will be done.

Recording Preview is not applicable to Mobile Cameras.

- Click **Recording Preview On** , if you wish to view the quality of the recording. The preview appears in the selected monitoring window of the camera.
- Click **Recording Preview Off** **,** if you wish to stop the preview.

PTZ Controls

The PTZ Controls section allows you to perform the Pan, Tilt and Zoom operations on the PTZ camera selected in the monitoring window. You can move the camera to preset positions and run a PTZ Tour from this section.

PTZ Controls are not applicable to Mobile Cameras.

To configure the PTZ Controls,

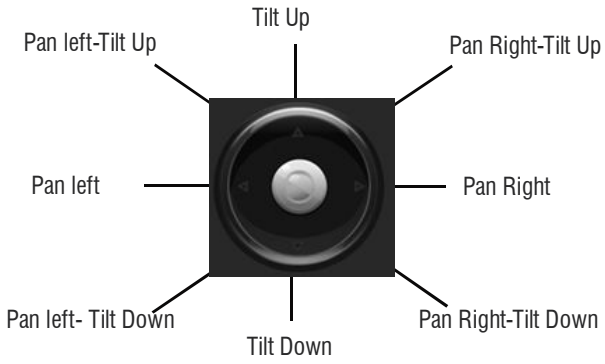
- Select the monitoring window of the desired PTZ camera.
- Click the **PTZ Controls** collapsible panel.

The PTZ operations performed by two simultaneous online users in Smart Client will be governed by the PTZ Priority assigned from Admin Client. Refer to SATATYA SAMAS Admin Client Manual to configure the PTZ Priority from General Settings > System Account > Users.

To ensure smooth functioning of this feature, make sure the time zones of the Smart Client and RS/FoS are same.

Configure the following parameters:

- **PTZ Positions**: Drag the virtual PTZ Joystick Control to move the PTZ camera to the desired location. The PTZ camera can be moved to 8 pre-configured positions using the virtual PTZ Joystick Control as shown below.



- **Speed**: Set the camera speed by dragging the slider to left or right. This determines the speed at which the camera should move from one position to the next.
- **Focus**: Set the camera Focus by dragging the slider upwards or downwards. Click **Auto Focus** to adjust the camera Focus automatically.
- **Zoom**: Set the camera Zoom by dragging the slider upwards or downwards.
- **Iris**: Set the camera Iris by dragging the slider upwards or downwards. Click **Auto Iris** to adjust the camera Iris automatically.

You can perform Optical Zoom and Focus for below Standard/Premium variants of Matrix IP cameras.
- *CIDR20VL12CWS, CIDR20MVL12CWP*
- *CIBR20VL12CWS, CIBR20MVL12CWP*
- *CIDR50VL12CWS,CIDR50MVL12CWP*
- *CIBR50VL12CWS, CIBR50MVL12CWP*

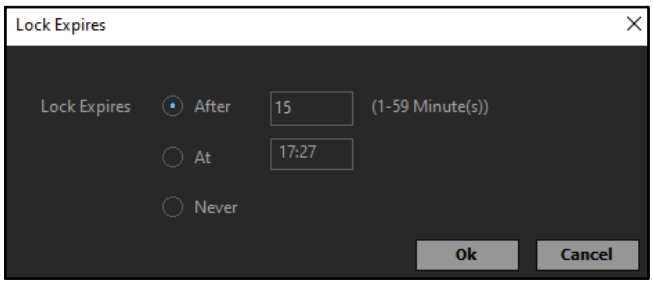
Preset Position

You can also move the PTZ camera to preset positions as configured from the Admin Client. Preset Positions enable you to move the camera to the required position directly without having to manually move the camera via Joystick Control.

- **Configured Position**: Select the preset position from the drop-down list and click **Go to Preset Position** to move the camera to the selected position.

You can lock the configured PTZ Control according to the assigned PTZ Priority. For more details, refer to SATATYA SAMAS Admin Client Manual to view the configurations of PTZ Priority from General Settings > System Account > Users.

- Click **Lock PTZ Control** . The **Lock PTZ Control** pop-up appears.



Configure the following parameter:

- **Lock Expires**: Select the desired option — After, At or Never.

  If you select **After**, specify the time in minutes after which the PTZ Lock should expire. After the lock expires lower priority users will be able to modify the PTZ Controls. The valid range is 1 to 59 minutes.

  If you select **At**, set the time when the PTZ Lock should expire. After the lock expires lower priority users will be able to modify the PTZ Controls.

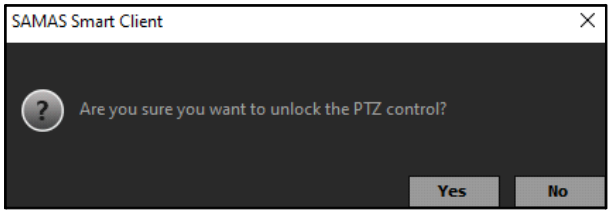
  If you select **Never**, the PTZ Lock will expire only after logout. The lock will never expire and the lower priority users will not be able to modify the PTZ Controls till logout of higher priority user.

- Click **Ok** to confirm or click **Cancel** to discard.

Hover over the icon to view the details of the user who has locked the PTZ controls. The details displayed are — User Name and Lock Timer.

Once the PTZ Control is locked, the icon toggles to **Unlock**.

- Click **Unlock PTZ Control** . The following pop-up appears.



- Click **Yes** to confirm or click **No** to discard.

Only a user with higher or same priority as compared to the user who locked PTZ Controls can unlock the PTZ Controls before the timer expiry. Once the PTZ Lock timer expires, all the users can perform PTZ Operations.

The PTZ Lock timer will reset if the Recording Server restarts or disconnects.

The PTZ Lock will not function if a PTZ Tour is running.

- **Predefined Position:** Specify the Position No. and click **Go to Preset Position** to move the camera to the preset position.

*Smart Client supports the Manufacturer defined preset positions for PTZ Cameras. You can move the camera to a preset position pre-defined by the Camera Manufacturer by entering the Position Number in **Predefined Position**. Pre-defined **Configured Positions** list can be found in the respective Manufacturer's Manual.*

*For example, a manufacturer has pre-defined Position No **255** for the **Auto Scan** function. Moving to Position No 255 for that camera shall move the camera to the defined position and also initiate Auto Scan function in the camera.*

PTZ Tour

You can view all the PTZ Tours as configured from the Admin Client. PTZ Tour displays all the Preset Positions added to the Tour without having to manually move the camera to the preset positions.

*Make sure the **Manual Tour** check box is enabled from the Admin Client for the desired PTZ Tours. The Smart Client will display only these tours.*

- **PTZ Tour**: Select the PTZ Tour from the drop-down list.
- **Start Tour:** Click **Start Tour** to start the PTZ Tour.
- **Stop Tour:** Click **Stop Tour** to stop the ongoing PTZ Tour.
- **Resume Tour:** If a scheduled PTZ Tour is running and a PTZ Control command is given, the PTZ Tour will pause. Click to resume a the PTZ Tour.
- **PTZ ON**: Click **ON** to enable the PTZ controls using the PTZ Control option in the right pane as well as the mouse. Once the PTZ controls are enabled, the button toggles to **OFF.**

  Press the right-click mouse option and drag the camera to the desired position.

*If **Override Active Tour by PTZ Control** is enabled in Admin Client and a user moves the camera to a preset position, the system will override the tour as per the assigned PTZ Priority.*

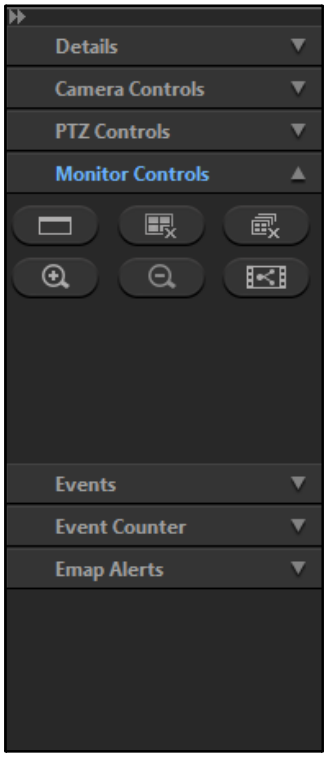
*If **PTZ Priority Delay Time** is configured in Admin Client, a PTZ Tour cannot be accessed by any user until the delay time is expired or a higher priority user makes a change in the PTZ operations.*

Monitor Controls

The Monitor Controls section allows you to perform generic functions on all monitoring windows as well as specific operations on the camera of the selected monitoring window. You can zoom in and out the live view, clear pages and share the live view with other users from this section.

To configure the Monitor Controls,

- Select the monitoring window of the desired camera.
- Click the **Monitor Controls** collapsible panel.



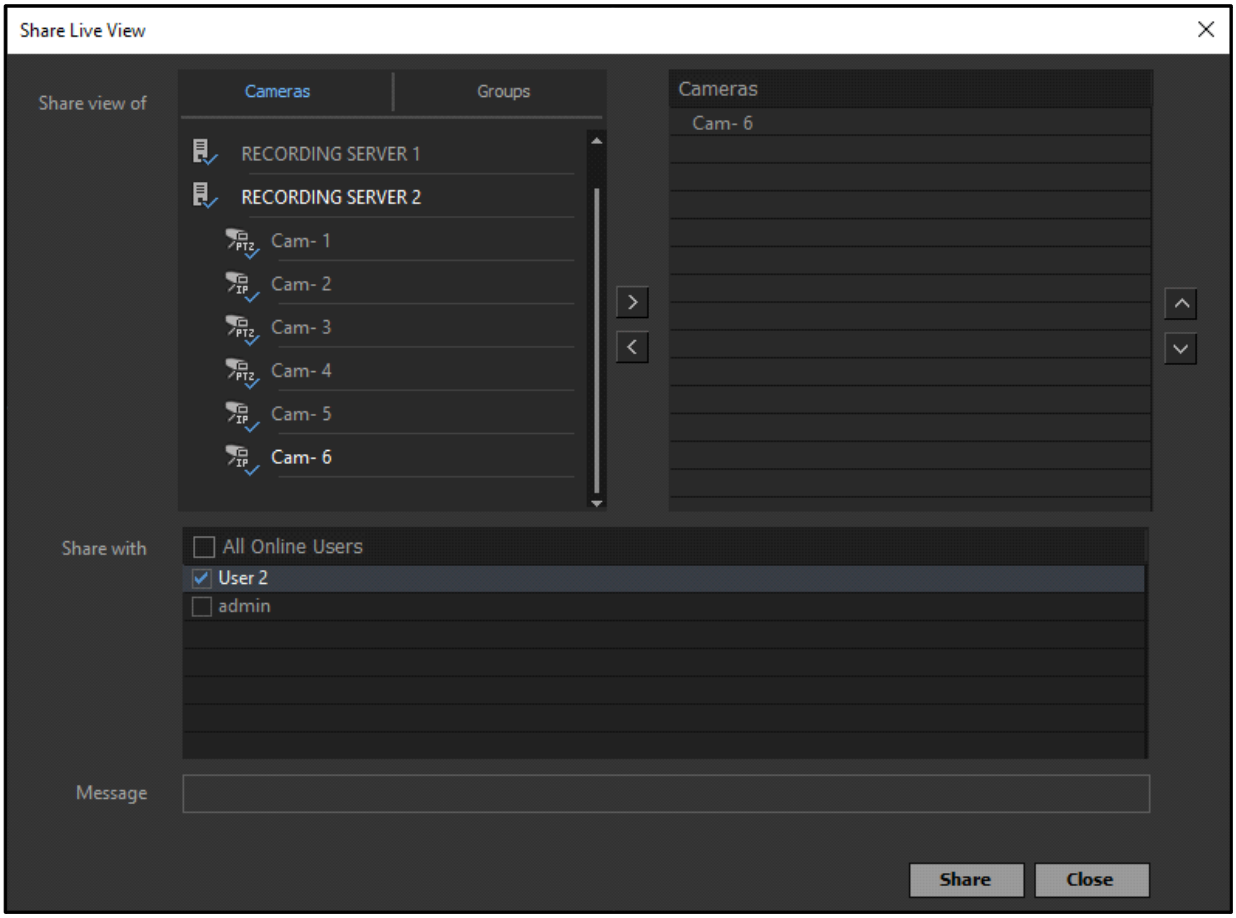
Configure the following parameters:

- **Show Caption**: Click **Show Caption** to view the Camera Name, Microphone status, Audio status and Recording status of the camera. The icon toggles to **Hide Caption** once the caption is displayed.
- **Clear Page**: Click **Clear Page** to clear all the cameras of the current page of the monitoring windows.
- **Clear All Pages**: Click **Clear All Pages** to clear all the cameras from all the pages of monitoring windows. You will be automatically re-directed to the first page.

*The Status of the Microphone will be as it is when you click **Clear All Pages**.*

Make sure the Windows Sequence is in Pack mode to clear all the pages. For details, refer to "Window Sequences: Pack and Unpack".

- **Zoom In**: Click **Zoom In** to zoom into the live view of the selected camera. You can also scroll upwards using the mouse to zoom in.
- **Zoom Out**: Click **Zoom Out** to zoom out of the live view of the selected camera. You can also scroll downwards using the mouse to zoom out.
- **Share Live View**: Click **Share Live View** to share the live view of the selected camera with other Online Users. The **Share Live View** pop-up appears.



Configure the following parameters:

- **Share View of**: The list of cameras added to various configured Recording Servers appears under the **Camera** tab. The cameras added to different groups appear under the **Groups** tab. Select the cameras you wish to add from the Cameras or Groups tabs and click the **Right Arrow** button to add the camera to the **Cameras** list.

  To remove cameras, select the desired cameras you wish to remove from the Cameras list. Click the **Left Arrow** button to remove the cameras from the Cameras list.

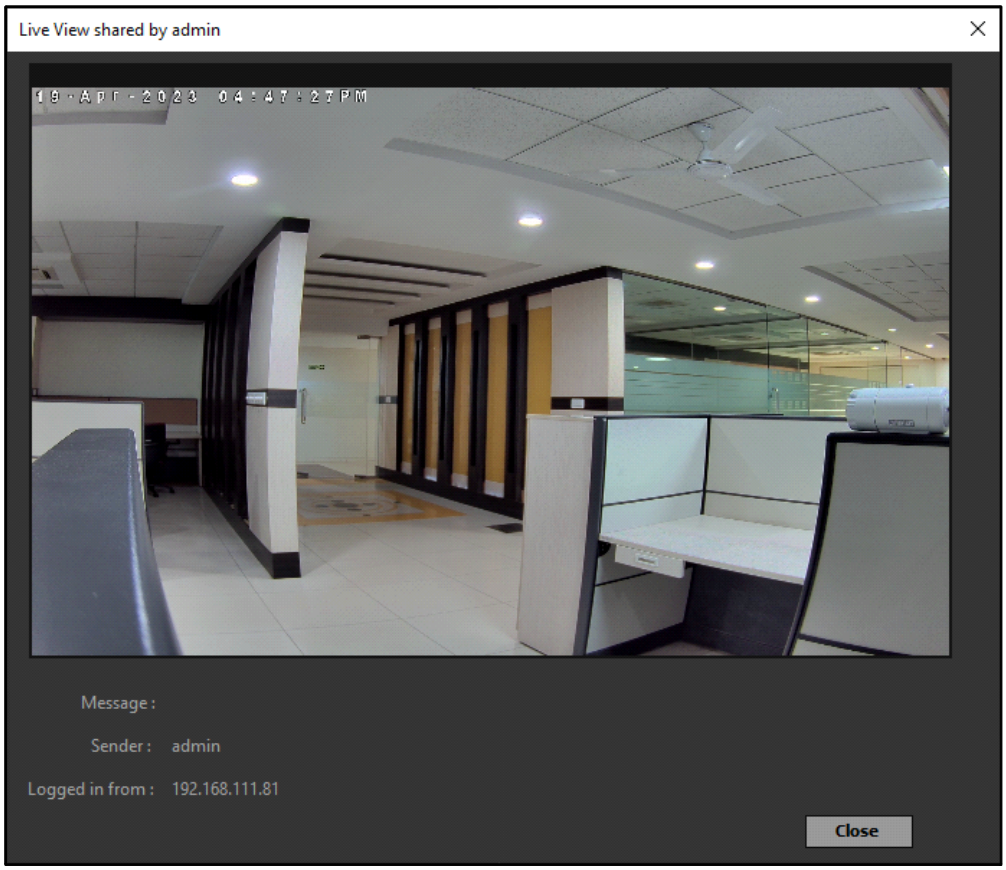
  You can also change the sequence of the cameras by selecting the desired camera and clicking the **Up Arrow** or **Down Arrow** button.

- **Share With**: Select the check boxes for the desired users with whom you wish to share the live view or click the **All Online Users** check box to select all the online users.

- **Message**: Specify the message to be shared with the live view, if any.

- Click **Share** to share the live view or click **Close** to discard.

The shared live view appears as shown below.

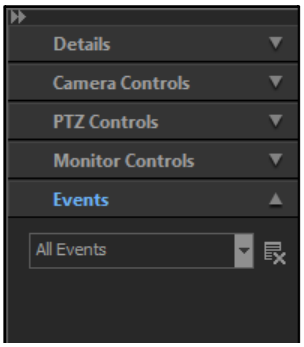


Event Panel

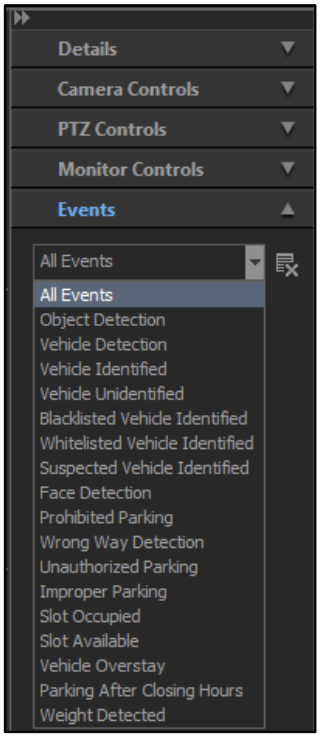
The Event section allows you to view Events as they occur. The Event details that appear under this section are as configured in Admin Client. You can view the Event details as well as perform certain actions on the Event notifications from this section. Make sure you have selected the **Event Panel** check box against the desired Events in "Event Alerts" in "General Settings" to view them in this section.

To configure the Events,

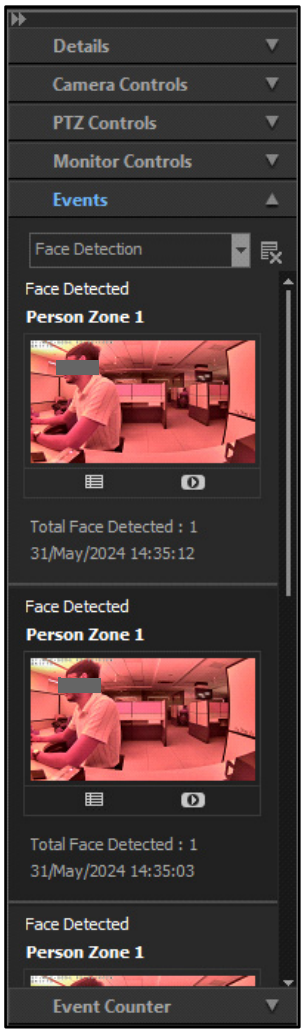
- Select the monitoring window of the desired camera.
- Click the **Events** collapsible panel.



- Only those Events for which **Event Panel** check box is selected in Event Alerts in General Settings will appear in the list. Select the Event which you wish to view from the **Events** drop-down list.

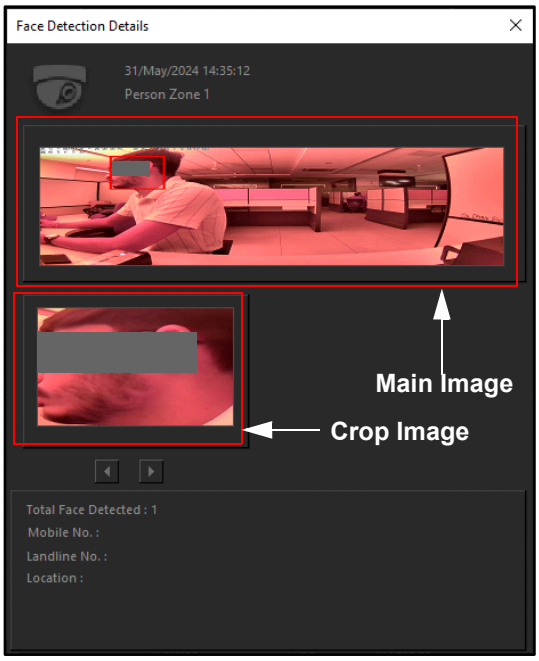


- The details displayed vary from Event to Event. For example, the Face Detection[1] Event displays the total number of faces detected and the Date and Time of the Event. You can perform following actions on the Event — Details and Playback.



- Click **Details** to view the Event details. The **Event Name- Details** pop-up appears.

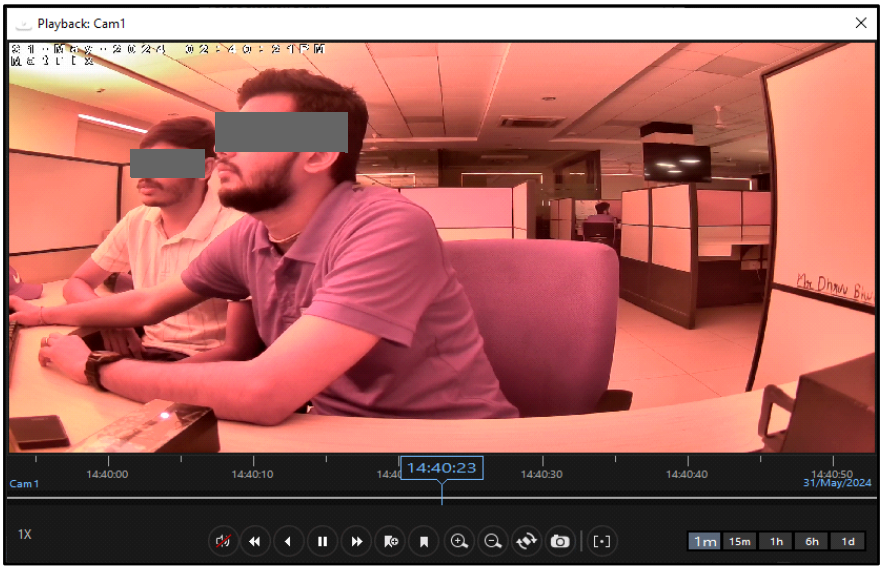
1. *This feature is not available in the current Software Release. It will be included in the upcoming release.*



- The **Face Detection Details** pop-up consists of two images for each detected face. The **Main Image** consists of all the detected faces, whereas the **Crop Image** will display each detected face. You can view all the crop images and scroll using the right and left arrow buttons.

  The details displayed are: Total Face Detected, Mobile No., Landline No. and Location.

- Click **Playback** to view the Event playback recording. The **Playback** pop-up appears.



- The date and the time when Event occurred is displayed in the playback. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

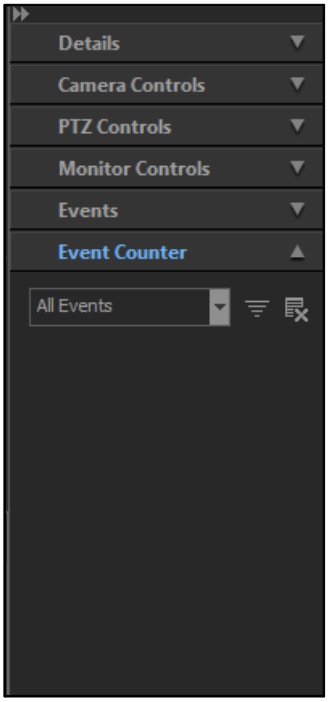
- Click **Clear Events** to clear all the Events from the Events collapsible panel.

Event Counter

The Event Counter section allows you to view certain Events and their live status. The Event Counter gives a real-time status update about the slot availability, count of the vehicles or people in the premises and parking and crowd premise availability as configured from the Admin Client. You can perform certain actions on the Events such as Reset the Counter.

To configure the Event Counter,

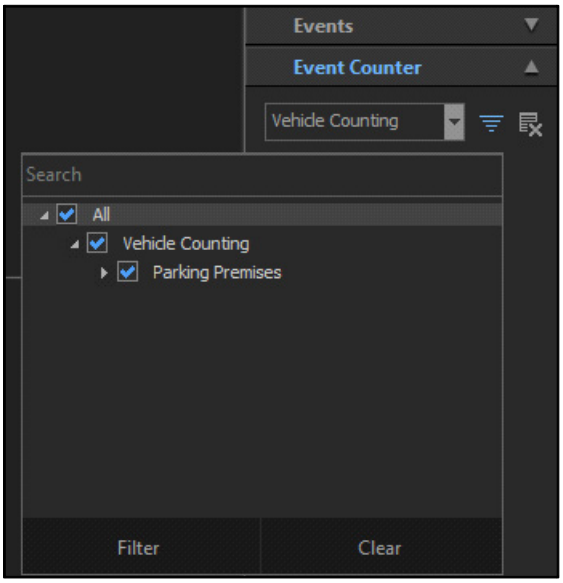
- Click the **Event Counter** collapsible panel.



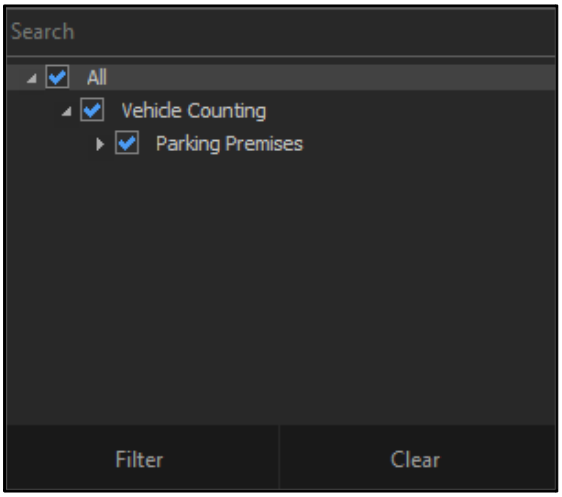
- Select the Event which you wish to view from the **Events** drop-down list, for example, Vehicle Counting.

The Event details and configurable parameters differ according to the selected Event.

- Click **Filter** to filter the source parameters based on which you wish to view the Event details. You can also search for the desired source parameters using the search bar.

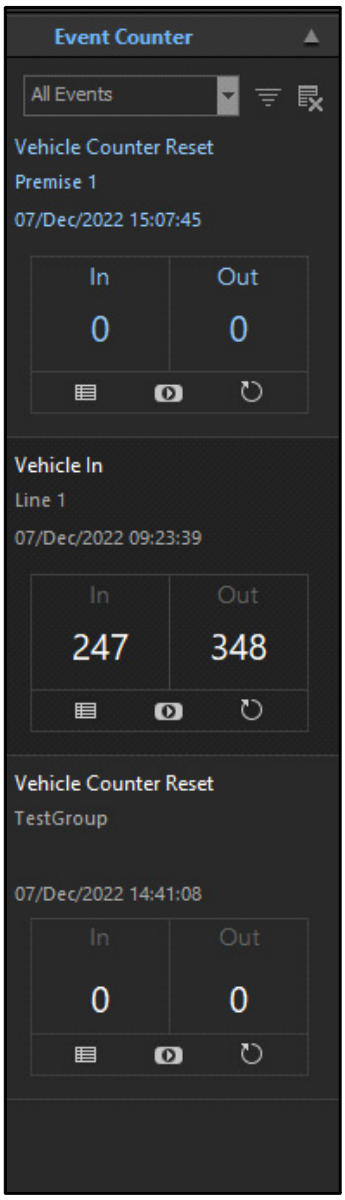


- Select the check boxes for the desired source parameters you wish to include in the Event details.



- Click **Filter** to filter the parameters or click **Clear** to discard.

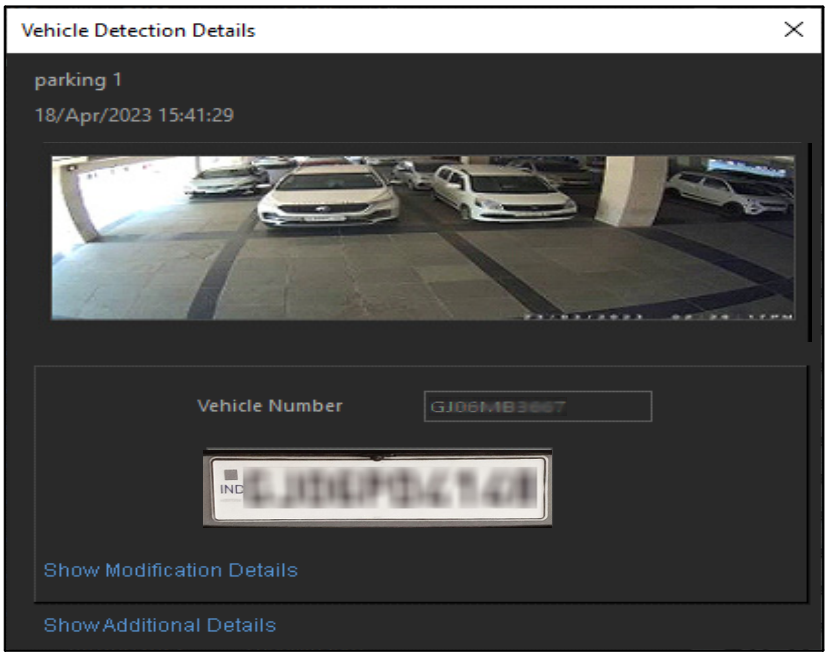
The Event details appear under the Event Counter section.



- The details displayed vary from Event to Event. For example, the Vehicle Counting Event displays the Date and Time of the Event. The Vehicle In and Vehicle Out count for the Vehicle Counting Line and Parking Premise are displayed.

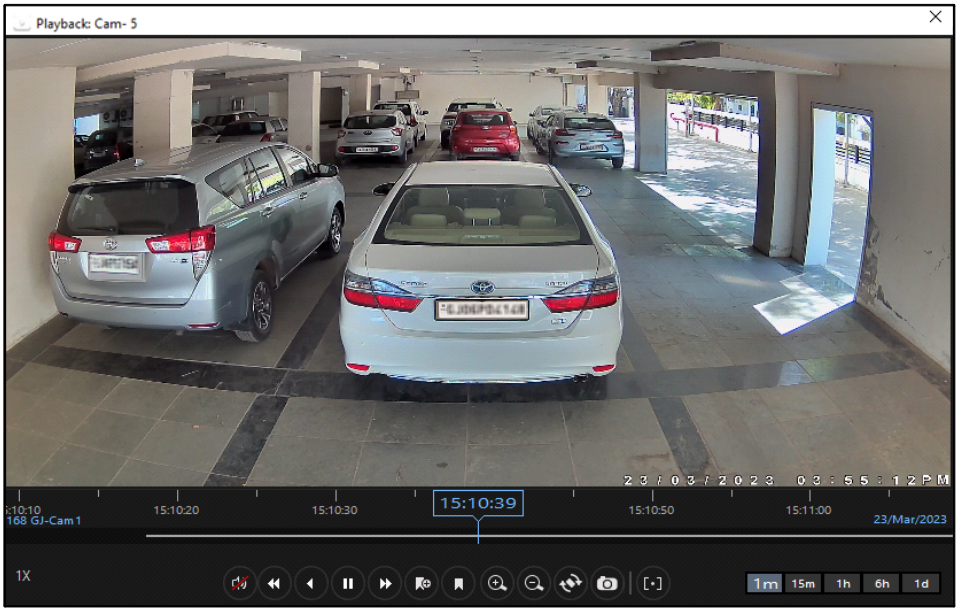
  You can perform actions for the following Event parameters — Details, Playback and Reset Counter.

  - Click **Details** to view the Event details. The **Event Name- Details** pop-up appears.



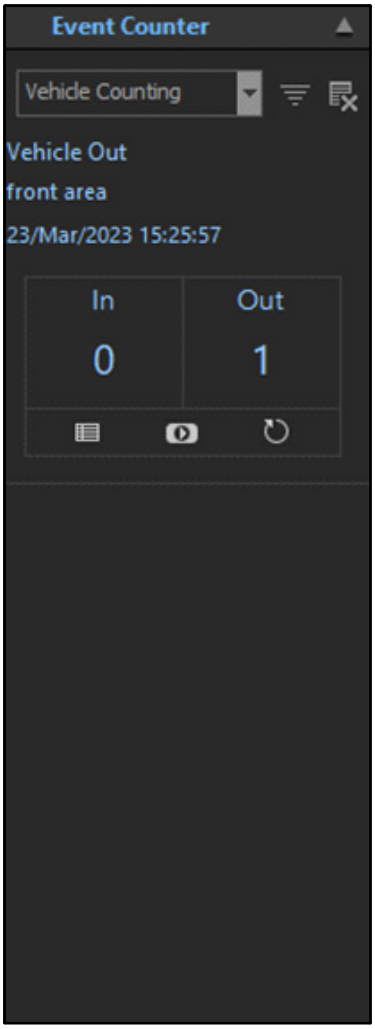
- The details displayed are — Camera name, Date, Time and the Detected Vehicle Number. You can modify the Vehicle Number from the pop-up, if required. For details, refer to “Vehicle Number Modification”.

- Click **Playback** to view the Event playback recording. The **Playback** pop-up appears.



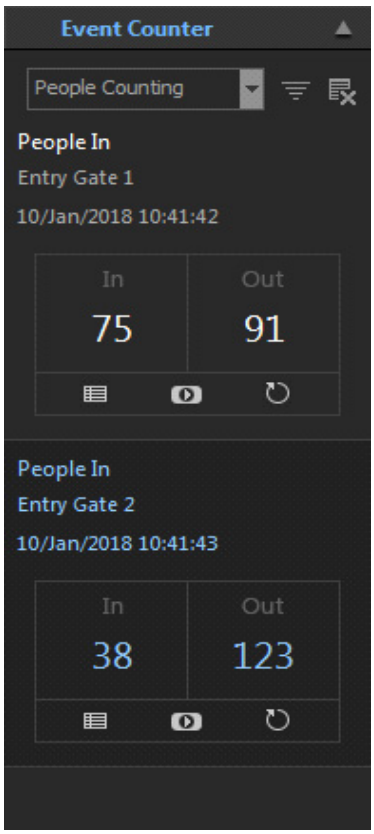
- The date and the time when Event occurred is displayed in the playback. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

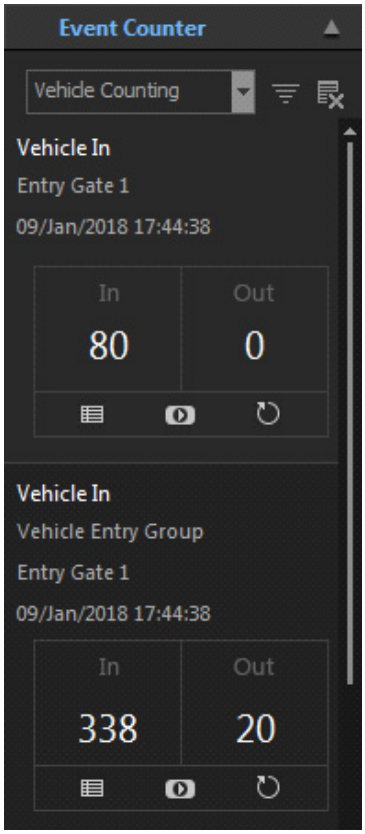
- Click **Reset** to reset the vehicle counter for the selected source parameter. The Vehicle In and Vehicle Out count for that counter is set to zero.

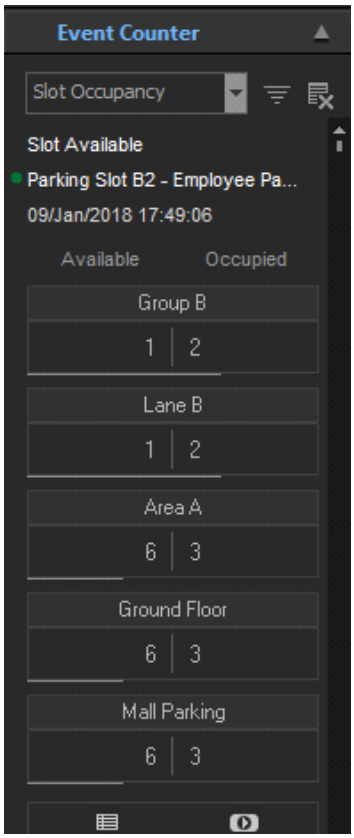


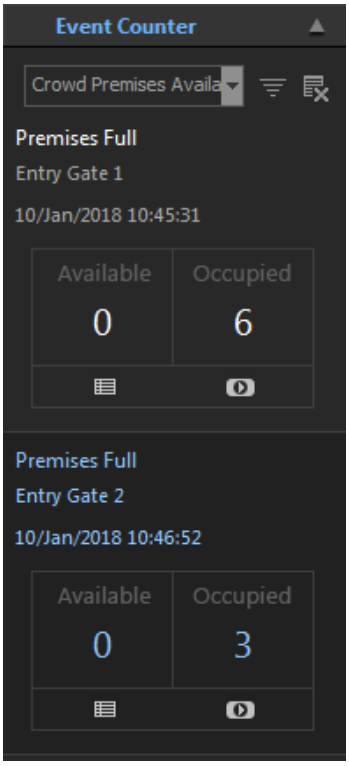
- Click **Clear Events** to clear all the Events from the Event Counter collapsible panel.

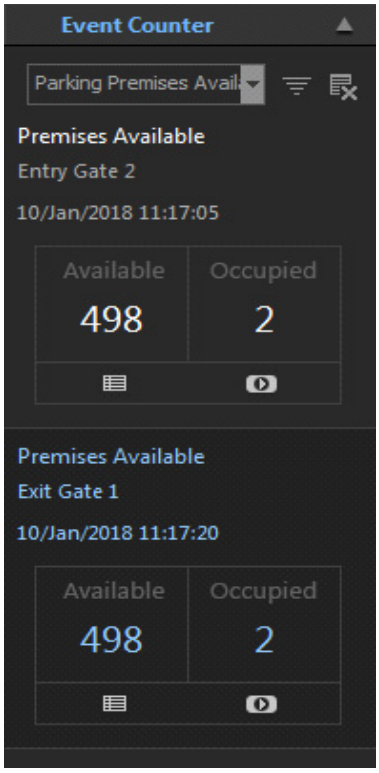
The example for each Event is shown in the screen below.









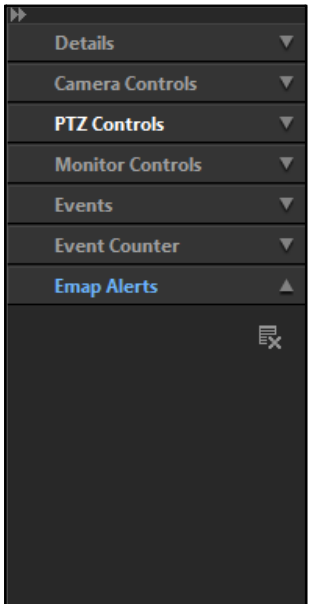


Emap Alerts

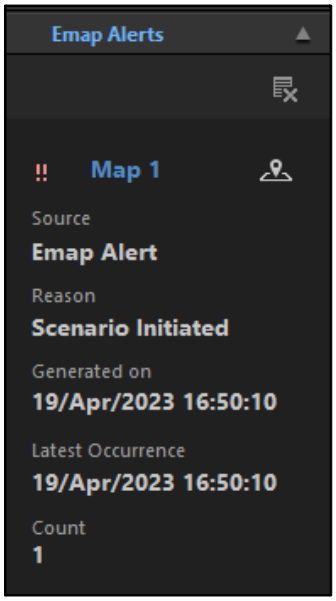
The Emap Alerts section allows you to view the Emap Alerts for certain Events as configured in the Admin Client. The Emap Alerts allows you to view the live status of the entity associated with the Scenario under which Emap alert is configured. You can perform certain actions on the entities from the **Emaps** tab once an Emap Alert is received. For more details, refer to “Emaps”.

To configure the Emap Alerts,

- Click the **Emap Alerts** collapsible panel.



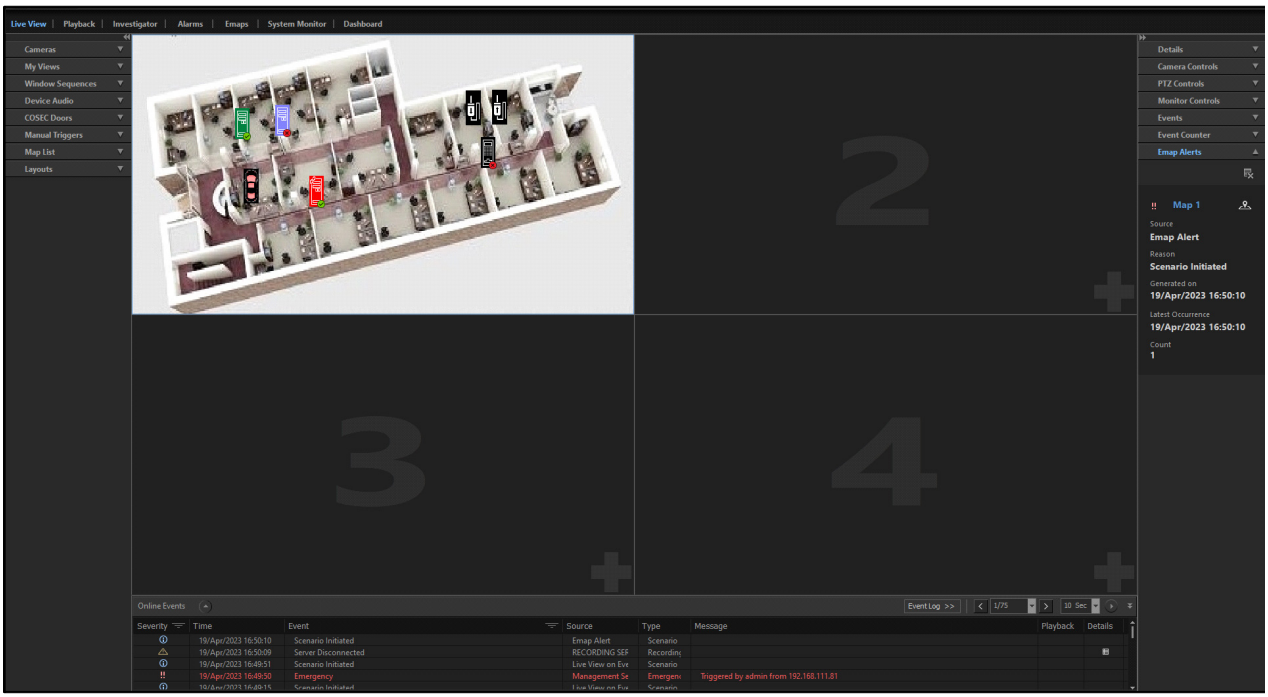
- Whenever an Emap alert is received, it appears under the Emap Alerts section.



The Emap Alert details displayed are — Severity, Emap Name, Source, Reason, Generated On, Last Occurrence and Count.

You can view the Emap on which Alert was received from the Emap Alert.

- Click **Load Emap** to view the associated Emap. The Emap appears on the selected monitoring window.



- Click **Clear Events** to clear all the alerts from the Emap Alerts collapsible panel.

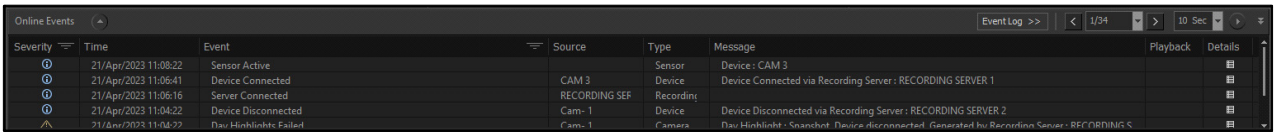
Bottom Pane Functionality-Online Events

Online Events

The Online Events section allows you to view the logs of all the Events. You can view the Event details and playback recordings of the Events from this section. You can also search for old Event logs and export them to the local system. The Events that appear under this section are as per the Event Monitoring Rights assigned from the Admin Client. Make sure you have selected the **Online Event** check box against the desired Events in "Event Alerts" in "General Settings" to view them in this section.

For the list of all events, refer to Scenario Events With Actions in SATATYA SAMAS Admin Client Manual. If you have enabled SSL and if the certificate expires/unavailable, then the system switches to the SAMAS Default Certificate. Hence, such events will also be logged under Online Events as well as appear in Event Logs.

When an Event is triggered, the Event log details are displayed in the Online Events panel.



The details displayed are — Severity, Time, Event, Source, Type, Message, Playback and Details. The Severity of Events is divided into four types. The type of severity and their indications are as follows:

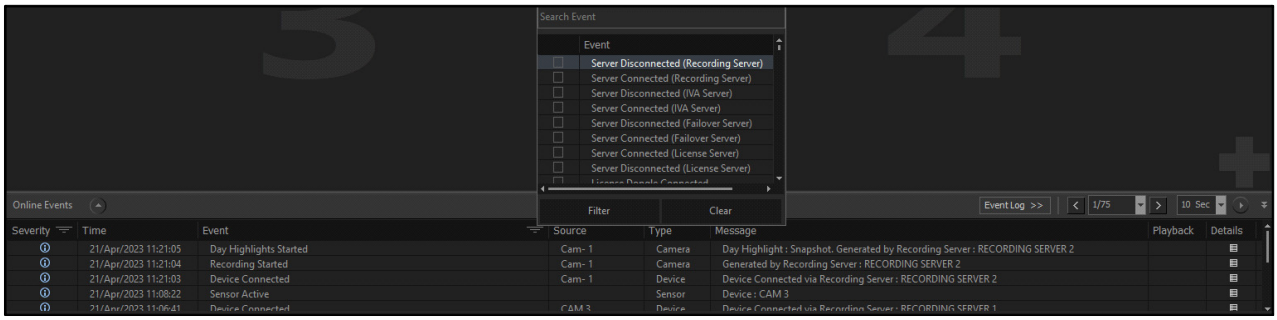
- **Critical**:
- **Error**:
- **Warning**:
- **Information**:

You can filter the Event logs according to Severity or Event.

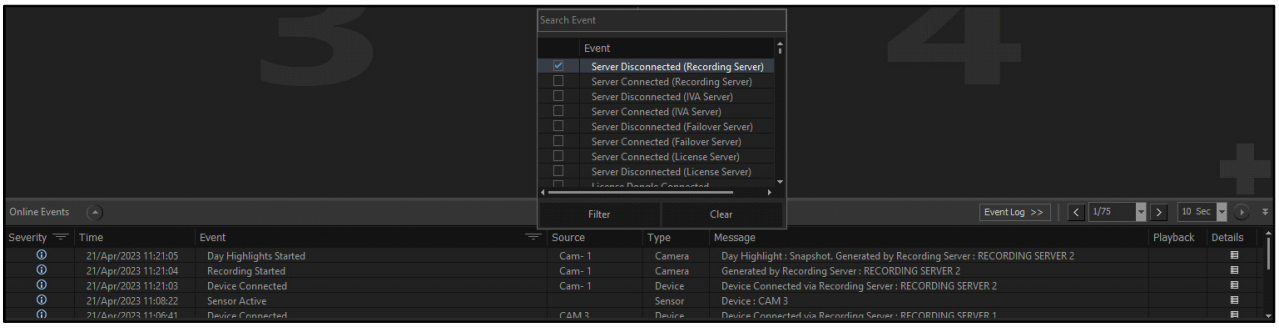
- Click **Severity** filter . The Severity options appear. Select the check boxes for the desired Severity whose logs you wish to view. You can also search for the desired Severity using the **Search Severity** search bar.

  OR

- Click **Event** filter . The Events list appears.



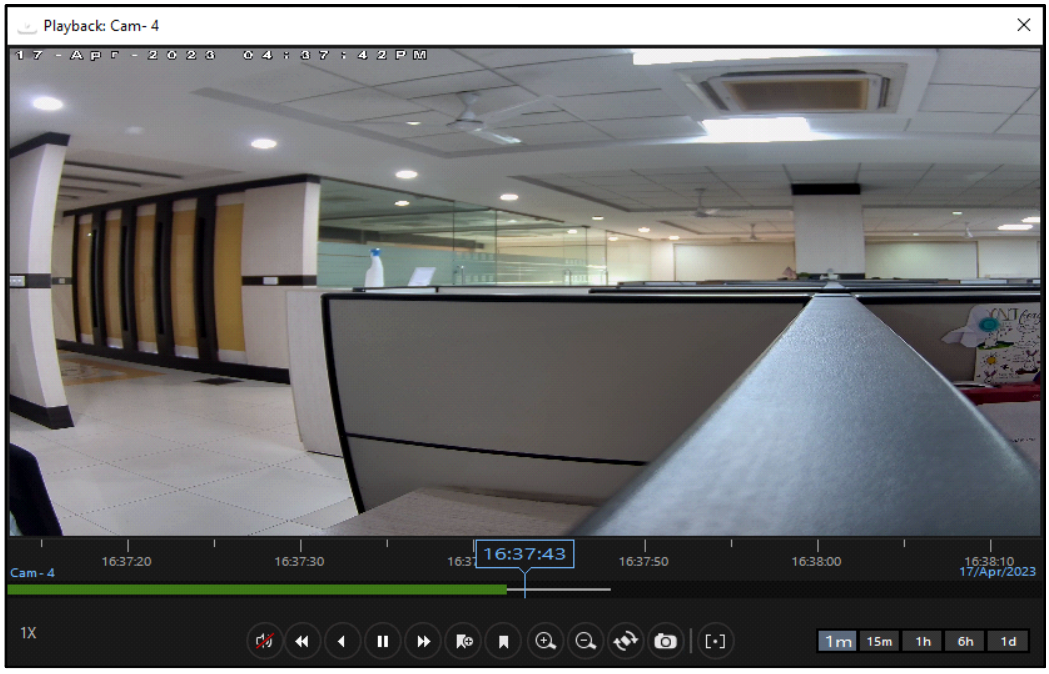
- Select the check boxes for the desired Events whose logs you wish to view. You can also search for the desired Event using the **Search Events** search bar.



- Click **Filter** to filter the Events or click **Cancel** to discard.

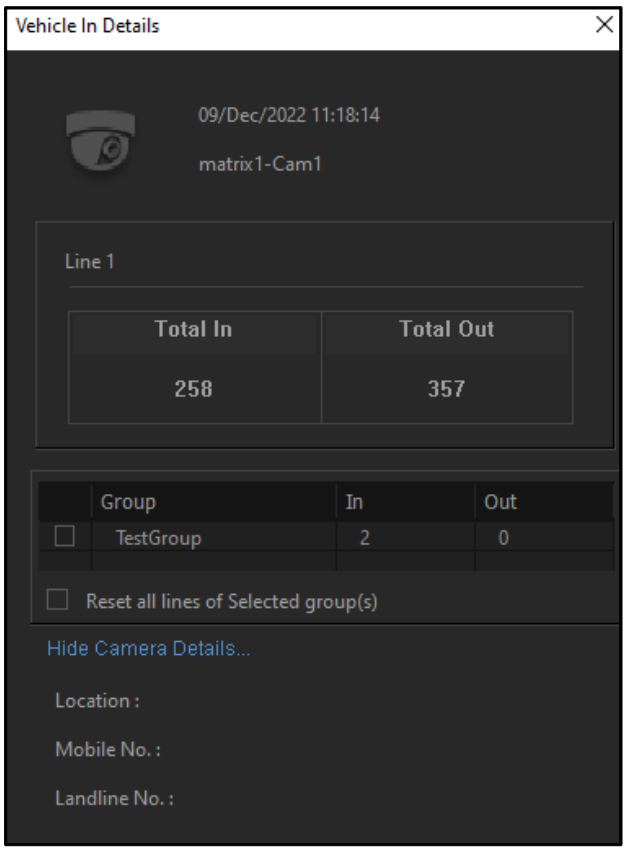
You can perform the following actions on the filtered events — Playback and Details.

- Click **Playback** against the desired Event. The **Playback** pop-up appears.



- The date and the time when Event occurred is displayed in the playback. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to "Bottom Pane Functionality-Playback Toolbar".

- Click **Details** against the desired Event. The **Event Name- Details** pop-up appears.



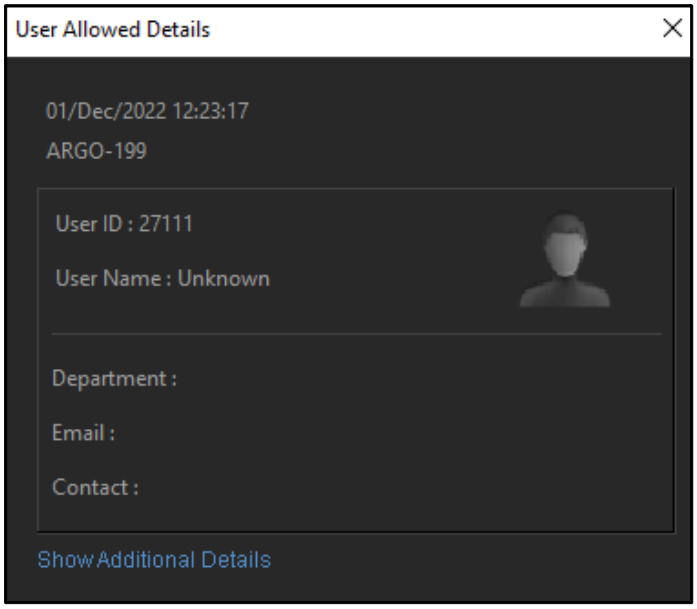
- The details displayed vary from Event to Event. For example, the Vehicle In Details pop-up displays the Date and Time of the Event along with the Camera Name. The details of Total Vehicles coming In and going Out are also displayed.

  You can reset the Vehicle Counting Line from this pop-up. To do so,

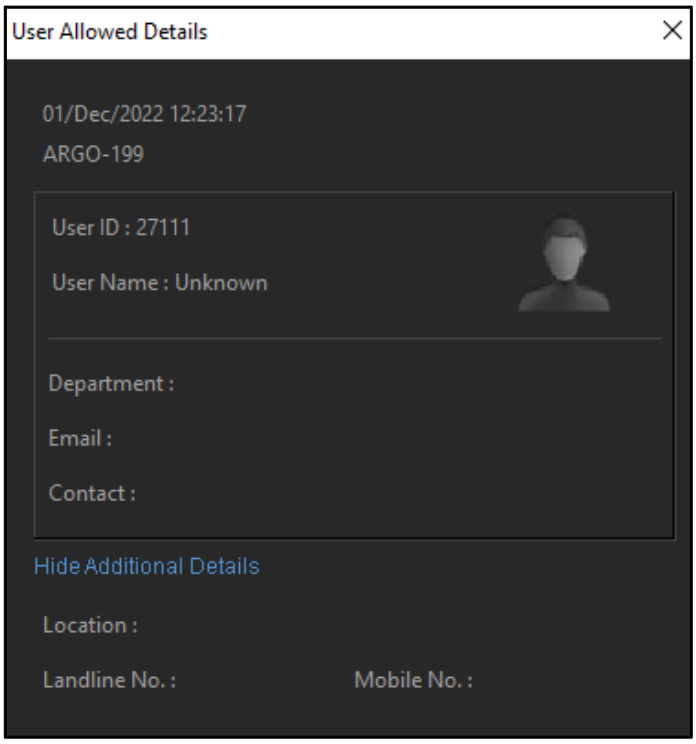
  - Select the check boxes for the Groups whose lines you wish to reset.
  - Select the **Reset all lines of Selected group(s)** to reset all the lines of the selected group.

Similarly, if SAMAS is integrated with Access Control Server, the COSEC Doors appear in Smart Client. So, whenever Access Control Events occur, the Event logs appear in the Online Events section. You can view the details of these Events from this section.

For example, the details of User Allowed Event appear as below.



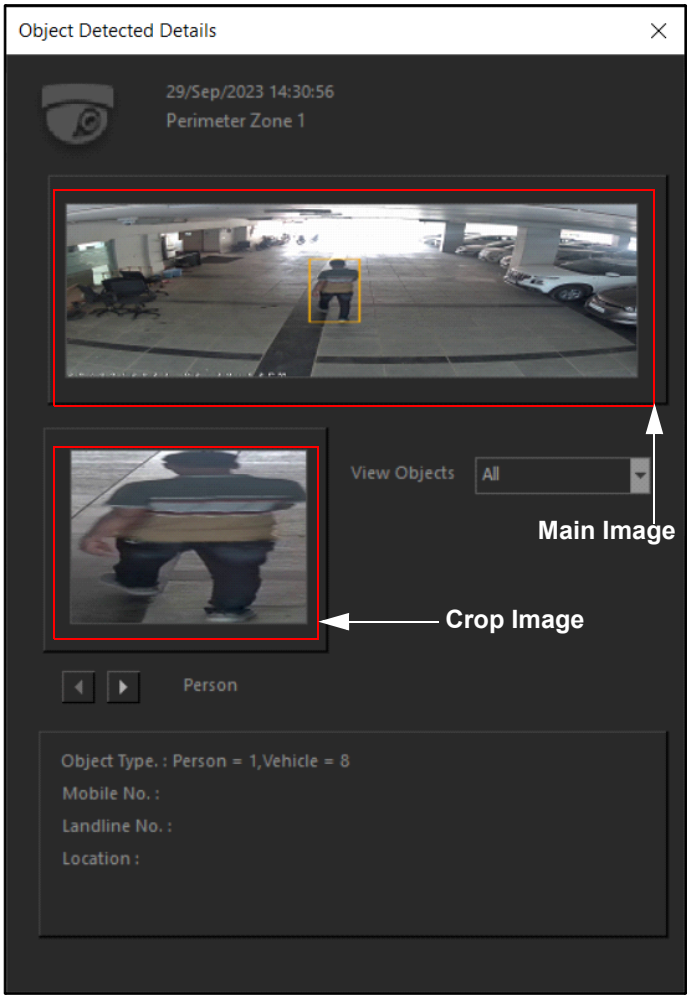
- Click **Show Additional Details** to view the additional details about the Location.



User details and Location details will be displayed in the Online Events section as configured in the Admin Client.

For example, if Object Detection[2] Event is configured to detect Person and Vehicle from Admin Client, the details of the Event appear in the Online Events section whenever the Event occurs. You can view the details of these Events from this section.

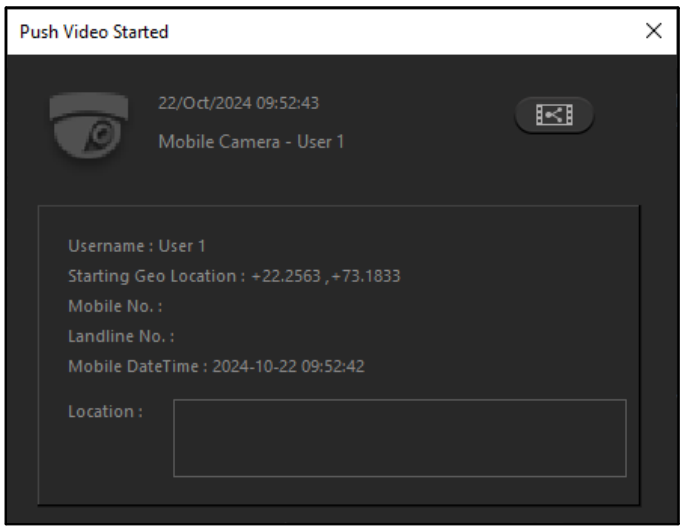
2. *This feature is not available in the current Software Release. It will be included in the upcoming release.*



The **Object Detected Details** pop-up consists of two images for each detected object type. The **Main Image** consists of all the detected object types, whereas the **Crop Image** will display each detected object. Click **View Objects** drop-down list to select the desired objects — All, Person or Vehicle. These options depend on the type of objects selected to be detected in the Event from Admin Client. You can select the desired object type to view its crop images and scroll using the right and left arrow buttons.

The details displayed are: Object Type and number of objects detected, Person=1 and Vehicle=8. The Mobile No., Landline No. and Location details are displayed if configured in Admin Client.

If you have enabled Push Video/Snapshot for the desired user and assigned the rights for the same from the Admin Client and if video/snapshot is pushed from SATATYA VISION, then Push Video Started/Pushed Snapshot pop-up will appear. These events will also be logged under Online Events and also appear in Event Logs. You can view the details of these Events from this section.

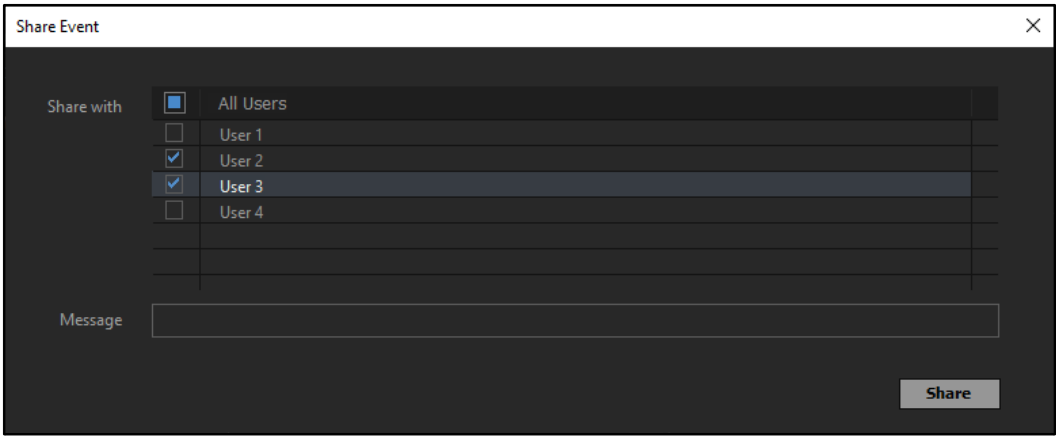


The details displayed are: Username, Starting Geo Location and Mobile Date Time. The Mobile No., Landline No. and Location details are displayed if configured in Admin Client.

You can also share this event with other Smart Client and Mobile Client users. Make sure the Smart Client and Mobile Client users have Event Monitoring Rights for the Push Video Started/Pushed Snapshot Event from Admin Client to view the details when the Event is shared.

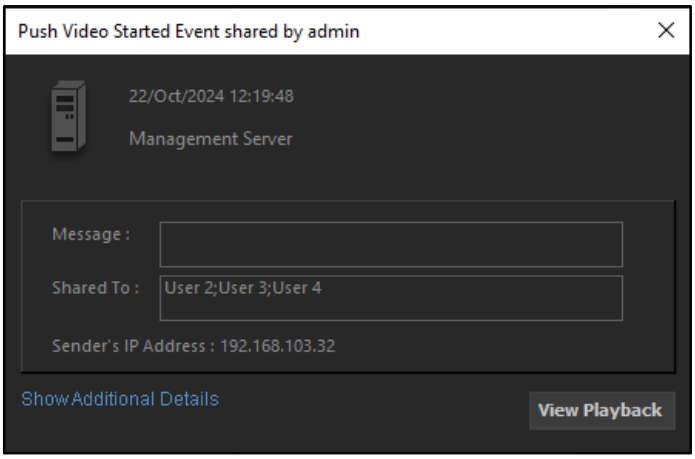
The Event will be shared as a **Push Notification** to the Mobile Client users. It is mandatory that the Mobile Client users have enabled Push Notification on SATATYA VISION and a scenario has been configured with Push Notification Action in the Admin Client.

- Click **Share**. The **Share Event** pop-up appears.



  - **Share With**: Select the check boxes of the desired users with whom you wish to share the Event or select the **All Users** check box to select all the users.
  - **Message**: Specify the message to be shared with the Event, if any.
- Click **Share**. The Event will be shared with the selected users.

The shared Event appears as shown below.

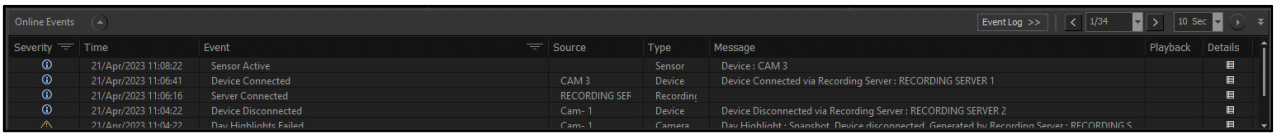


- Click **View Playback** to view the playback of the Event.

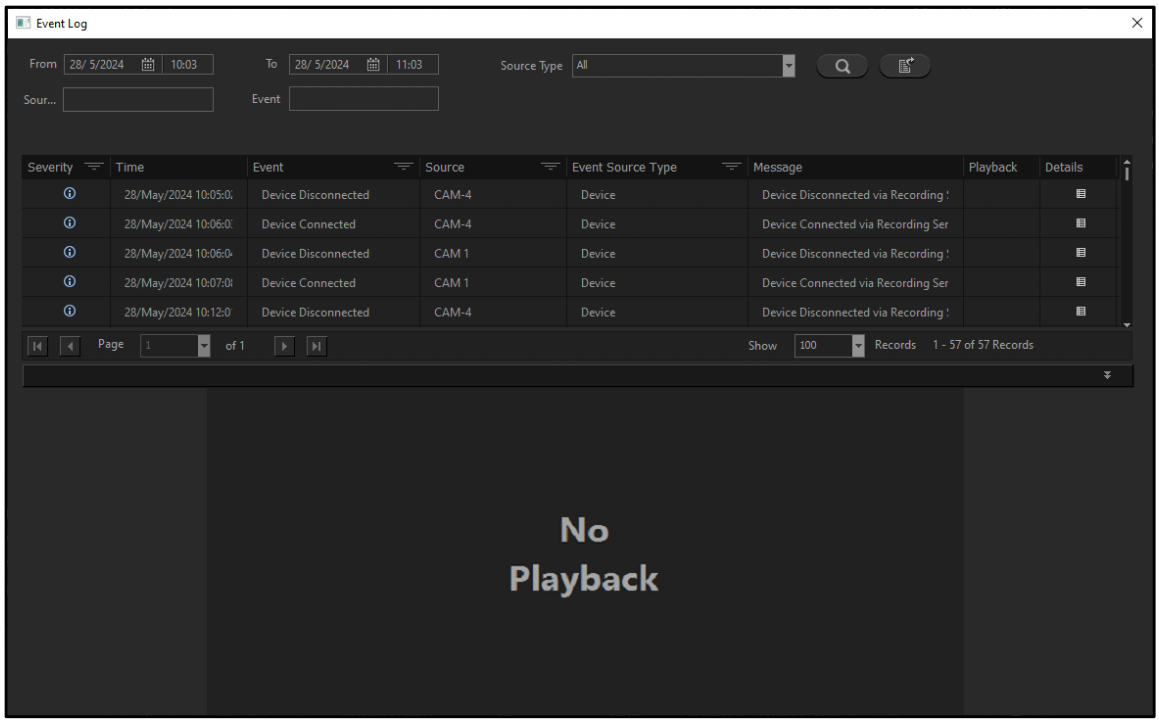
Event Log

You can view the old Event Logs from the Online Events section. Only those Events will be displayed for which Event Monitoring Rights are assigned in the Admin Client.

- Click **Event Log >>**.



- The Event Log pop-up appears.



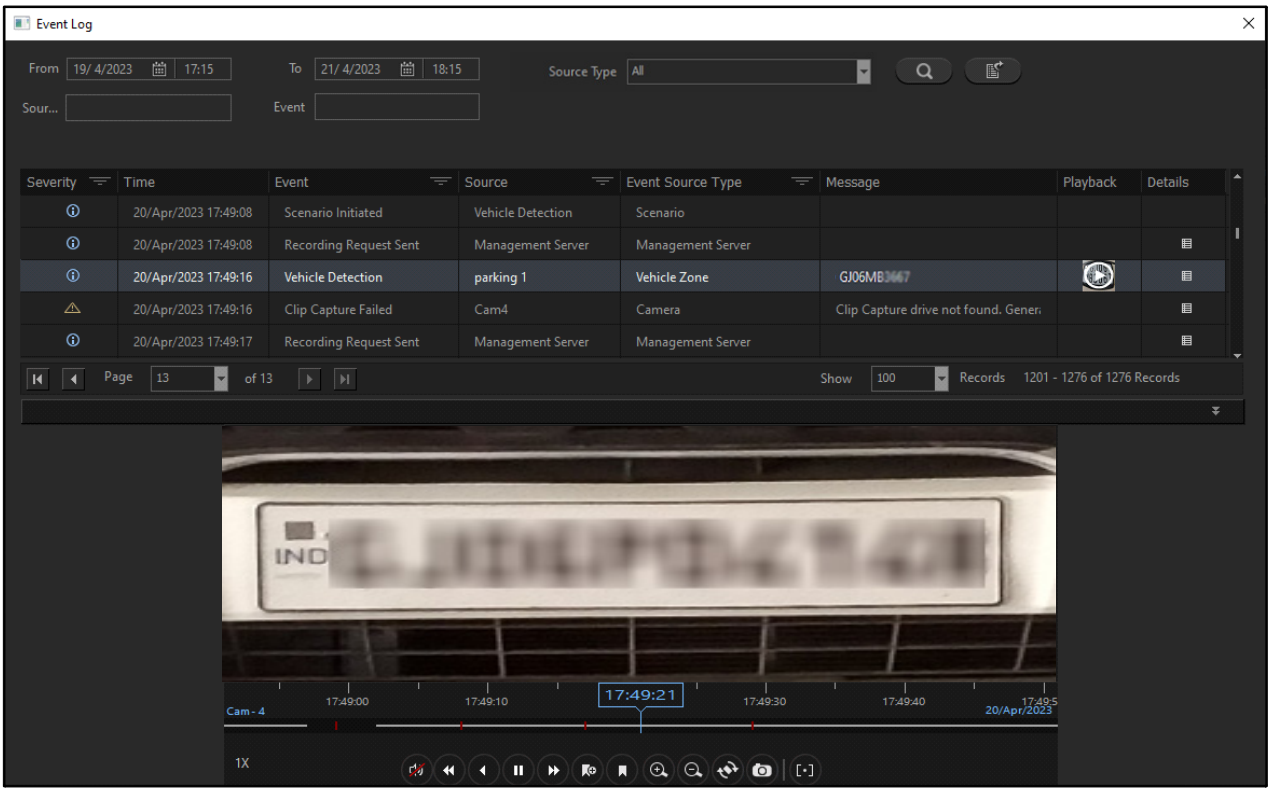
Configure the following parameters.

- **From**: Select the date from which you wish to view the Event log from the calendar and specify the time.
- **To**: Select the date till which you wish to view the Event log from the calendar and specify the time.
- **Source Type**: Select the Source Type for which you wish to view the Event log from the drop-down list.
- **Source**: Specify the name of the Source according to the selected Source Type.
- **Event**: Specify the name of the Event of the Source Type for which you wish to view the Event log.
- **Event Details**: If you have selected Source Type as Access Control, you can filter the Event Logs based on User Name and User ID. Type the desired User Name/ID in the text box. When you click Search, all the Events for the configured duration containing the entered User Name/ID will appear.

- Click **Search** . The list of all the Event logs as per the set options and duration appear in a list.

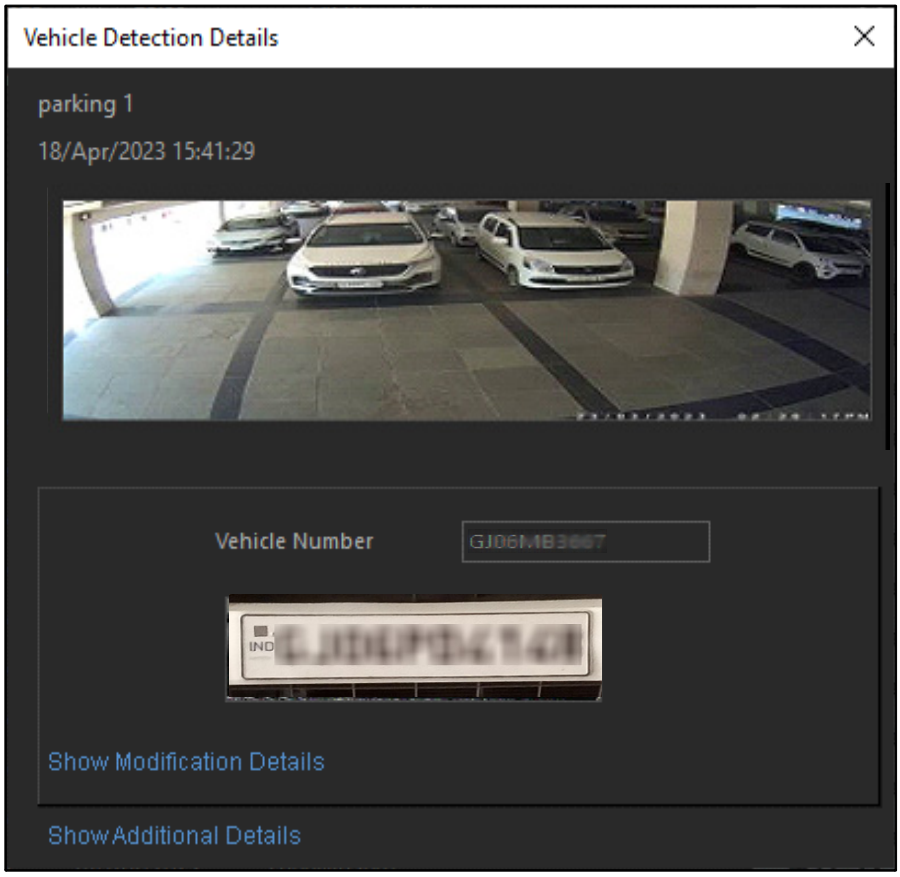
The Event log details displayed are — Severity, Time, Event, Source, Event Source Type, Message, Playback and Details. You can perform the following actions on the Event log parameters — Playback and Details.

- Click **Playback** corresponding to the desired Event log to view the playback recording. The playback begins below the Event log grid.



- The date, time and camera details are displayed in the playback as configured. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

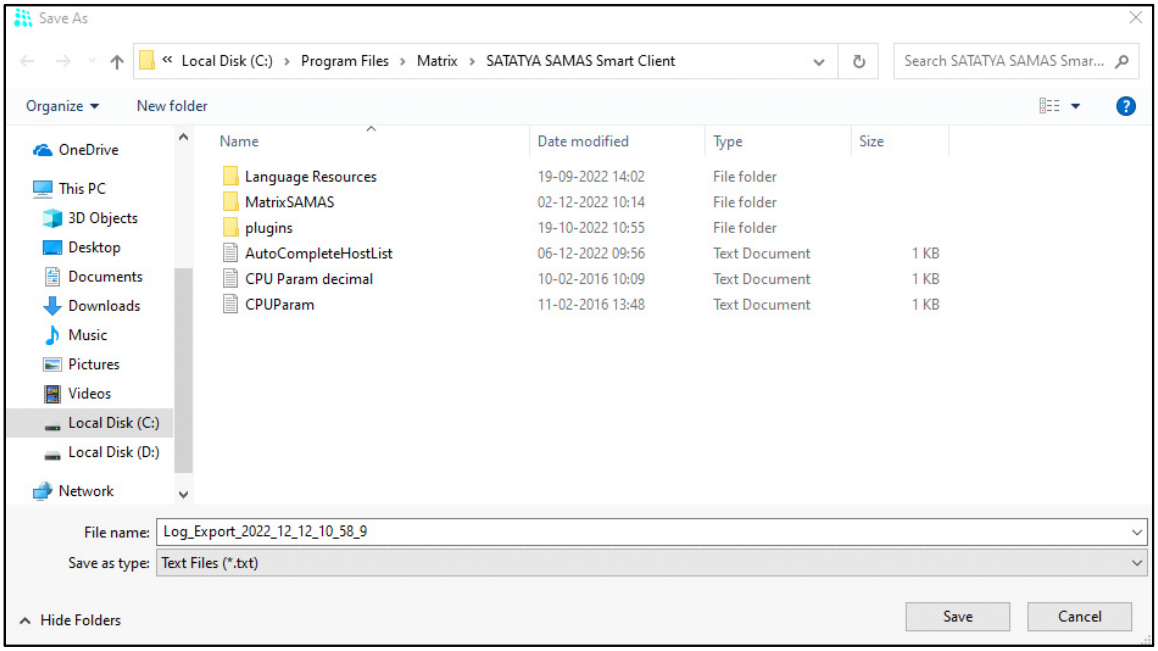
- Click **Details** corresponding to the desired Event log to view the details. The **Event Name- Details** pop-up appears.



  - The details of the entity linked with the Event appear as configured in the Admin Client.

You can also export the Event logs.

- Select the page that you wish to export from the **Page** drop-down list. Click **Export** .



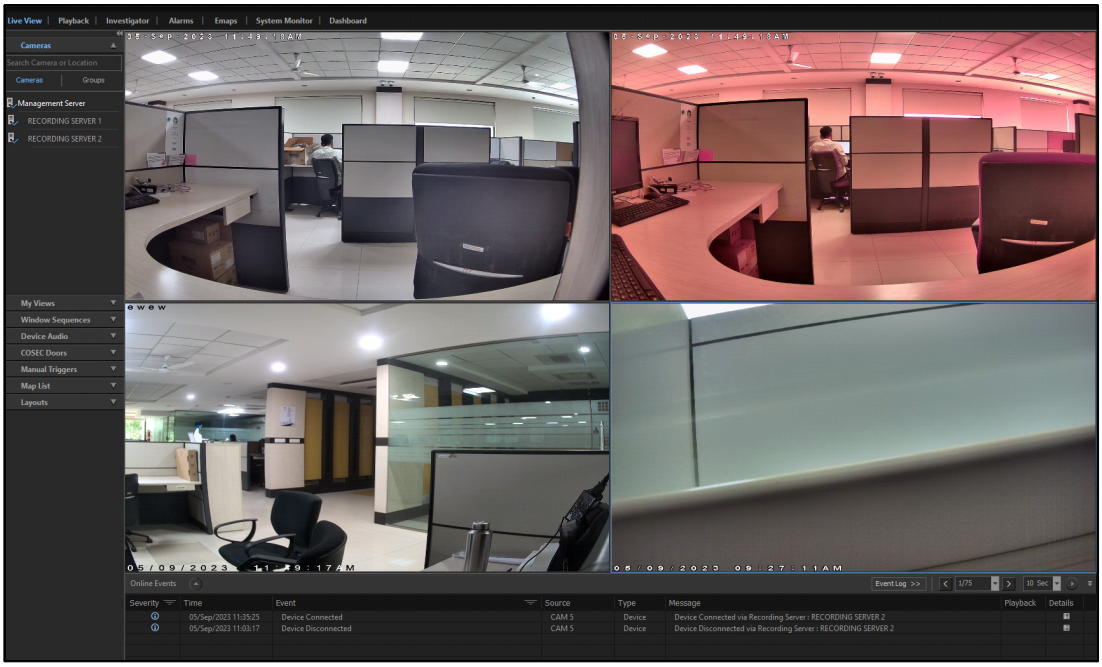
- Select the desired folder in your PC where you wish to save the Event log file and specify the file name.
- Click **Save** to save the file or click **Cancel** to discard.

Page Sequencing

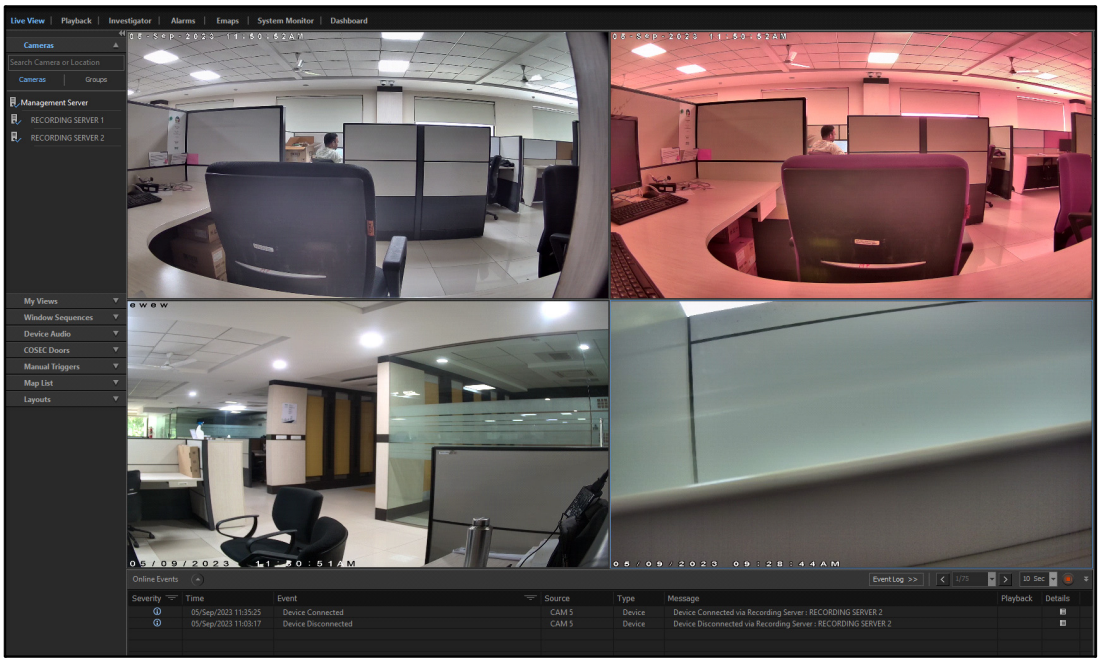
All the cameras that are assigned to the live view are distributed according to the selected layout. To view the cameras on different pages automatically, you can use **Page Sequencing**.

When you enable Page Sequencing and set the timer, the camera live views on each page will be displayed for the set time and then the page will navigate to the next automatically to display the camera live views on the next page.

- Select the desired time interval after which you wish the page to navigate to the next page from the drop-down list.
- Click **Start Page Sequencing** .



- The icon toggles to **Stop Page Sequencing** and blinks in red .



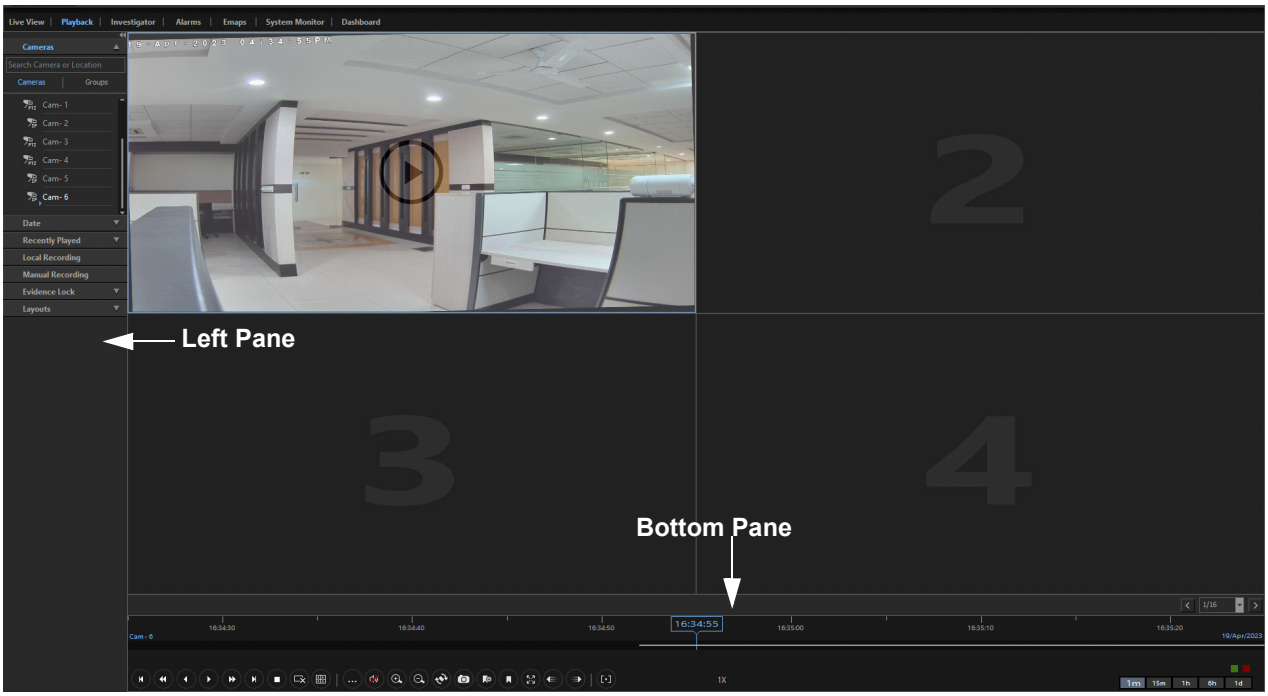
- Click **Stop Page Sequencing** to stop the automatic page navigation.

CHAPTER 6 Playback

The Playback feature enables you to view the recordings of cameras added to the system. This enables you to go back and search for any particular evidence. You can search for instances from Device recordings, Normal recordings, Day Highlights and so on. You can also lock sensitive evidence using Evidence Lock, view the Local and Manual recordings and perform certain actions using the playback controls.

To configure Playback,

- Click **Playback**.



The Playback tab is divided into the following sections:

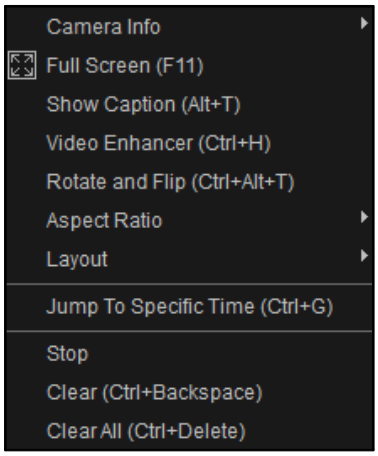
- Left Pane. For details, refer to “Left Pane Functionality”.
- Bottom Pane. For details, refer to “Bottom Pane Functionality-Playback Toolbar”.

Once a camera is assigned to the monitoring window, you can configure a few parameters on the right-clicking on the camera view. For more details, refer to “Playback: Right-click Options”.

Playback: Right-click Options

You can configure a few parameters by right-clicking on the monitoring window when the camera playback is running.

- Right-click over the desired camera playback to view and configure the following options.



- **Camera Info**: Hover the cursor on Camera Info to view the camera details. These details are displayed — Camera Name and the name of Recording Server and Failover Server with which the camera is connected.

- **Full Screen (F11)**: Click Full Screen to view the camera in full desktop view. You can also press F11 on the keyboard to go to the full screen. You can also select **Back to Normal Screen** from the right-click menu or press F11 to go back to the normal view. You can double click on the desired monitoring window to view it in full screen and double click again to return to the normal view.

- **Show Caption/Hide Caption (Alt +T):** Click Show Caption to display the Camera name and other details on the top of the monitoring window. These details are displayed — Camera Name, Playback Date, Time and Speed and Audio status. Click **Hide Caption** to hide these details from the window.

- **Rotate and Flip (Ctrl+Alt+T)**: Click Rotate and Flip to rotate the live view of the camera manually using mouse or through the controls on Right-clicking the window. For more details, refer to “Rotate and Flip”.

- **Aspect Ratio (Shift+A):** Click Aspect Ratio to resize the viewing area in the monitoring window depending on your monitor. For more details, refer to “Change Aspect Ratio”.

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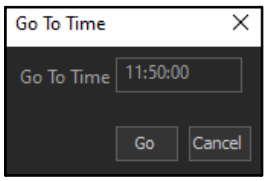
- **Layout:** Click Layout to set a particular layout of the monitoring window from the drop-down list.The Layout option provides different combinations and monitoring window sizes for the live view.

- **Jump To Specific Time (Ctrl+G)**: Click Jump to Specific Time to navigate the playback recording to the specific time on the Timeline. The **Go To Time** pop-up appears.



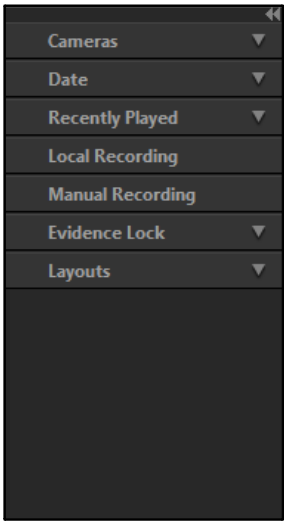
- Specify the desired time to which you wish to navigate the playback. Click **Go** to navigate to the specified time or click **Cancel** to discard.

- **Stop**: Click Stop to return back to the beginning of the playback timeline.
- **Clear (Ctrl+Backspace):** Click Clear to remove the selected camera from the live monitoring window.
- **Clear All Pages (Ctrl+Shift+Delete):** Click Clear All Pages to remove all the cameras from all the pages. You will be automatically re-directed to the first page.

Make sure the Windows Sequence is in Pack mode to clear all the pages. For details, refer to "Window Sequences: Pack and Unpack".

Left Pane Functionality

The left pane of the Playback page consists of the following collapsible panels — Cameras, Date, Recently Played, Local Recording, Manual Recording, Evidence Lock and Layouts.



Refer to the following links for the configuration details of different sections.

- “Cameras”
- “Date”
- “Recently Played”
- “Local Recording”
- “Manual Recording”
- “Evidence Lock”
- “Layouts”

Cameras

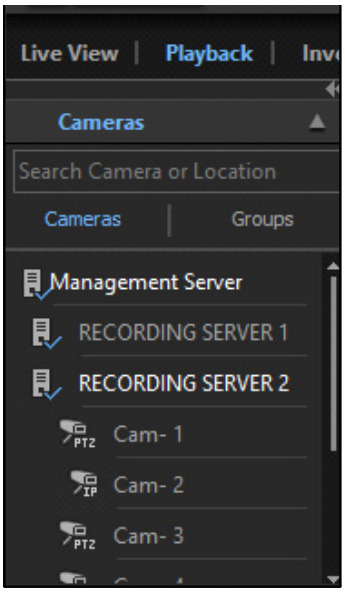
The Cameras section displays cameras and devices added to various Recording Servers and Component Groups. The cameras and devices are displayed in hierarchy of Management Server > Recording Server > Cameras. The cameras, sensors and alarms added to various Component Groups appear under the Groups tab. All the component groups configured in Admin Client appear here. For more details on Component Groups, refer to SATATYA SAMAS Admin Client Manual.

Component Groups that do not have cameras will not appear in Smart Client.The users can view the components of the Component Groups based on the Entity Rights of their User Group.Refer to the SATATYA SAMAS Admin Client Manual, General Settings > System Account > User Groups.

The Cameras section allows you to assign different cameras and/or Component Groups to the monitoring window. You can view the connection details of the Management Server and Recording Servers from this page. You can also perform various actions by right-clicking on the monitoring window. Playback functions and features can be used only when a camera is assigned to the monitoring window.

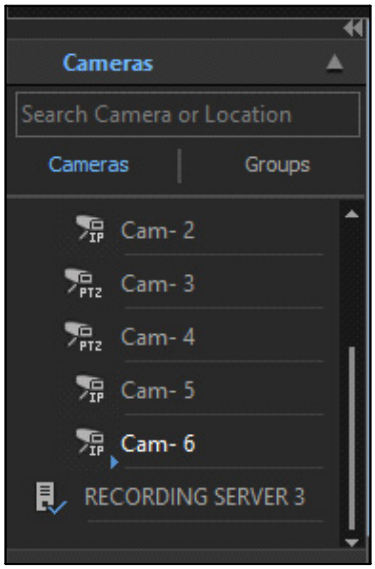
To view the camera playback,

- Click the **Cameras** collapsible panel.

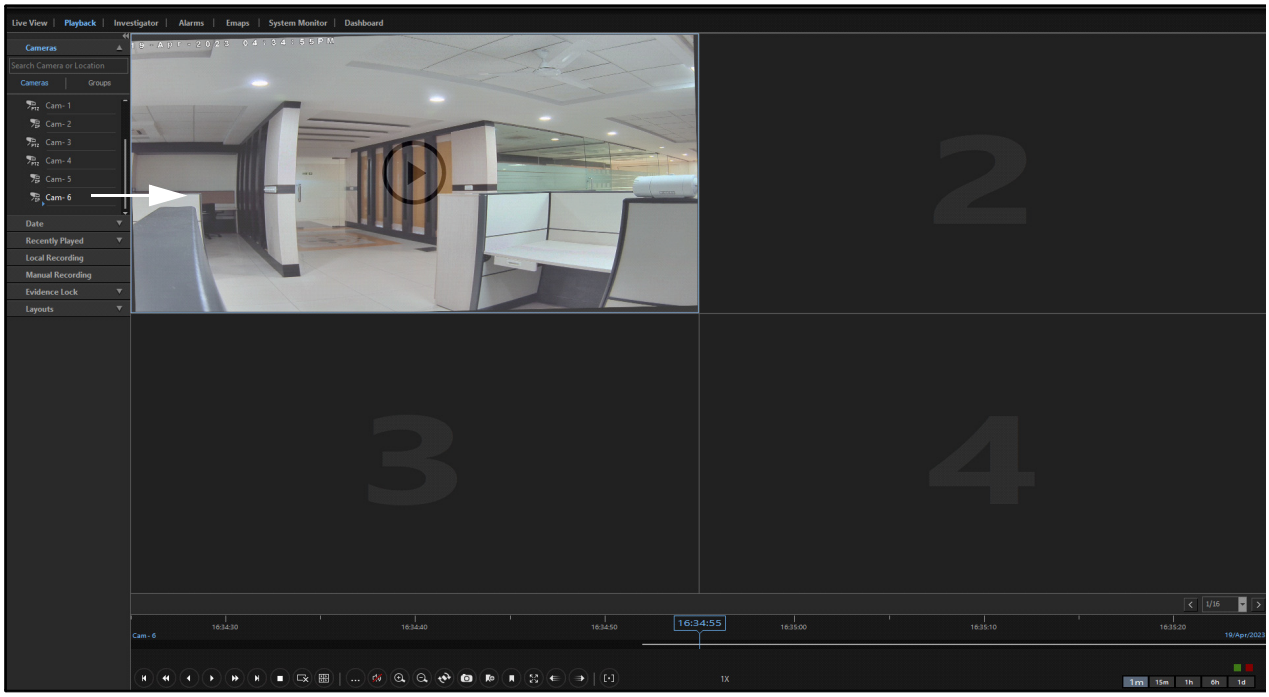


A hierarchal tree of all the cameras, devices and Recording Servers appear. All the component groups appear under the **Groups** tab. You can select cameras from under the **Cameras** tab or **Groups** tab. You can also select the entire Component Group and assign the same to the monitoring window.

- Click the desired Recording Server. The list of cameras and devices appear.



- Select the desired camera. The camera playback starts in the first monitoring window. The cameras are assigned in a clock-wise order.



The Playback Toolbar appears once a camera is assigned to the monitoring window. You can drag and drop the desired camera to the monitoring window to start its playback. You can also search for the desired camera using the **Search Camera or Location** search bar.

Similarly, you can also assign Component Groups to the monitoring window.

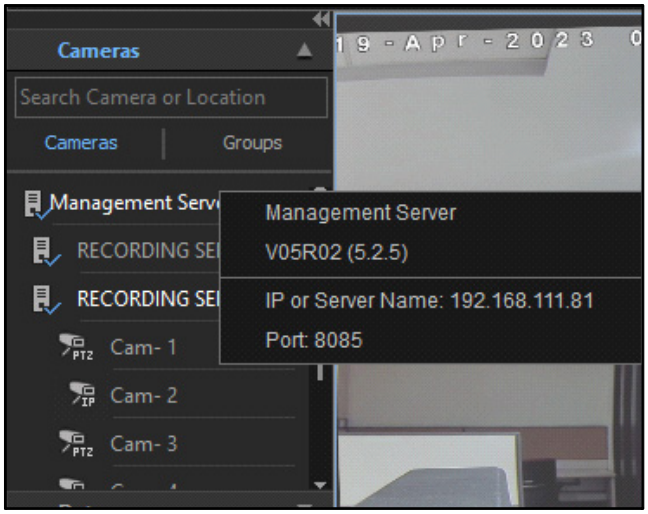
Component Groups when dropped on the playback then they appear in the same order as created in the Admin Client.To ensure smooth functioning of this feature, make sure the Smart Client and MS are upgraded to the latest and same version.

Camera Playback: Right-click Options

You can configure a few parameters by right-clicking on the components of the **Cameras** tab — Management Server and Recording Server.

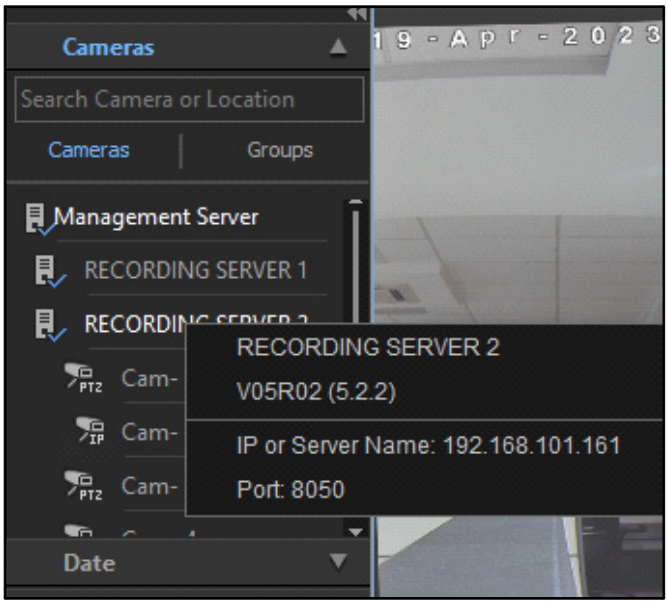
Management Server

- Right-click on the Management Server. The Server details displayed are — Management Server Name, Version, IP or Server Name and Port.



Recording Server

- Right-click on the desired Recording Server. The Server details displayed are — Recording Server Name, Version, IP or Server Name and Port.

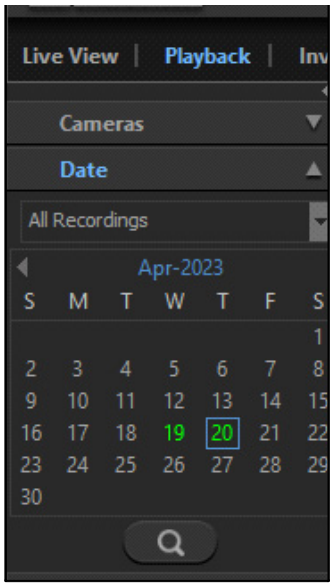


Date

The Date section allows you to view the camera recordings for the desired dates. You can search recordings from Archives, Backup Storage, Device Storage and Day Highlights. You can select the date, month and year for the selected source of recording. The days for which recordings are available are highlighted in green color.

To view the recordings by Date,

- Assign the desired camera for which you wish to view date wise recordings from the **Cameras** collapsible panel. Select the desired monitoring window and then select the desired camera.
- Click the **Date** collapsible panel.



- Select the required source of recording from the drop-down list — All Recordings, Normal Recordings, Device Recordings, Day Highlights, Backup Recordings, Archive Recordings, Day Highlights (Snapshots) and Push Video.

Playback will not be supported for FTP drives, if configured for backup.

The configurations for all the Recording sources is similar except **Day Highlights (Snapshots)**. For details, refer to “Day Highlights (Snapshots)”.

Configurations for all the Recording sources is as follows:

- **All Recordings**: If you select All Recording, data is searched from the storage configured for Recording Server, Failover Server and Device as well as from the Day Highlights.
- **Normal Recordings**: If you select Normal Recording, merged data is fetched from recording drives of Recording Server and Failover Server. However, the priority is given to Recording Server data. Recording Server data is displayed first and then missing data is searched in device storage and displayed on timeline as Merged Playback. If device is not present, only Recording Server recording is displayed.

- **Device Recordings**: If you select Device Recording, device storage data is displayed. No Recording Server data is displayed here. Data is played here from the individual camera storage (for Camera Playback) and SATATYA Devices Storage (for Device Playback).

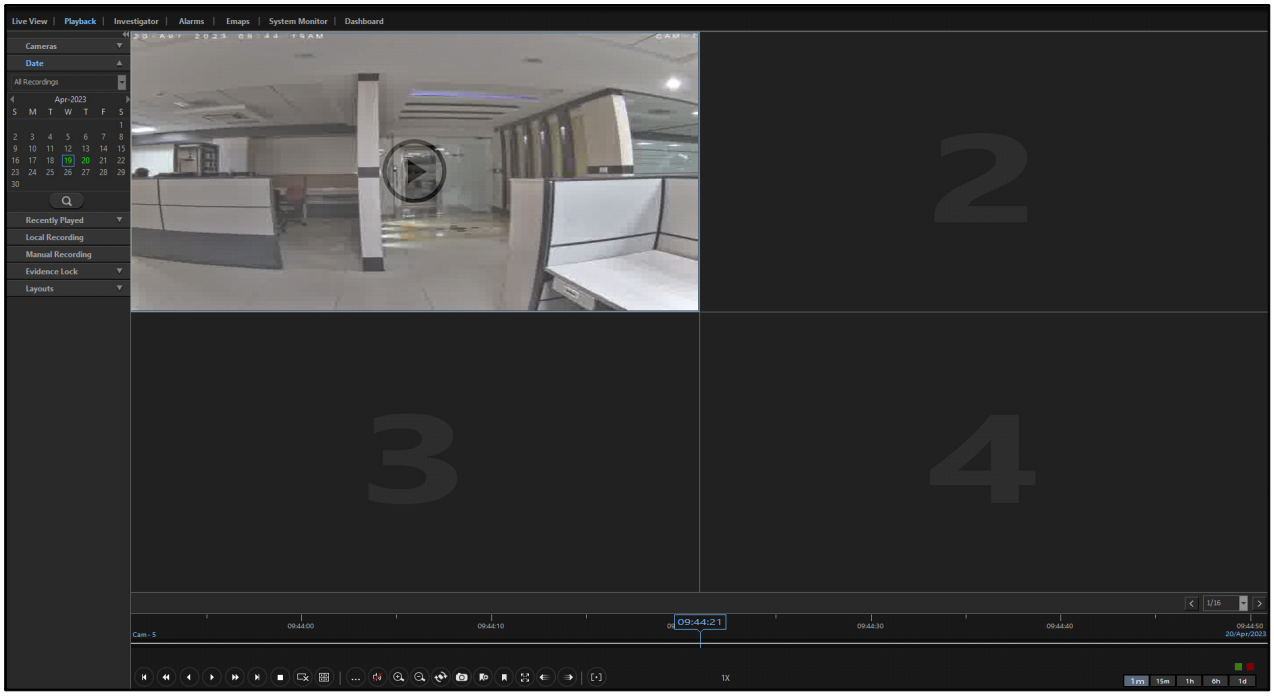
- **Day Highlights**: If you select Day Highlights, the data is displayed from the backup storage. The Day Highlight videos as configured in Admin Client are displayed here. Even if Recording Mode is off, Day Highlights (Native) if configured can be played in the Smart Client.

- **Backup Recordings**: If you select Backup Recording, merged data is fetched from backup drives of the Recording Server and Failover Server.

- **Archive Recording:** If you select Archive Recording, merged data is fetched from Archive 1 and Archive 2 storage of Recording Server and Failover Server.

- **Push Vide**o: If you select Push Video, the recordings pushed from Mobile Client to the Recording Server are fetched from the Recording Drives. The Playback recording will be displayed with a yellow timeline to distinguish the Pushed Video from other recording.

- Select the desired Month and Year from the calendar. The dates for which data is available for the selected recording source are displayed in green color. Select the desired date.

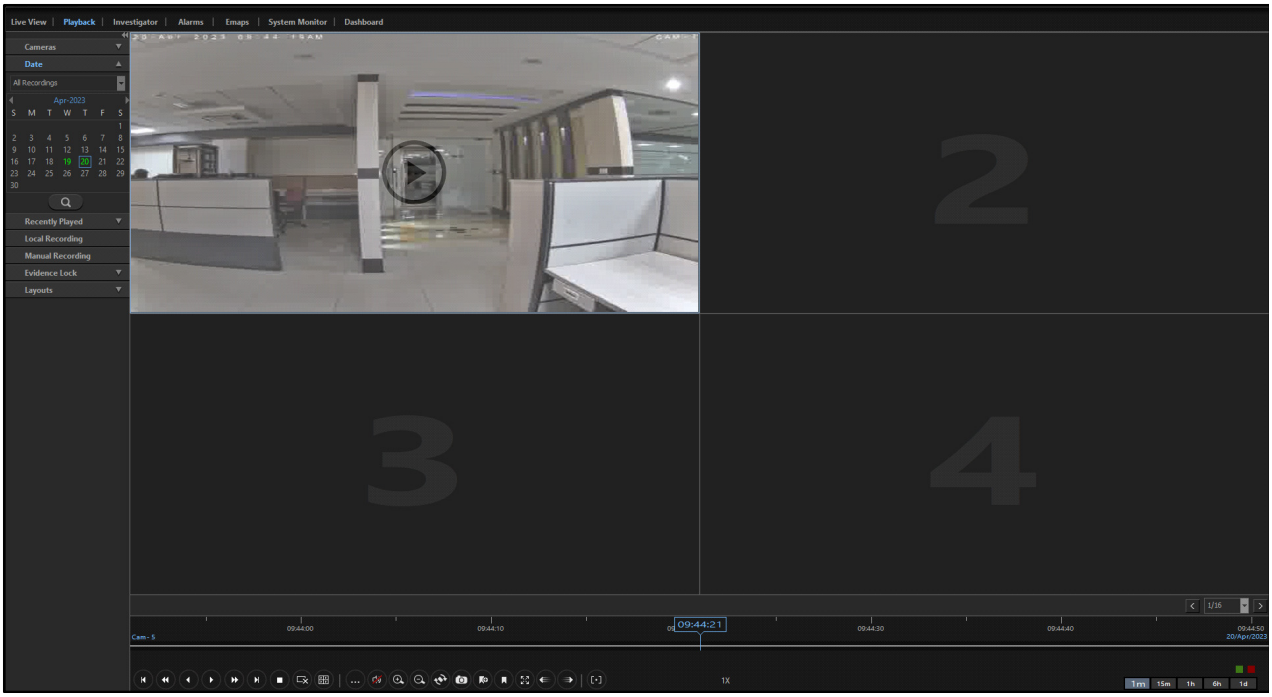


- Click **Search** .

The playback recording for the selected date appears in the monitoring window.

By default the playback will start in Asynchronous Mode.

In Asynchronous Mode, all playback windows act independently and irrespective of the state of any other playback window.

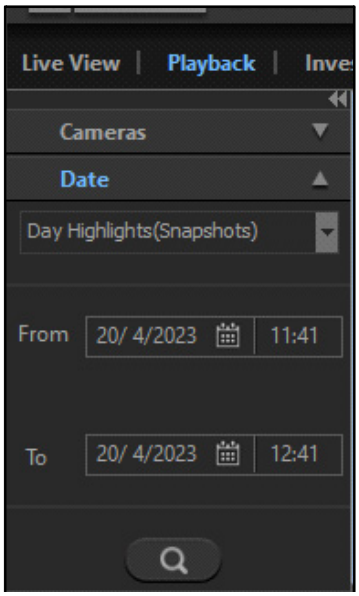


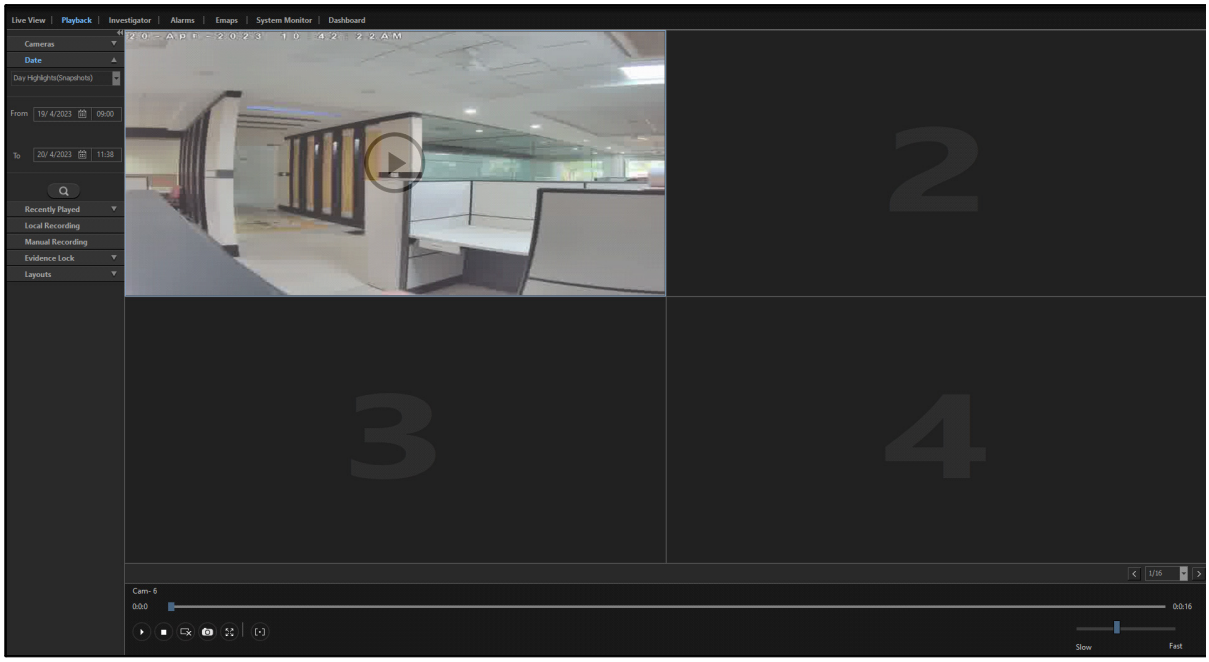
- Click **Play** on the Monitoring Window to start the playback.
- You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

Day Highlights (Snapshots)

Day Highlights (Snapshots) is a feature which enables you to view different snapshots one by one like a video. All snapshots are played as a **Time Lapse** video according to the configurations done in the Admin Client.

- Makes sure you have selected the desired camera for which you view the Day Highlights.
- Select the Recording source as **Day Highlights (Snapshots)** from the drop-down list.



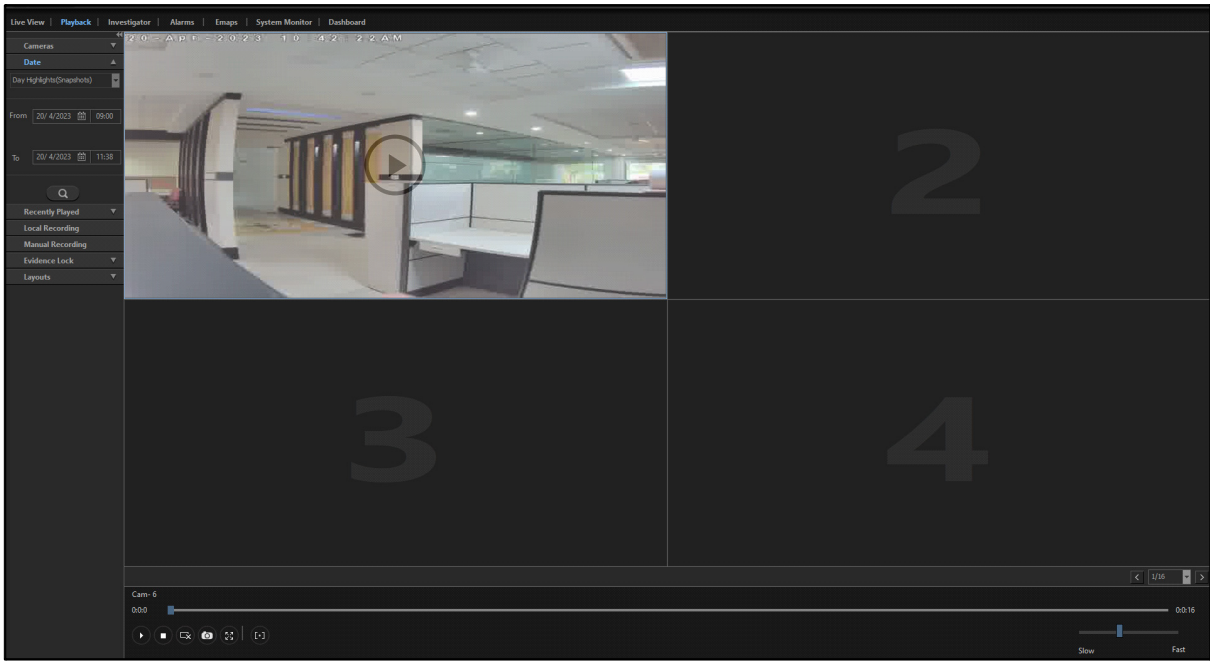


Configure the following parameters.

- **From**: Select the date from which you wish to view the Day Highlights from the calendar and specify the time.
- **To**: Select the date till which you wish to view the Day Highlights from the calendar and specify the time.

- Click **Search** .

The Day Highlights for the selected date appears in the monitoring window.



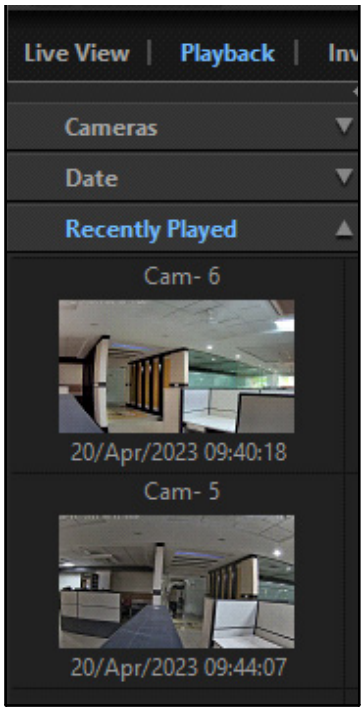
- Click **Play** on the Monitoring Window to start the playback. The Day Highlights (Snapshots) are played as a Time Lapse video.
- Set the video speed to Slow or Fast by dragging the slider to the left or right.
- You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

Recently Played

The Recently Played section allows you to view the recently played camera recordings. You can locate the last playback recording that you viewed easily from this page. This is useful when you have viewed quite a few recordings and you need to view the one played just minutes ago.

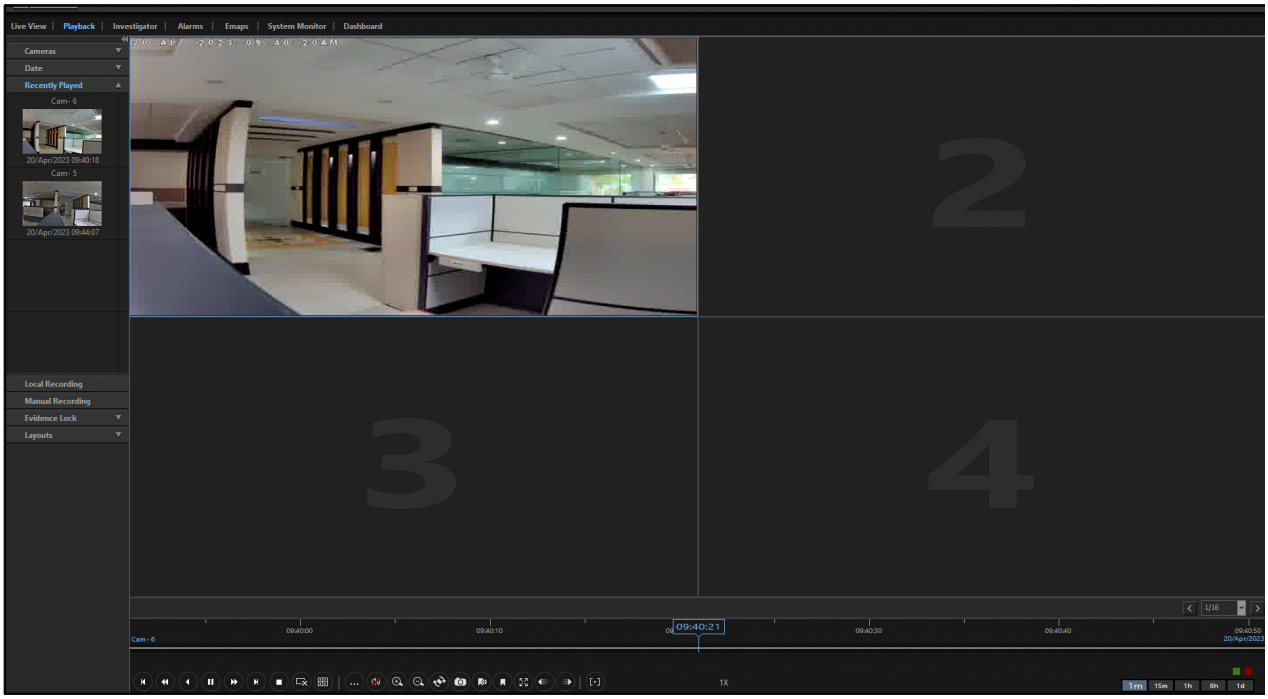
To view the recently played recordings,

- Click the **Recently Played** collapsible panel.



- All the recently played recordings appear under this section. The date and time when the recording was done is displayed along with the camera name. Maximum 50 clips appear in this list. The most recently played clip appears on the top and then the rest appear in the ascending order.

- Double-click the desired recording which you wish to play from the list.



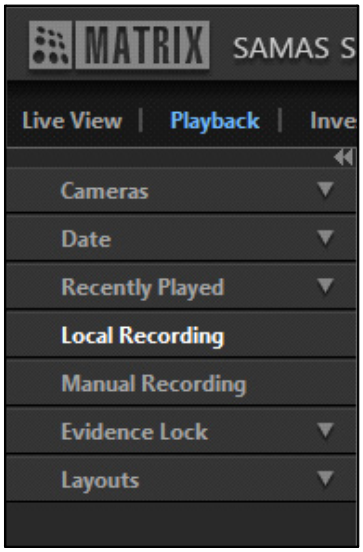
- You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

Local Recording

The Local Recording section allows you to view the recordings stored in the local PC. This is useful when the Recording Server is off and you need to view the camera recordings. These recordings are stored when **Local Recording** is turned On for the particular camera from Live View. For details, refer to “Local Recording On/Off”.

To view the Local recordings,

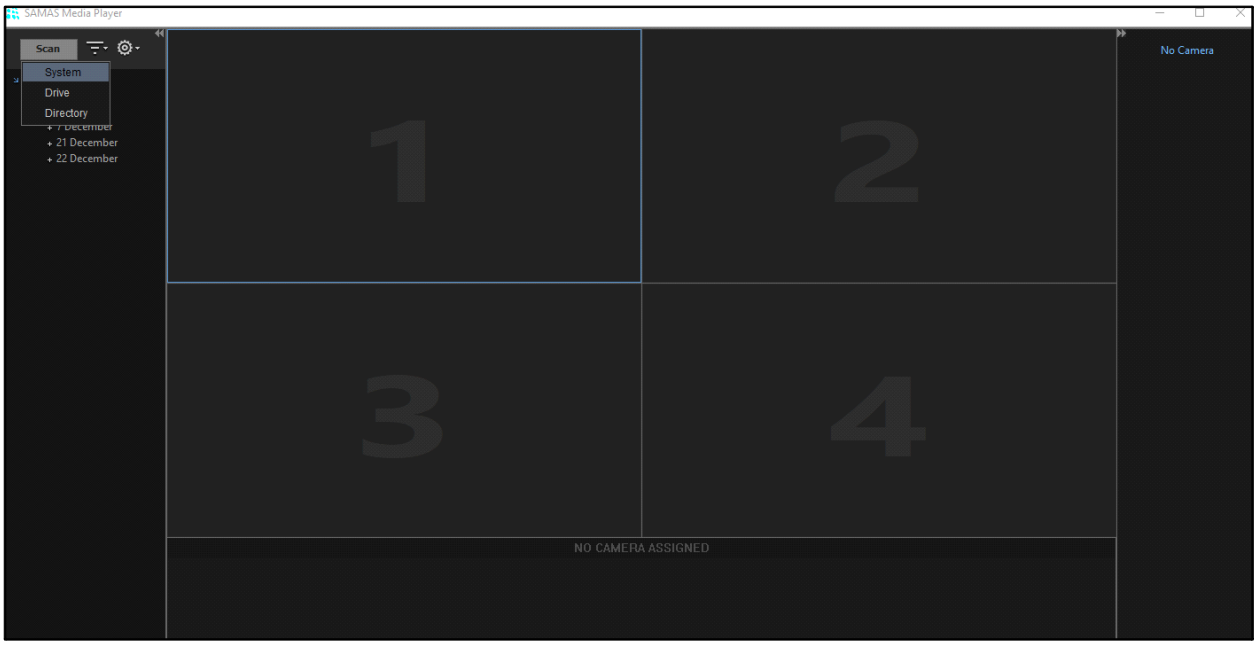
- Click **Local Recording**.



- The **SAMAS Media Player** pop-up opens automatically.

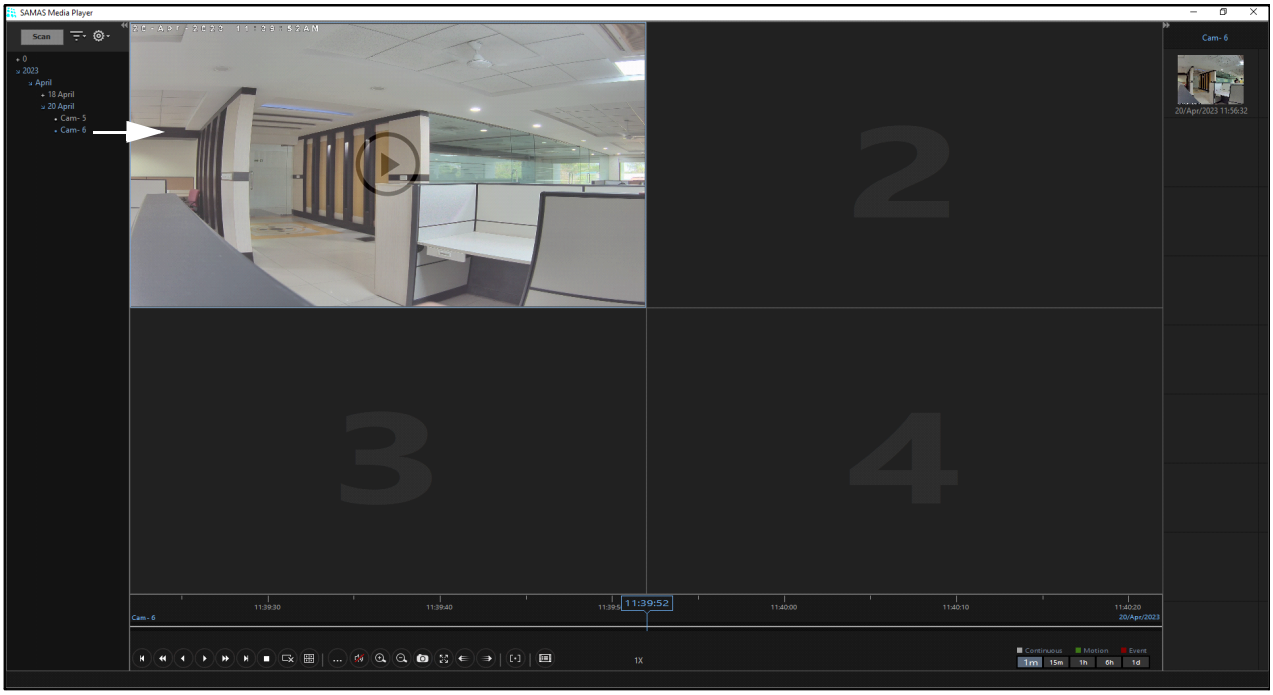
- All the recordings for the cameras for which local recording has been done appear in a list. These recordings are stored in the local PC.

- To view the recordings of the cameras for which Local Recording is turned On after the Media Player has initially fetched the recordings, you need to scan the system manually. Click **Scan**. The following options appear — System, Drive and Network.



- Select **System** to scan the entire local PC. The Media Player will fetch the new recordings. To know more about other Scan options, refer to SATATYA SAMAS Media Player Manual.

- Click on the Year to view the months for which recordings are available. Click on the desired Month to view the dates for which recordings are available. Click on the desired Date to view the cameras for which recordings are available. Click on the desired Camera to view its local recording.



- Click Play on the monitoring window to start the playback. The camera thumbnails appear in the right panel. The camera name and the date and time of the thumbnails is displayed.

- You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

Manual Recording

The Manual Recording section allows you to view the manual recordings of the cameras. The Manual Recording feature allows you to record clips from the live view of a camera. This is useful when you want to capture a particular live incident. These recordings are captured when **Manual Recording** is turned On for the particular camera from the Live View. For details, refer to “Start/Stop Manual Recording”.

*Make Sure the **Enable Manual Recording** check box is enabled in Admin Client from **Servers & Devices > Recording Server > Camera > Recording Tab** to enable Manual Recording for that particular camera.*

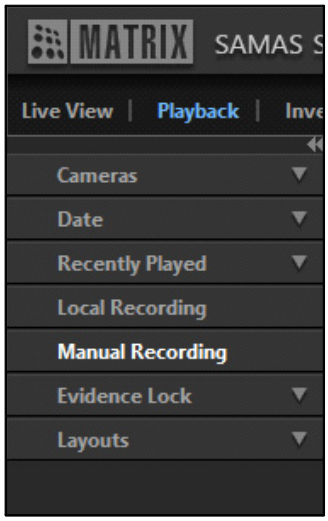
*If the **Maximum Manual Recording Duration** time is specified in Admin Client from **Servers & Devices > Recording Server > Camera > Recording Tab**, the Manual Recording will automatically stop on the expiry of this timer.*

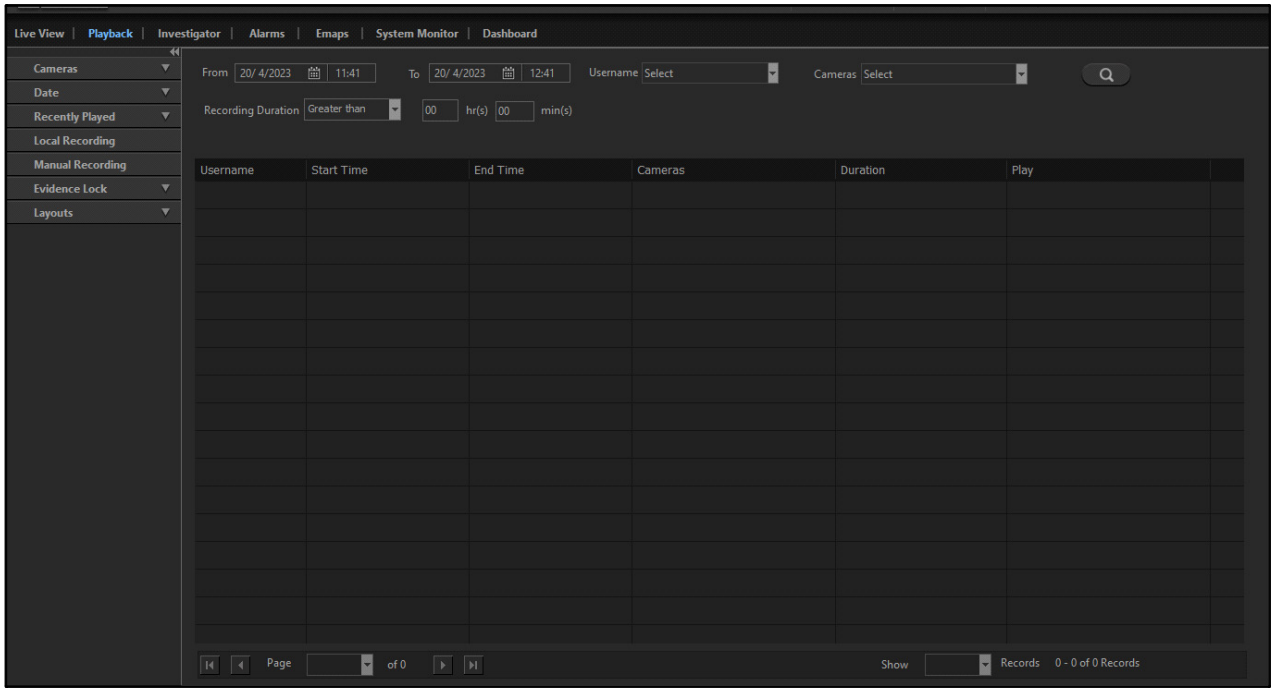
If Continuous or Event recording (in Admin Client) is On for a particular camera and Manual Recording is turned On, Manual Recording will be given priority.

When Manual Recording is ON for a camera and if that camera gets deleted/disabled, then the recording entry will not be found. However, if the camera is again added later with the same name as earlier, then recording entry will be found.

To view the Manual recordings,

- Click **Manual Recording**.



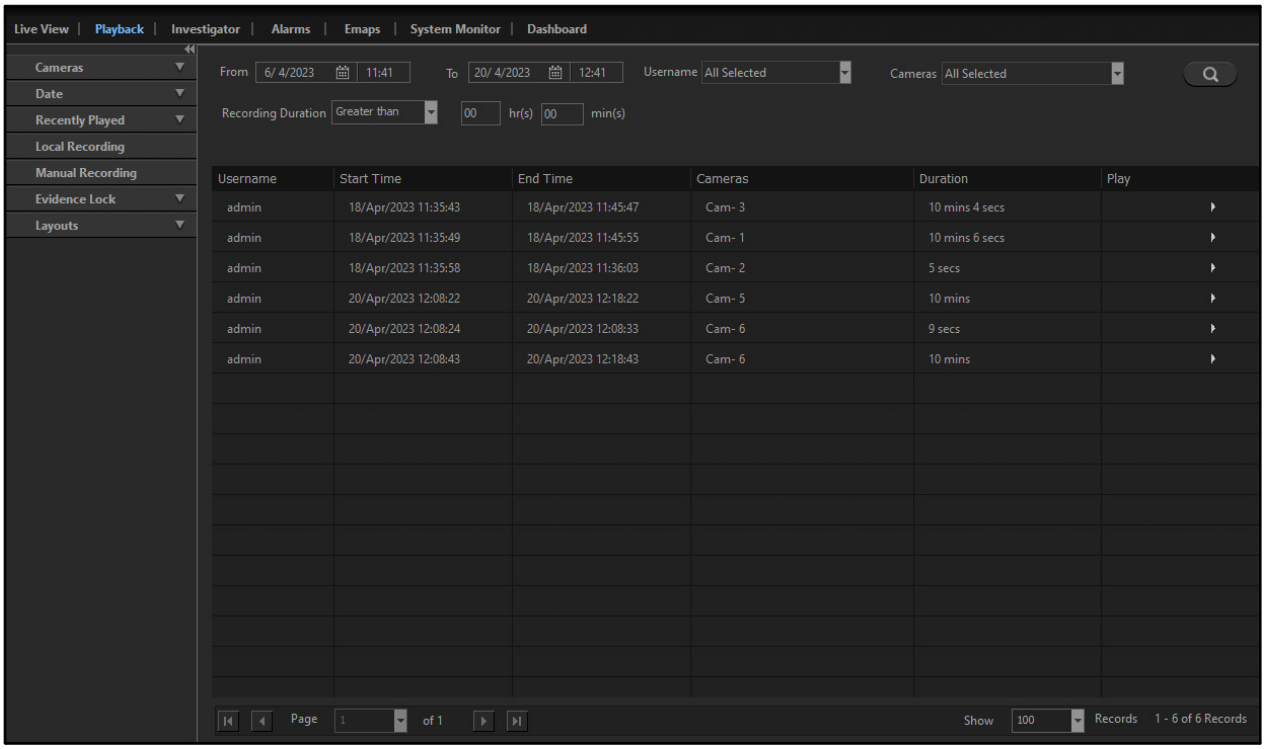


Configure the following parameters:

- **From**: Select the date from which you wish to view the manual recordings from the calendar and specify the time.
- **To**: Select the date till which you wish to view the manual recordings from the calendar and specify the time.
- **Username**: If you wish to view the manual recordings created by selected users, select the check boxes of the desired users from the drop-down list. If you wish to view the manual recordings created by all the users, select **Any**. **Any** option will also include deleted/removed/disabled users.
- **Cameras**: Select the check boxes for the cameras for which you wish to view the manual recordings from the drop-down list. Select **All** if you wish to view the manual recordings for all the cameras.
- **Recording Duration**: Select the duration of the manual recordings from the drop-down list options — Greater than, Less than or Equal to and specify the time.

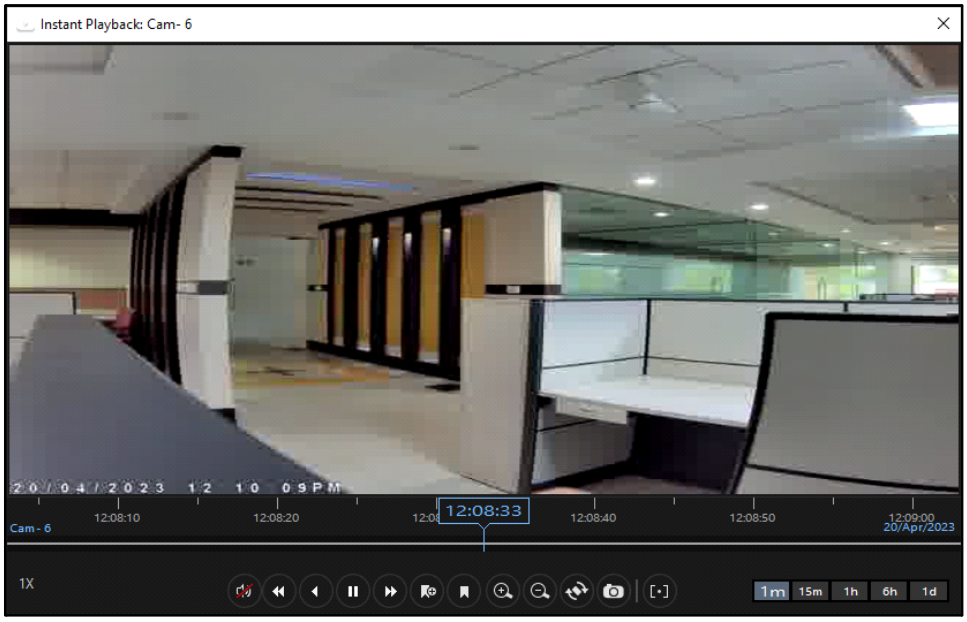
- Click **Search** . The manual recordings for the selected date appear in a list.

The Manual Recordings will be searched from the Local or Network Drive of the Recording Server.



The details displayed are — Username, Start Time, End Time, Cameras, Duration and Play.

- Click **Play** corresponding to the desired camera to play its recording. The **Instant Playback** pop-up for that camera appears.



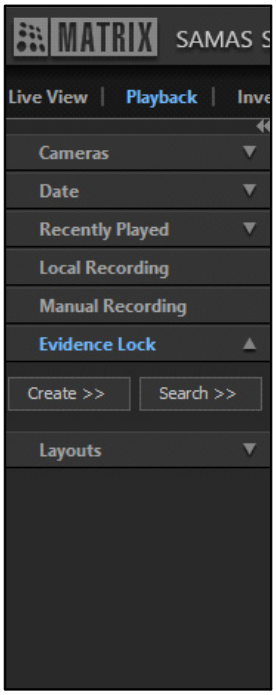
- You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

Evidence Lock

The Evidence Lock section allows you to create and search for Evidence Locks. There are specific video recordings that are necessary to be stored and saved beyond the normal retention time. Such video recordings are helpful during investigations. Evidence Lock allows you to create locks in such a manner that the data which is locked is not deleted even after the expiry of the retention time. The data can be locked for limited or unlimited time. Locks which are created for a limited time period are unlocked and the data is deleted automatically. Locks which never expire are never deleted and the data remains secure.

To configure the Evidence Lock,

- Click the **Evidence Lock** collapsible panel.



The Evidence Lock section contains two options — **Create >>** and **Search >>**.

Create >>

The Create >> option allows you to create Evidence Locks. All the Evidence Locks created are stored in the Backup storage drive as configured in the Admin Client.

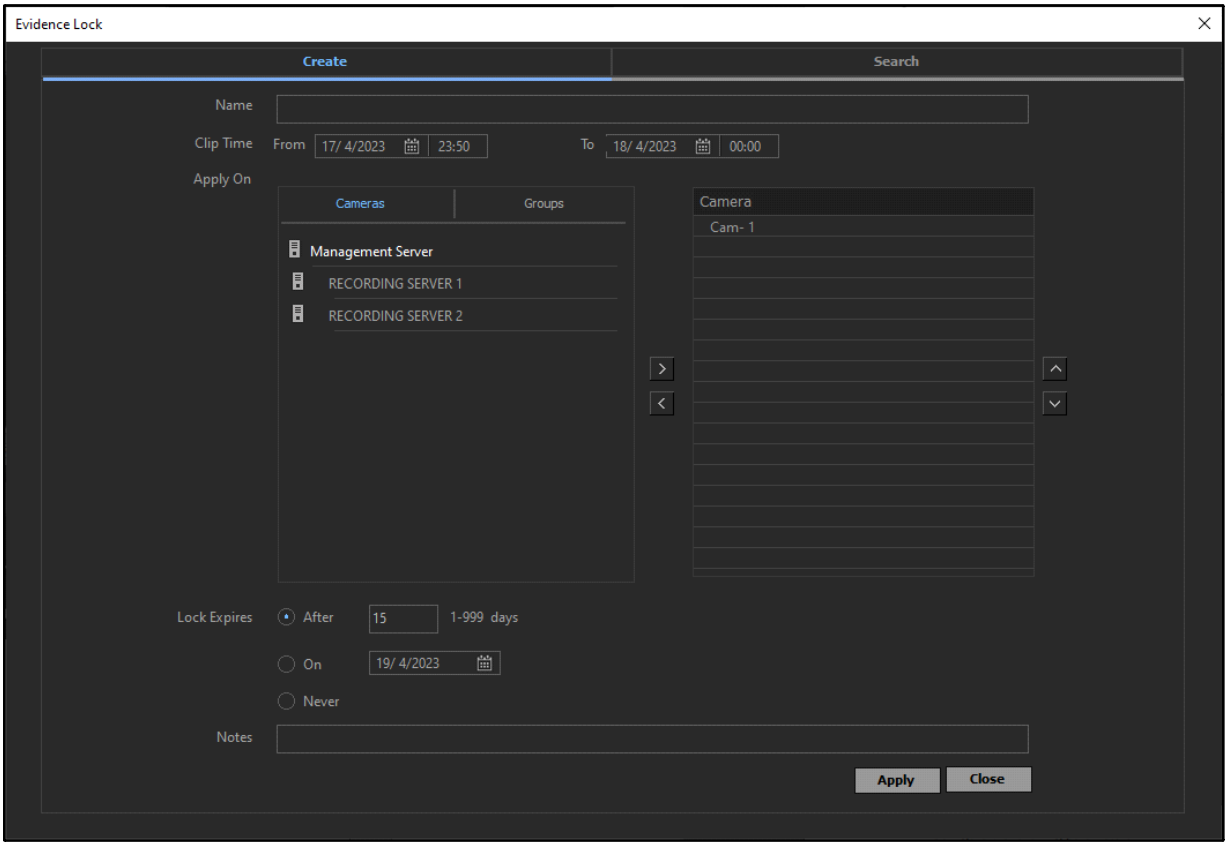
Evidence Lock for maximum four cameras can be created in Synchronous mode at a time.

The User with the User Rights for Evidence Lock can only Lock/Unlock the Video Recording files. If User has only Create/Delete Rights then he/she can Create or Delete the Evidence Lock.

For Search and Playback of Evidence Record, make sure the user also has Modify Rights.

To create an Evidence Lock,

- Click **Create >>**. The **Evidence Lock** pop-up appears.



Configure the following parameters:

- **Name**: Specify a user-friendly name for the Evidence Lock. Multiple Evidence Locks can be created using the same Evidence Lock Name as the Evidence Lock ID assigned against each will be unique throughout the system.
- **Clip Time- From**: Select the date from which you wish to lock the video clip from the calendar and specify the time.
- **Clip Time- To**: Select the date till which you wish to lock the video clip from the calendar and specify the time.
- **Apply On**: The list of cameras added to various configured Recording Servers appears under the **Cameras** tab. The cameras added to different groups appear under the **Groups** tab. Select the desired Recording Server to view a list of the added cameras. Select the cameras you wish to add from the Cameras or Groups tabs. Click the **Right Arrow** button to add these cameras in the **Camera** list.

  To remove cameras, select the desired cameras you wish to remove from the Camera list. Click the **Left Arrow** button to remove the cameras from the Camera list.

  You can change the sequence of the cameras in the Camera list by selecting the camera and then clicking the **Up Arrow** or **Down Arrow** button.

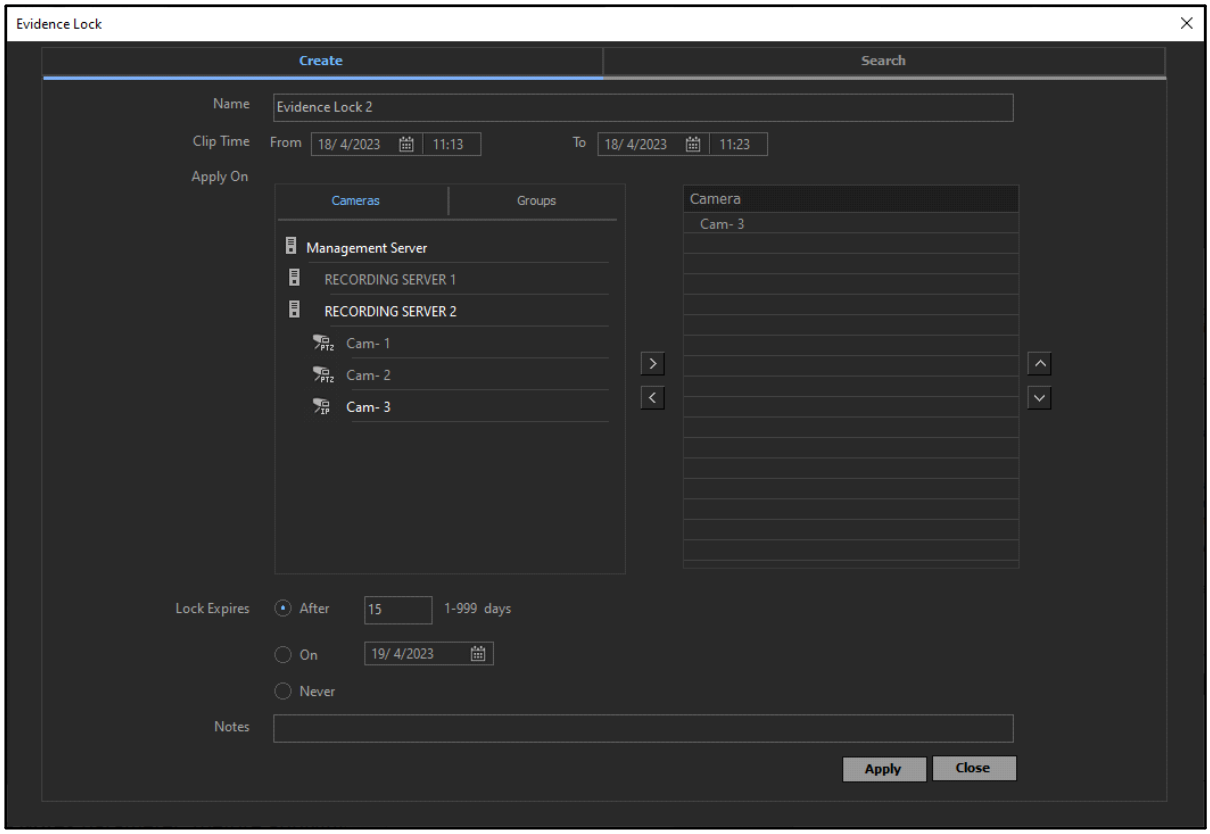
- **Lock Expires**: Select the desired duration after which the Evidence Lock should expire from the options — After, On or Never.

  If you select **After**, specify the number of days after which the lock should expire.

  If you select **On**, select the desired date from the calendar.

  If you select **Never**, the lock will never expire.

- **Notes**: Specify the desired notes related to the Evidence Lock.



- Click **Apply** to save the Evidence Lock or click **Close** to discard.

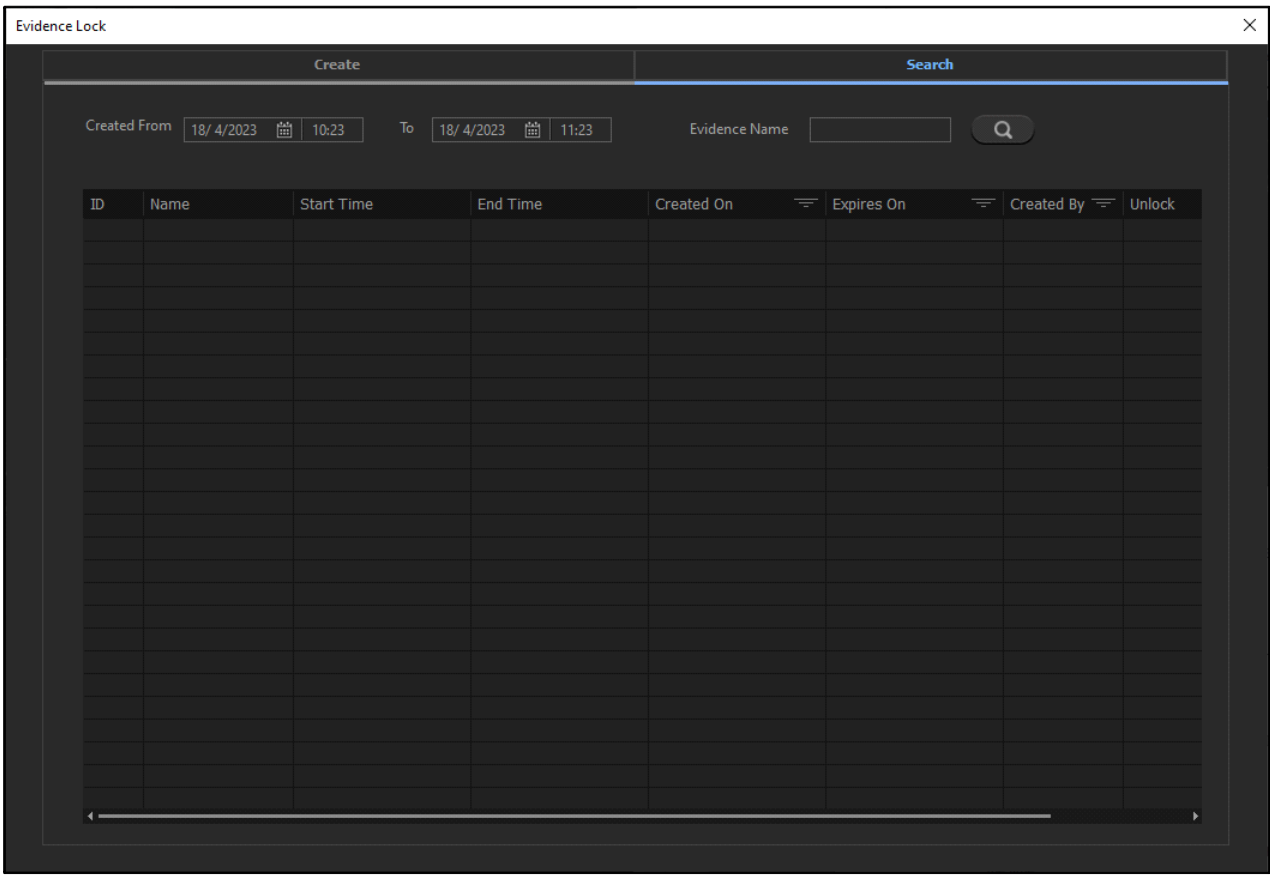
The Evidence Lock Expire set from Admin Client defines the time period until which it will be retained in the Primary Backup/Archive 1/ Archive 2 whereas the Evidence Lock Expire set from Smart Client defines the time after which the Evidence unlocks.

Search >>

The Search >> option allows you to search for the Evidence Locks. All the Evidence Locks created are stored in the Backup storage drive till the duration configured from the Admin Client.

To search an Evidence Lock,

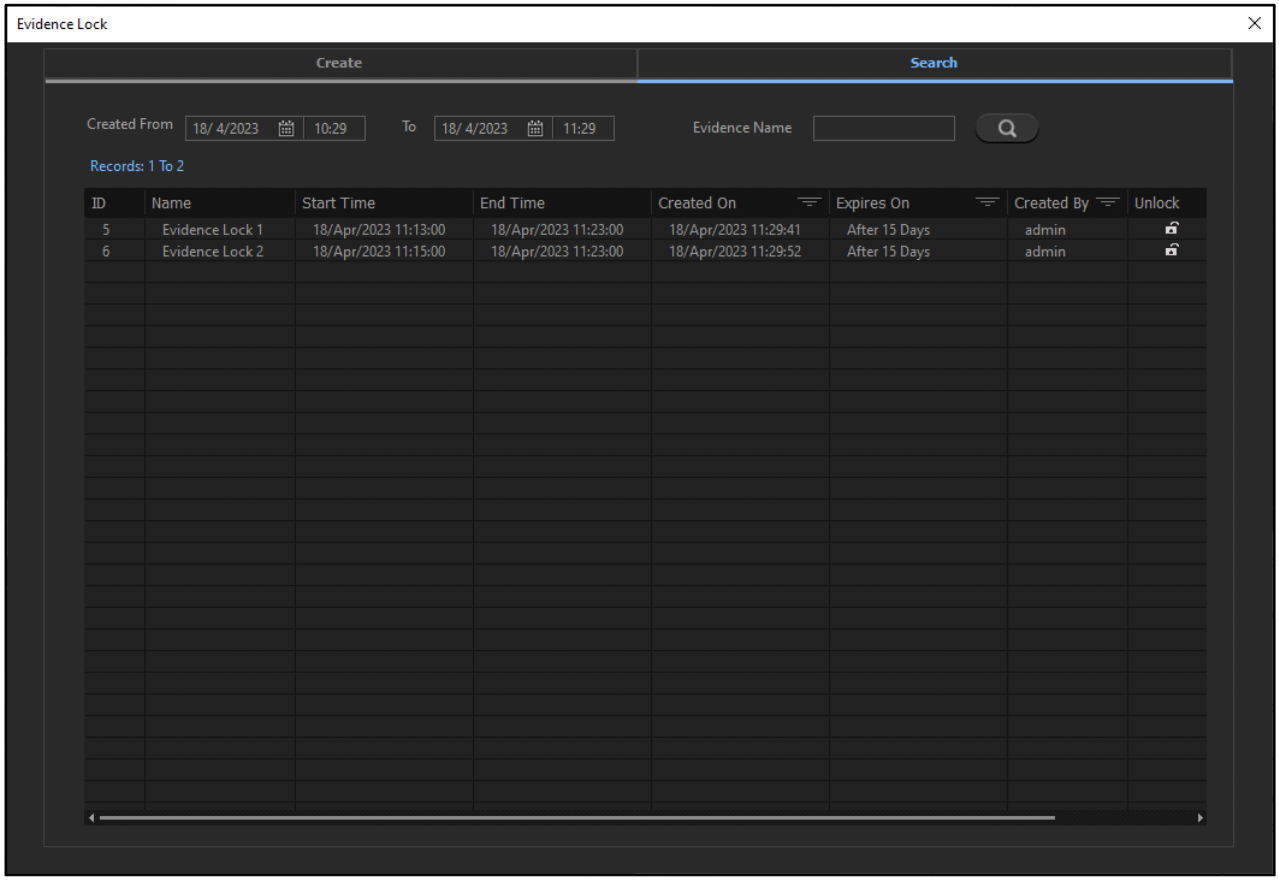
- Click **Search >>**. The **Evidence Lock** pop-up appears.



Configure the following parameters:

- **Created From**: Select the creation date of the Evidence Locks from which you wish to search from the calendar and specify the time.
- **To**: Specify the date till which you wish to search for the Evidence Lock from the calendar and specify the time.
- **Evidence Name**: Specify the name of the Evidence Lock which you wish to search.

- Click **Search** . The list of all the Evidence Locks for the configured duration appear in a list.



The details displayed are — ID, Name, Start Time, End Time, Created On, Expires On, Created By and Unlock.

You can filter the records by the desired parameter — Created On, Expires On and Created By. To do so,

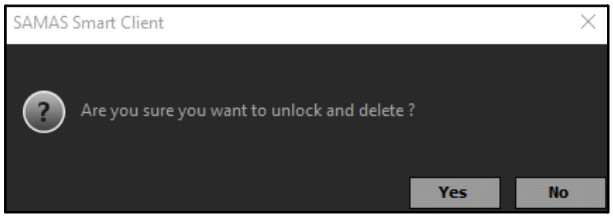
- Click **Filter** of the respective parameter in the header row.

  Select the check box of the desired options and click outside the filter pop-up. The records appear as per the set filters.

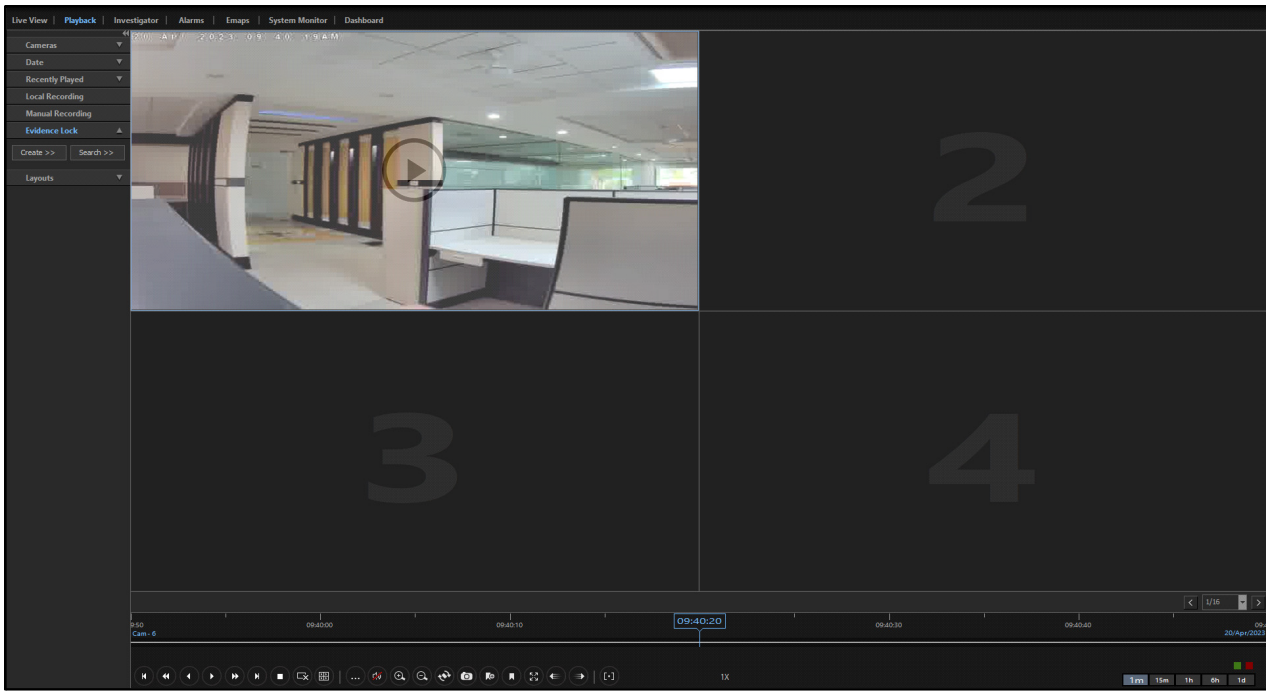
  To clear the filter, click **Filter** and then click **CLEAR FILTER**.

You can perform the following actions — Unlock, Play and Records.

- Click **Unlock** corresponding to the Evidence Lock to unlock it. The following pop-up appears.

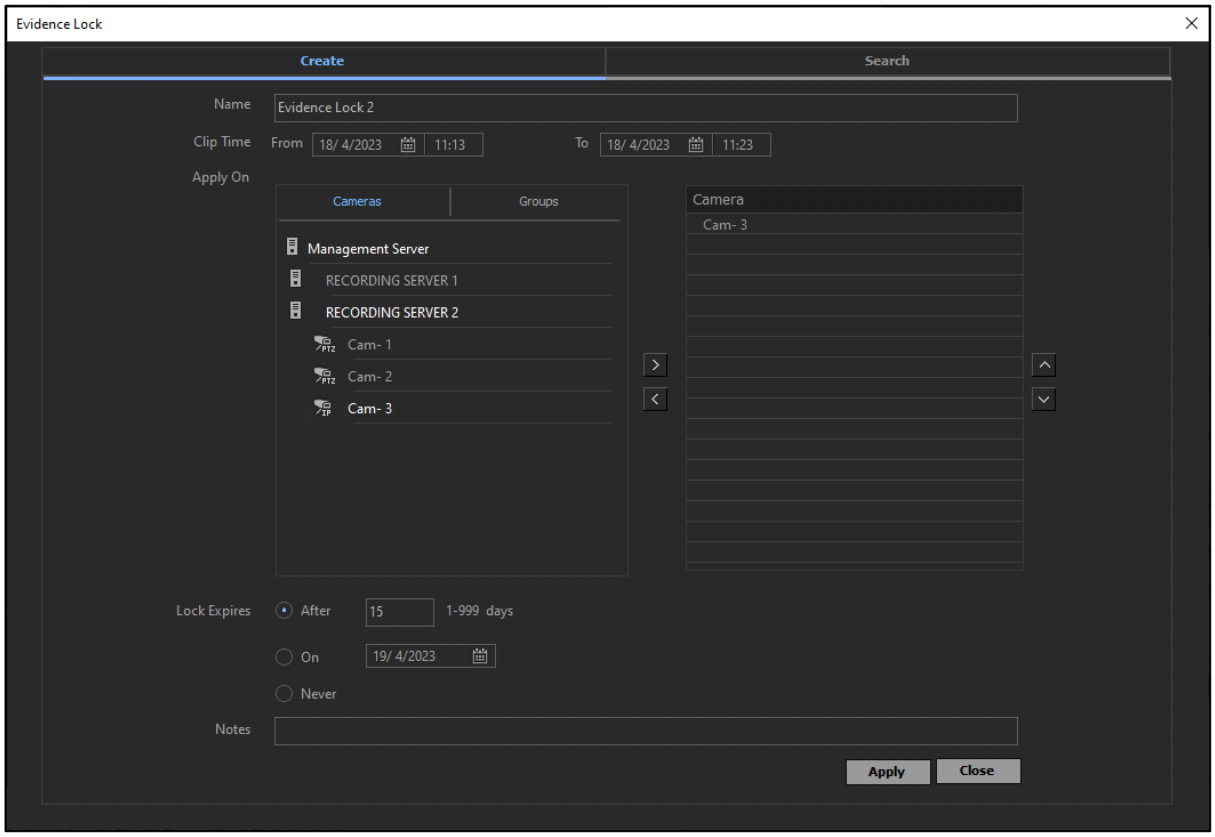


  - Click **Yes** to unlock the Evidence and delete it or click **No** to discard.
- Click **Play** corresponding to the desired Evidence Lock to view the playback recording.



- The Playback begins in the monitoring windows. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

- Click **Records** corresponding to the desired Evidence Lock to view the details. The **Evidence Lock** pop-up appears.



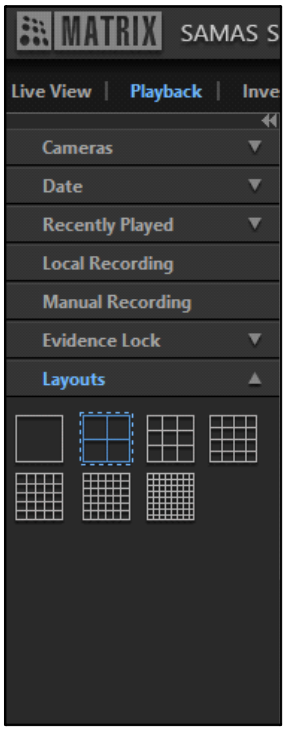
- All the details of the Evidence Lock that were configured while creating it appear here.

Layouts

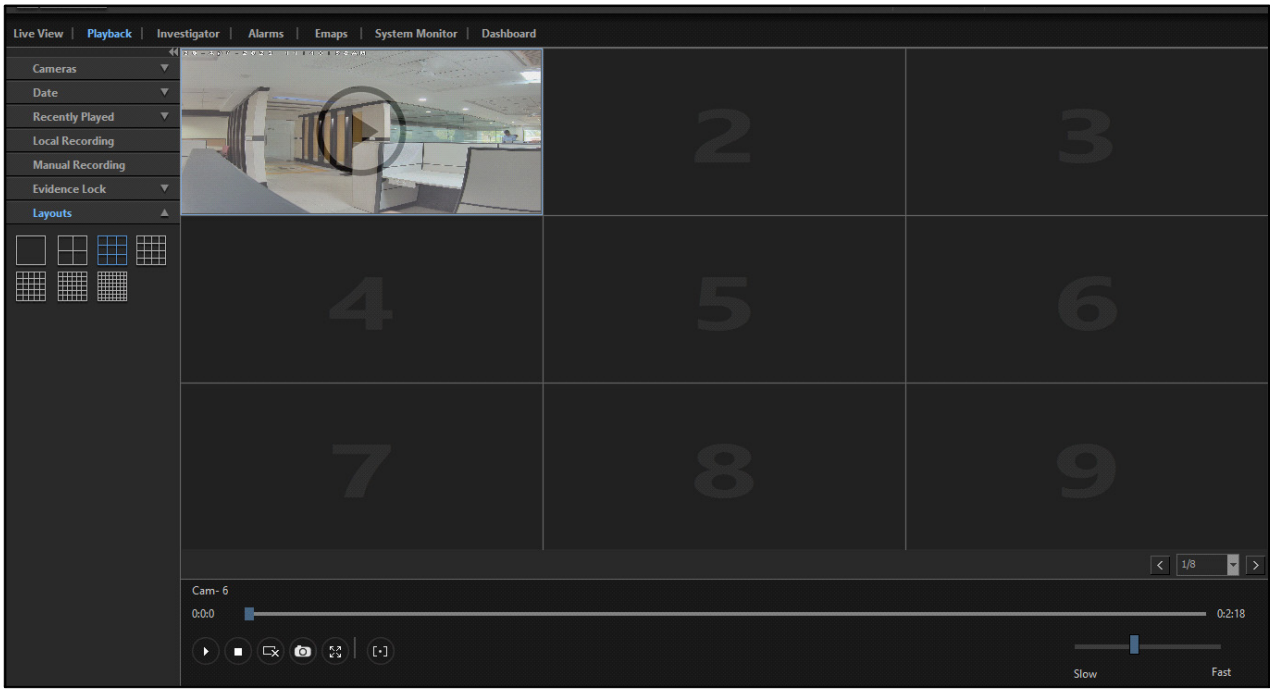
The Layouts section allows you to view the playback recordings of individual cameras and/or Component Groups in different combinations of monitoring windows.

To view the Layouts,

- Click the **Layouts** collapsible panel.



- All the Layouts appear in a list. SAMAS supports 7 pre-defined Layouts. By default 2x2 layout is selected. You can select the desired Layout, for example 3x3.



- All the individual cameras and/or Component Groups assigned to the monitoring windows get re-distributed according to the selected layout. If the number of entities assigned to monitoring windows is more than the number of windows the layout supports, the entities are displayed on the next page.

Bottom Pane Functionality-Playback Toolbar

The Playback Toolbar allows you to perform several functions on the playback videos of cameras on the different monitoring windows.

For IP cameras, the timeline appears in white color whereas for Push Video (from SATATYA VISION), the timeline appears in yellow color.

The Playback Toolbar is divided into these sections — "Default View Functions", "Collapse/ Expand Functions" and "Show Time Selection".

Default View Functions

- **Previous Frame**: Click **Previous Frame** to view the frame previous to the current one of the playback on the selected monitoring window. This is applicable when you have clicked **Pause**.
- **Speed Down**: Click **Speed Down** to decrease the speed of playback of the selected monitoring window. You can decrease the speed by half on each click, that is, first click to 1/2x and second click to 1/4x.
- **Play Reverse/Pause**: Click **Play Reverse** to play the playback of the selected monitoring window in the reverse direction at -1x speed.

  The **Play Reverse** button toggles to **Pause**. Click **Pause** to pause.
- **Play Forward/ Pause**: Click **Play Forward** to play the playback of the selected monitoring window in forward direction at 1x speed.

  The **Play Forward** button toggles to **Pause**. Click **Pause** to pause.
- **Speed Up**: Click **Speed Up** to increase the speed of the playback of the selected monitoring window.You can double the speed on each click, that is, first click to 2x, second click to 4x and so on.
- **Next Frame**: Click **Next Frame** to view the next frame of the playback on the selected monitoring window. This is applicable when you have clicked **Pause**.
- **Stop**: Click **Stop** to stop the ongoing playback of the selected monitoring window. You can drag the seek bar to navigate to the desired time on the timeline.
- **Clear**: Click **Clear** stop the playback and remove all the cameras from the monitoring windows.
- **Switch to Synchronous Mode**: Click **Switch to Synchronous Mode** to start the playback of the all the recordings assigned to monitoring windows in Synchronous Mode. All the videos are played at once in this mode. This is not applicable for Investigator Playback Tool bar. In Synchronous Mode, you can export clips of multiple cameras. The **Switch to Synchronous Mode** button toggles to **Switch to Asynchronous Mode**.

By default, all the videos are played in Asynchronous Mode.

Click **Switch to Asynchronous Mode** to resume the Asynchronous Playback. All the videos are played independent of each other in this mode.

Collapse/ Expand Functions

- **Collapse/Expand**: Click **Collapse** to hide the additional icons. The button toggles to **Expand**. Click **Expand** to view all the additional icons.

  The following icons appear when you click **Expand** :

  - **Turn Audio On/Off**: Click **Turn Audio On** , a pop-up appears. Click **Turn Audio On** again to start the audio of the playback of the selected monitoring window. This is applicable when the playback is ongoing. The **Turn Audio On** button toggles to **Turn Audio Off**.

    Click **Turn Audio Off** , a pop-up appears. Click **Turn Audio Off** again to stop the audio of the playback of the selected monitoring window.

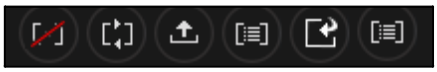
The Audio On will work at 1x playback speed only. If a user increases the playback speed then, the audio will turn Off automatically.

- **Zoom In**: Click **Zoom In** to zoom into the playback of the selected monitoring window.
- **Zoom Out**: Click **Zoom Out** to zoom out the playback of the selected monitoring window.
- **Rotate and Flip**: Click **Rotate and Flip** to rotate and flip the view of the playback of the selected monitoring window. For more details, refer to “Rotate and Flip”.
- **Snapshot**: Click **Snapshot** to capture the Snapshot of the playback of the selected monitoring window. For more details, refer to “Snapshot”.
- **Add Bookmark**: Click **Add Bookmark** to bookmark important events on the seek bar of the playback of the selected monitoring window. For more details, refer to “Add Bookmark”.
- **Get More Bookmark**: Click **Get More Bookmark** to view all the bookmarks on the seek bar of the playback of the selected monitoring window. The bookmarks are denoted by on the seek bar wherever bookmarks are created.
- **Full Screen**: Click **Full Screen** to switch the current layout of the camera playback of selected monitoring window to the full screen view.
- **Previous Motion**: Click **Previous Motion** to view the previous motion of playback of the selected monitoring window.
- **Next Motion**: Click **Next Motion** to view the next motion of playback of the selected monitoring window.

Previous Motion and Next Motion are not applicable to Mobile Cameras.

Show Time Selection

- Click **Show Time Selection** to view the time duration markers on the seek bar to mark the start and end time for the playback to be exported or imported. The following icons appear.



  - **Hide Time Selection**: Click **Hide Time Selection** to hide the time duration markers on the seek bar and hide the additional icons.
  - **Start Loop Play**: Click **Start Loop Play** to start the playback within the marker range that is the playback between time duration start marker and time duration end marker will be played repetitively in a loop.

    For example, the start marker is at 00:01:25 and end marker is at 00:01:30 as displayed below. Therefore, the loop playback plays in the marked range.

Start Loop Play is applicable in Asynchronous Mode only.

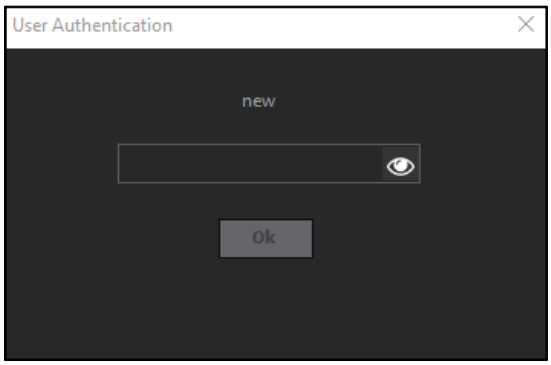
Export

- Click **Export** to export the playback of the cameras of different monitoring windows.The Export feature is useful when a user wants to export a portion of a playback that has recorded a critical incident so that immediate action can be initiated by the recipient to counter the incident. Also, watermark can be added to the exported playback to authenticate the playback.

  You can export the playback of multiple cameras at a same time into the exported file in the **Synchronous** as well as in **Asynchronous Mode.**

  For **Synchronous Mode**, the playback for all the selected cameras will be exported for the same time duration. Whereas in **Asynchronous Mode,** you can configure the different time duration for each selected cameras individually.

  If **Re-authenticate on Sensitive Transaction** is enabled from the Admin Client, the **User Authentication** pop-up appears.

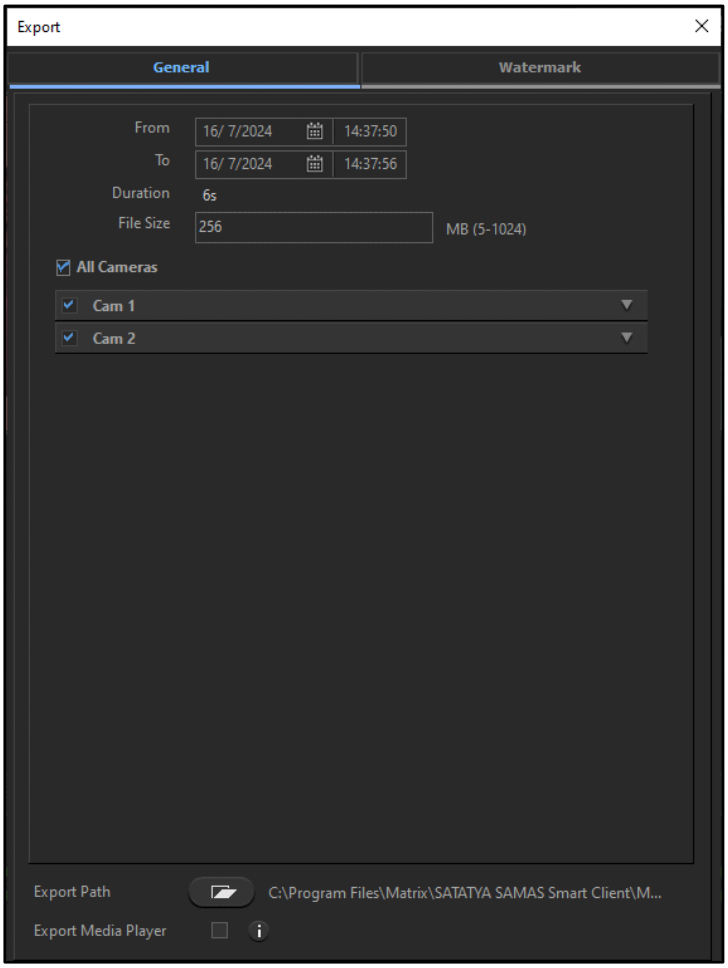


- Enter the login password to proceed. Click **Show** to view the password. The icon toggles to **Hide**. Click **Hide** to hide the password.
- Click **Ok** to confirm. The **Export** pop-up appears.

Synchronous Mode

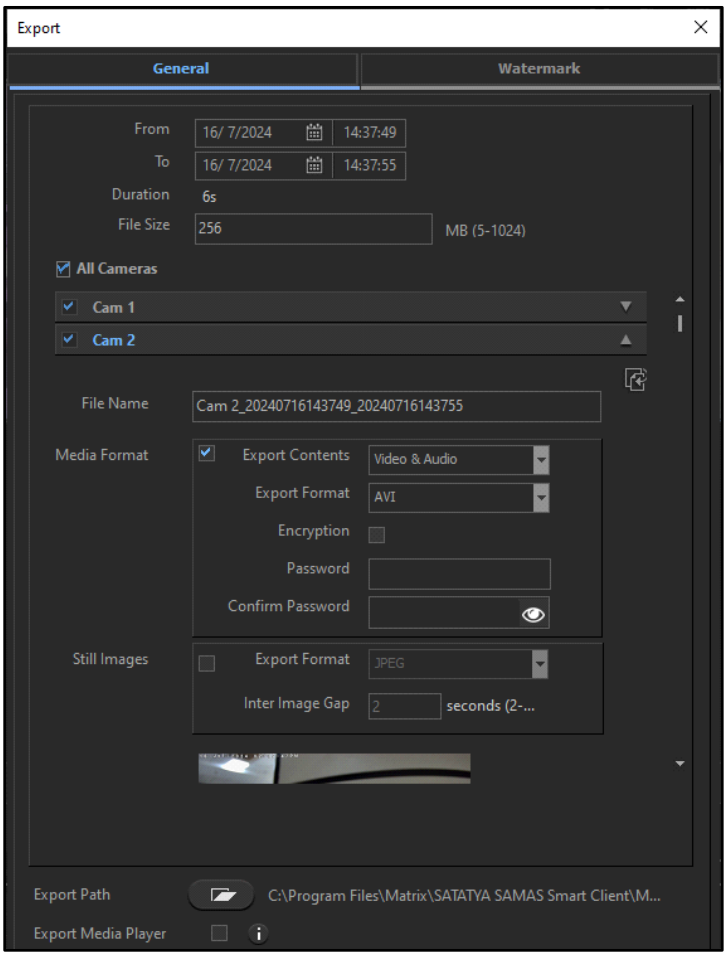
The **Export** pop-up consists of two tabs — General and Watermark.

General



Configure the following parameters:

- **Start Time**: Specify the Start Time of the playback to be exported.
- **End Time**: Specify the End Time of the playback to be exported.
- **Duration**: The total duration according to the configured Start Time and End Time is displayed here.
- **File Size:** Specify the File Size of the playback to be exported.
- Select the check box for the desired cameras for which you wish to export the playback. Select **All Cameras**, if you wish to export the playback recording of all the cameras.
    - Click the desired camera's collapsible panel.



Configure the following parameters.

- **File Name**: Specify the desired File Name.

You can select either Media Format or Still Image at a time as the export option.

Media Format

Select the check box to export the playback file as a Video.

- **Export Contents**: Select the Export Content format from the drop-down list—Video & Audio or Video only.
- **Export Format:** Select the Format of the playback to be exported from the drop-down list—AVI or Native.

Native format can be played only on SAMAS Media Player. Encryption is applicable for Native format only.

- **Encryption**: Select the check box to encrypt the playback file using Password. This file needs to be decrypted using the same Password before viewing it in SAMAS Media Player.
- **Password**: Specify the password to encrypt the file. Make sure you enter 12 characters (default value) as the password length. Make sure you note down the created password at a secure place for future reference as the files will be decrypted in SAMAS Media Player using this password.
- **Confirm Password**: Re-enter the password again to confirm. Click **Show** to view the password.

  The icon toggles to **Hide** . Click **Hide** to hide the password.

You can use the same password multiple times or enter a different password every time, as per your requirement.

Still Images

Select the check box to export the playback file as still images.

- **Export Format:** Select the Export Format from the drop-down list — JPEG or PDF.
- **Inter Image Gap:** Specify the time in seconds as a gap after which images will be extracted from the playback.

The customized logo will be reflected in pdf file instead of MATRIX logo only if it is configured in Admin Client.

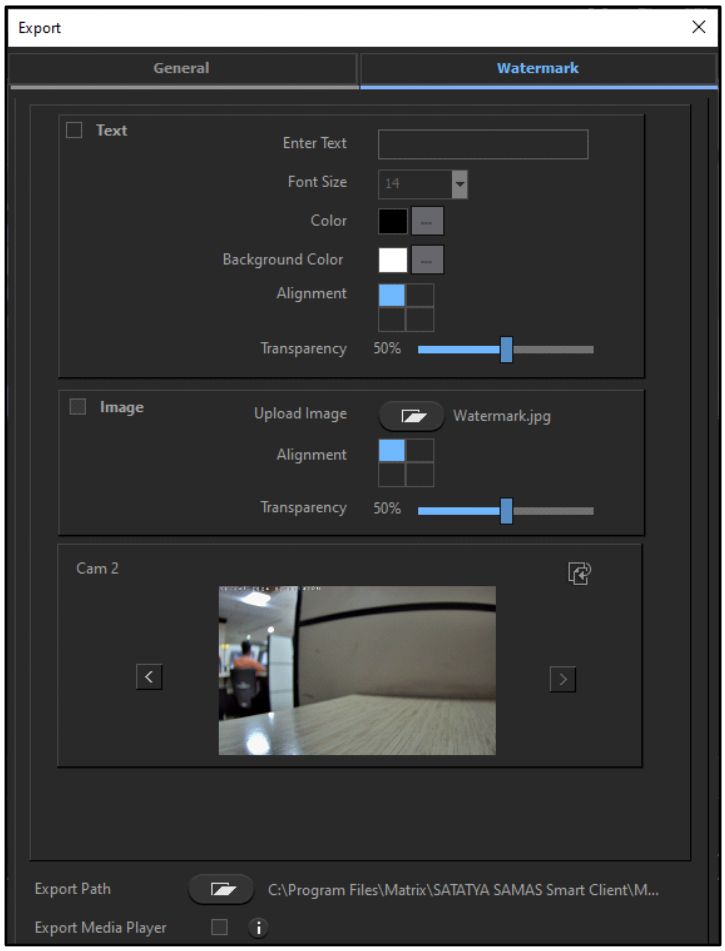
- **Clone Settings**: Click **Clone Settings** . Select the check box of the desired camera for which you wish to clone the configuration or Select All**,** if you wish to select all the cameras. You can also search the desired camera in the Search bar.

  Click **Clone** to clone the export configuration to other cameras or **Cancel** to discard the changes.

When user exports the file for multiple cameras of some duration and in between the export process if the Codec and/or the Resolution are modified then, two files will be exported at the end of the process.

Watermark

Watermark is of two types — Text and Image. If you have selected Media Format, you can only add a Text Watermark. If you have selected Still Images, you can add a Text and Image Watermark.



Configure the following parameters:

Text and Image

Select the check box to enable the configurations. For detailed configuration, refer to “Snapshot”.

Text Watermarking is supported only when the Export Format is AVI.

The next section under Watermark displays the Camera Name and the Clone Settings.

- **Clone Settings:** Click **Clone Settings** . Select the check box of the desired camera for which you wish to clone the configuration or Select All**,** if you wish to select all the cameras. You can also search the desired camera in the Search bar.

  Click **Clone** to clone the export configuration to other cameras or **Cancel** to discard the changes.

The watermark configuration for image will be cloned to other cameras for which it is applicable.

- Click **Apply** to save the watermark settings for export.

After you have completed the configuration under **General** and/or **Watermark**, to Export, configure the following:

- **Export Path**: Click **Export Path** to select the desired folder to save the exported file.
- **Export Media Player**: If the Export Format is selected as Native, select the check box to export the Media Player files along with the clip. The Media Player files will be exported only if the SAMAS Media Player is installed. This is useful when the exported file needs to be played on a system where SAMAS is not installed.
- Click **Export** to export the file on specified path or **Cancel** to discard the changes.

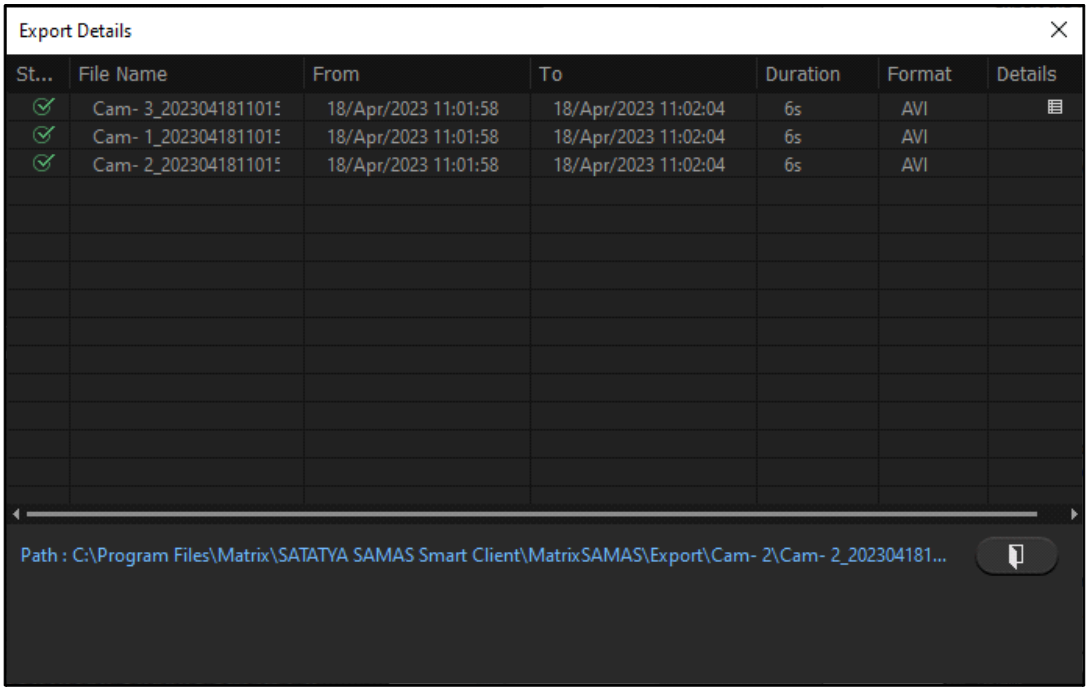
Asynchronous Mode

In **Asynchronous Mode,** you can configure the different time duration and file size for each selected cameras individually.

The other configurations of **Export** pop-up for Asynchronous Mode are similar to the Synchronous Mode. For details, refer to “Synchronous Mode”.

Export Details

- Click **Export Details** to view the details of the exported playback or images.The **Export Details** pop-up appears.



The following details are displayed — Status, File Name, From, To, Duration, Format and Details. You can view the path of the selected Export detail below the list.

- **Open Export Directory**: Click **Open Export Directory** to view the path of the exported files on the local PC.

Import

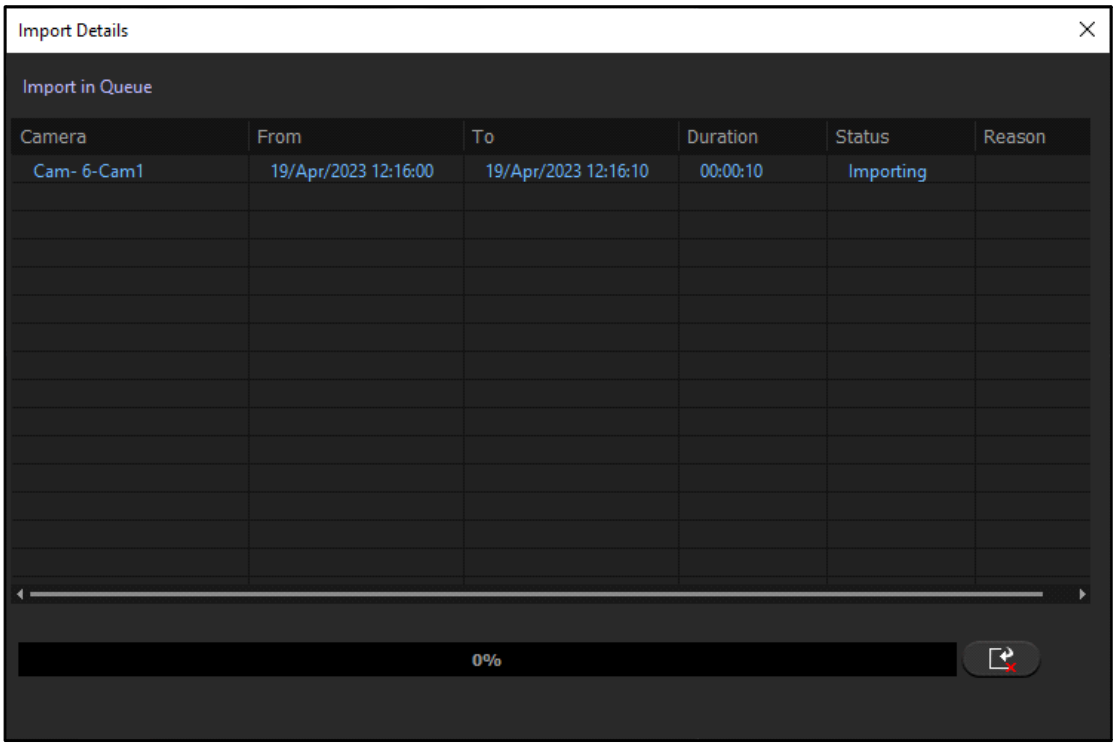
You can import Device stored data to SAMAS Recording Server storage.

Import is applicable in Asynchronous Mode only.

This feature is applicable for Matrix devices and Matrix IP Camera only.

This feature is not applicable for Mobile Cameras.

- Click **Import** to import the device data. The **Import Details** pop-up appears.



- The playback recording for the duration under time duration markers in imported. The following details are displayed — Camera name, From, To, Duration, Status and Reason.

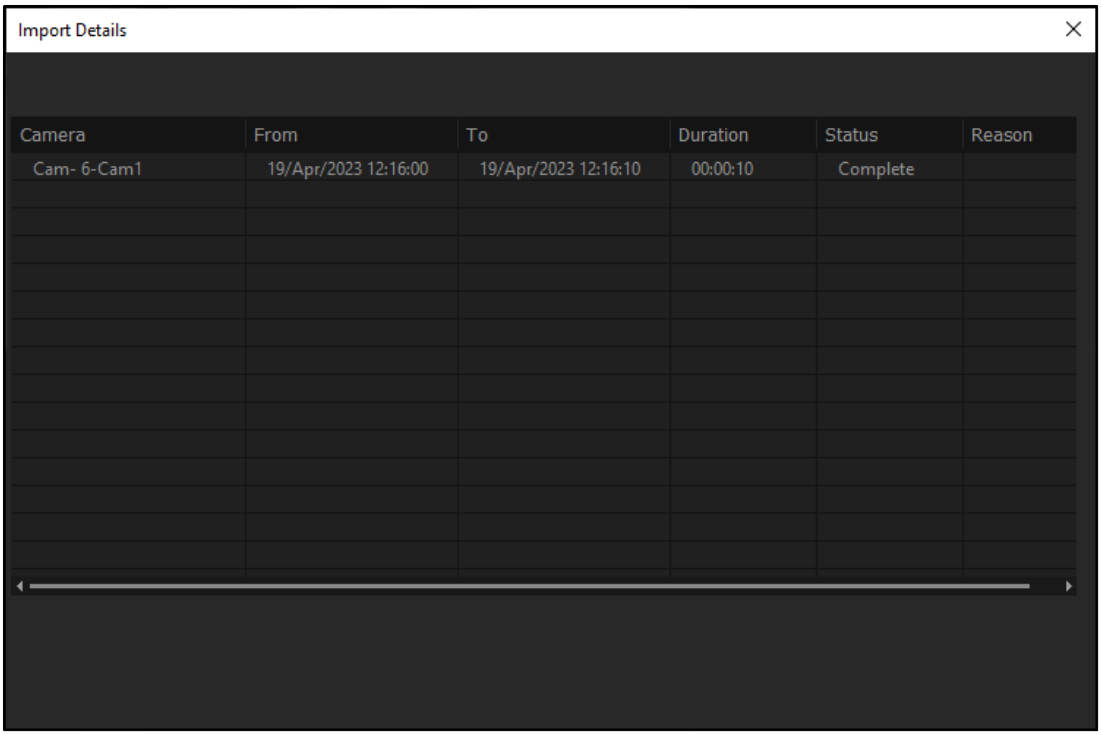
  The progress of data import in displayed on the progress bar at the bottom. You can also stop the import if you wish to.

- Click **Stop Import** to stop the import process. The status of all the imported recordings is displayed in **Import Details**.

Import Details

Import Details is applicable in Asynchronous Mode only.

- Click **Import Details** to view the details of the imported playback or images. The **Import Details** pop-up appears.



The following details are displayed — Camera, From, To, Duration, Status and Reason.

Timeline Compressor

- Click **Timeline Compressor** to compress the seek bar. The options available are —1m,15m,1h,6h.1d.

- Select the desired option.
    - To view the small details of recording set the timeline at 1 minute. To view the broad details set the timeline at hourly basis or daily basis.

CHAPTER 7 Investigator

The Investigator feature enables you to use video analytics for fast and thorough investigation of incidents in the playback. The records can be searched in depth using options such as Bookmark Search, Parking Event Search, Vehicle Locator, Incidence Search and Transaction Search. You can also configure IVA Events using this feature.

To view and configure Investigator,

- Click **Investigator**.

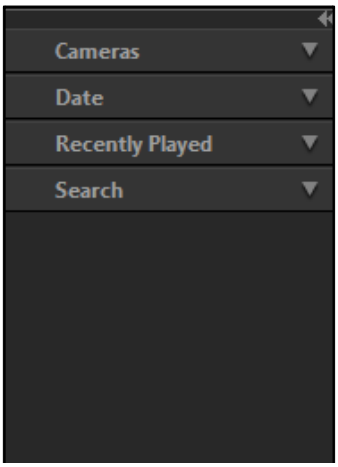
The Investigator tab is divided into the following sections.

- Left Pane. For details, refer to “Left Pane Functionality”.
- Bottom Pane. For details, refer to “Bottom Pane Functionality”.

Once a camera is assigned to the monitoring window, you can configure a few parameters by right clicking on the camera view. For more details, refer to “Investigator: Right-click Functions”.

Left Pane Functionality

The left pane of the Investigator page consists of the following collapsible panels — Cameras, Date, Recently Played and Search.

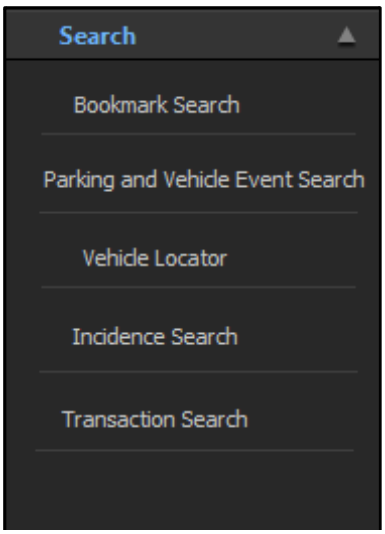


Refer to the following links for the configuration details of different sections:

- “Cameras”
- “Date”
- “Recently Played”
- “Search”

Search

The Search section allows you to search for different Events, Bookmarks, Incidence and Vehicles. This is helpful in pinpointing incidences in the playback easily, which results in quicker actions.



Refer to the following links for the configuration details of different Search options:

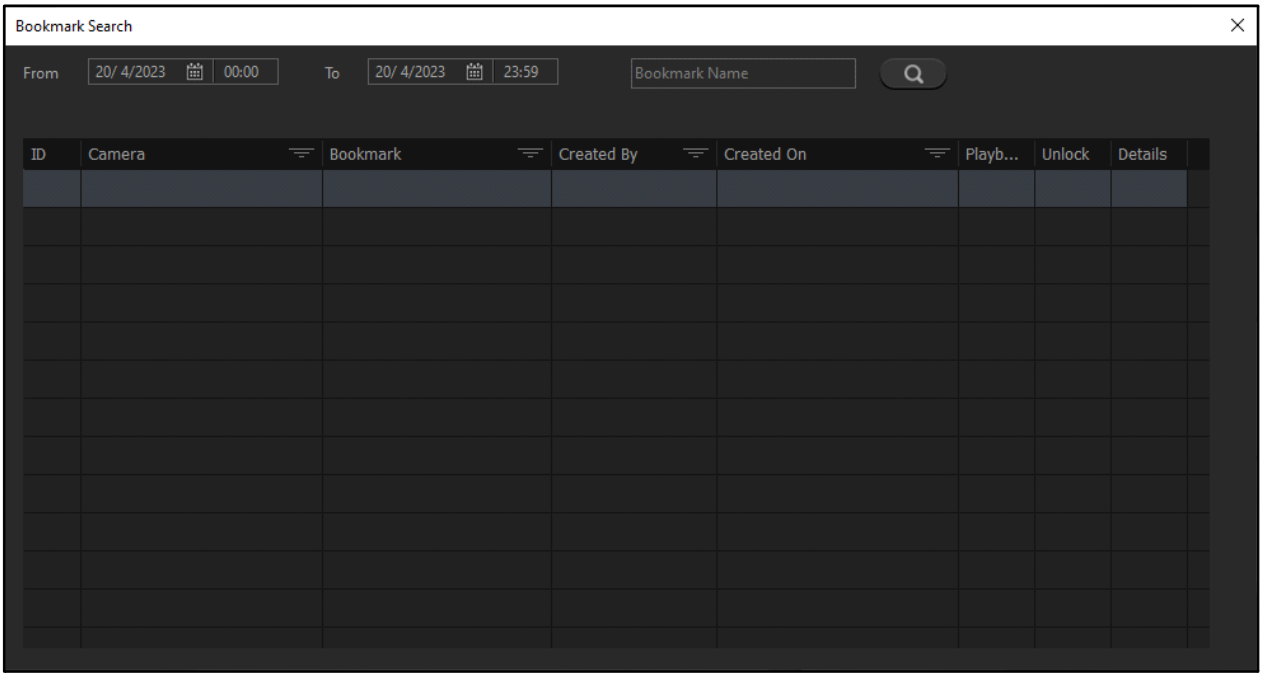
- “Bookmark Search”
- “Parking and Vehicle Event Search”
- “Vehicle Locator”
- “Incidence Search”
- “Transaction Search”

Bookmark Search

The Bookmark Search option allows you to search the bookmark clippings for a specified period of time. This is useful when there are lots of bookmarks and you need to find the recording for a specific date or time.

To configure Bookmark Search,

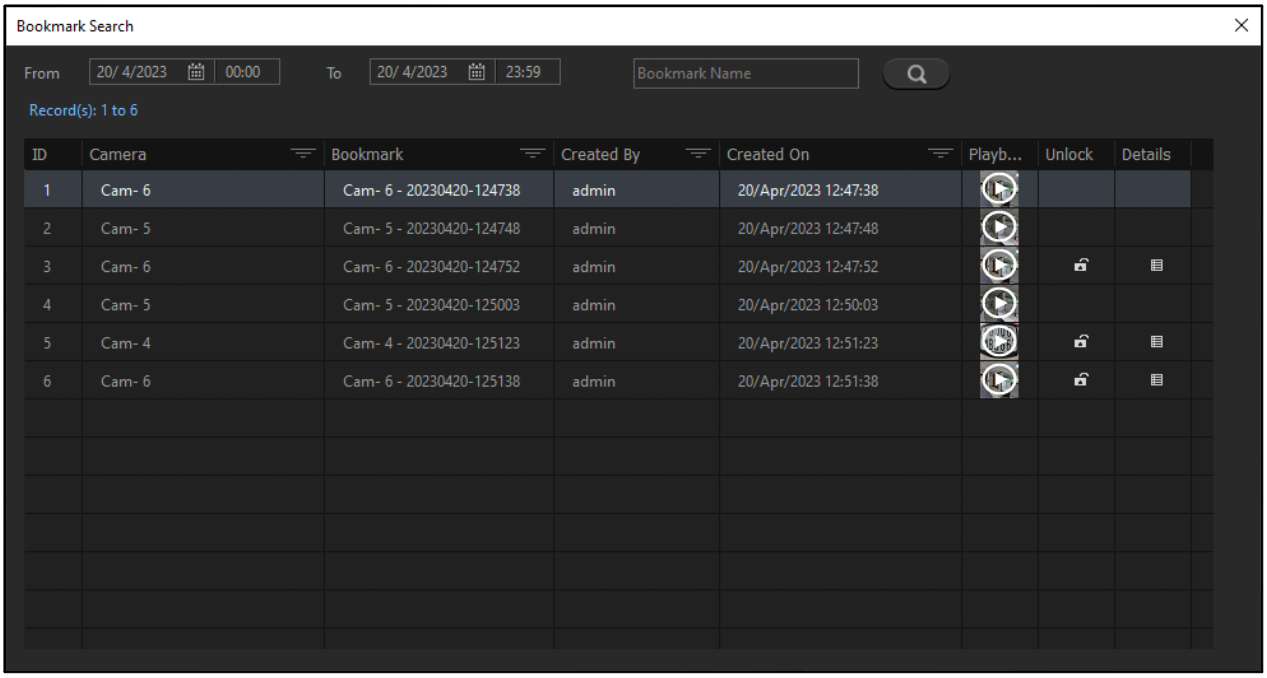
- Click **Investigator > Search > Bookmark Search**. The **Bookmark Search** pop-up appears.



  Configure the following parameters.

  - **From**: Select the date from which you wish to view the bookmarks from the calendar and specify the time.
  - **To**: Select the date till which you wish to view the bookmarks from the calendar and specify the time.
  - **Bookmark Name**: Specify the name of the bookmark which you wish to search.

- Click **Search** . The list of all the bookmarks for the configured duration appear in a list.



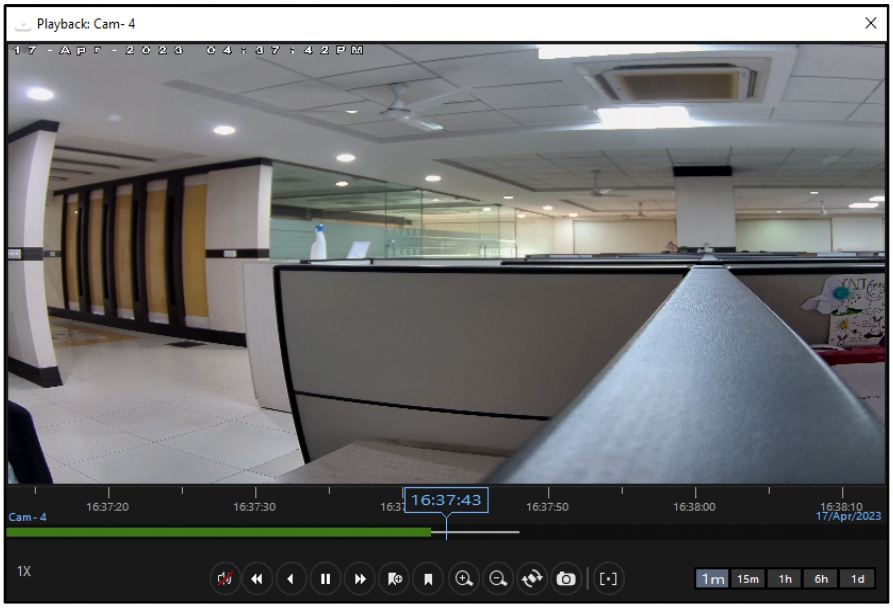
The Bookmark details displayed are — ID, Camera, Bookmark, Created By, Created On, Playback, Unlock and Details.

- You can filter the records. To do so, click **Filter** of the respective parameter — Camera, Bookmark, Created By, Created On.

  Select the check box of the desired options and click outside the filter pop-up. The records appear as per the set filters.

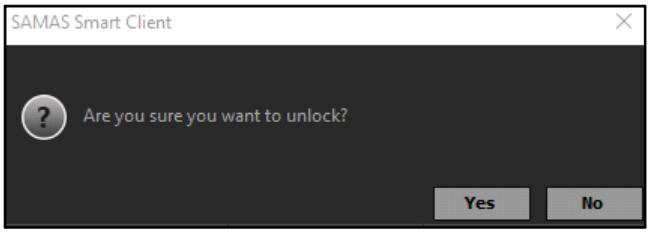
  To clear the filter, click **Filter** and then click **CLEAR FILTER** of the desired parameter.

- You can perform the following actions — Playback, Unlock and Details.
  - **Playback**: Click **Playback** corresponding to the desired bookmark. The following pop-up appears.



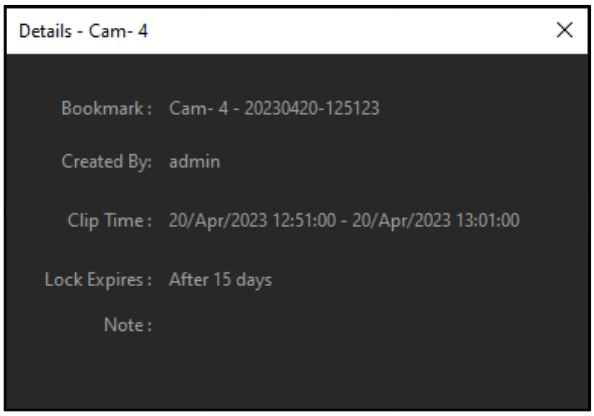
- The date, time and camera details are displayed in the playback as configured. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

- **Unlock**: Click **Unlock** to unlock the bookmark. If the bookmark is locked by Admin, other users will be able to unlock the same only if they are assigned rights for the same. The following pop-up appears:



  - Click **Yes** to unlock the bookmark or click **No** to cancel.

- **Details**: Click **Details** corresponding to the desired bookmark to view the details of the bookmark. The following pop-up appears.



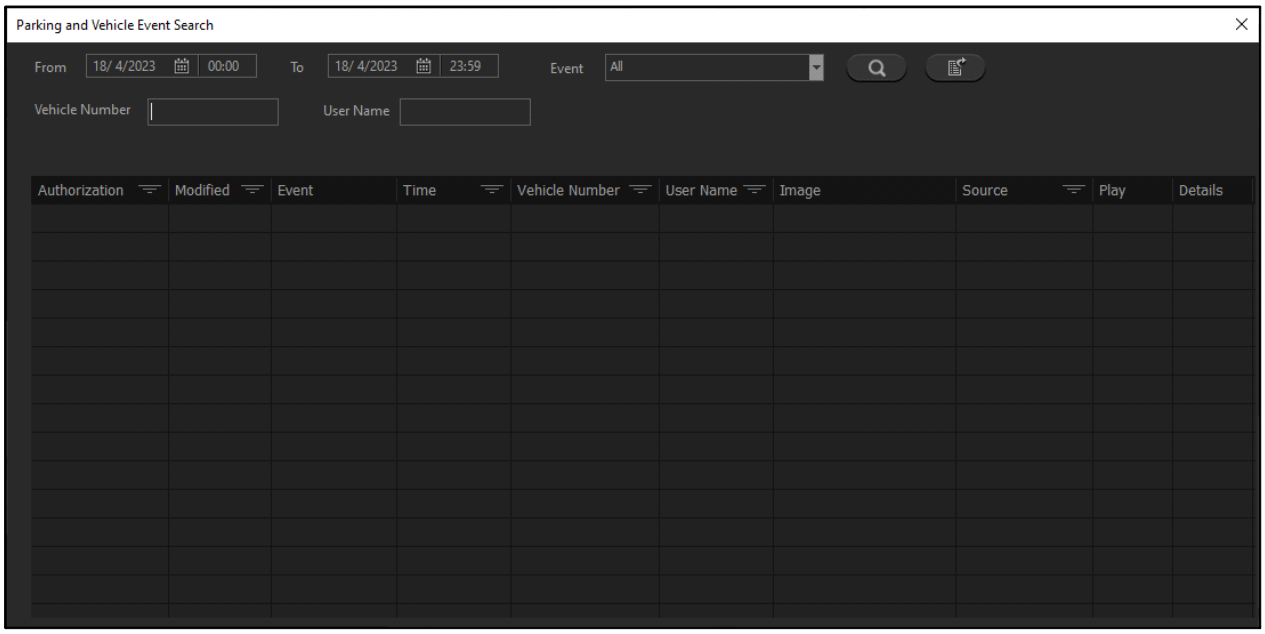
The bookmark details appear as configured while locking the bookmark. For more details, refer to “Add Bookmark”.

Parking and Vehicle Event Search

The Parking and Vehicle Event Search option allows you to search various parking/vehicle Events for a specified period of time based on the Vehicle Number. This is useful when there are a lot of vehicles visiting a facility and you need to find the recording for a particular vehicle for a specific date or time. Make sure you have configured the relevant Parking Slot, Vehicle Zones and Events for the same from the Admin Client.

To configure Parking and Vehicle Event Search,

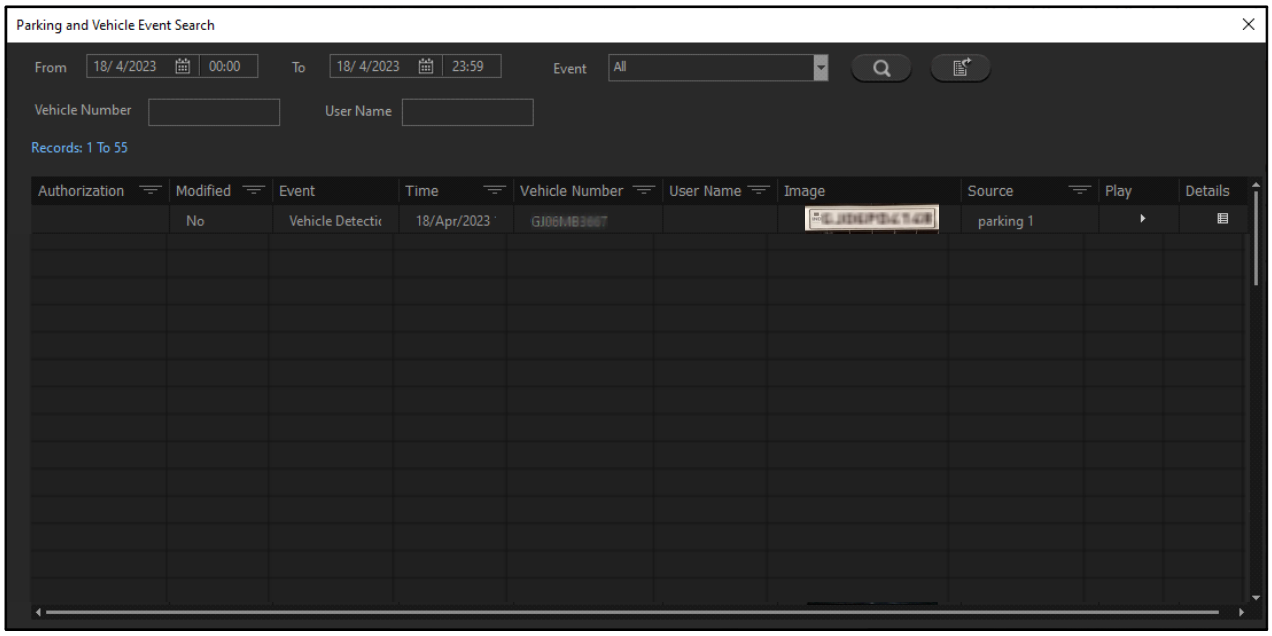
- Click **Investigator > Search > Parking and Vehicle Event Search**. The **Parking and Vehicle Event Search** pop-up appears.



Configure the following parameters.

- **From**: Select the date from which you wish to view the Events from the calendar and specify the time.
- **To**: Select the date till which you wish to view the Events from the calendar and specify the time.
- **Event**: Select the type of Event for which you wish to view the Events from the drop-down list.
- **Vehicle Number**: Specify the Vehicle Number for which you wish to search the Events.
- **User Name**: Specify the User Name for which you wish to search the Events.

- Click **Search** . The list of all the Events for the configured duration appear in a list.

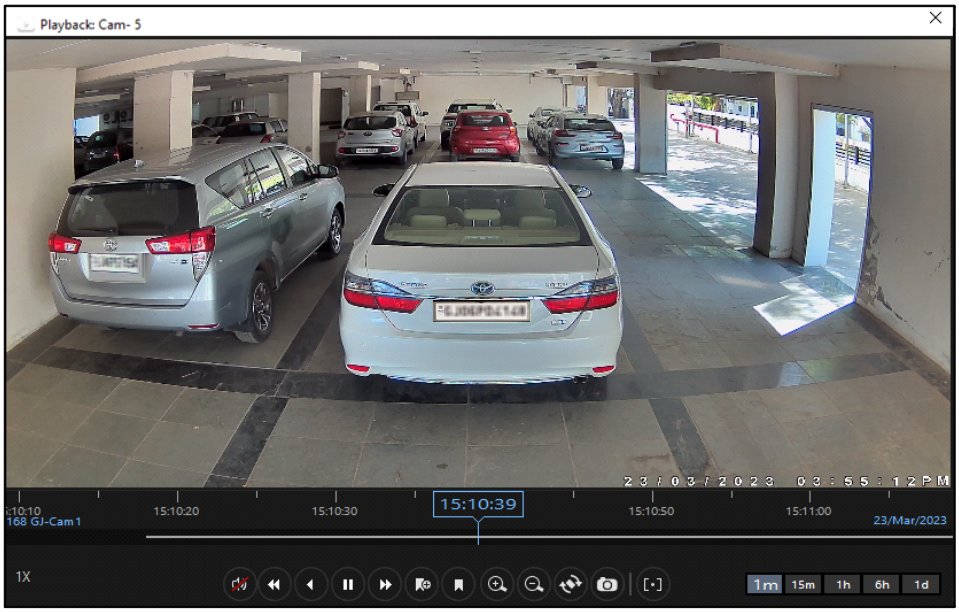


The Event details displayed are — Authorization, Modified, Event, Time, Vehicle Number, User Name, Image, Source, Play and Details.

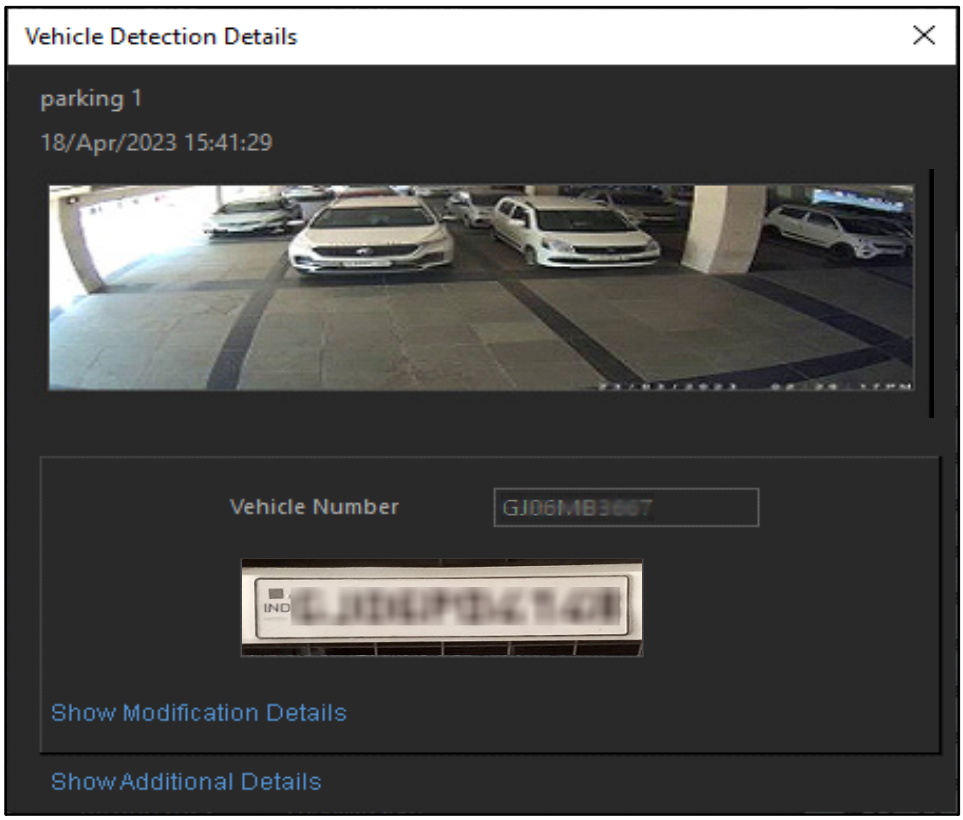
- You can filter the records. To do so, click **Filter** of the respective parameter — Authorization, Modified, Time, Vehicle Number, User Name, Source.

  Select the check box of the desired options and click outside the filter pop-up. The records appear as per the set filters.

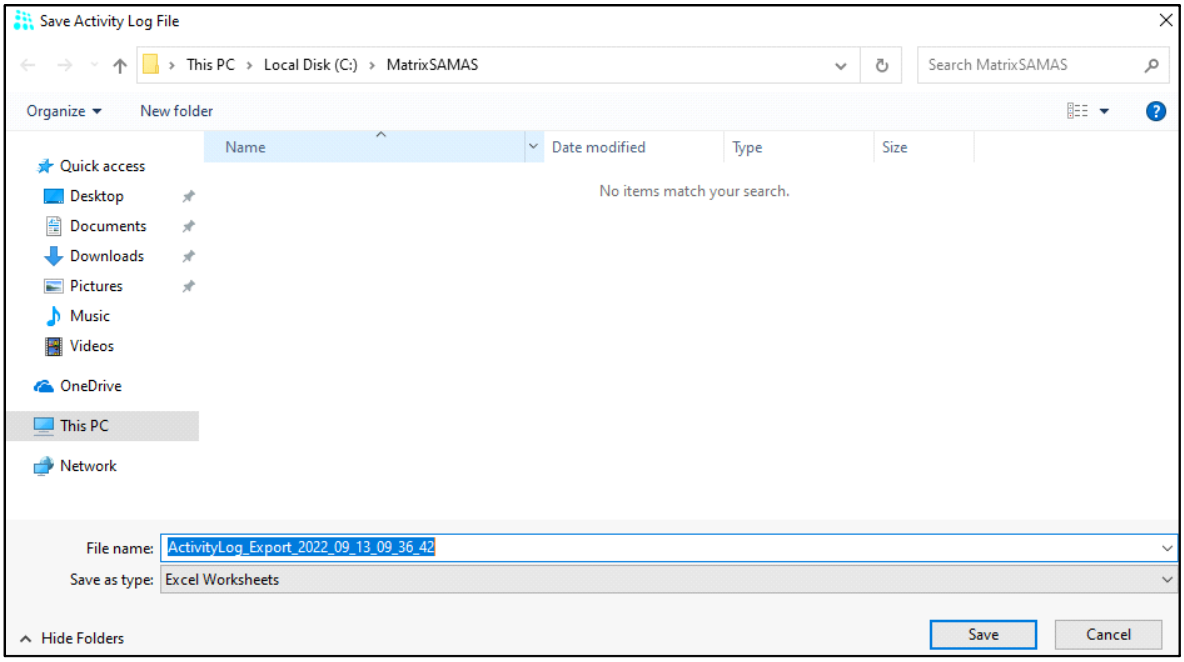
  To clear the filter, click **Filter** and then click **CLEAR FILTER** of the desired parameter.
- You can perform the following actions — Play and Details.
  - Click **Play** against the desired Event. The **Playback** pop-up appears.



- The date and the time when Event occurred is displayed in the playback. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.
- Click **Details** against the desired Event. The **Event Name- Details** pop-up appears.



- The details displayed vary from Event to Event.For example, the Vehicle Detection Details pop-up displays the Date and Time of the Event along with the Camera Name. The Vehicle Number is also displayed which can be modified, if required. For details, refer to “Vehicle Number Modification”.
- You can also Export the Event details to save the same on your local system.
  - Click **Export** . The **Save Activity Log File** pop-up appears.



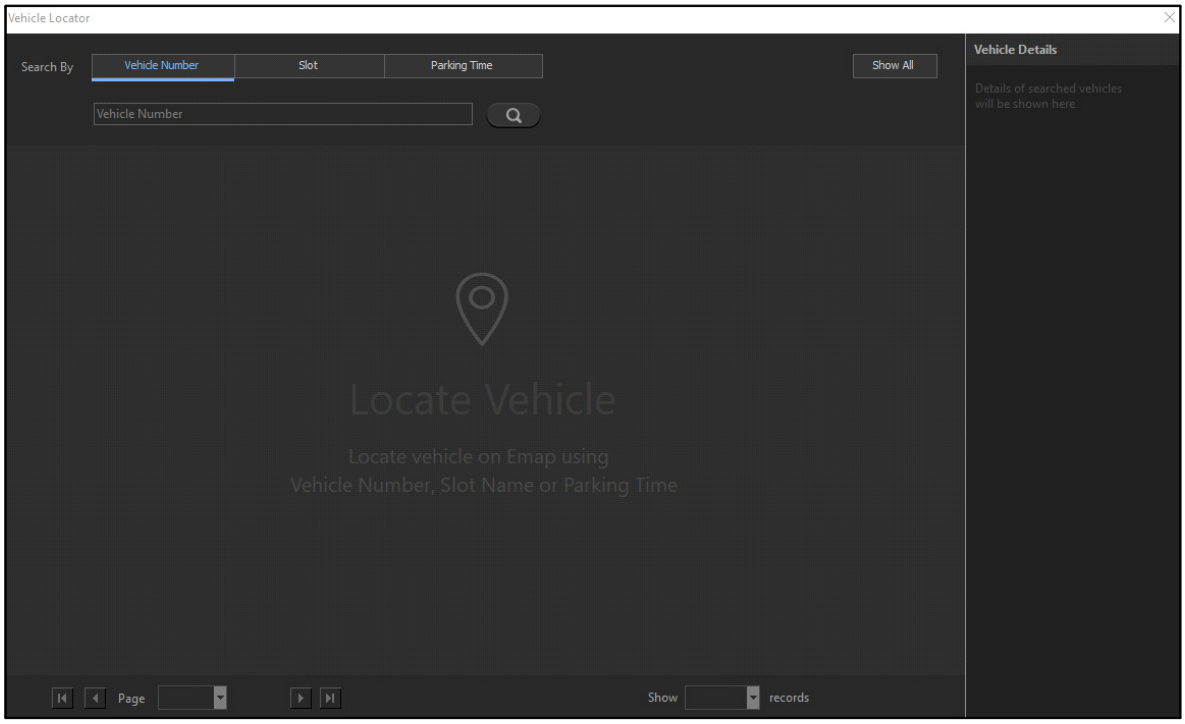
- Select the desired folder where you wish to save the Event details file and specify the file name.
- Click **Save** to save the file or click **Cancel** to discard.

Vehicle Locator

The Vehicle Locator option allows you to search for Vehicles on the various slot entities placed on the Emaps. You can search for vehicles using either of the three methods — Vehicle Number, Slot or Parking Time. This is useful for big parking premises where locating a vehicle manually is difficult. In such cases, using Vehicle Locator, the Security or Parking Management Personnel can easily locate the vehicles. Make sure you have configured the relevant Parking Slot and Events for the same from the Admin Client.

To view and configure Vehicle Locator,

- Click **Investigator > Search > Vehicle Locator**. The **Vehicle Locator** pop-up appears.



Configure the following parameters.

- **Search**: Select the desired option for searching the vehicle — Vehicle Number, Slot or Parking Time.

  If you select **Vehicle Number**, specify the License Plate Number of the vehicle.

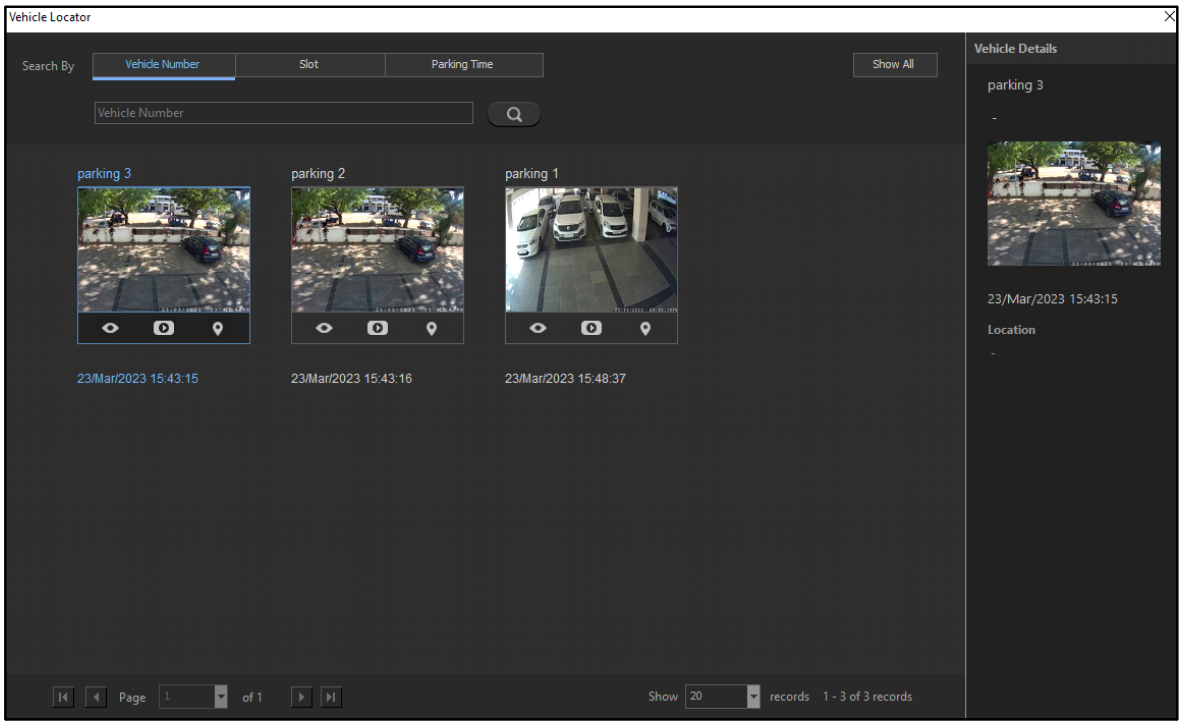
  If you select **Slot**, specify the Slot Name.

  If you select **Parking Time**, configure the following parameters.

  - **From**: Select the date from which you wish to view the vehicle location from the calendar and specify the time.

  - **To**: Select the date till which you wish to view the vehicle location from the calendar and specify the time.

- Click **Search** . The details of the vehicle for the configured duration appear in the **Vehicle Details** appears. The location of the vehicle appears on the Emap.



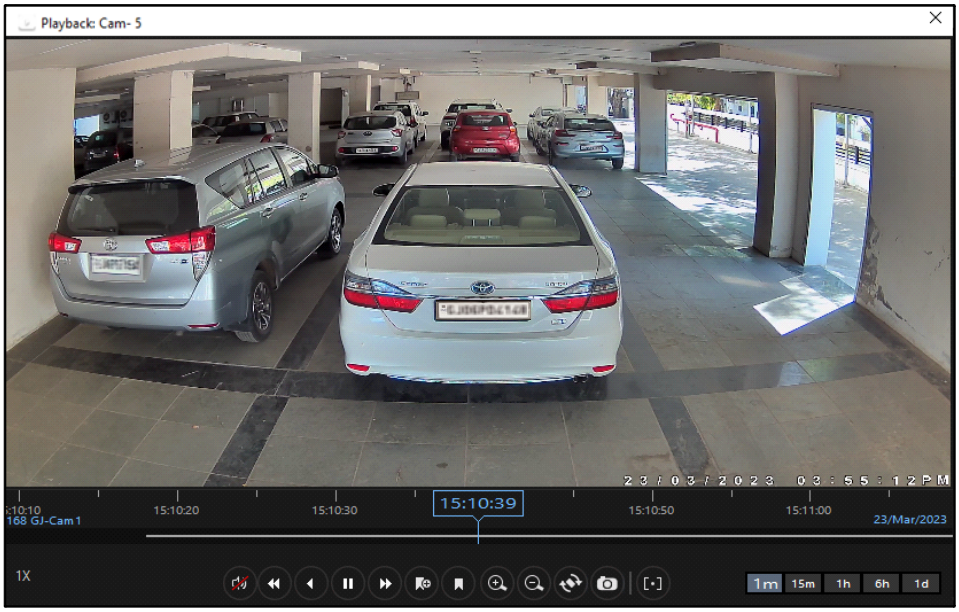
The Vehicle details displayed are — Slot Name, Date and Time. The same details are also displayed on the right hand side along with the Location, if the slot is configured on Emap. Click **Show All** to view all the vehicles detected for the configured duration.

You can perform the following actions — View, Playback and Location.

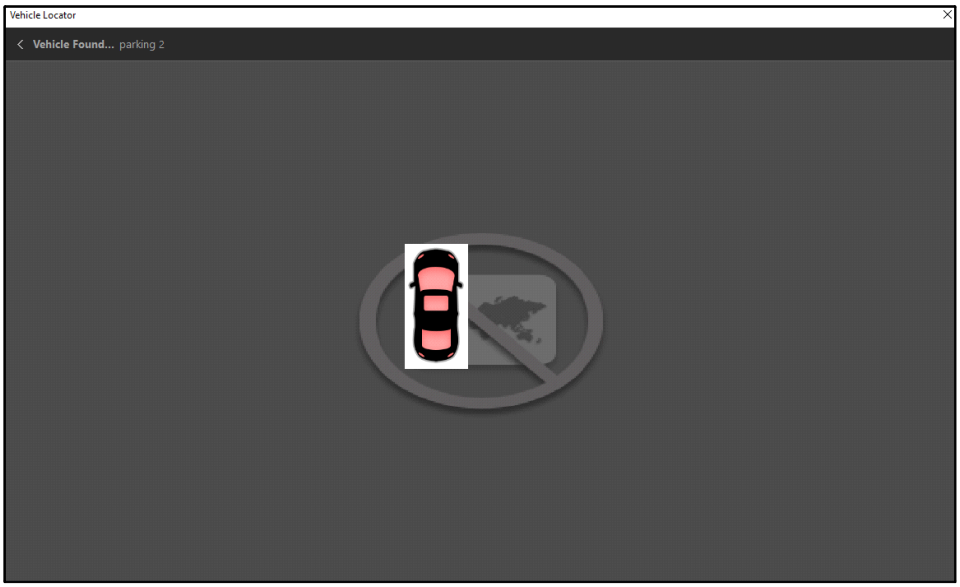
- Click **View** to view the Live View of the detected vehicle. The **Vehicle Locator** pop-up appears.

- The Live View for the selected vehicle is displayed. You can also perform certain actions on the live view using **Camera Controls** and **PTZ Controls**. For more details, refer to “Camera Controls” and “PTZ Controls”.

- Click **Play** to view the playback recording. The **Playback** pop-up appears.



- The date and the time when Event occurred is displayed in the playback. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to "Bottom Pane Functionality-Playback Toolbar".
- Click **Location** to view the location of the vehicle on the Emap. Make sure the desired Slot Entity is configured on the Emap from the Admin Client. The **Vehicle Locator** pop-up appears.



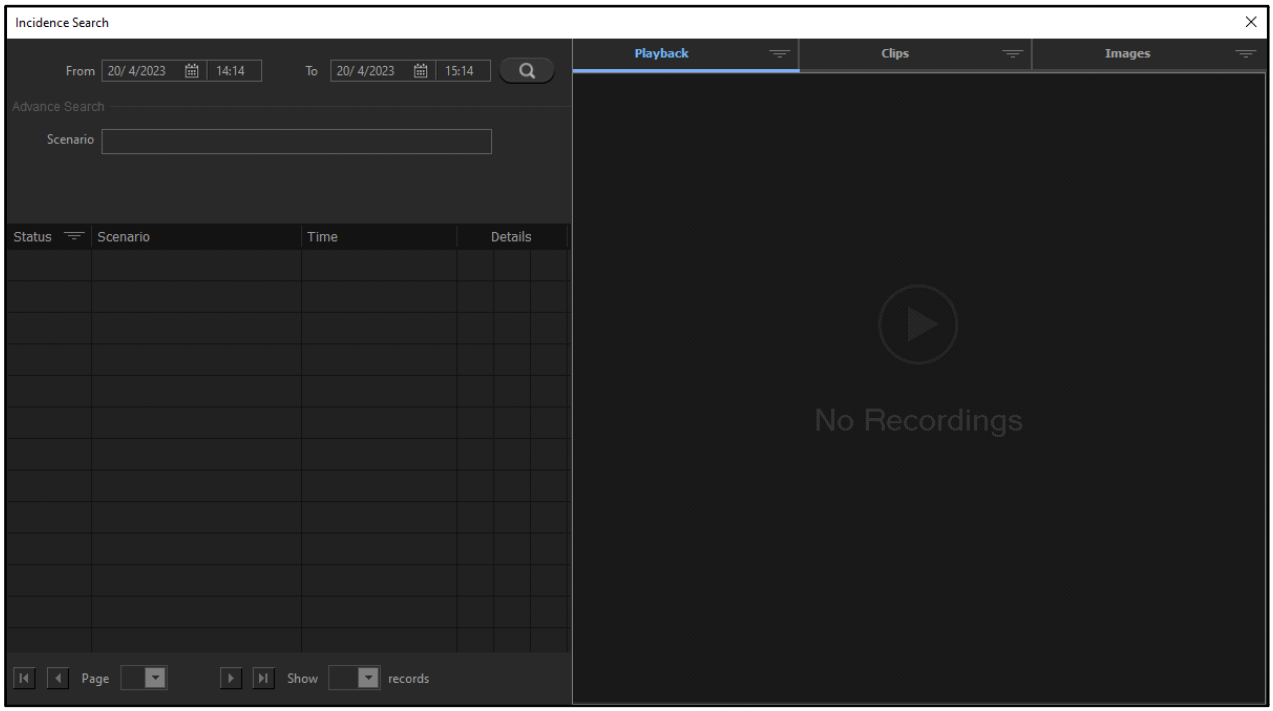
- The location of the detected vehicle appears on the Emap, if the slot is configured on the Emap. The Slot Entity where the detected vehicle is located blinks continuously.

Incidence Search

The Incidence Search option allows you to search for Scenarios for a specified period of time. This is useful when multiple Scenarios are generated simultaneously and you need to filter the Scenario details based their status. You can also view the Playback, Clips and Images related to the Scenario which is helpful in-depth investigative search.

To view and configure Incidence Search,

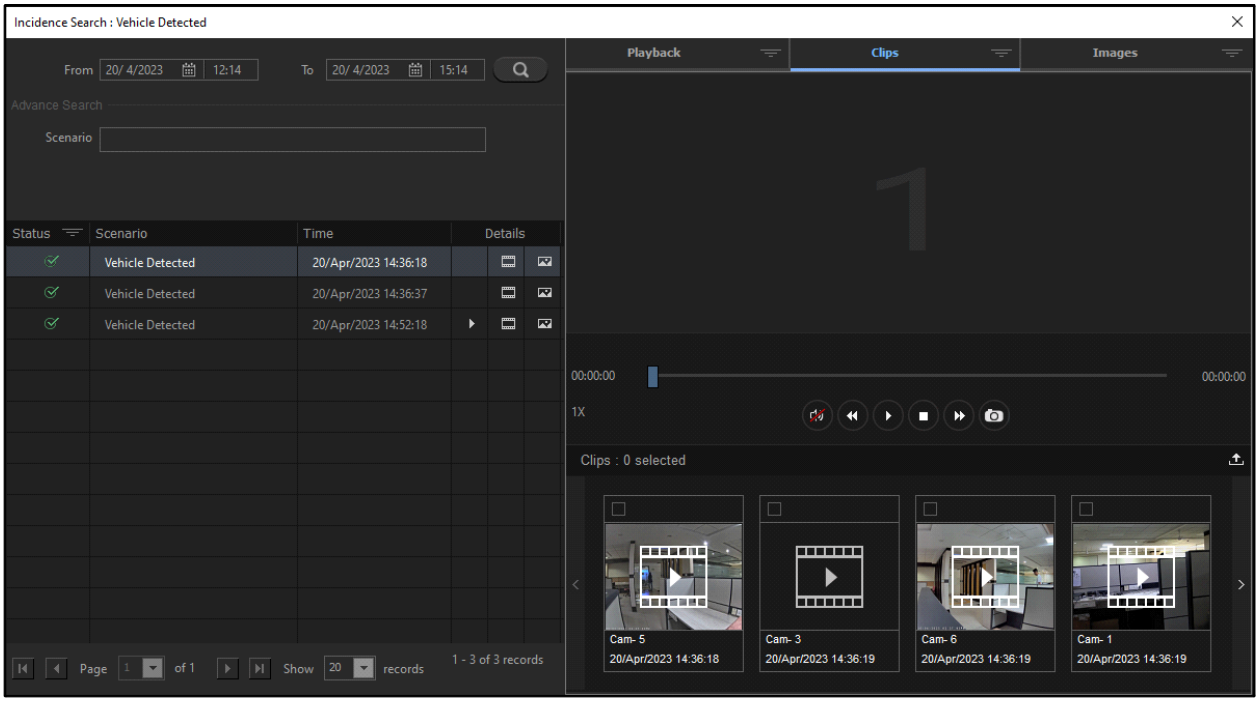
- Click **Investigator > Search > Incidence Search**. The **Incidence Search** pop-up appears.



  Configure the following parameters.

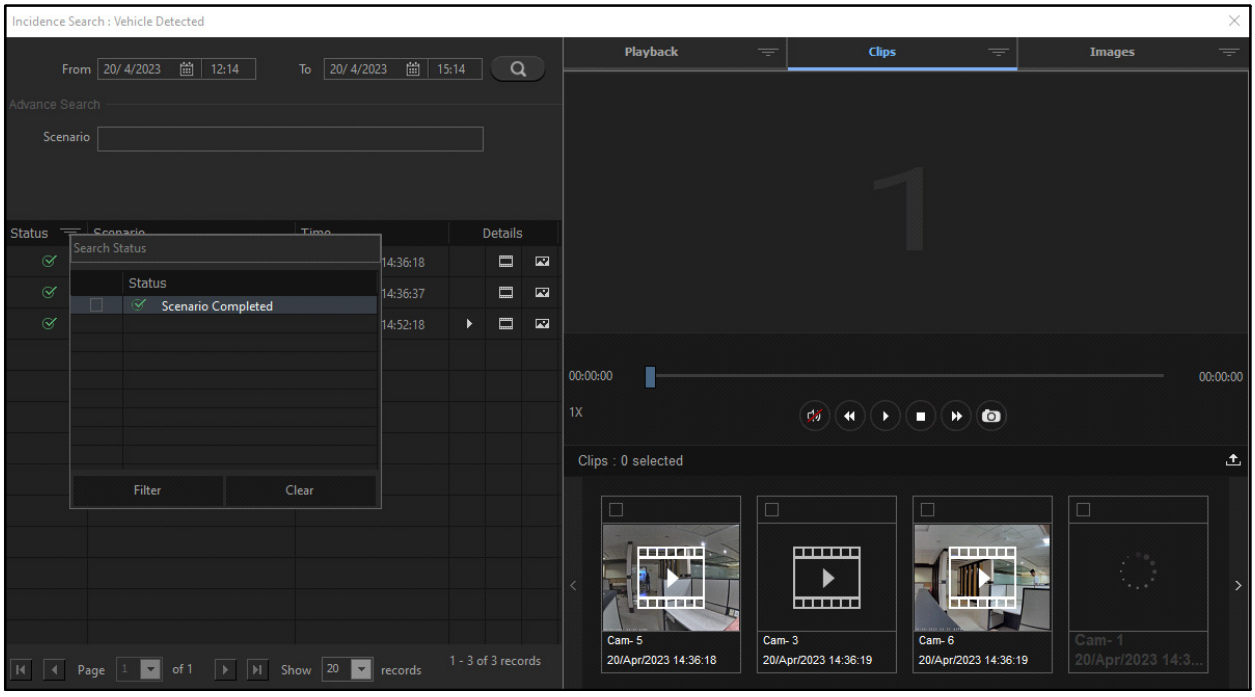
  - **From**: Select the date from which you wish to view the incidences from the calendar and specify the time.
  - **To**: Select the date till which you wish to view the incidences from the calendar and specify the time.
  - In **Advanced Search**, specify the **Scenario** name.

- Click **Search** . The details of the incidences for the configured duration appear in a list. By default, the **Clips** tab appears.

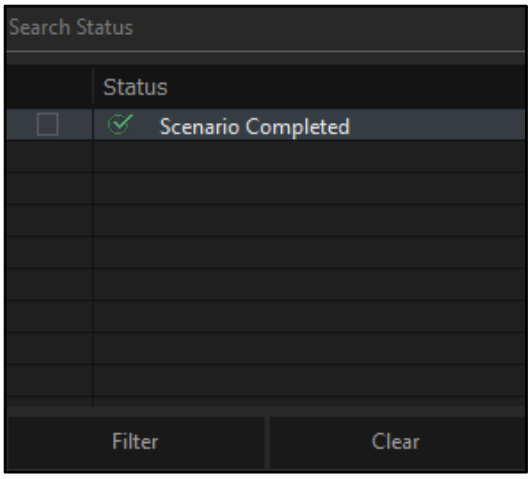


The incidence details displayed are — Status, Scenario, Time and Details.

- Click **Filter** to select the **Status** based on which you wish to view the Incident details.



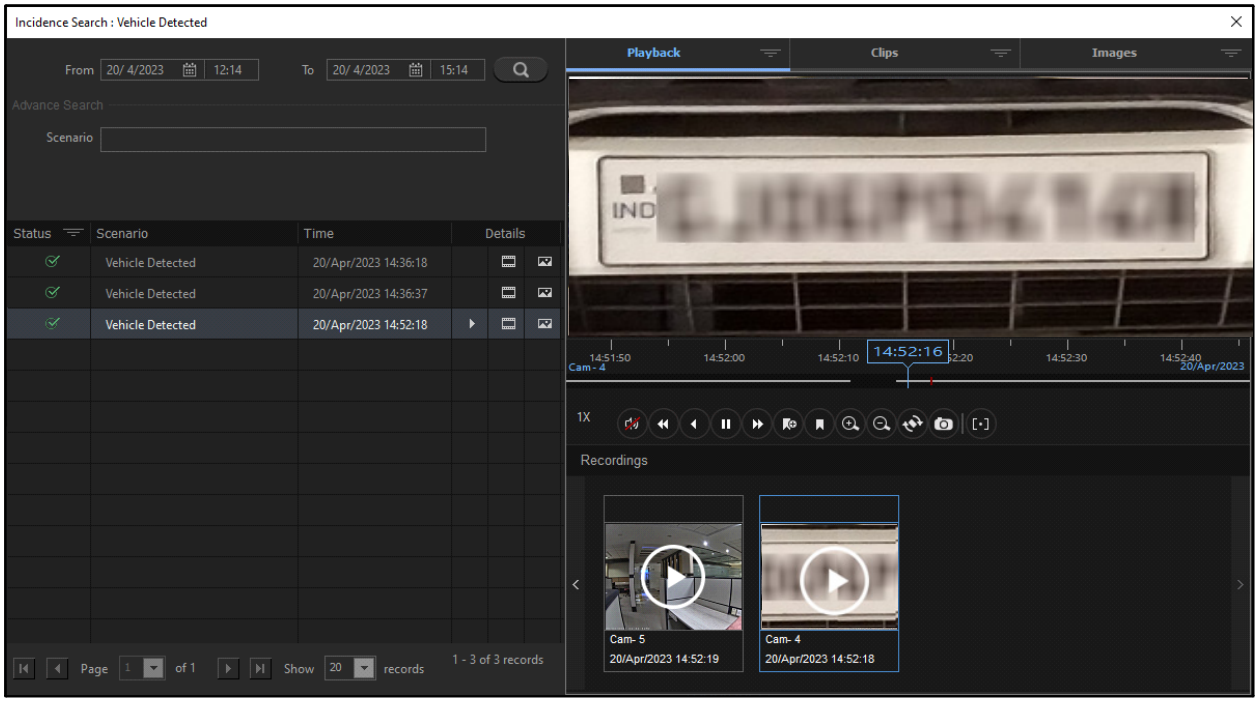
- Select the check boxes for the desired Status on the basis of which you wish to filter Incidence details.



- Click **Filter** to filter the Status or click **Clear** to discard.

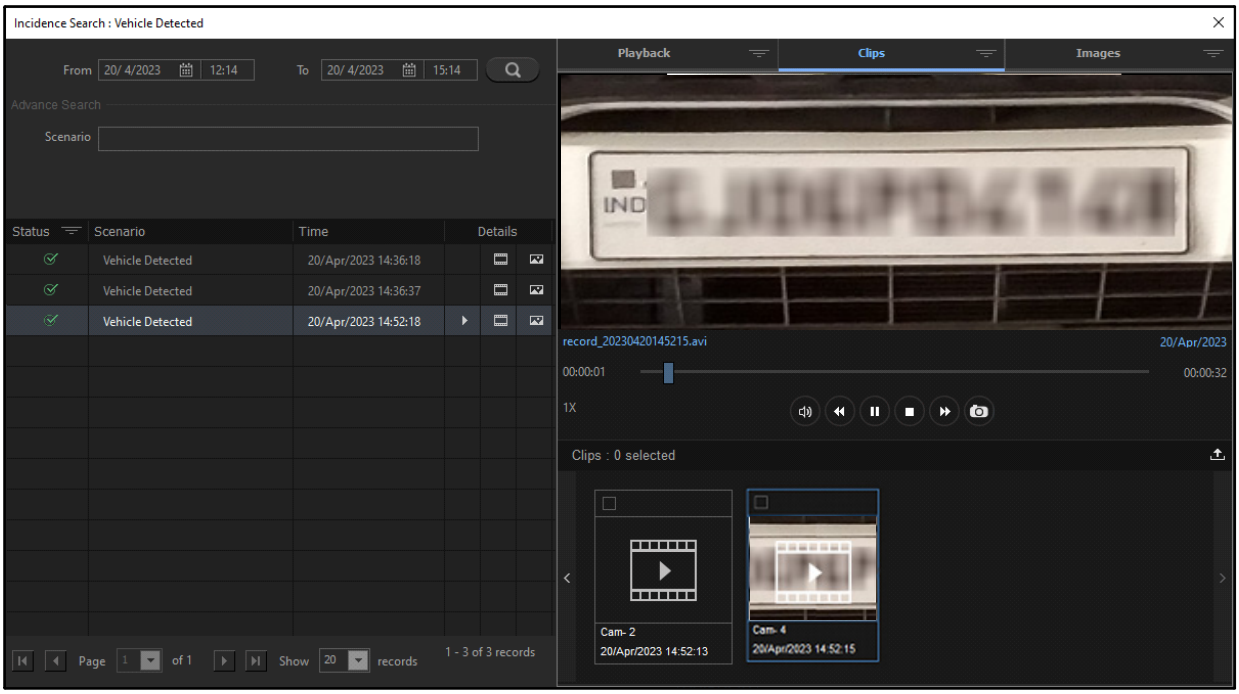
The section on the right displays the **Playback**, **Clips** and **Images** tabs of the related to the Scenarios. The clips and images appear if the scenario is configured with Capture Clip and Capture Image as actions from the Admin Client.

- You can perform the following actions — Playback, Clips and Images.
  - Click **Playback** corresponding to the desired incident to view the playback recording. The playback starts under the **Playback** tab.

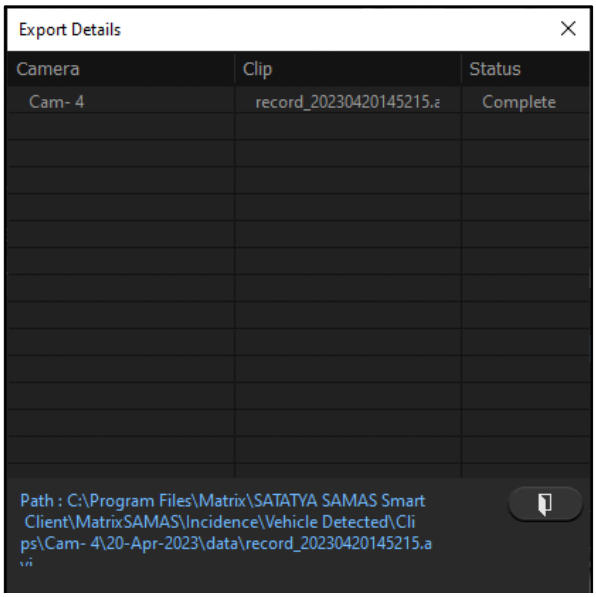


  - The date, time and camera details are displayed in the playback as configured. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

- Click **Clips** corresponding to the desired incident to view the recorded clip. The clips are displayed under the **Clips** tab.
- The clips take some time to load. Click on the clip to play.

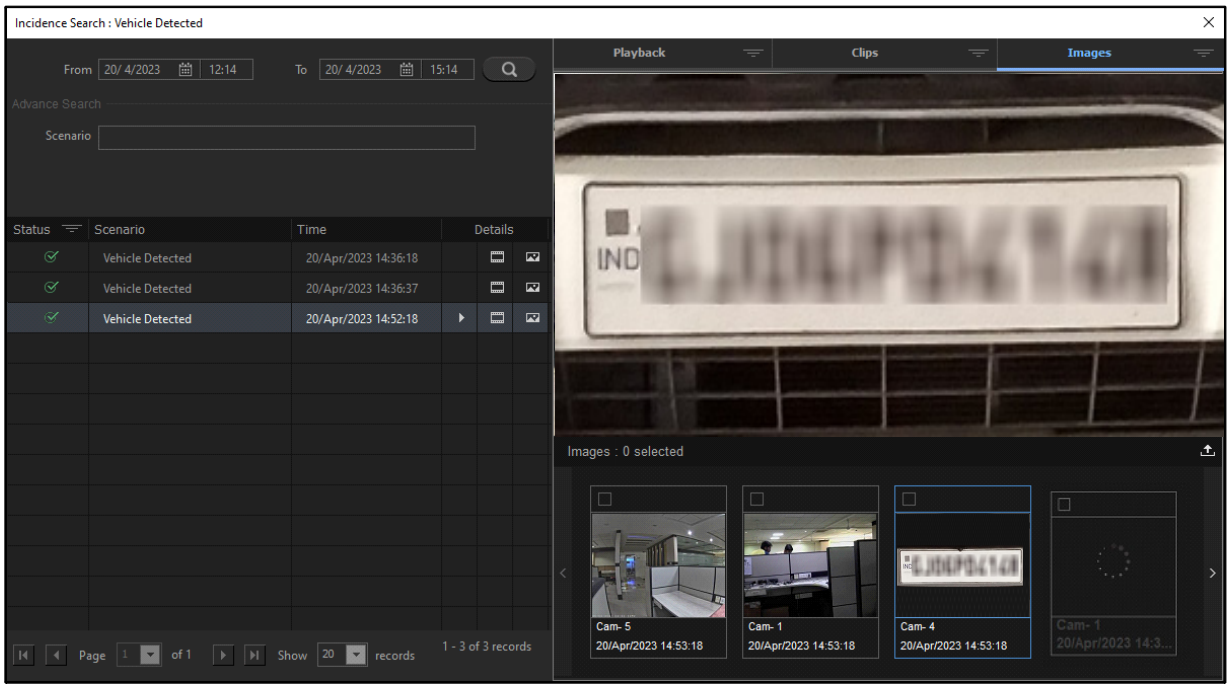


- The date, time and camera details are displayed in the clip. You can perform certain actions on the clip using the **Playback Toolbar**. For more details, refer to "Bottom Pane Functionality-Playback Toolbar".
- You can export the clip to local storage if required.
  - Select the check box for the clip to be exported. Click **Export** . The **Export Details** pop-up appears.



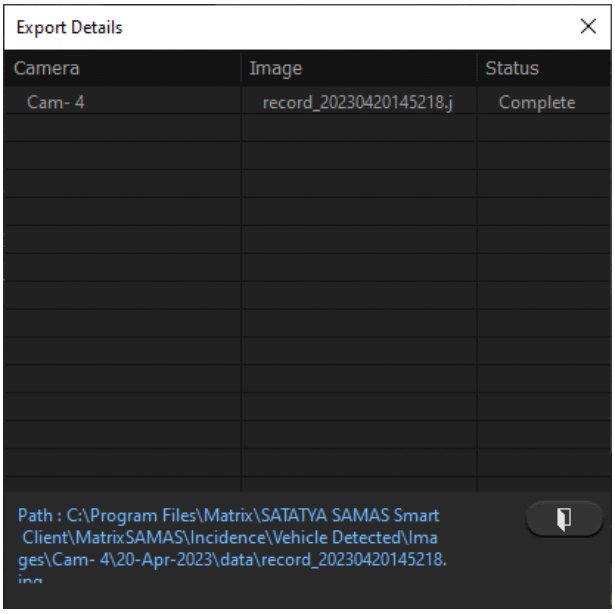
- The Export details displayed are — Camera Name, Clip and Status. The path of the local storage where the clip is stored is also displayed. Click **Open Export Directory** to view the path of the exported files on the local PC.

- Click **Images** corresponding to the desired incident to view the captured images. The image is displayed under the **Images** tab.



- You can export the image to local storage if required.

  - Select the check box for the image to be exported. Click **Export** . The **Export Details** pop-up appears.



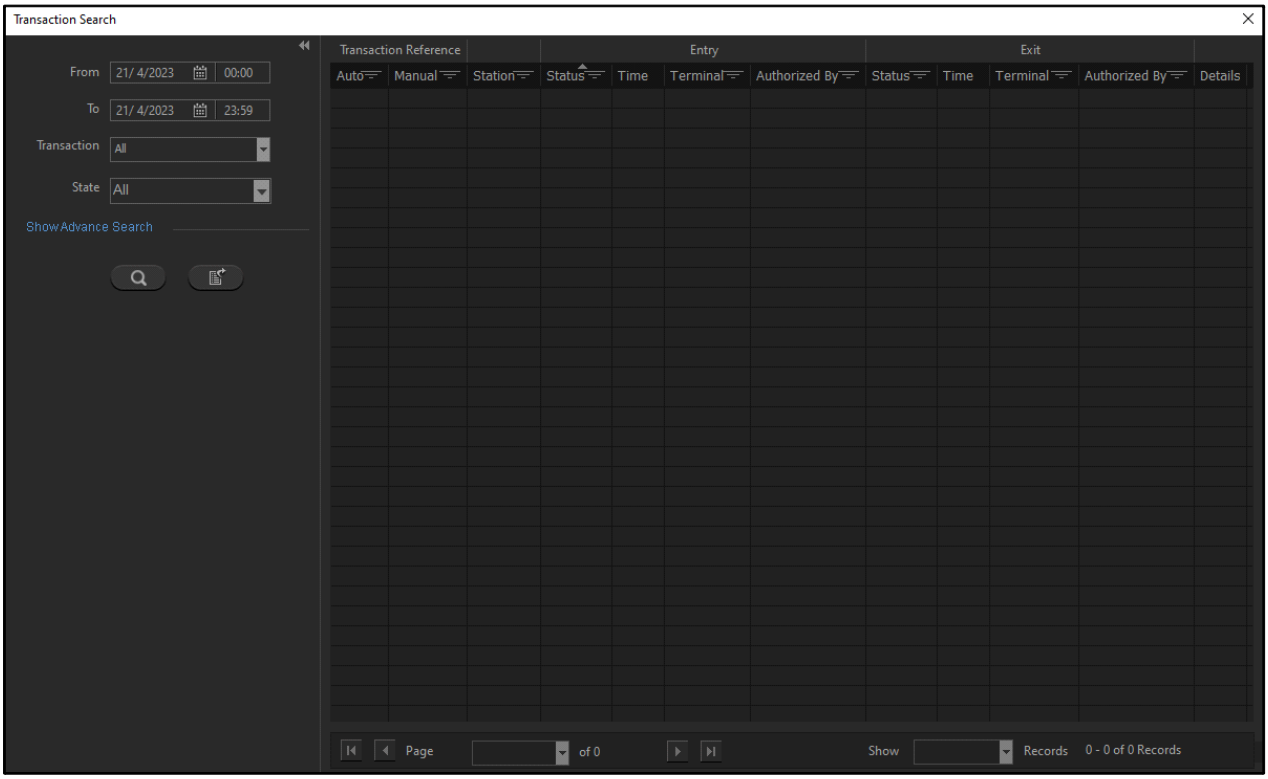
- The Export details displayed are — Camera Name, Clip and Status. The path of the local storage where the clip is stored is also displayed. Click **Open Export Directory** to view the path of the exported files on the local PC.

Transaction Search

The Transaction Search option allows you to search for Entry and Exit Transaction receipts and details for a specified period of time. This is useful when multiple receipts are generated simultaneously and you need to filter the receipts details based on their Status, Terminal and/or Station. You can also view the Approved or Rejected Entry and Exit Transactions if the transaction is completed and the receipt is generated. Make sure you have configured the relevant Stations, Terminals, Entry/Exit Transactions as well as Evidence Receipts from the Admin Client.

To view and configure Transaction Search,

- Click **Investigator > Search > Transaction Search**. The **Transaction Search** pop-up appears.

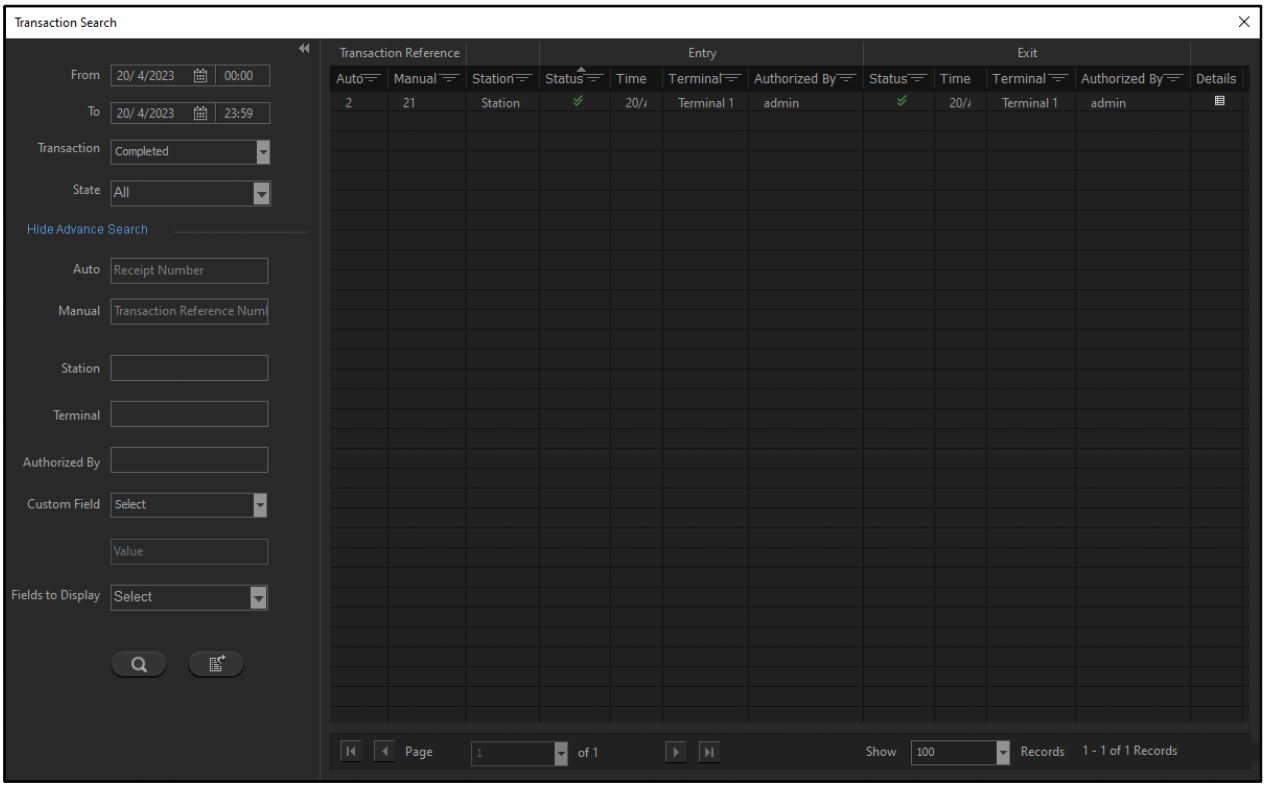


Configure the following parameters.

- **From**: Select the date from which you wish to view the Transaction Receipts from the calendar and specify the time.
- **To**: Select the date till which you wish to view the Transaction Receipts from the calendar and specify the time.
- **Transaction**: Select the type of Transaction for which you wish to view the Transaction Receipts from the drop-down list.

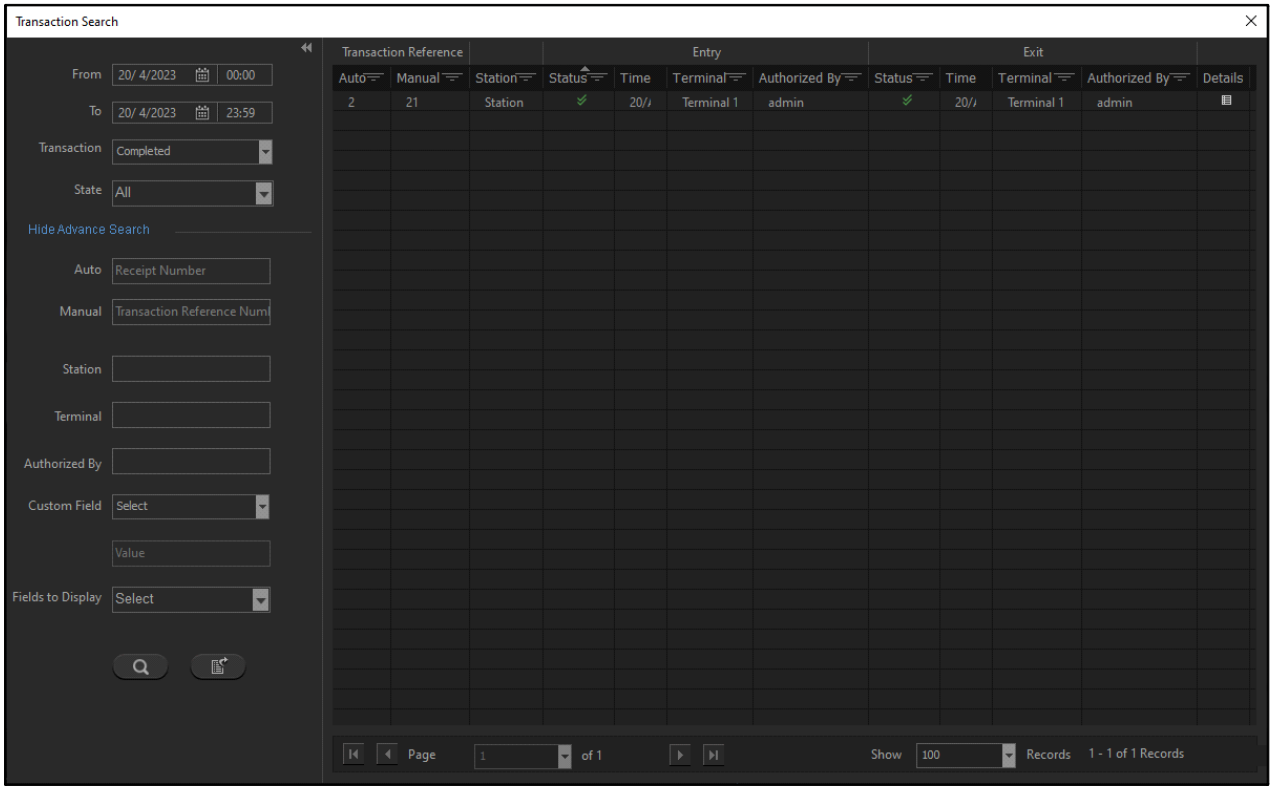
- **Status**: Select the check boxes for the status of Entry and Exit Transaction for which you wish to view the Transaction Receipts from the drop-down list.

Click **Show Advance Search** to configure additional parameters for Transaction Search.



- **Auto**: Specify the Auto Entry or Exit Transaction Reference for the Transaction Receipt which you wish to view.
- **Manual**: Specify the Manual Entry or Exit Transaction Reference as configured, for the Transaction Receipt which you wish to view.
- **Station**: Specify the name of Station for which you wish to view the Transaction Receipts.
- **Terminal**: Specify the name of Terminal for which you wish to view the Transaction Receipts.
- **Approved By**: Specify the name of the user who approved the Entry or Exit Transaction for which you wish to view the Transaction Receipts.
- **Custom Field**: Select the custom fields by which you wish to filter the Transaction Receipts from the drop-down list and specify their value.
- **Fields to Display**: Select the check boxes of the desired fields according to which you wish to filter the Transaction Receipts from the drop-down list.

- Click **Search** . The Transaction details for the configured duration appear in a list on the right hand side.



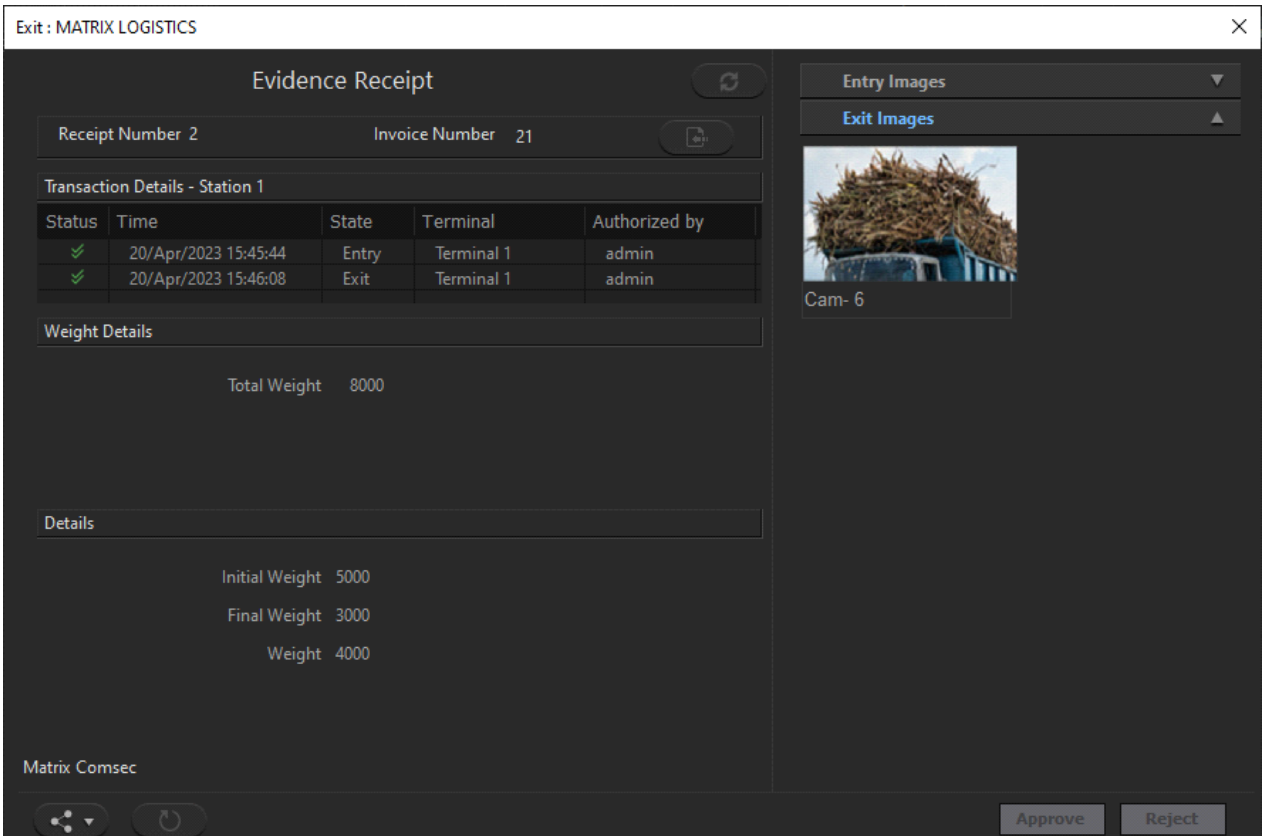
The Transaction details displayed are — Transaction Reference- Auto and Manual, Station and Status, Time, Terminal and Authorized By for Entry and Exit Transaction and Details.

- You can filter the records. To do so, click **Filter** of the respective parameter — Auto, Manual, Status, Terminal, Authorized By.

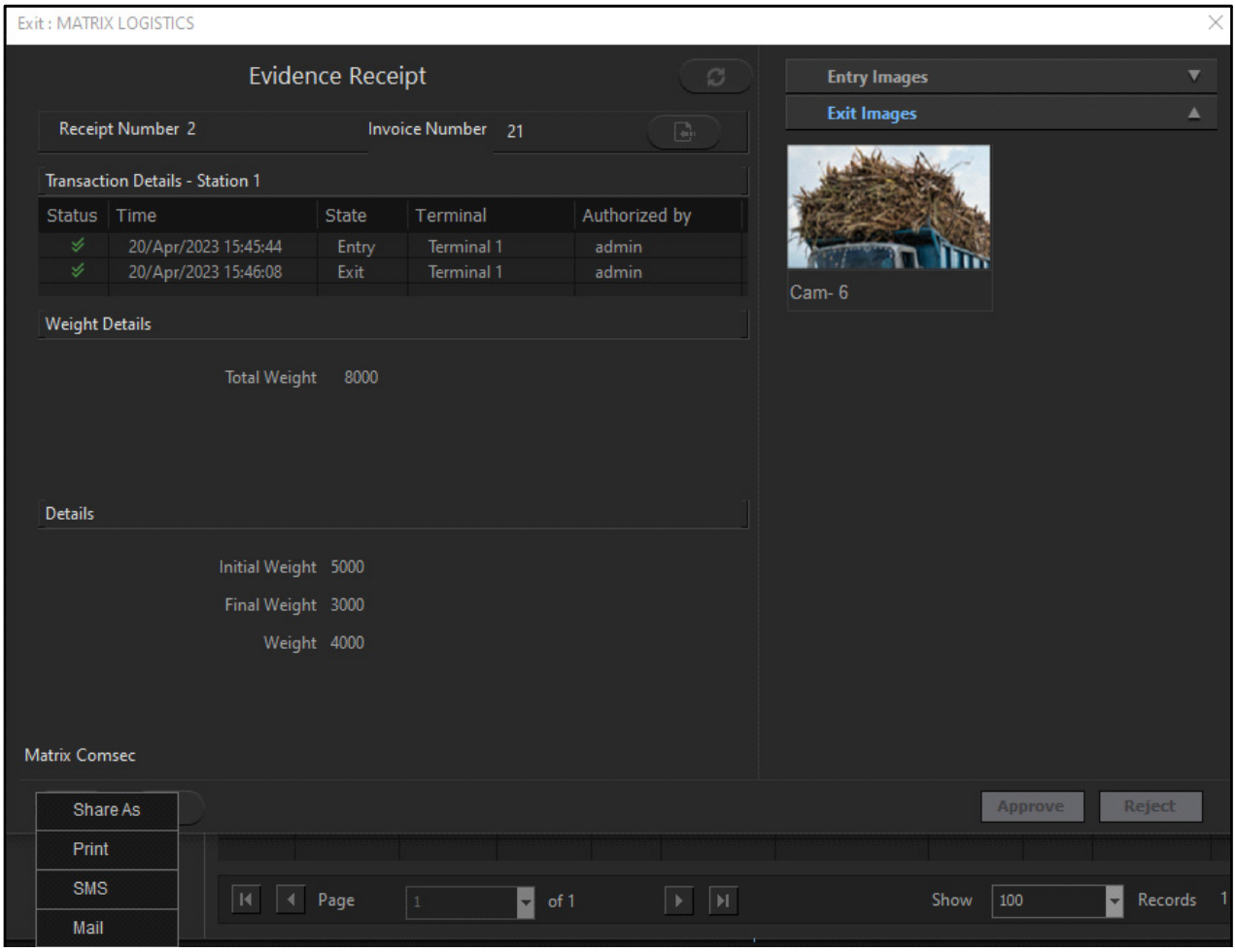
  Select the check box of the desired options and click outside the filter pop-up. The records appear as per the set filters.

  To clear the filter, click **Filter** and then click **CLEAR FILTER** of the desired parameter.

- Click **Details** against the desired Event. The **Exit-Name** pop-up appears.

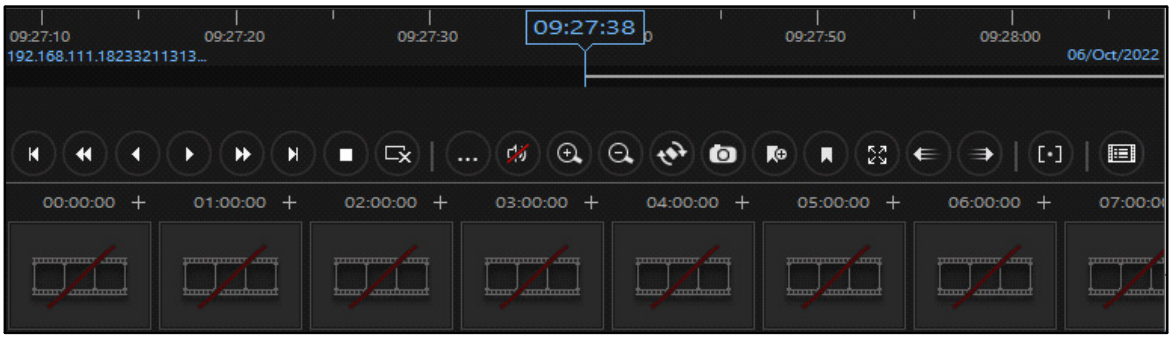


- The Exit Transaction Receipt for the selected Station displays details as configured in Admin Client. The Images captured at Entry and Exit Transaction are also displayed on the receipt, if captured.
- Click **Share** to share the Transaction Receipt. You can share the receipt through — Share As, Print, SMS and Mail. For details, refer to “Options After Approving/Rejecting Entry Transactions”.


Exit : MATRIX LOGISTICS
Evidence Receipt
Receipt Number 2
Invoice Number 21
Transaction Details - Station 1
Status
Time
State
Terminal
Authorized by
20/Apr/2023 15:45:44
Entry
Terminal 1
admin
20/Apr/2023 15:46:08
Exit
Terminal 1
admin
Weight Details
Total Weight 8000
Details
Initial Weight 5000
Final Weight 3000
Weight 4000
Entry Images
Exit Images
Cam- 6
Matrix Comsec
Share As
Print
SMS
Mail
Approve
Reject
Page
1
of 1
Show
100
Records

Bottom Pane Functionality

The bottom pane of the Investigator page consists of the following sections — Playback Toolbar and Thumbnails.



Refer to the following links for the configuration details of different sections:

- “Bottom Pane Functionality-Playback Toolbar”
- “Thumbnails”

The Playback Toolbar in **Investigator** consists of additional buttons which are specific to Investigator Playback Toolbar. These are described below:

- **Show/Hide IVA Options**: Click Show IVA Options to show the IVA Options on the Playback Toolbar.

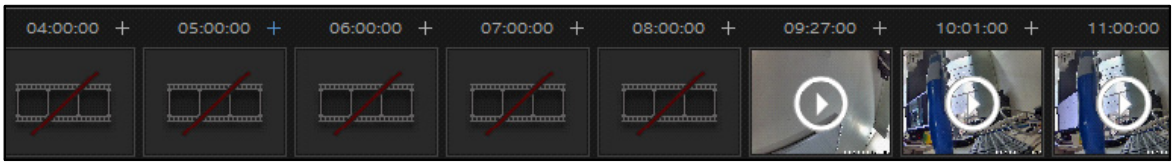
  Click Hide IVA Options to hide the IVA Options.
- **Configure IVA**: Click Configure IVA to configure the IVA Events. For details, refer to “IVA Options”.

  Once the IVA Events are configured, these options are functional in the Playback Toolbar.
- **Clear IVA**: Click Clear IVA to clear the configured IVA Event.
- **Show IVA Alerts**: Click Show IVA Alerts to view the list of all the IVA Alerts for the configured Event. This option will function only when **Receive IVA Alerts** check box is enabled while configuring IVA Events. For details, refer to “IVA Options in the Playback Toolbar”.
- **Start/Stop Seek IVA Alerts**: Click Start Seek IVA Alerts to start seeking the IVA Alerts. The IVA

  Events are paused when this option is in use. Click Stop Seek IVA Alerts to stop seeking the alerts. For details, refer to “IVA Options in the Playback Toolbar”.

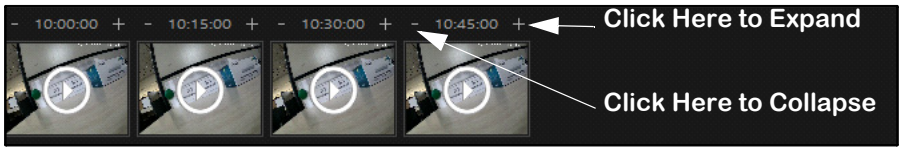
Thumbnails

The Thumbnails section allows you to search for clips for pinpointed duration from the playback of the camera. This is helpful in searching for the required portion of a clip or recording quickly without having to view the entire playback.



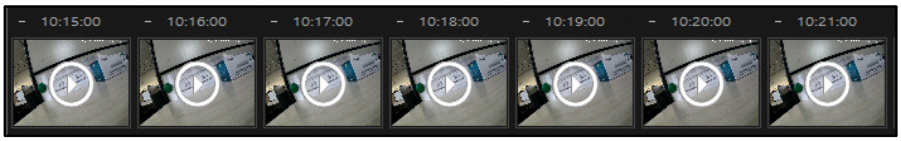
The thumbnails of a playback recording is divided into hours by default. You can expand the recording time in two ways.

- Each one hour clip can be split further into multiple clips of 15 minutes each.
- Each 15 minutes clip can further be split into small clips of 1 minute each.
- Click **Expand** + of the desired hour that you wish to split into clips of 15 minutes each.



- Click **Expand** + of the quarter hour that you wish to split into clips of 1 minute each.

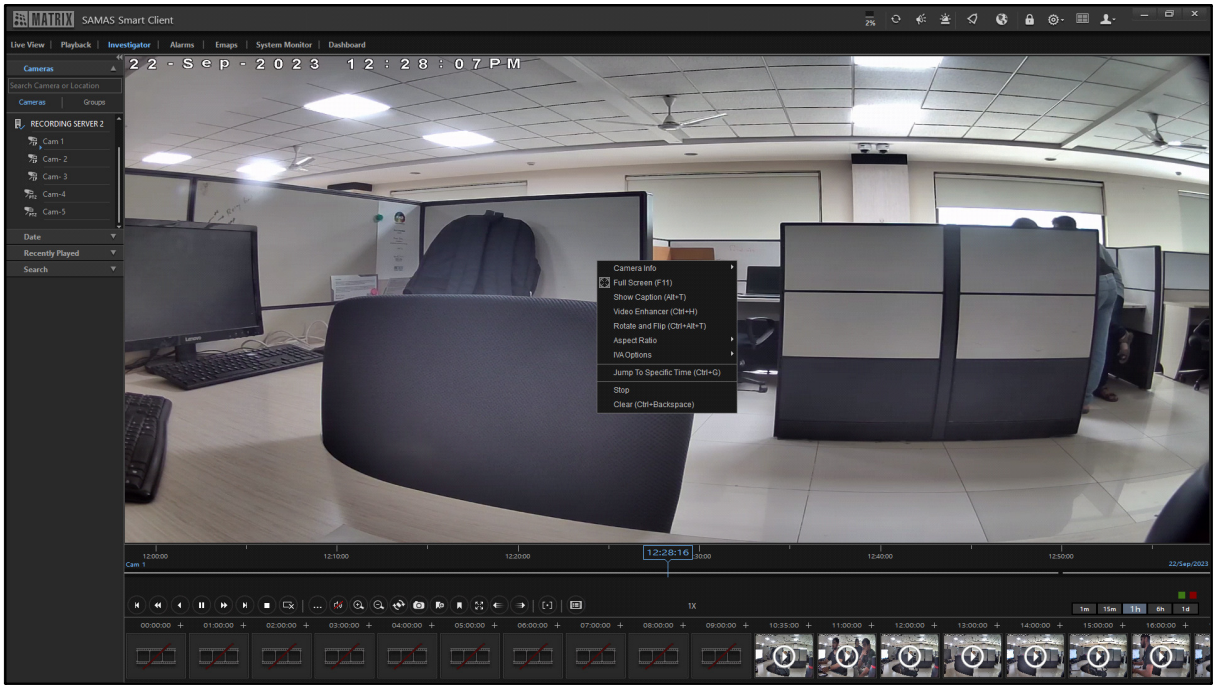
  To locate the exact clip, drag the timeline forwards or backwards by clicking on it.



- Click **Collapse** - to return to the 15 minutes long clips and click on **Collapse** - again to return to the hour long clip.
- Once you have located the exact time of the clip, click the **Play** button on the clip to play the recording.

Investigator: Right-click Functions

You can configure a few parameters by right-clicking on the monitoring window.



Refer to the following links for the configuration details of different options:

- Camera Info
- Full Screen
- Show Caption
- Video Enhancer
- Rotate and Flip
- Aspect Ratio
- “IVA Options”
- Jump To Specific Time
- Stop
- Clear

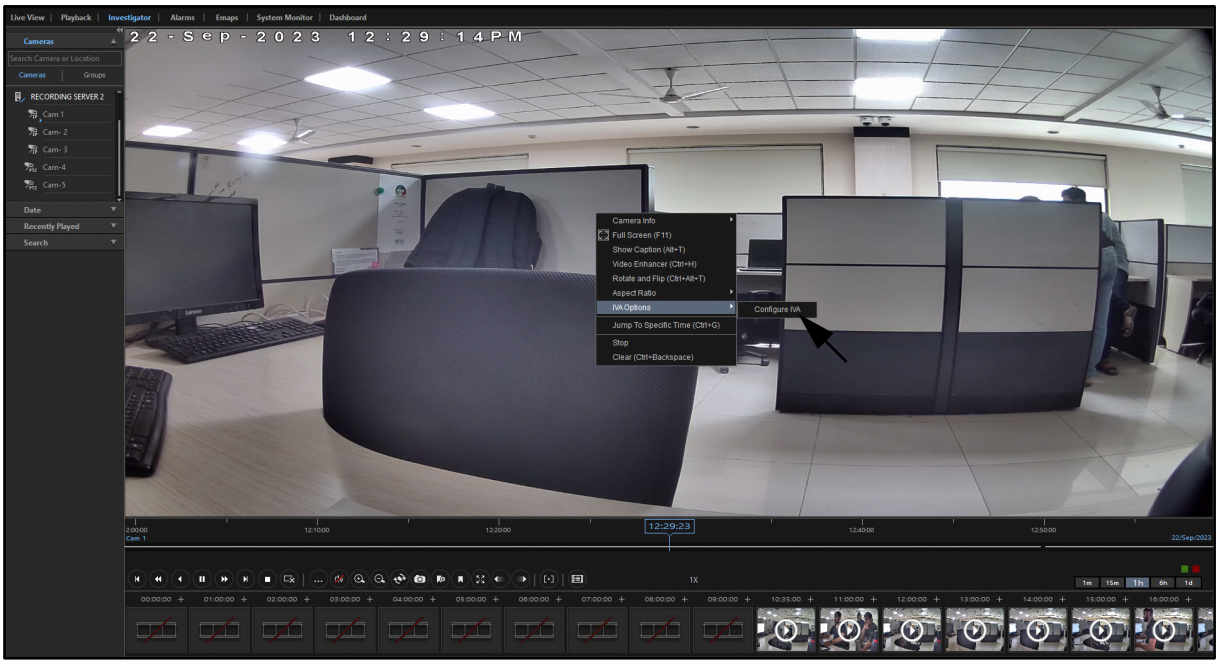
Refer to,“Camera Live View: Right-click Options” for the details of the options mentioned above (except IVA).

IVA Options

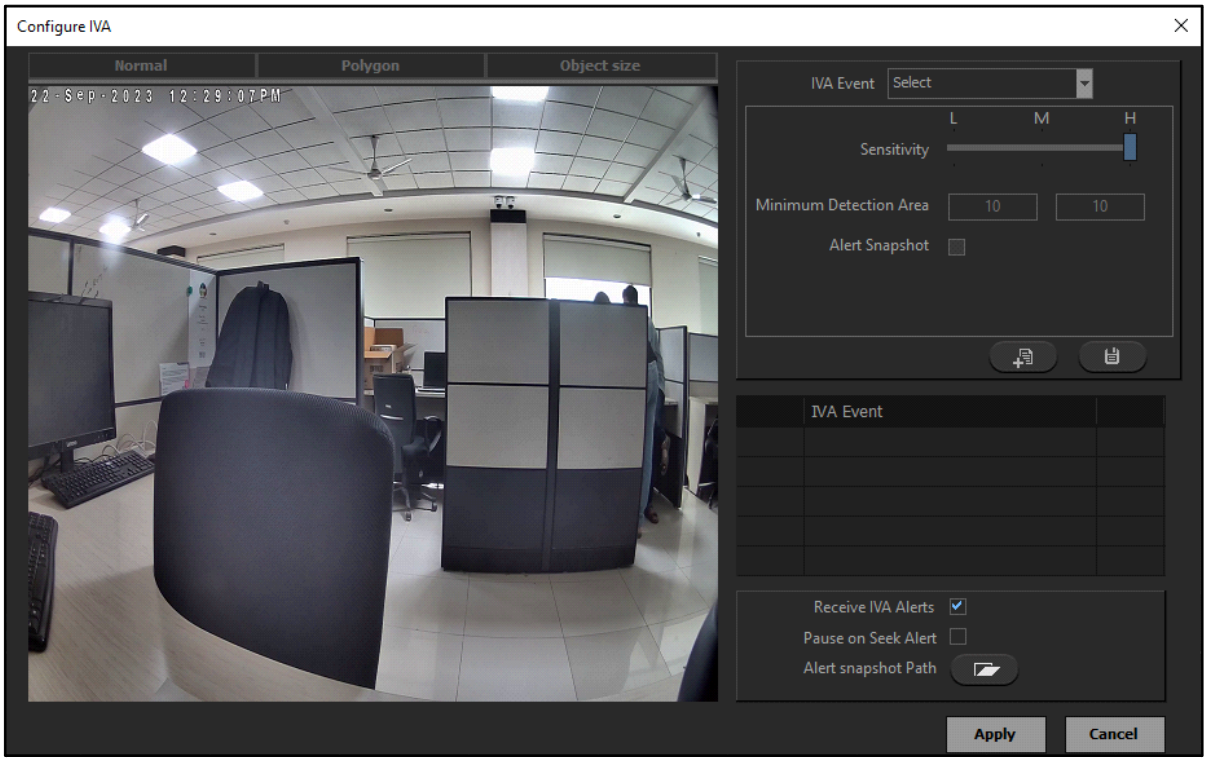
The IVA Options allow you to configure certain Events which can be detected using the Investigator for a particular camera. These Events are detected by the IVA Server. Configuring these Events allow you to monitor specific Events or incidences in the playback without having to watch the entire recording. You can also get real-time IVA alerts that help in taking actions promptly.

To configure IVA Events,

- Right-click on the monitoring window and select **IVA Options**. The **Configure IVA** option appears.



- Click **Configure IVA**. The **Configure IVA** pop-up appears.



*You can also access the **Configure IVA** pop-up by clicking on **Show IVA Options** from the Playback Toolbar and then clicking on **Configure IVA** .*

For detecting Object Detection Event and detecting Object Types in all IVA Events, make sure the Object Classification[3] License is activated, GPU is affixed in the PC where Smart Client and IVA Server are installed and the GPU Model is created.

If a camera is configured for Object Classification from any module in Admin Client and the same is also configured from Investigator, then the number of Object Classification license consumed will be two.

For detecting Face Detection[4] Event, make sure the GPU is affixed in the PC where Smart Client and IVA Server are installed and the GPU Model is created.

The IVA Server uses the GPU Model for Face Detection and Object Detection. If the IVA Server fails to load the GPU Model library for some reason, then an event for the same will be displayed in Online Events and Event Log as well as the event detection will fail.

You can configure the following IVA Events.

- "Motion Detection"
- "No Motion Detection"
- "Missing Object"

3. *Object Detection Event, Object Type in all IVA Events as well as Object Classification License are not available in the current Software Release. These will be included in the upcoming release.*
4. *This feature is not available in the current Software Release. It will be included in the upcoming release.*

- “Camera Tampering”
- “Intrusion Detection”
- “Trip-Wire Detection”
- “Loitering Detection”
- “Tailgating”

The above events can be configured for the Live View (from the Module) as well as for the Recordings (from the Investigator).

When these events are configured for the Live View, the Module license is required. However when the same is configured for Recordings (from the Investigator) then no license is required.

However in these events if Object Classification is configured, then for both Live View and Recordings license of Object Classification is required.

You can configure the following IVA Events only if the Status for the respective Event is ON in Detection Through Investigator in the Admin Client.

- “Face Detection”
- “Vehicle Detection”
- “People Counting”
- “Vehicle Counting”
- “Premises Availability”
- “Wrong Way Detection”
- “Prohibited Parking”
- “Unauthorized Parking”
- “Improper Parking”
- “Object Detection”

The above events can be configured for the Live View (from the Module) as well as for the Recordings (from the Investigator).

When these events are configured for the Live View or for the Recordings (from the Investigator) then license is required.

For detecting events such as Trip Wire, People Counting, Vehicle Counting, Tailgating, Prohibited Parking, Wrong way Detection, Premises Availability, Improper Parking, it is recommended that the Camera for detection should be placed at 90 degree and plus or minus 15 degrees to the detection area.

There will be 10 seconds of delay time to check for the License (dongle), if it is not found (or removed in-between) during the process of event generation for all Vehicle based events where the CARMEN ARH has been used.

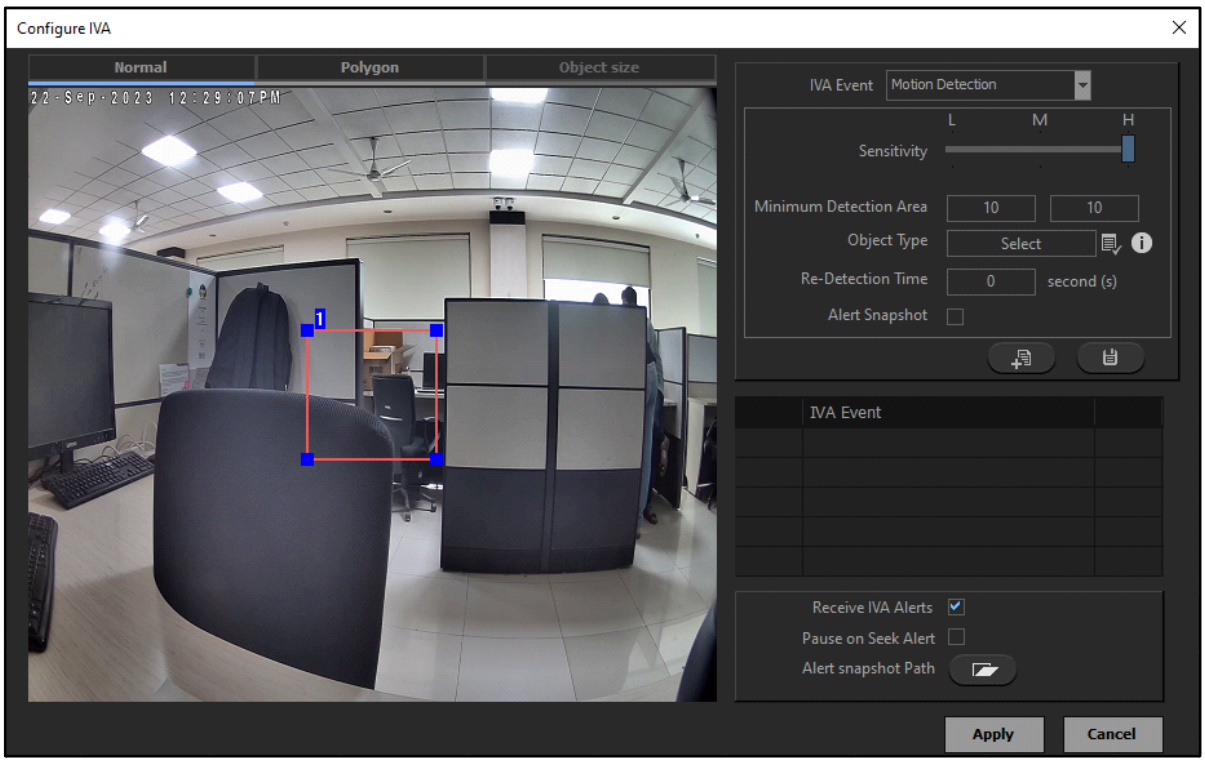
The IVA Options for all the events will work with the video speed of 1x only. The speed will automatically changed to 1x if user is trying to configure the analytics with any other video speed.

Motion Detection

The Motion Detection feature enables you to configure Motion Detection Event for a camera. Such an Event is required where no motion is expected to occur in the area of vision of the configured camera. For example, a Server Room, where entry is restricted. If any motion takes place in this location, the Motion Detection Event will be triggered.

To configure Motion Detection Event for a camera,

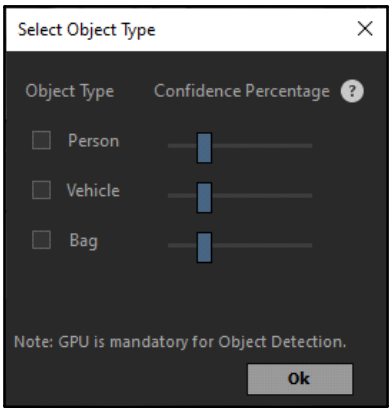
- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Motion Detection** from the drop-down list.
- **Sensitivity**: Drag the slider towards the right/left to set the required sensitivity for the Motion Detection Event — Low, Medium or High.
- **Minimum Detection Area**: Specify the dimensions of the minimum detection area for the Motion Detection Event. For example, if the zone is configured on the entire screen, and the minimum detection area is configured as 10x10, the motion occurring in that size in the zone will result in an IVA Event.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
    - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



    - Select the check boxes for the desired Object Types from the list and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.
- **Re-Detection Time**: Specify the time after which the Motion Detection Event must be detected again after the previous detection.
- **Alert Snapshot**: Select the check box to generate alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse**. It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

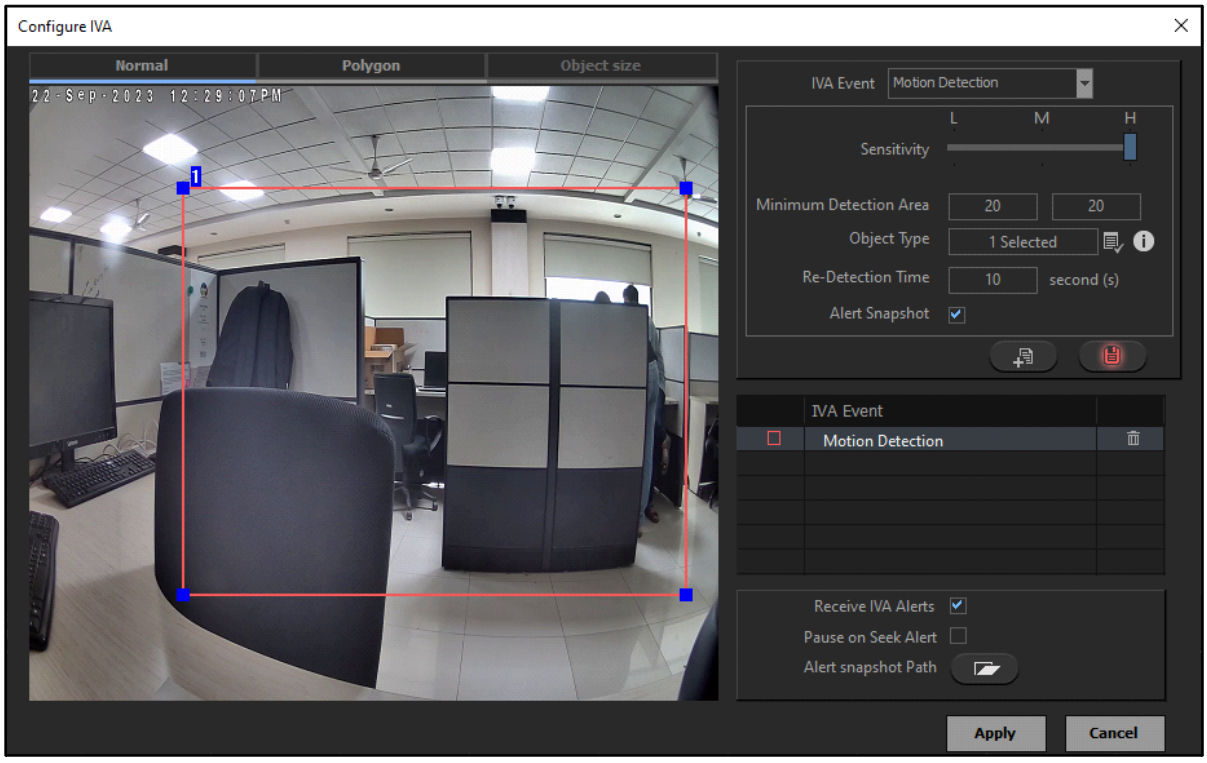
- Click **Add To List** once these configurations are done. The Motion Detection Event appears in the **IVA Event** list.

Zone Configuration

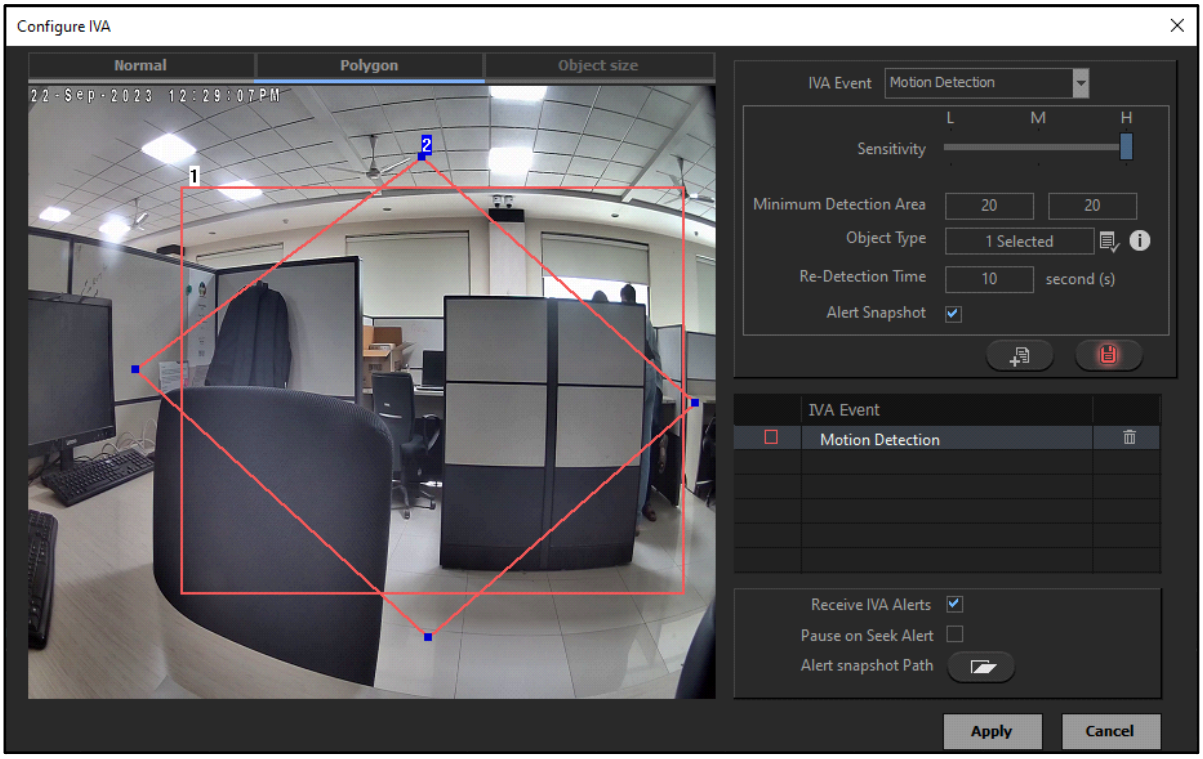
Once you have configured the Event parameters, you need to draw a Motion zone in the playback camera view.

You can either draw a square or polygon to define the zone.

- Select either **Normal** or **Polygon** to draw the zone.
  - If you select **Normal**, drag the corners and sides of the square to configure the zone. Drag the entire zone to move its position on the screen. The zone number appears by default on the top-left side of the zone border.



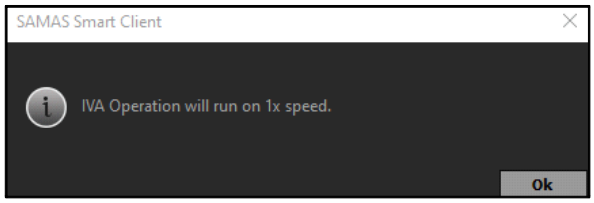
  - If you select **Polygon**, click on the camera view to place the vertex/node of the polygon. Click again on the desired place to join the previous vertex/node with the new vertex/node. Continue this process to complete the polygon. The zone number appears by default on the top-left side of the zone border.



The Zone configurations for Motion Detection, No Motion Detection, Missing Object, Intrusion Detection, Loitering Detection, Face Detection, Vehicle Detection, Prohibited Parking, Unauthorized Parking, Improper Parking and Object Detection are the same. The Zone for Intrusion Detection displays green and red colored arrows, which indicate entry and exit direction of the zone respectively. These arrow directions cannot be changed. Only 2 Zones are supported per IVA Event, however for Face Detection and Vehicle Detection only 1 zone is supported.

When the zone configuration is in process, the **Save** icon starts blinking in Red color .

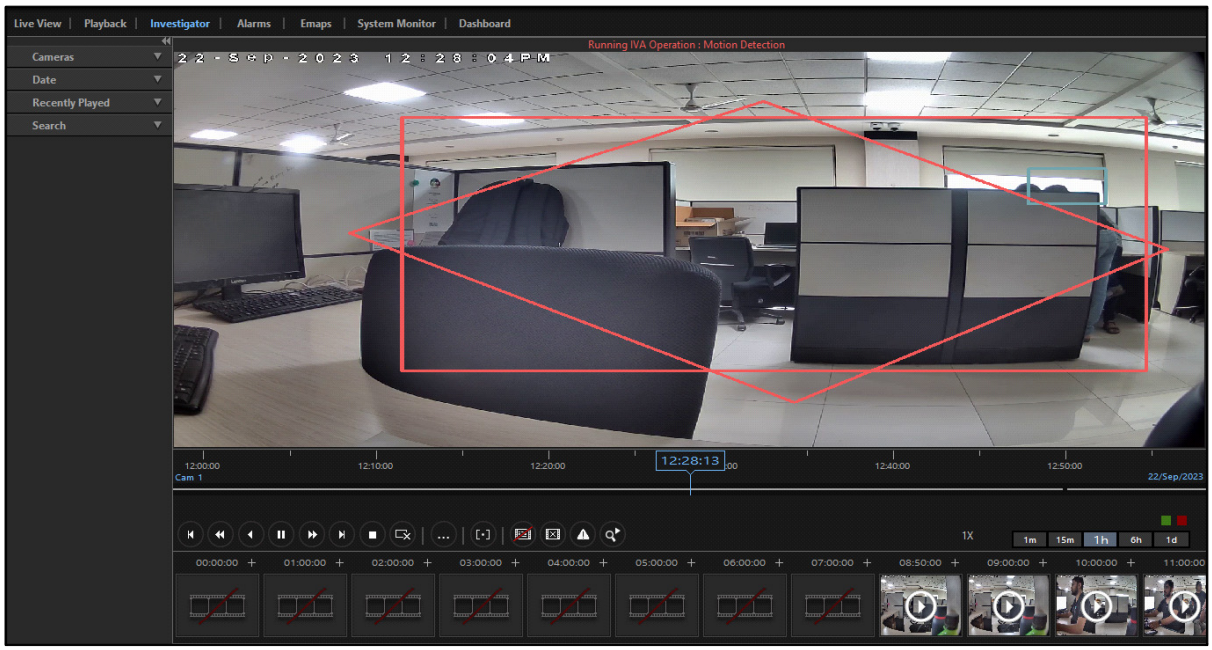
- Click **Save** once these configurations are done.
- Click **Apply** to apply the configurations. The following pop-up appears.



- Click **Ok**.

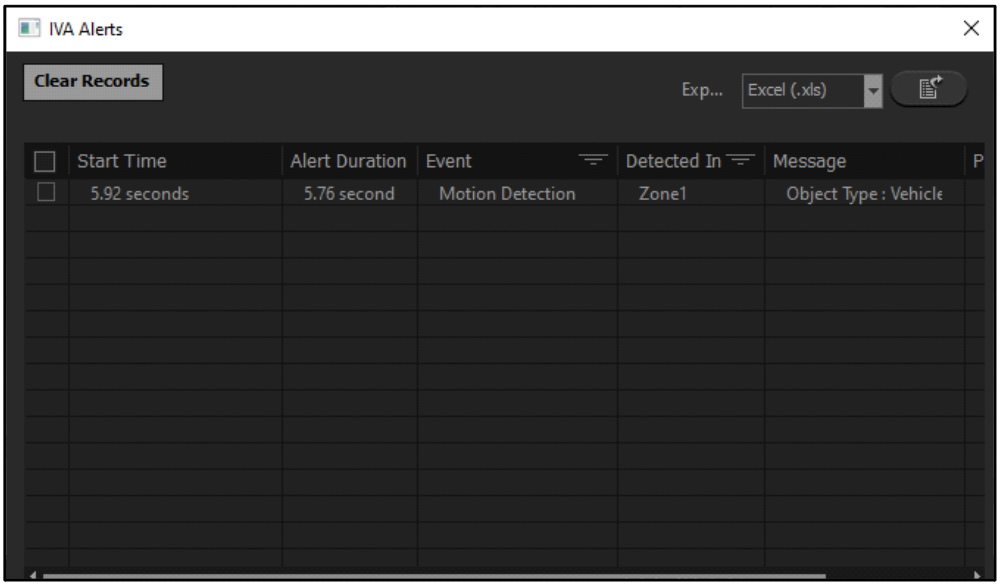
IVA Options in the Playback Toolbar

The **IVA Event** starts running in the monitoring window for the camera for which you have configured the Event.



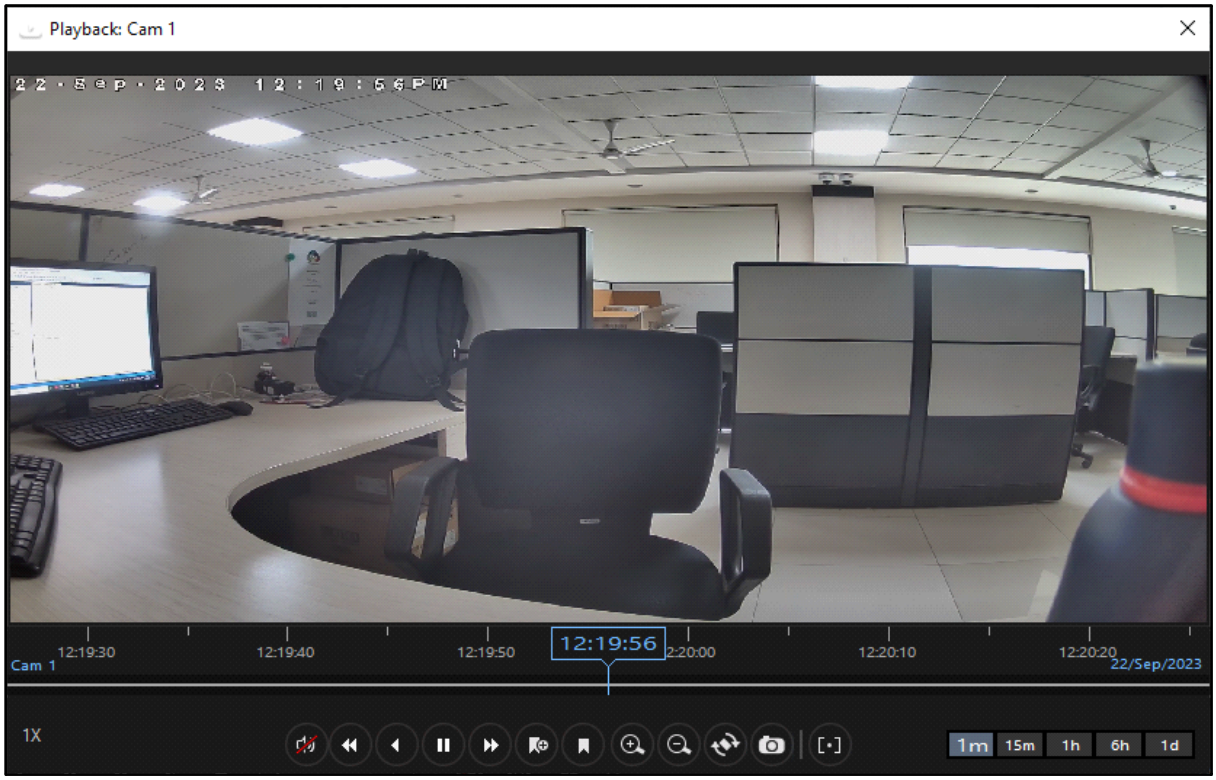
The configured zones appear in the monitoring window. You can configure the following IVA Event Options — Hide IVA Options, Clear IVA, Show IVA Alerts and Start/Stop Seek IVA Alert.

- **Hide IVA Options**: Click Hide IVA Options to hide the IVA options in the Playback Toolbar.
- **Clear IVA**: Click Clear IVA to clear the configured IVA Event.
- **Show IVA Alerts**: Click Show IVA Alerts to view the list of all the IVA Alerts for the configured Events. This option will function only when **Receive IVA Alerts** check box is selected while configuring IVA Events.
  - Click **Show IVA Alerts** . The **IVA Alert** pop-up appears.

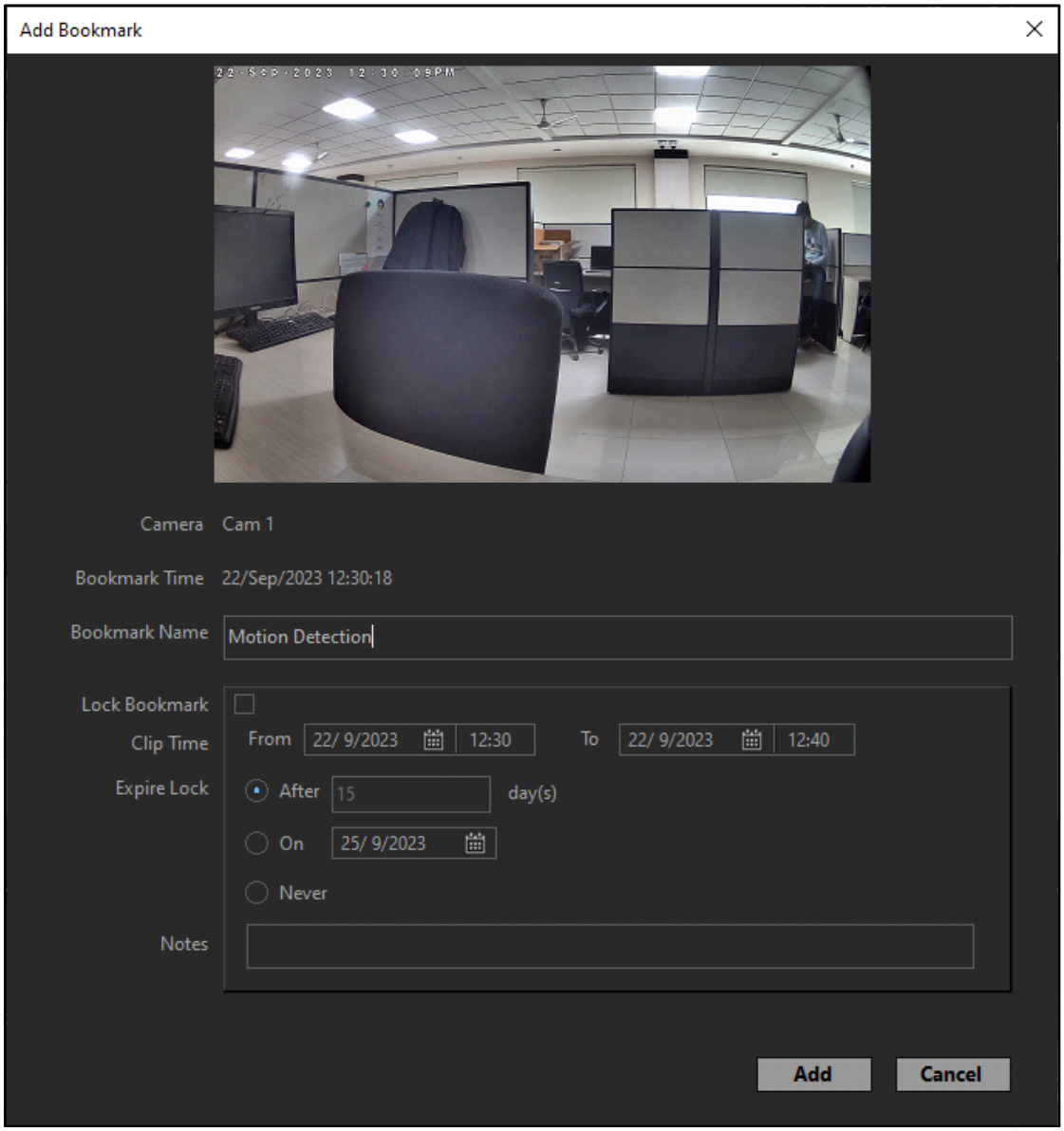


All the IVA Alerts for the configured Events appear in a list. These Event details displayed are — Start Time, Alert Duration, Event, Detected In, Message, Playback and Bookmark. You can configure the following parameters — Playback and Bookmark.

- **Playback**: Click Playback to play the playback of the selected IVA Alert. The **Playback** pop-up appears.



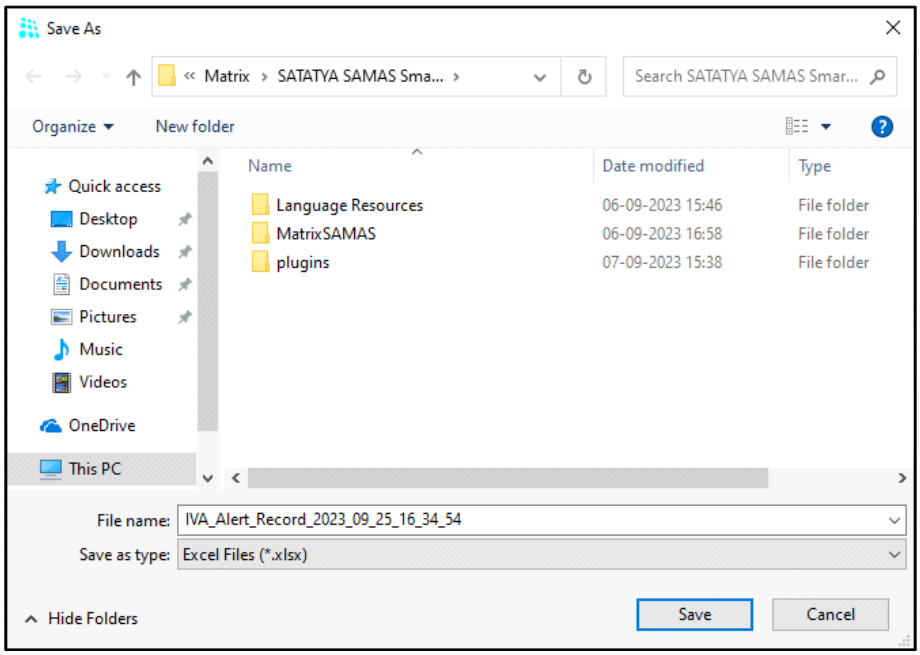
- The date, time and camera details are displayed in the playback as configured. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.
- **Bookmark**: Click Bookmark to bookmark the IVA Alert. The **Add Bookmark** pop-up appears.



- Configure the parameters for Bookmark. For details refer to “Add Bookmark”.

You can also Clear all the IVA Records and Export the records to a local PC.

- **Clear Records**: Click Clear Records to clear all the IVA Alerts.
- **Export:** Select the format in which you wish to export the records from the Export drop-down list.
  - Click **Export** . The **Save As** pop-up appears.



- Select the desired folder where you wish to save the Report file and specify the file name.

- Click **Save** to save the file or click **Cancel** to discard.
- **Start/Stop Seek IVA Alerts**: Click Start Seek IVA Alerts to start seeking the IVA Alerts. The IVA Events are paused when this option is in use. These will be displayed in the Show IVA Alerts list. You can either Playback or Add Bookmark for these events. For details refer to Show IVA Alerts.

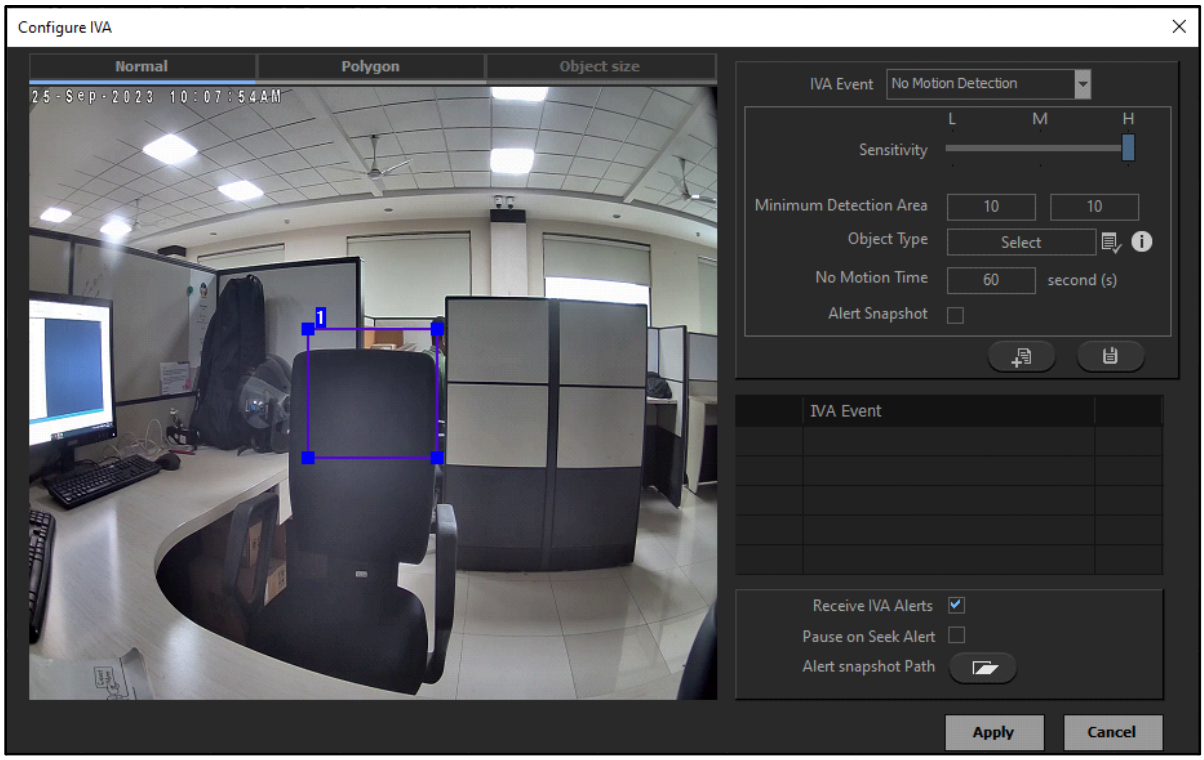
  Click Stop Seek IVA Alerts to stop seeking the alerts. This option will function only when the playback stream is running in the monitoring window.

No Motion Detection

The No Motion Detection feature enables you to configure No Motion Detection Event for a camera. Such an Event is required where continuous motion is expected to occur in the area of vision of the configured camera. For example, at locations such as factories, security check-posts etc. If continuous motion does not take place at this location, the No Motion Detection Event will be triggered.

To configure No Motion Detection Event for camera,

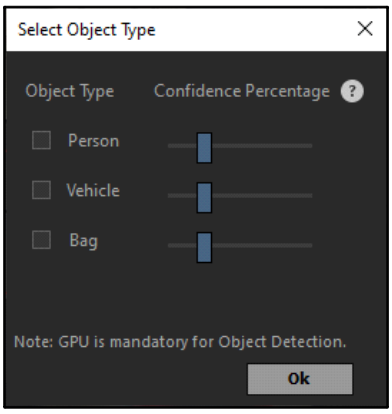
- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **No Motion Detection** from the drop-down list.
- **Sensitivity**: Drag the slider towards the right/left to set the required sensitivity for the No Motion Detection Event — Low, Medium or High.
- **Minimum Detection Area**: Specify the dimensions of the minimum detection area for the No Motion Detection Event. For example, if the zone is configured on the entire screen, and the minimum detection area is configured as 10x10, when no motion occurs in that size in the zone, it would result in an IVA Event.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



- Select the check boxes for the desired Object Types from the list and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

- **No Motion Time**: Specify the time for no-motion after which the No Motion Detection Event will be triggered.
- **Alert Snapshot**: Select the check box to generate alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all the folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The No Motion Detection Event appears in the **IVA Event** list.

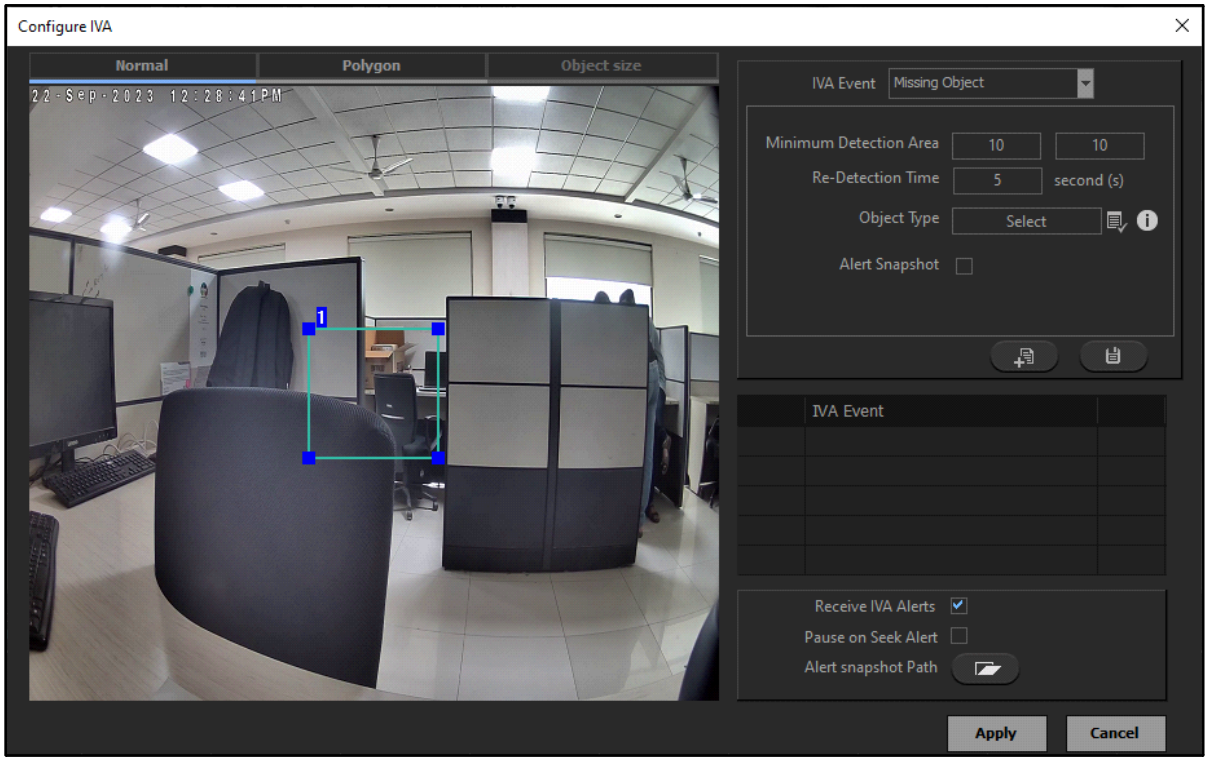
The configurations of Zone and IVA options for No Motion Detection are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

Missing Object

The Missing Object feature enables you to configure Missing Object Event for a camera. The Missing Object feature monitors the playback stream of a camera and detects any objects that go missing from the camera view.

To configure Missing Object Event for camera,

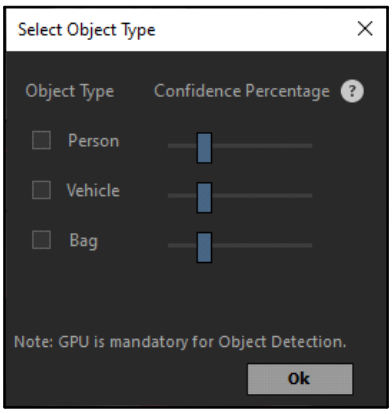
- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Missing Object** from the drop-down list.
- **Minimum Detection Area**: Specify the dimensions of the minimum detection area for the Missing Object Event. For example, if the zone is configured on the entire screen, and the minimum detection area is configured as 10x10, missing object occurring in that size in the zone would result in an IVA Event.
- **Re-Detection Time**: Specify the time after which the Missing Object Event will be detected again after the previous detection.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



- Select the check boxes for the desired Object Types from the list and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

- **Alert Snapshot**: Select the check box to generate alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a storage path in the selected drive where you want to store the snapshot. Clicking on **Browse** will display all folders which are in the drive. Select the required folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Missing Object Detection Event appears in the **IVA Event** list.

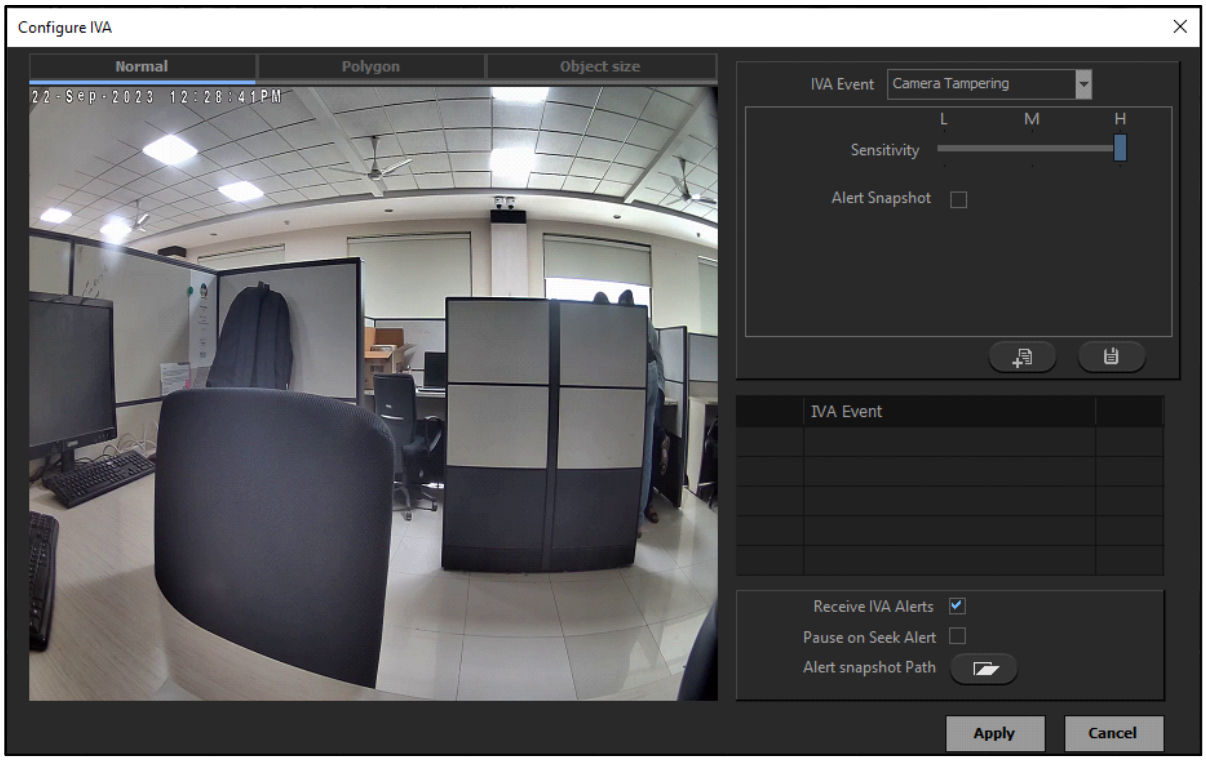
The configurations of Zone and IVA options for Missing Object are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

Camera Tampering

The Camera Tampering feature enables you to configure Camera Tampering Event for a camera. The Camera Tampering feature monitors the playback stream of a camera and detects any attempts to impair the normal camera functioning. This may involve sabotaging actions such as partially or fully blocking the lens or field of view of the camera, drastically changing the camera angle or other similar actions leading to camera failure.

To configure Camera Tampering Event for camera,

- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



Event Configuration

- **IVA Event**: Select **Camera Tampering** from the drop-down list.
- **Sensitivity**: Drag the slider towards the right/left to set the required sensitivity for the Camera Tampering Detection Event — Low, Medium or High.
- **Alert Snapshot**: Select the check box to generate alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Camera Tampering Event appears in the **IVA Event** list.

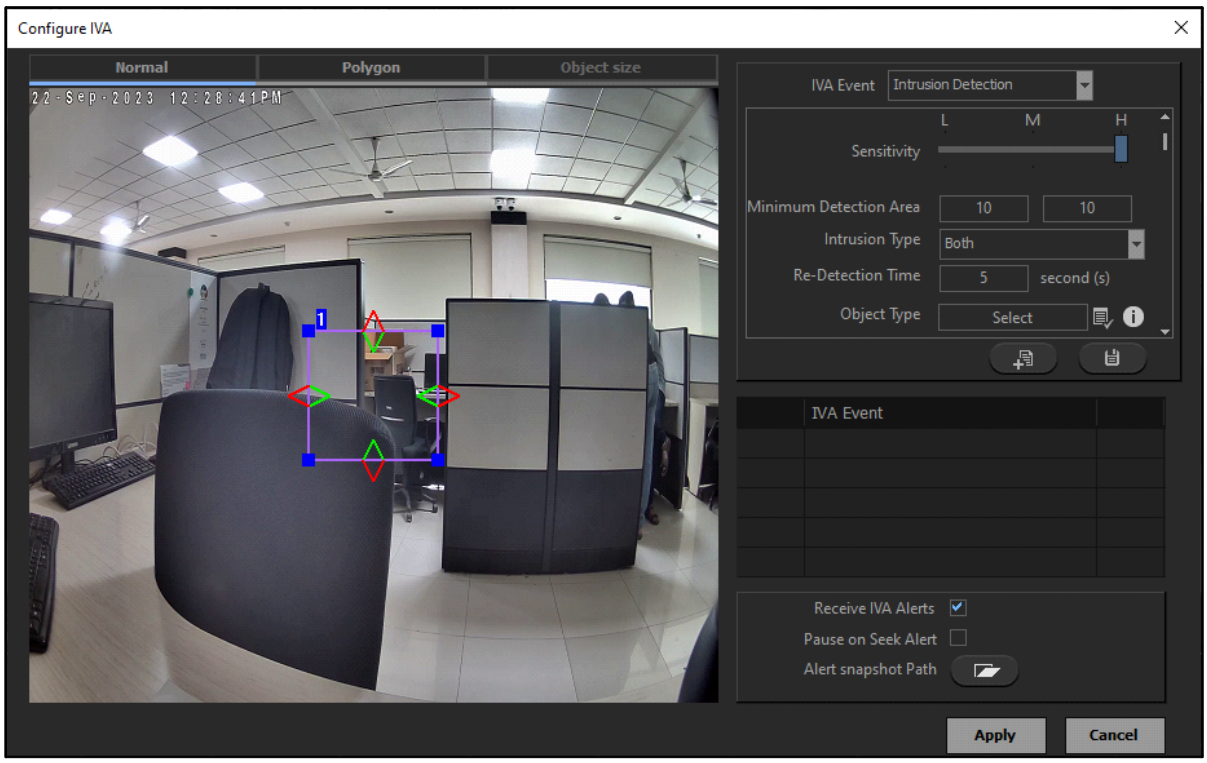
The configurations of the IVA options for Camera Tampering is similar to Motion Detection. For details, refer to “IVA Options in the Playback Toolbar”.

Intrusion Detection

The Intrusion Detection feature enables you to configure Intrusion Detection Event for a camera. The Intrusion Detection feature monitors the playback stream of a camera and detects any attempts to enter or leave the premises where access is prohibited. Such an Event is required when an area is to be kept closed for entry. For example, in a storage room where hazardous waste is stored, Intrusion Detection Event will help to detect the presence of any person who is not allowed to access the premises.

To configure Intrusion Detection Event for camera,

- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

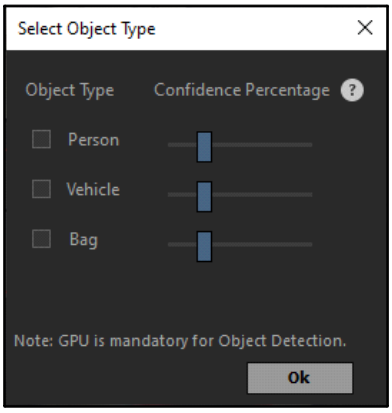
- **IVA Event**: Select **Intrusion Detection** from the drop-down list.
- **Sensitivity**: Drag the slider towards the right/left to set the required sensitivity for the Intrusion Detection Event — Low, Medium or High.
- **Minimum Detection Area**: Specify the dimensions of the minimum detection area for the Intrusion Detection Event. For Example, if the zone is configured on the entire screen, and the minimum detection area is configured as 10x10, Intrusion occurring in that size in the zone would result in an IVA Event.
- **Intrusion Type**: Select the Intrusion Type from the drop-down list — In, Out and Both.

  If you select **In**, the Event will occur when an object/person enters inside the configured zone.

  If you select **Out**, the Event will occur when an object/person leaves the configured zone.

If you select **Both**, the Event will occur either when an object/person enters or leaves the zone.

- **Re-Detection Time**: Specify the time after which the Intrusion Detection Event will be detected again after the previous detection.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



  - Select the check boxes for the desired Object Types from the list and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.
- **Alert Snapshot**: Select the check box to generate an alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse**. It will display all folders which are in the drive. Select the required folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Intrusion Detection Event appears in the **IVA Event** list.

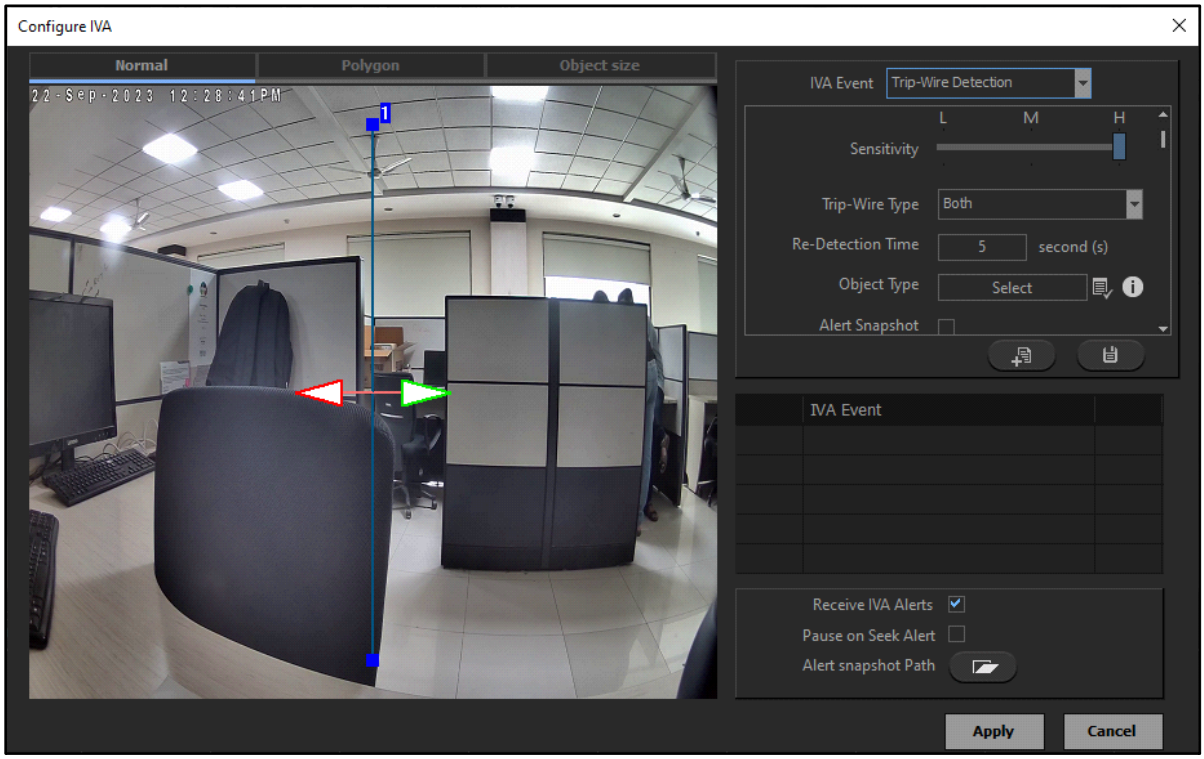
The configurations of Zone and IVA options for Intrusion Detection are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

Trip-Wire Detection

The Trip-Wire feature enables you to configure Trip-Wire Detection Event for a camera. The Trip-Wire feature restricts a trespasser from crossing the line. A line can be drawn across the camera view. Any object or person crossing the drawn line will generate an Event depending on the direction of movement.

To configure Trip-Wire Detection Event for camera,

- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

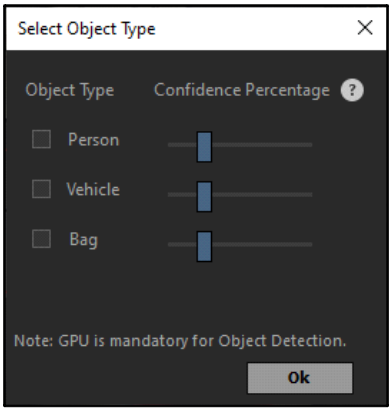
- **IVA Event**: Select **Trip-Wire Detection** from the drop-down list.
- **Sensitivity**: Drag the slider towards the right/left to set the required sensitivity for the Trip-Wire Detection Event — Low, Medium or High.
- **Trip-Wire Type**: Select the Trip-Wire Type from the drop-down list — In, Out and Both.

  If you select **In**, the Event will occur when an object/person crosses the line in the direction of green color.

  If you select **Out**, the Event will occur when an object/person crosses the line in the direction of red color.

  If you select **Both**, the Event will occur either when an object/person crosses the line either in the direction of green or red color.

- **Re-Detection Time**: Specify the time after which the Trip-Wire Detection Event will be detected again after the previous detection.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
    - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



    - Select the check boxes for the desired Object Types from the list and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.
- **Alert Snapshot**: Select the check box to generate an alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse**. It will display all folders which are in the drive. Select the desired folder.

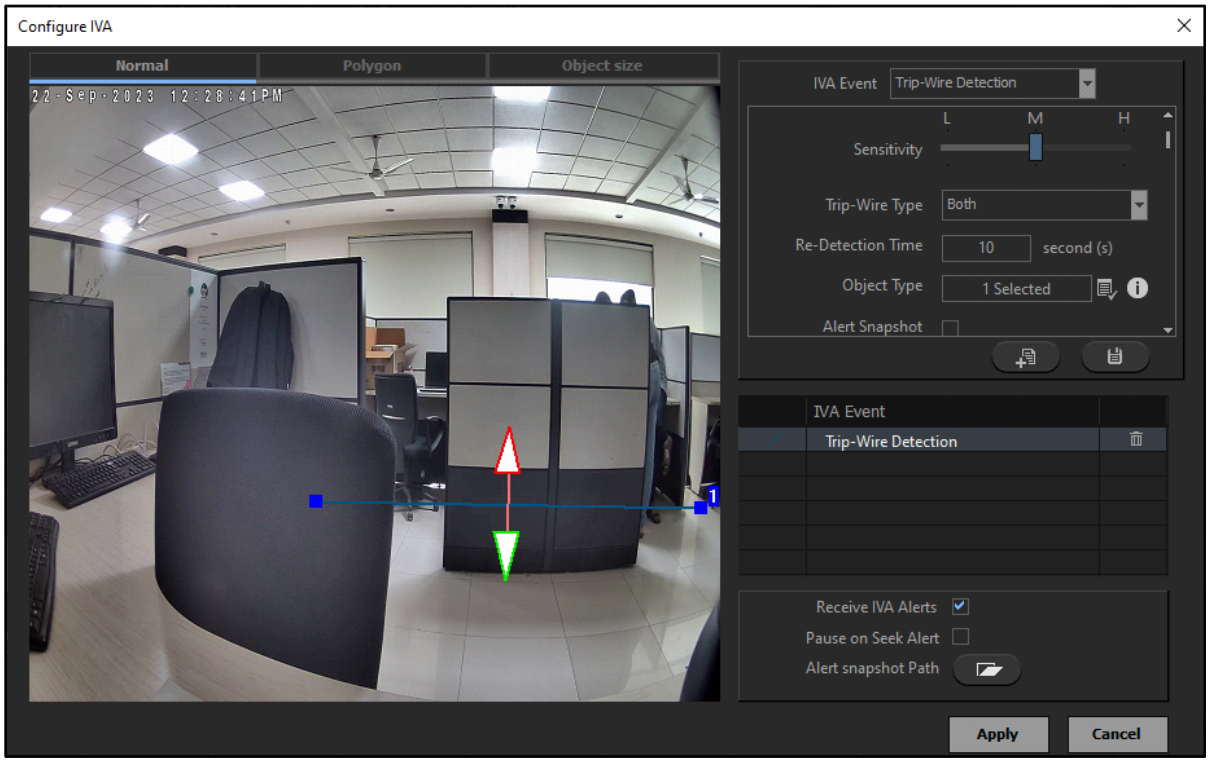
When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Trip-Wire Detection Event appears in the **IVA Event** list.

Zone Configuration

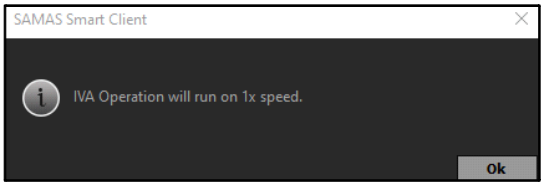
Once you have configured the Event parameters, you need to draw a Trip-Wire line on the playback camera view.

- Drag the line to increase or decrease the length of the Security Line and set it as required. You can also drag it to change the Entry (Green arrow) and Exit (Red arrow) direction.



When the zone configuration is in process, the **Save** icon starts blinking in Red color .

- Click **Save** once these configurations are done.
- Click **Apply** to apply the configurations. The following pop-up appears.



- Click **OK**.

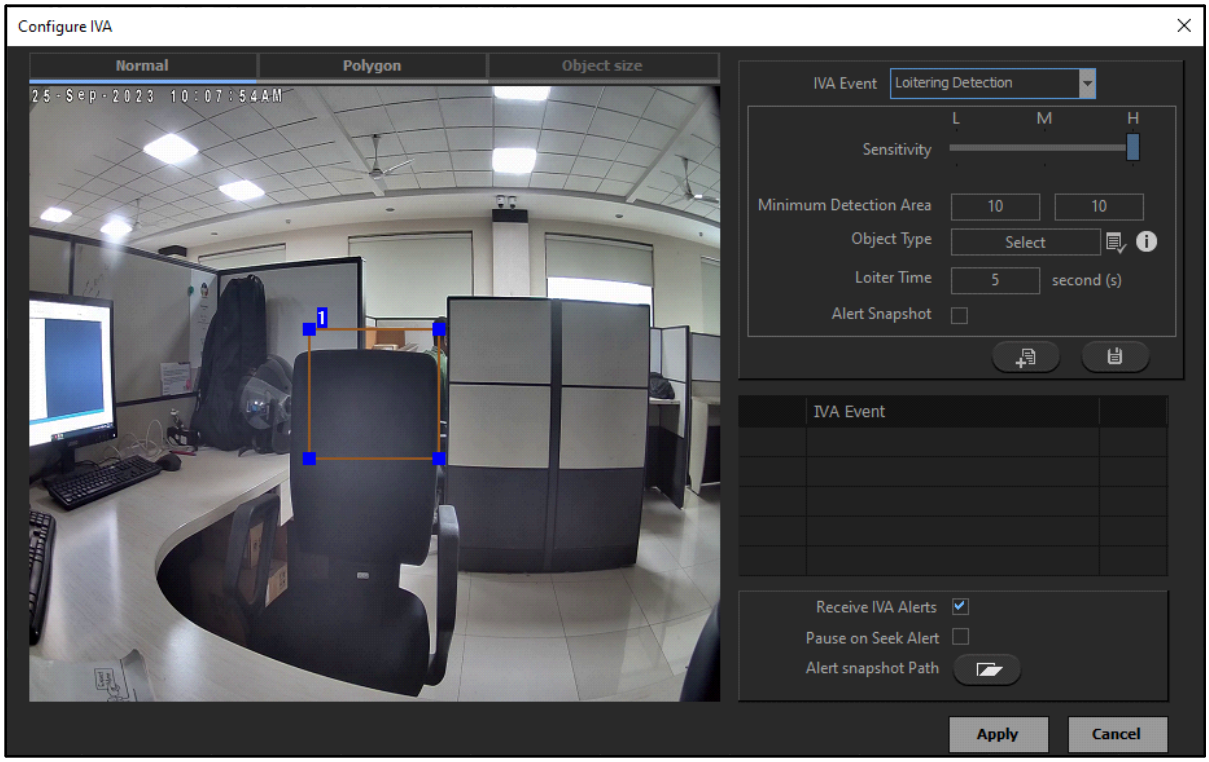
The configurations of the IVA options for Trip-Wire Detection is similar to Motion Detection. For details, refer to “IVA Options in the Playback Toolbar”.

Loitering Detection

Loitering is an act of remaining in a particular public place for a prolonged time without an apparent purpose. Loitering is often indicative of suspicious activity and some imminent act of violation. The Loitering Detection feature enables you to configure Loitering Detection Event for a camera. The Loitering Detection feature monitors the playback stream of a camera and detects individuals that remain at a place for a prolonged time.

To configure Loitering Detection Event for camera,

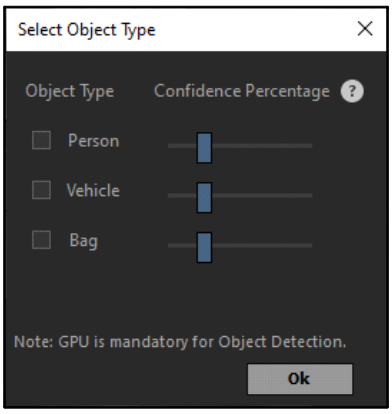
- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Loitering Detection** from the drop-down list.
- **Sensitivity**: Drag the slider towards the right/left to set the required sensitivity for the Loitering Detection Event — Low, Medium or High.
- **Minimum Detection Area**: Specify the dimensions of the minimum detection area for the Loitering Detection Event. For Example, if the zone is configured on the entire screen, and the minimum detection area is configured as 10x10, Loitering occurring in that size in the zone would result in an IVA Event.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



- Select the check boxes for the desired Object Types from the list and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

- **Loiter Time**: Specify the minimum Loiter time after which the Loitering Detection Event will be detected.
- **Alert Snapshot**: Select the check box to generate an alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Loitering Detection Event appears in the **IVA Event** list.

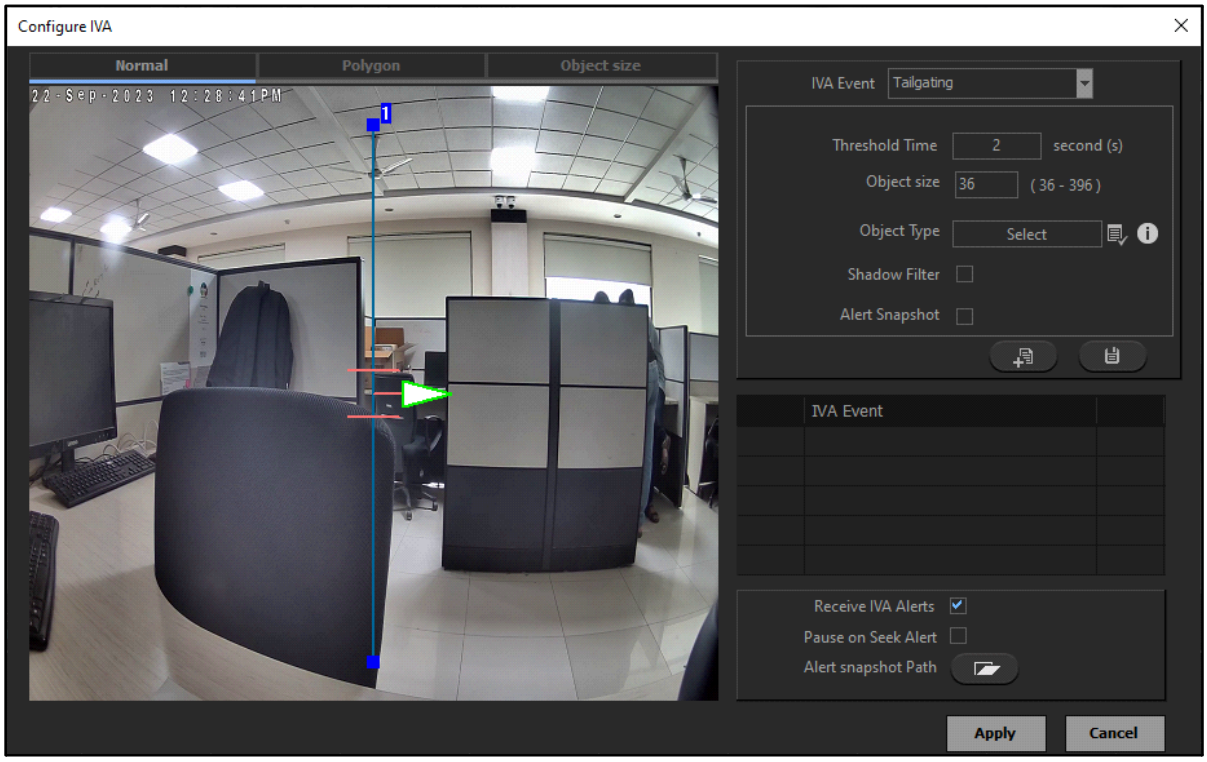
The configurations of Zone and IVA options for Loitering Detection are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

Tailgating

The Tailgating feature enables you to configure Tailgating Event for a camera. Tailgating feature is used in offices or Access Control areas where valid entry of only one person with proper access is allowed. If another person is entering forcibly without having proper authorization of entering then such entering can be used as triggers for event.

To configure Tailgating Event for camera,

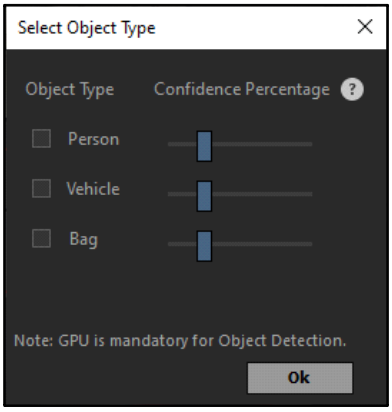
- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Tailgating** from the drop-down list.
- **Threshold Time**: Specify the Threshold Time for the Tailgating Event. This is the time between two events crossing Tailgating Line. If 2nd person crosses the line before the threshold time then it is considered as Tailgating.
- **Object Size**: Specify the size of object/person to be detected in the Tailgating Event in terms of pixels.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



- Select the check boxes for the desired Object Types from the list and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

- **Shadow Filter**: Select the check box to ignore the shadow of people/objects while Event detection.
- **Alert Snapshot**: Select the check box to generate an alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click on **Browse** . It will display all folders which are in the drive. Select the desired folder.

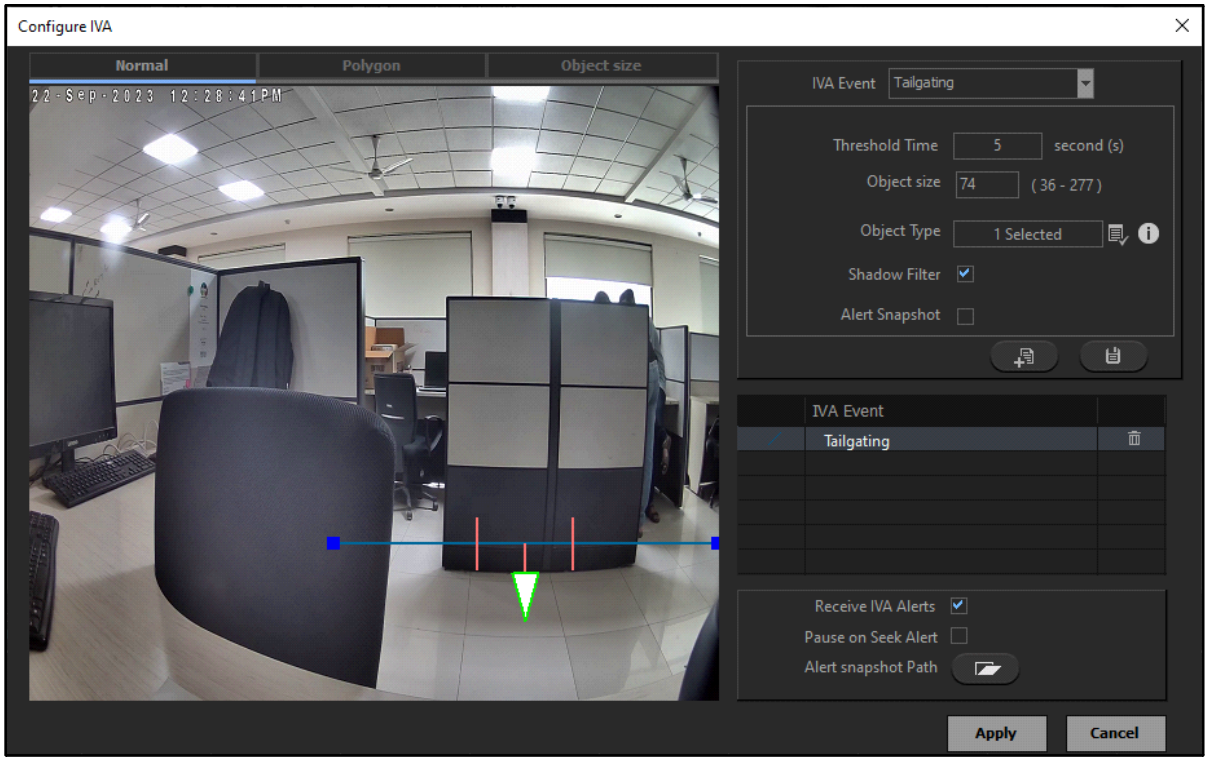
When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Tailgating Event appears in the **IVA Event** list.

Zone Configuration

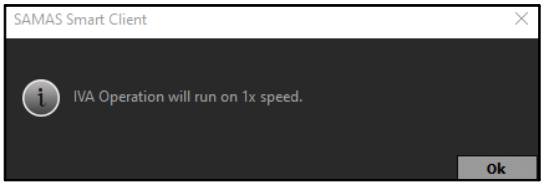
Once you have configured the Event parameters, you need to draw a Tailgating line on the playback camera view.

- Drag the line to increase or decrease the length of the Security Line and set it as required. You can also drag it to change the Entry (Green arrow) direction.
- Drag the Object Size line away from the central arrow to increase the object size and towards the central arrow to decrease the object size. The configured size is reflected in the **Object Size** parameter on the right.



When the zone configuration is in process, the **Save** icon starts blinking in Red color .

- Click **Save** once these configurations are done.
- Click **Apply** to apply the configurations. The following pop-up appears.



- Click **OK**.

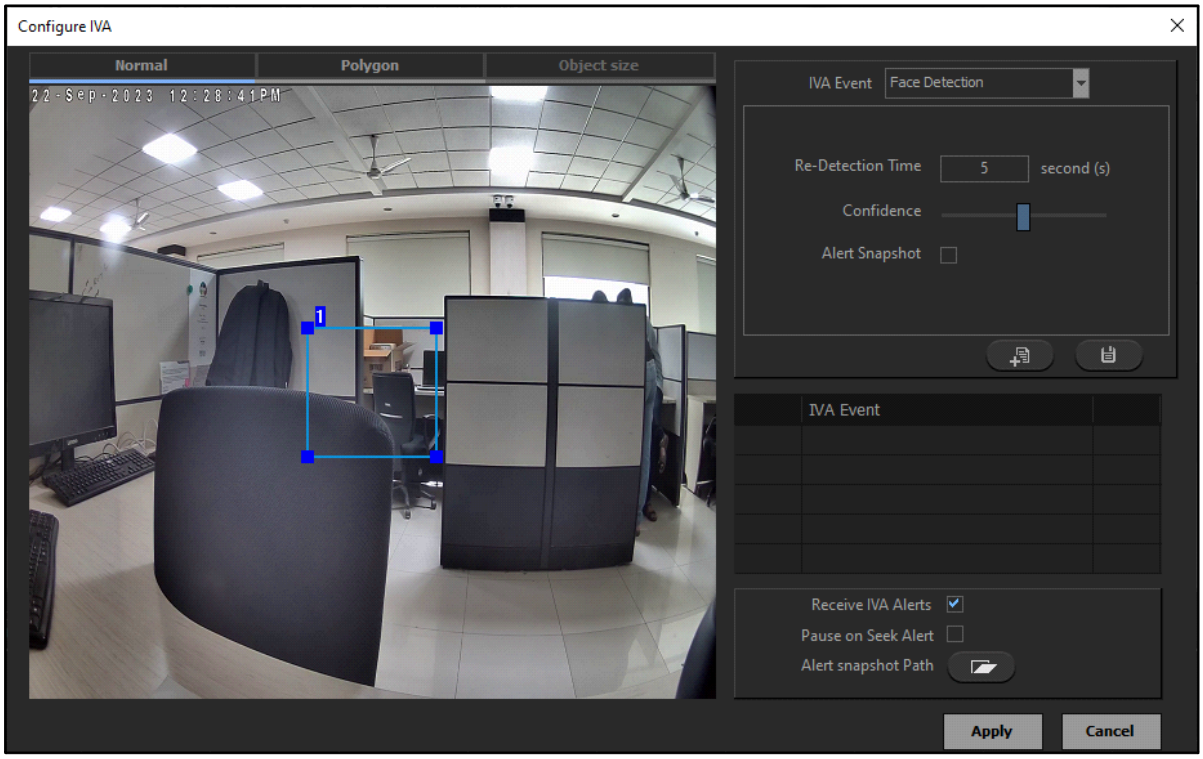
The configurations of the IVA options for Tailgating is similar to Motion Detection. For details, refer to “IVA Options in the Playback Toolbar”.

Face Detection

The Face Detection feature enables you to configure Face Detection Event for a camera.The Face Detection feature monitors the playback stream of a camera and detects face of individuals in the configured zone. This is useful to investigate critical situations such as theft, robbery or accidents of any kind in the premises.

To configure Face Detection Event for camera,

- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Face Detection** from the drop-down list.
- **Re-Detection Time**: Specify the time after which the Face Detection Event must be detected again after the previous detection.
- **Confidence**: Drag the slider towards the right to increase or towards the left to decrease the confidence level.This indicates the accuracy with which face will be detected.
- **Alert Snapshot**: Select the check box to generate an alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Face Detection Event appears in the **IVA Event** list.

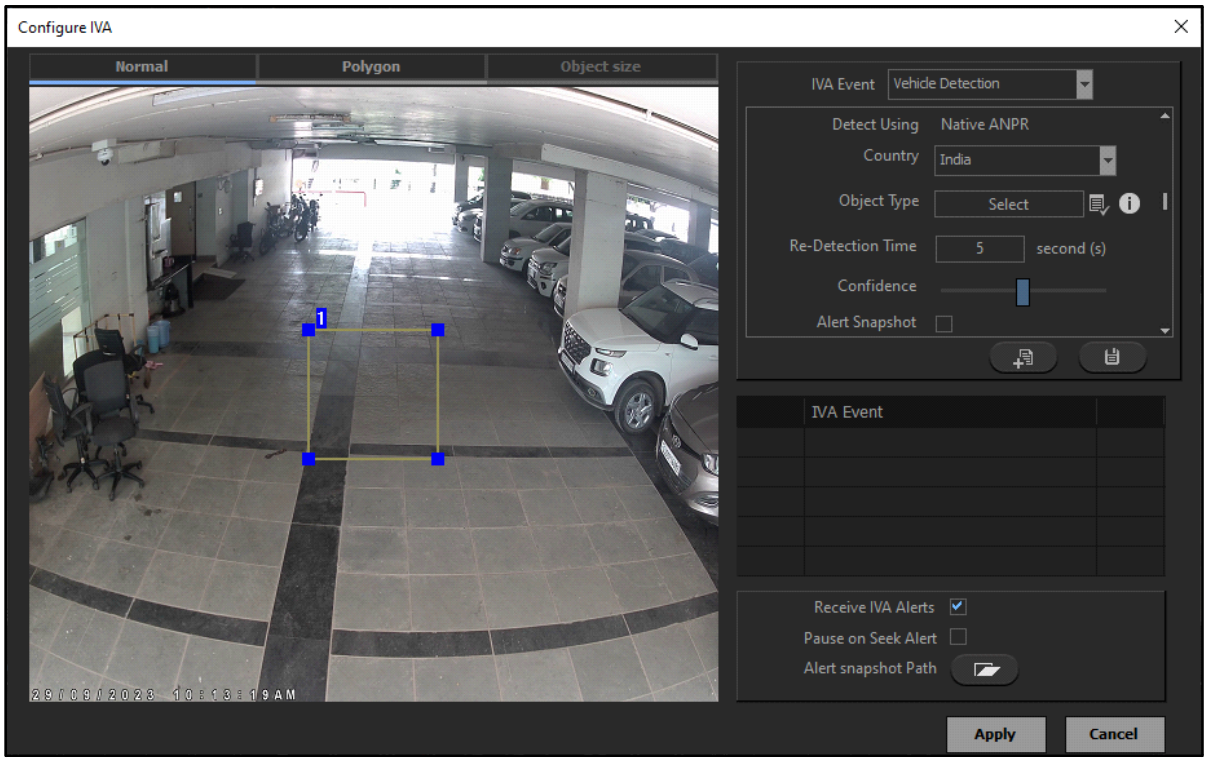
The configurations of Zone and IVA options for Face Detection are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

Vehicle Detection

The Vehicle Detection feature enables you to configure Vehicle Detection Event for a camera.The Vehicle Detection feature monitors the playback stream of a camera and detects vehicles in the configured zone. This is useful to keep a track of vehicles that enter or exit the premise by detecting their number plates.

To configure Vehicle Detection Event for camera,

- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Vehicle Detection** from the drop-down list.
- **Detect Using**: This displays the detection method as configured in the Admin Client— Native ANPR or CARMEN ARH.

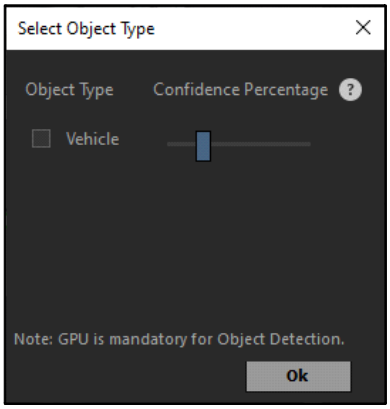
  If you have selected **Native ANPR** in Detect Using in the Admin Client, configure the following parameter:

- **Country**: Select the country from the drop-down list where the camera is installed. This increases the efficiency of vehicle recognition.

The following parameter, that is, Object Type is same for both the detection methods—Native ANPR and CARMEN ARH.

- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.

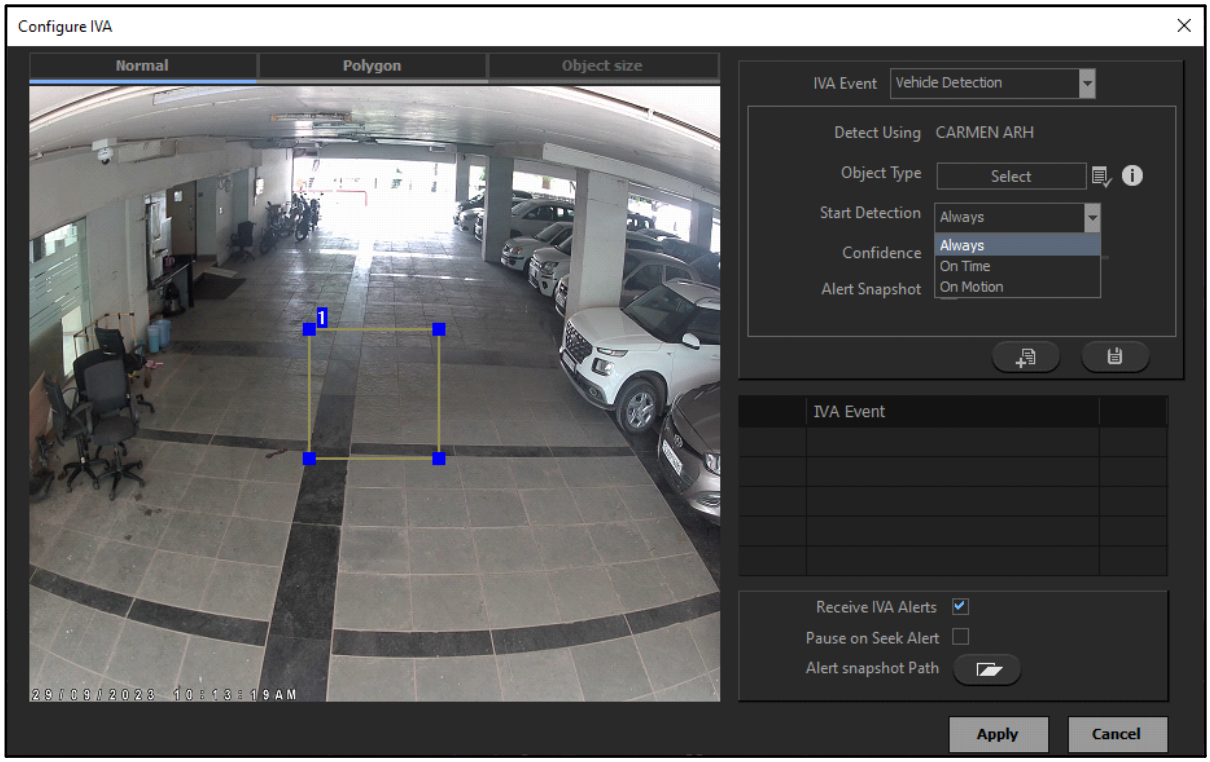
- Click **Object Type** picklist. The **Select Object Type** pop-up appears.



- Select the **Vehicle** check box and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

If you have selected **CARMEN ARH** in Detect Using in the Admin Client, configure the following parameters:

- **Start Detection**: Select the start detection method from the drop-down list — Always, On Time or On Motion.

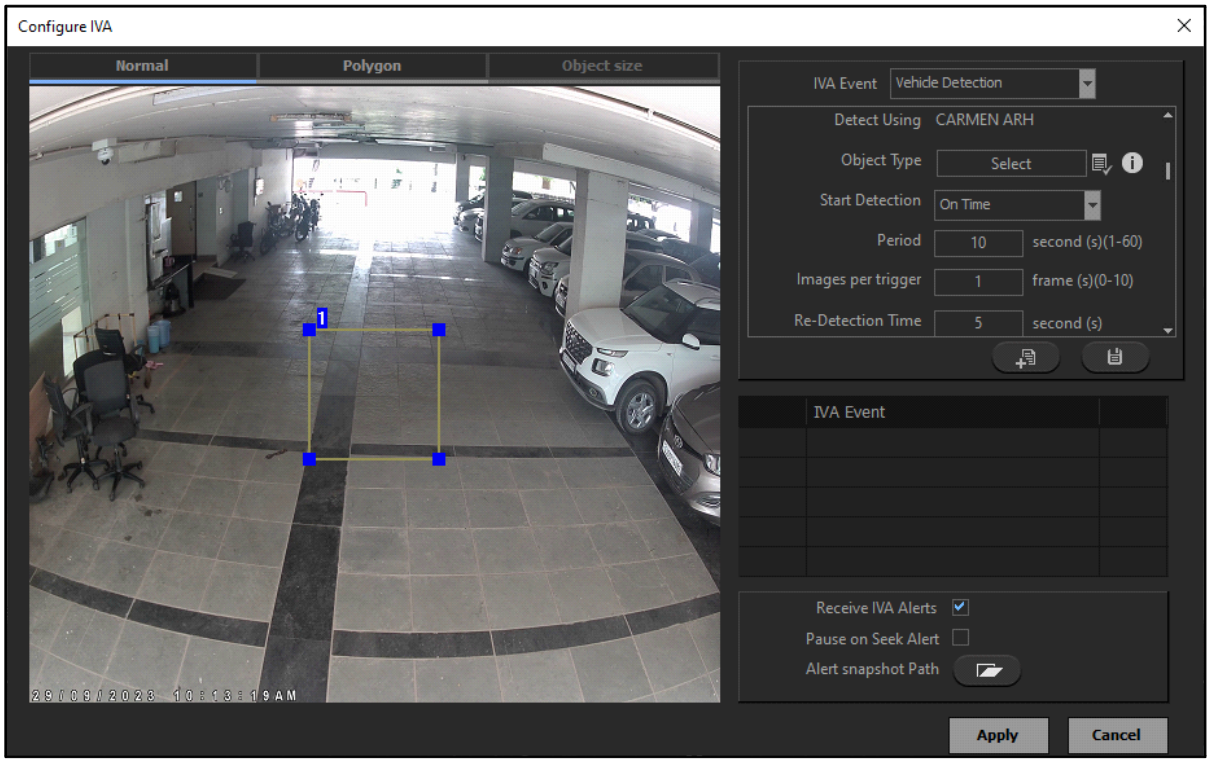


If you select **Always**, the IVA Server will process all the incoming image frames of the vehicle number plate and pass to ARH Engine for number plate detection.

If you select **On Time**, the IVA Server will process the number plate image frames and pass to ARH Engine as per set frequency of images per trigger and time period. In case, if the configured Images per Trigger is higher than frames received in the configured period, the maximum FPS is sent to ARH. For example, Period = 1 sec and Images Per Trigger = 10, but frames received in 1 sec = 5, then 5 Images per Trigger are sent to ARH Engine.

If you select the start detection as **On Time**, configure the following parameters:

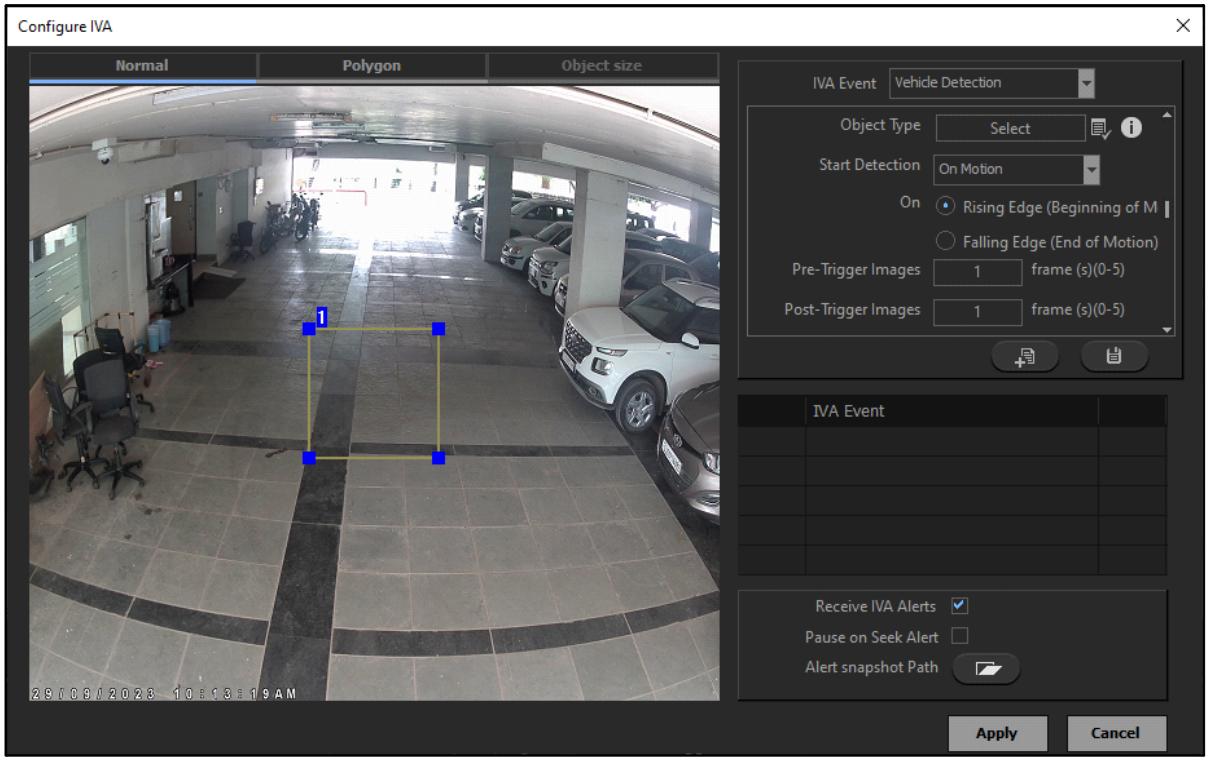
- **Period**: Specify the time interval after which the images will be sent to the ARH Engine.
- **Images per Trigger**: Specify the number of Images per Trigger that will be passed to the ARH Engine.



If you select **On Motion**, the IVA Server will process the number plate images and pass to ARH Engine on Rising Edge (Beginning of Motion) or Falling Edge (End of Motion).

If you select the start detection as **On Motion**, configure the following parameters:

- **On**: Select the desired option as to when the images should be passed to the ARH Engine — Rising Edge (Beginning of Motion) or Falling Edge (End of Motion).
- **Pre-Trigger Images**: Specify the number of images to be passed to the ARH Engine before the motion.
- **Post-Trigger Images**: Specify the number of images to be passed to the ARH Engine after the motion.



- **Confidence**: Drag the slider towards the right to increase or towards the left to decrease the confidence level.This indicates the accuracy with which vehicle will be detected.
- **Alert Snapshot**: Select the check box to generate an alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Vehicle Detection Event appears in the **IVA Event** list.

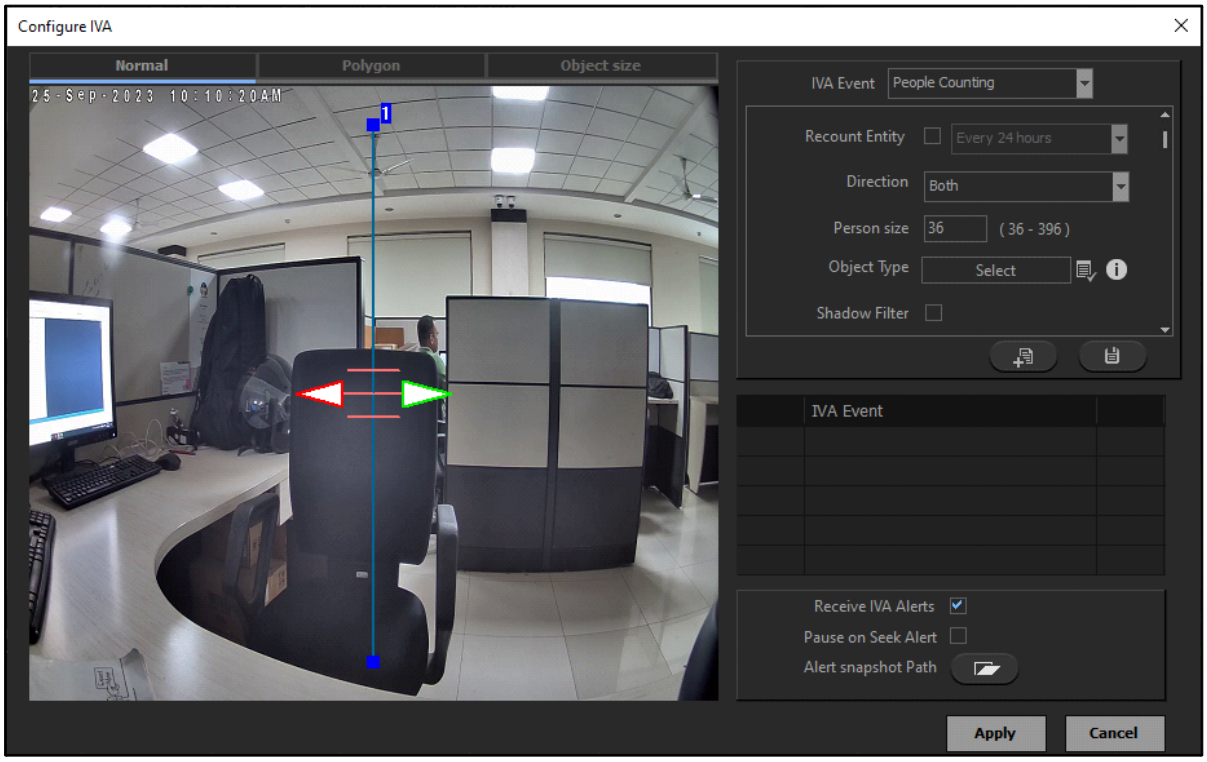
The configurations of Zone and IVA options for Vehicle Detection are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

People Counting

The People Counting feature enables you to configure People Counting Event for a camera.The People Counting feature monitors the playback stream of a camera and detects people crossing the configured line. This is useful to keep a track of number of people visiting the premises.

To configure People Counting Event for camera,

- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



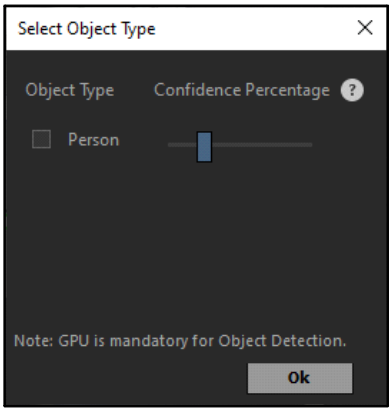
The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **People Counting** from the drop-down list.
- **Recount Entity**: Select the check box to recount people crossing the configured line and select the time after which the people should be recounted from the drop-down list.
- **Direction**: Select the Direction of counting people from the drop-down list— In, Out and Both.

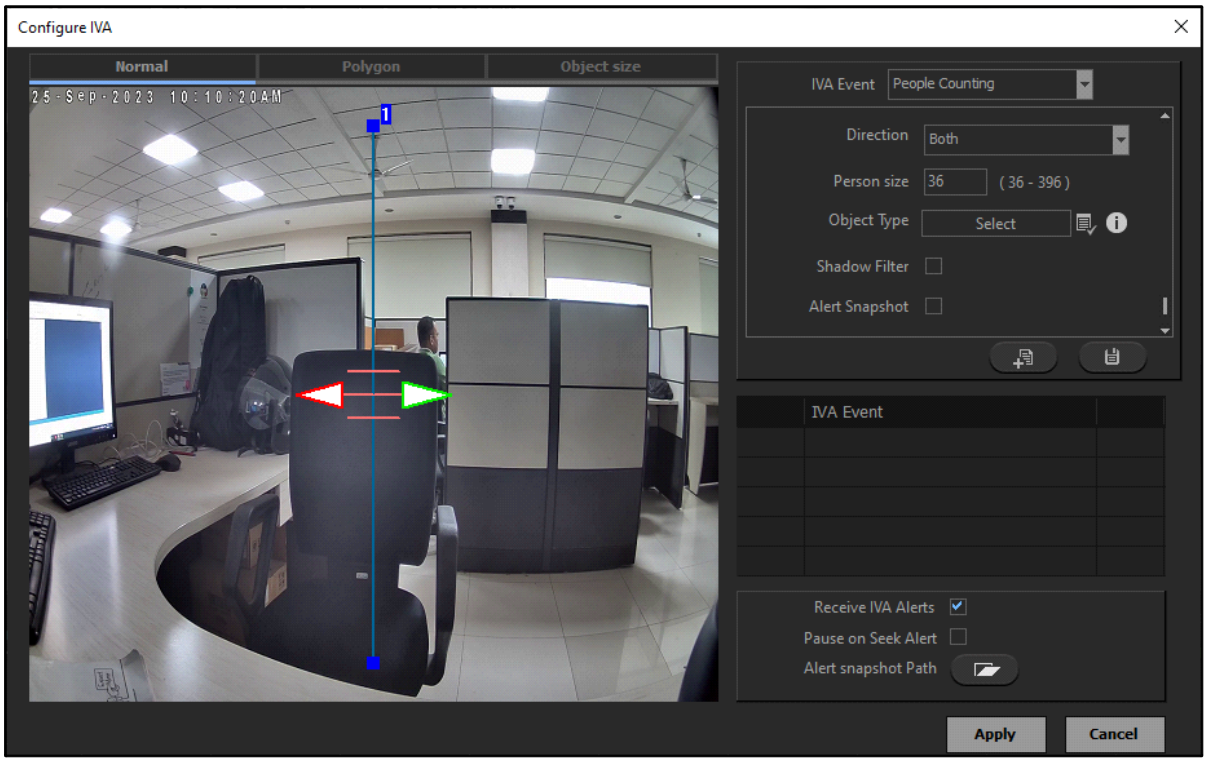
  If you select **In**, the Event will occur when a person crosses the line in the direction of green color.

  If you select **Out**, the Event will occur when a person crosses the line in the direction of red color.
  If you select **Both**, the Event will occur either when a person crosses the line either in the direction of green or red color.
- **Person Size**: Specify the size of the person on the People Counting Line. According to the specified size, the pixels for the minimum and maximum width of the person will be set for detection. The average shoulder-to-shoulder length of a person as captured in pixels is counted as the person size. Those pixels will be recognized as a single person in the recording.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



- Select the **Person** check box and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

- **Shadow Filter**: Select the check box to ignore the shadow of people/objects while Event detection.



- **Alert Snapshot**: Select the check box to generate an alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

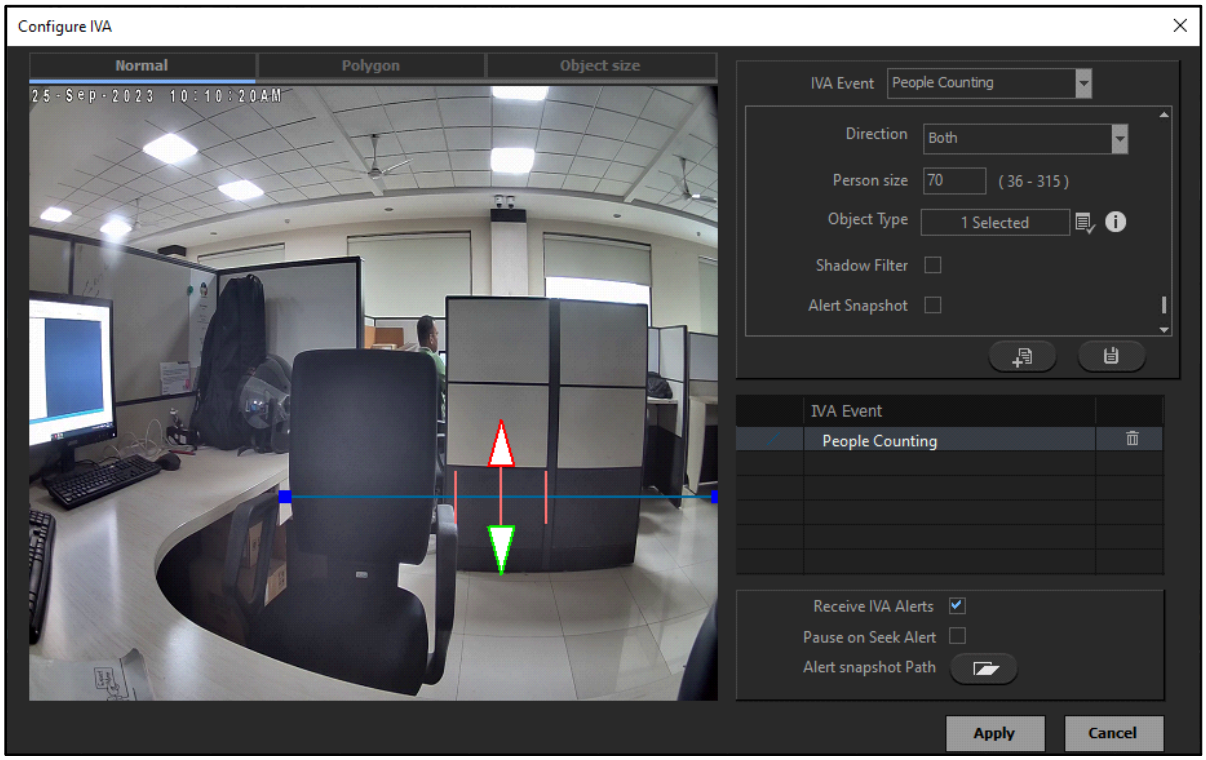
When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The People Counting Event appears in the **IVA Event** list.

Zone Configuration

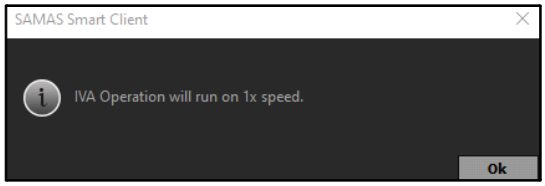
Once you have configured the Event parameters, you need to draw a People Counting line on the playback camera view.

- Drag the line to increase or decrease the length of the People Counting Line and set it as required. You can also drag it to change the Entry (Green arrow) and Exit (Red arrow) direction.
- Drag the Person Size line away from the central arrow to increase the person size and towards the central arrow to decrease the person size. The configured size is reflected in the **Person Size** parameter on the right.



When the zone configuration is in process, the **Save** icon starts blinking in Red color .

- Click **Save** once these configurations are done.
- Click **Apply** to apply the configurations. The following pop-up appears.



- Click **OK**.

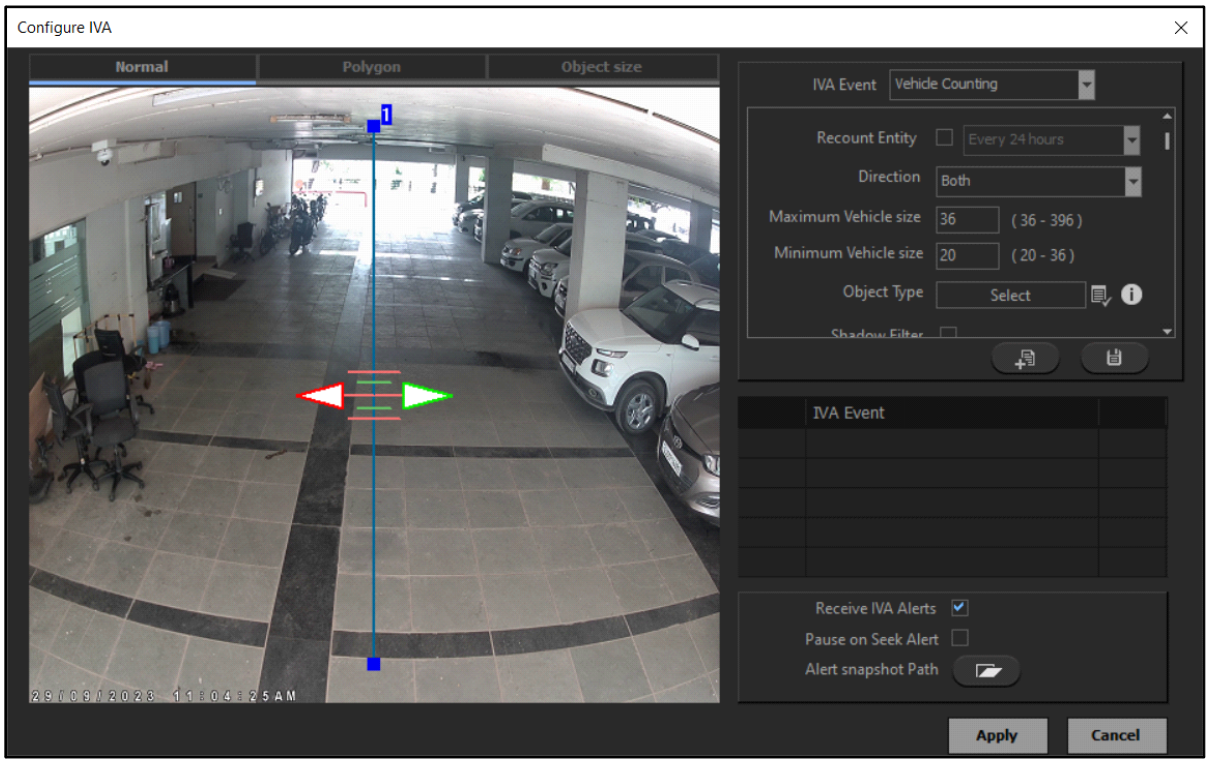
The configurations of IVA options for People Counting are similar to Motion Detection. For details, refer to “IVA Options in the Playback Toolbar”.

Vehicle Counting

The Vehicle Counting feature enables you to configure Vehicle Counting Event for a camera.The Vehicle Counting feature monitors the playback stream of a camera and detects vehicles crossing the configured line. This is useful to keep a track of number of vehicles visiting the premises, such as a Mall Parking.

To configure Vehicle Counting Event for camera,

- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

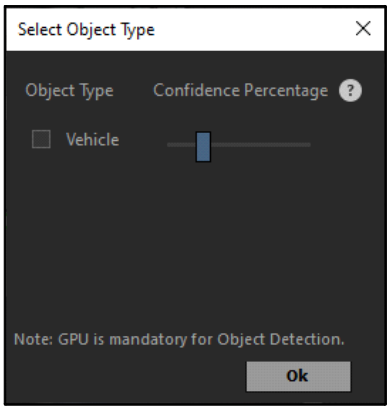
- **IVA Event**: Select **Vehicle Counting** from the drop-down list.
- **Recount Entity**: Select the check box to recount vehicles crossing the configured line and select the time after which the vehicles should be recounted from the drop-down list.
- **Direction**: Select the Direction of counting vehicles from the drop-down list— In, Out and Both.

  If you select **In**, the Event will occur when a vehicle crosses the line in the direction of green color.

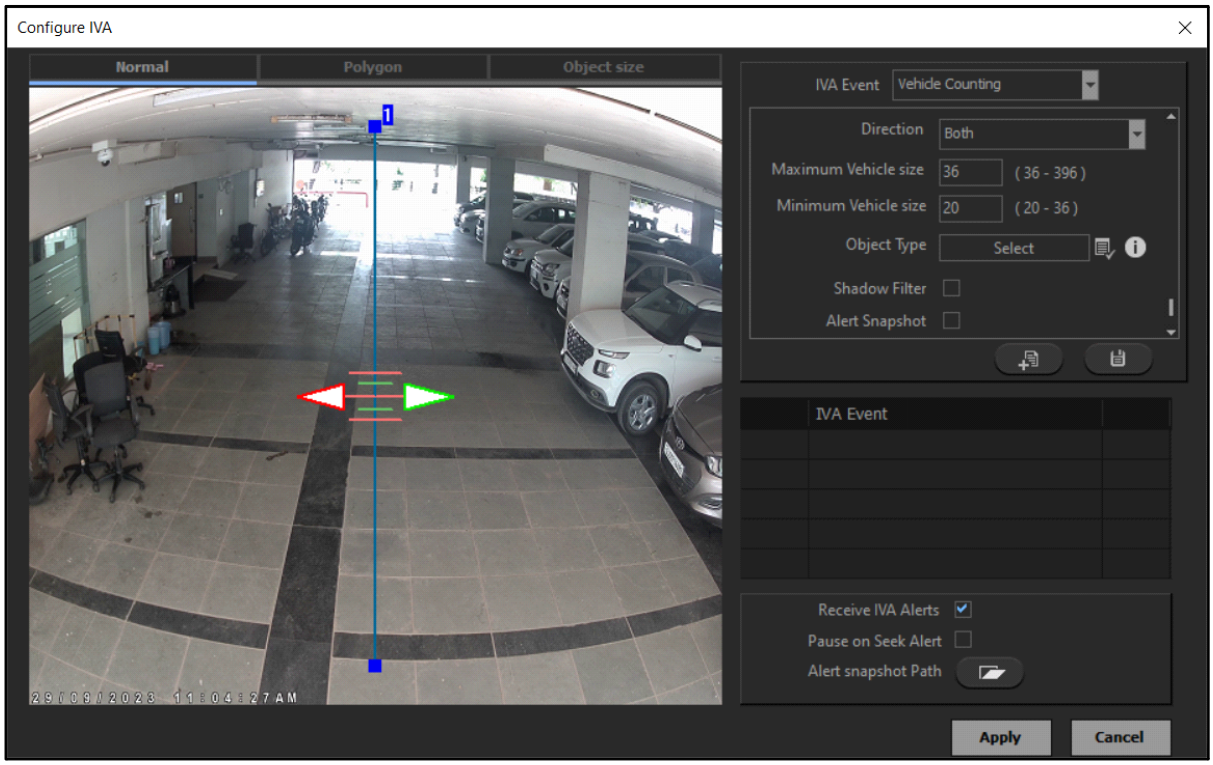
  If you select **Out**, the Event will occur when a vehicle crosses the line in the direction of red color.

If you select **Both**, the Event will occur either when a vehicle crosses the line either in the direction of green or red color.

- **Maximum Vehicle Size**: Specify the maximum size of the vehicle to be detected on the Vehicle Counting Line.
- **Minimum Vehicle Size**: Specify the minimum size of the vehicle to be detected on the Vehicle Counting Line.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
    - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



    - Select the **Vehicle** check box and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.
- **Shadow Filter**: Select the check box to ignore the shadow of people/objects while Event detection.



- **Alert Snapshot**: Select the check box to generate an alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

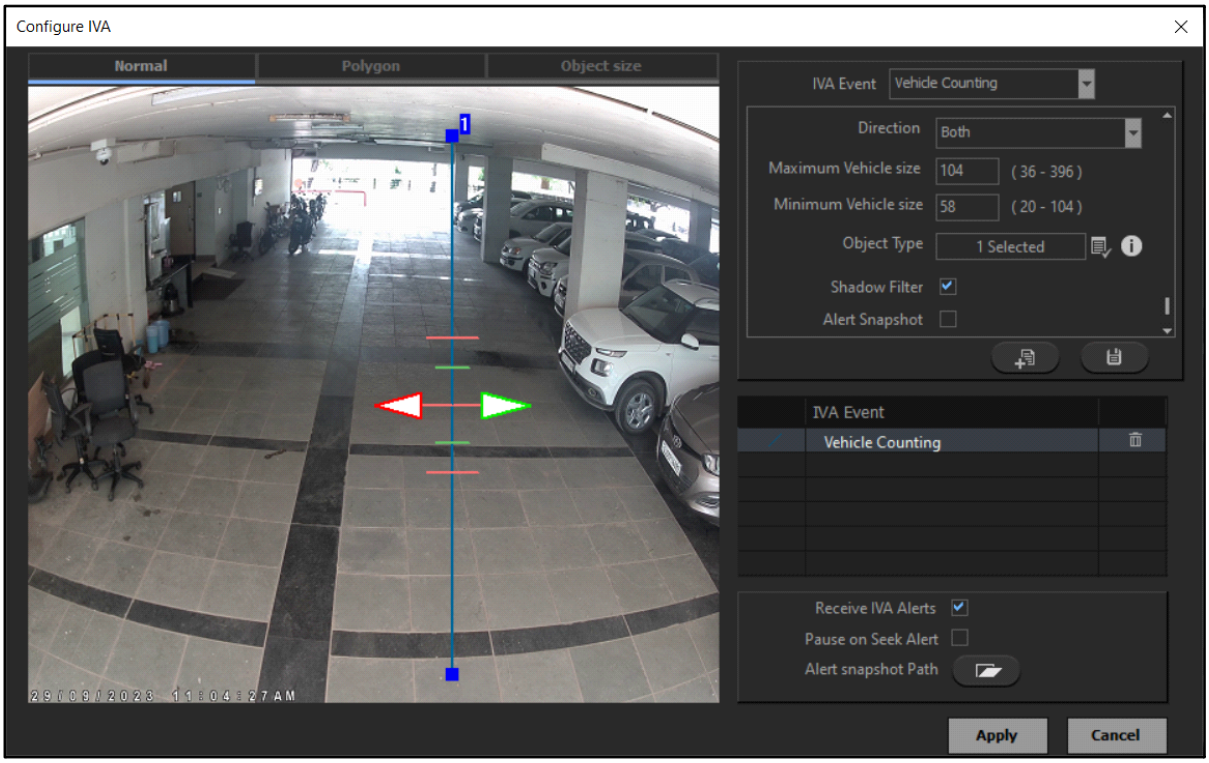
When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Vehicle Counting Event appears in the **IVA Event** list.

Zone Configuration

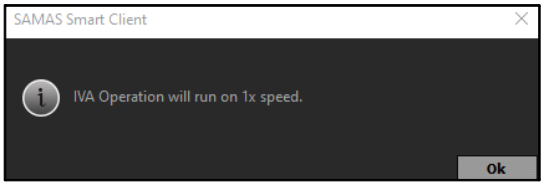
Once you have configured the Event parameters, you need to draw a Vehicle Counting line on the playback camera view.

- Drag the line to increase or decrease the length of the Vehicle Counting Line and set it as required. You can also drag it to change the Entry (Green arrow) and Exit (Red arrow) direction.
- Drag the Minimum Vehicle Size line (Green line) away from the central arrow to increase the minimum vehicle size and towards the central arrow to decrease the minimum vehicle size. Similarly drag the Maximum Vehicle Size line (Red Line) to set the maximum vehicle size. The configured minimum and maximum vehicle size is reflected in the **Minimum Vehicle Size** and **Maximum Vehicle Size** parameter respectively on the right.



When the zone configuration is in process, the **Save** icon starts blinking in Red color .

- Click **Save** once these configurations are done.
- Click **Apply** to apply the configurations. The following pop-up appears.



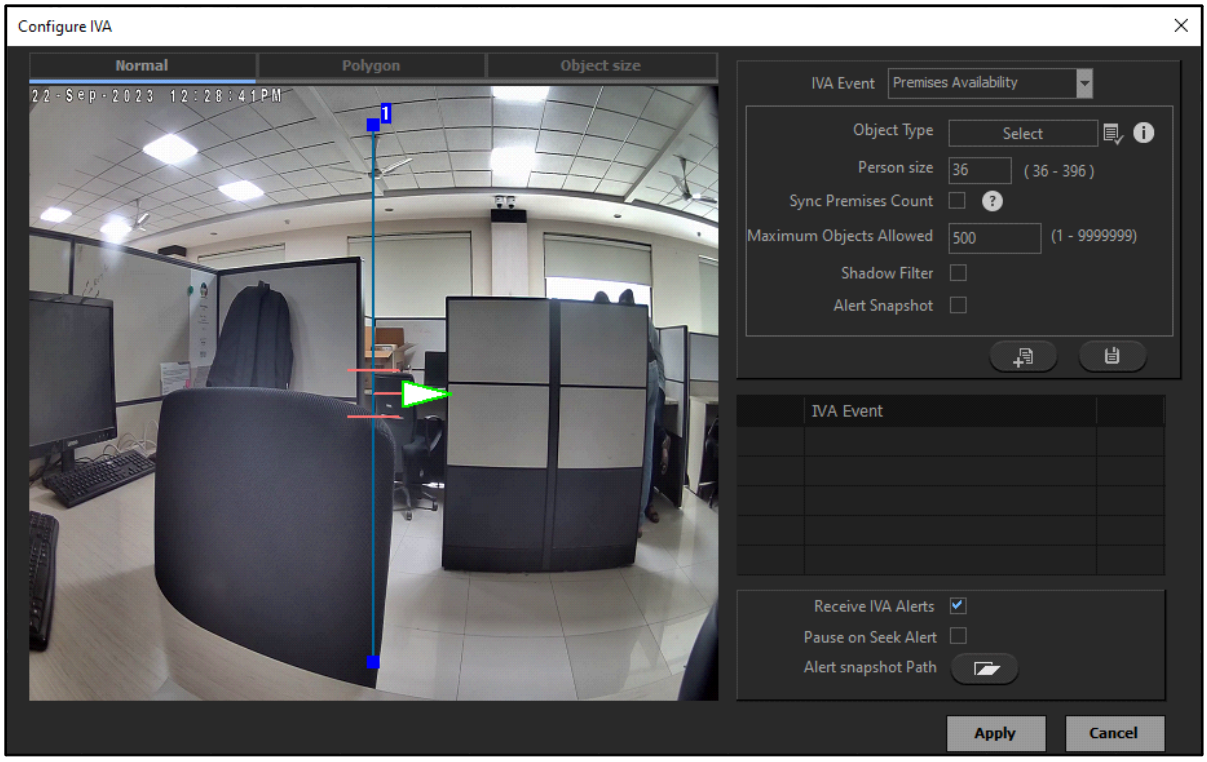
- Click **OK**.

The configurations of IVA options for Vehicle Counting are similar to Motion Detection. For details, refer to “IVA Options in the Playback Toolbar”.

Premises Availability

The Premises Availability feature enables you to configure Premises Availability Event for a camera.The Premises Availability feature monitors the playback stream of a camera and detects people/vehicles crossing the configured line. This is useful to keep a track of number of people/vehicles gathering inside the premises, such as a Banquet Hall or a Parking lot.
To configure Premises Availability Event for camera,

- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



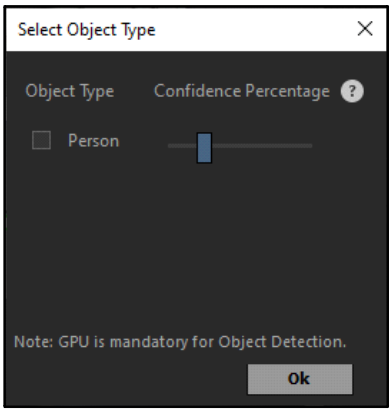
The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Premises Availability** from the drop-down list.

The Object Type picklist will display the details as per the configurations done in the Admin Client, that is if you have selected Vehicle in Object Type in the Admin Client, then in the Smart Client Investigator Object Type picklist will display only Vehicle. Similarly if in the Admin Client you have selected People in Object Type then in the Smart Client Investigator Object Type picklist will display only Person.

- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.

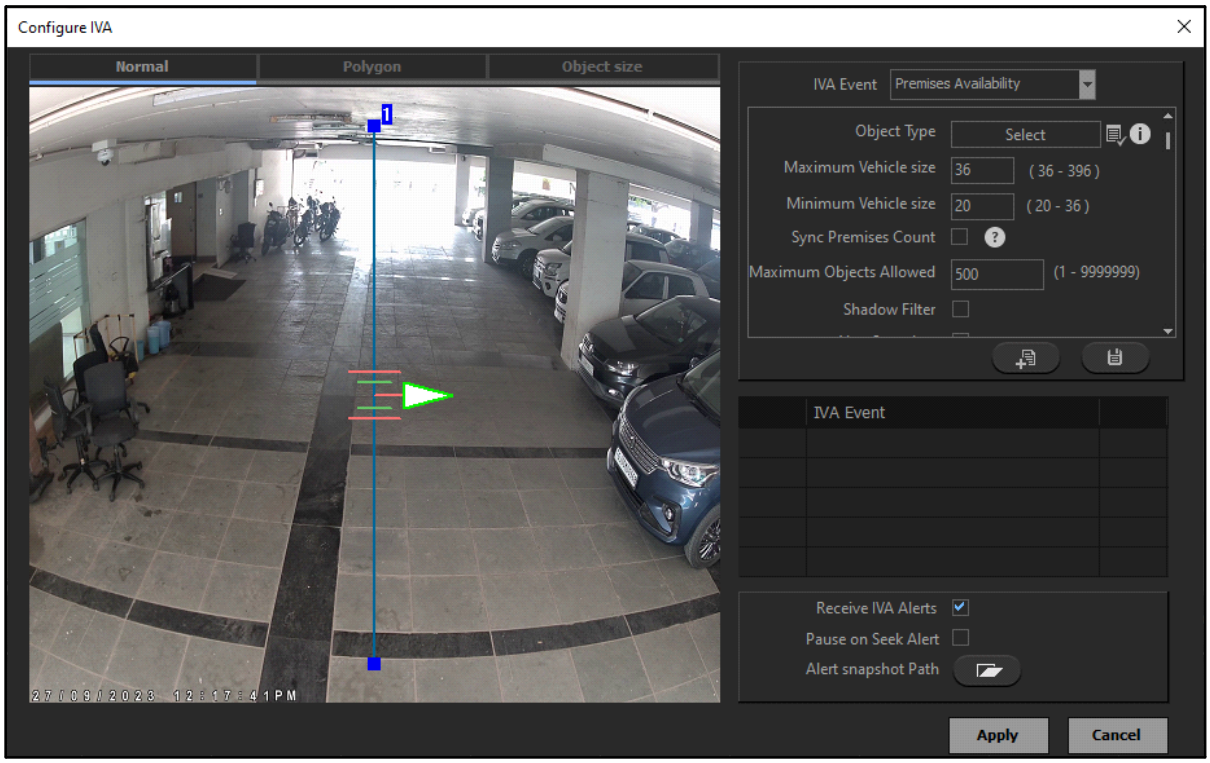


- Select the **Person** check box and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

  Similarly, if you have selected Vehicle in Object Type in the Admin Client, the Object Type picklist will display **Vehicle**. Select the check box to select the Object Type and set the Confidence Percentage as explained above.

- **Person Size**: Specify the size of the person on the Premises Availability line. According to the specified size, the pixels for the minimum and maximum width of the person will be set for detection. The average shoulder-to-shoulder length of a person as captured in pixels is counted as the person size. Those pixels will be recognized as a single person in the recording.

  Similarly, if you have selected Vehicle in Object Type in the Admin Client, configure the following parameters:



- **Maximum Vehicle Size**: Specify the maximum size of the vehicle to be detected on the Premises Availability line. The Maximum Vehicle Size line (Red Line) will move away or towards the central arrow in Zone Configuration as the size is varied.

- **Minimum Vehicle Size**: Specify the minimum size of the vehicle to be detected on the Premises Availability line. The Minimum Vehicle Size line (Green Line) will move away or towards the central arrow in Zone Configuration as the size is varied.

For Vehicle /Person, the following parameters are same:

- **Sync Premises Count**: Select the check box to sync the count of people/vehicles between two configured lines. This will display the common availability to accommodate people/vehicles between the two lines. Common Availability is the difference between the Maximum Objects Allowed and the

count of people/vehicles already detected between the lines. For example, if the Maximum Objects Allowed is configured as 500 and the number of people already detected between two lines is 300, then the common availability will be 200.

Make sure you configure the Premises Availability lines accordingly to derive correct Common Availability between two lines. For configuring the lines, refer to “Zone Configuration” in “Vehicle Counting”.

- **Maximum Objects Allowed**: Specify the maximum number of objects (people/vehicles) allowed beyond the Premises Availability Line.
- **Shadow Filter**: Select the check box to ignore the shadow of people/objects while Event detection.
- **Alert Snapshot**: Select the check box to generate an alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Premises Availability Event appears in the **IVA Event** list.

If you have selected People in Object Type in the Admin Client, then the configurations of Zone for Premises Availability are similar to Tailgating. For details, refer to “Zone Configuration” in “Tailgating”.

If you have selected Vehicle in Object Type in the Admin Client, then the configurations of Zone for Premises Availability are similar to Vehicle Counting. For details, refer to “Zone Configuration” in “Vehicle Counting”.

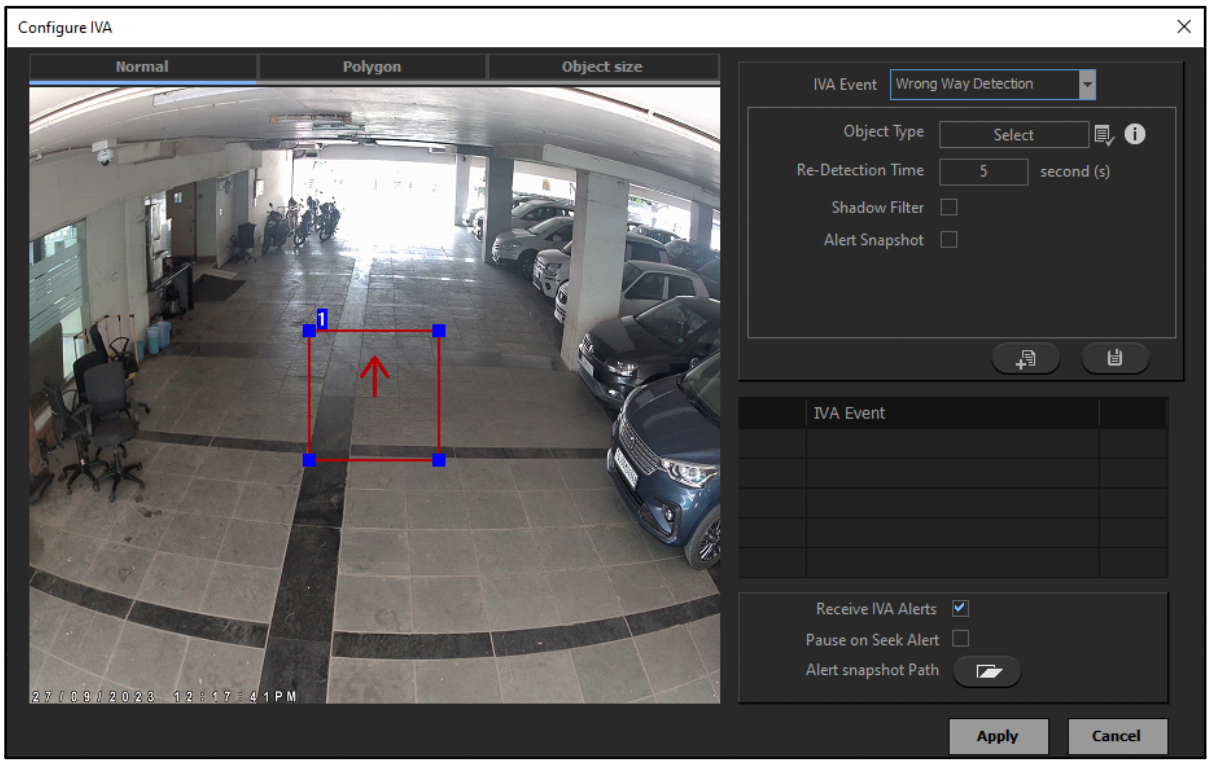
The configurations of IVA options for Premises Availability are similar to Motion Detection. For details, refer to “IVA Options in the Playback Toolbar”.

Wrong Way Detection

The Wrong Way Detection feature enables you to configure Wrong Way Detection Event for a camera.The Wrong Way Detection feature monitors the playback stream of a camera and detects vehicles moving in the wrong direction as compared to the configured direction in the zone.This is useful in parking premises of areas such as Shopping malls or Corporate parks where there is one entry and exit gate.

To configure Wrong Way Detection Event for a camera,

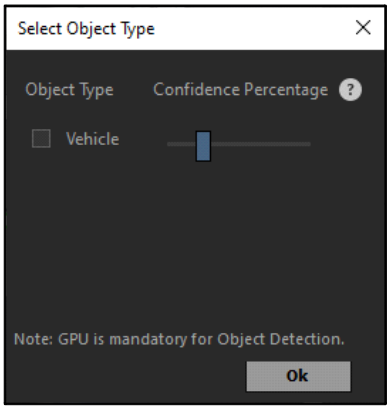
- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Wrong Way Detection** from the drop-down list.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



  - Select the **Vehicle** check box and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

- **Re-Detection Time**: Specify the time after which the Wrong Way Detection Event must be detected again after the previous detection.
- **Shadow Filter**: Select the check box to ignore the shadow of people/objects while Event detection.
- **Alert Snapshot**: Select the check box to generate alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

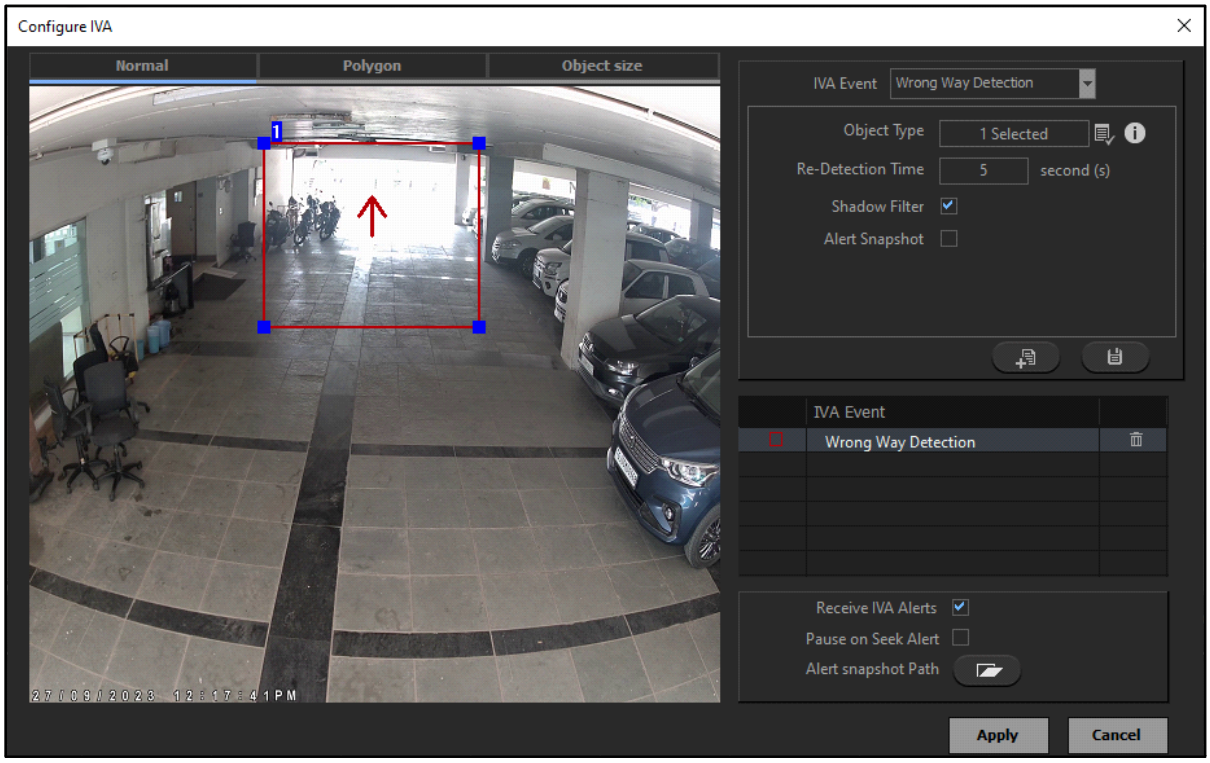
- Click **Add To List** once these configurations are done. The Wrong Way Detection Event appears in the **IVA Event** list.

Zone Configuration

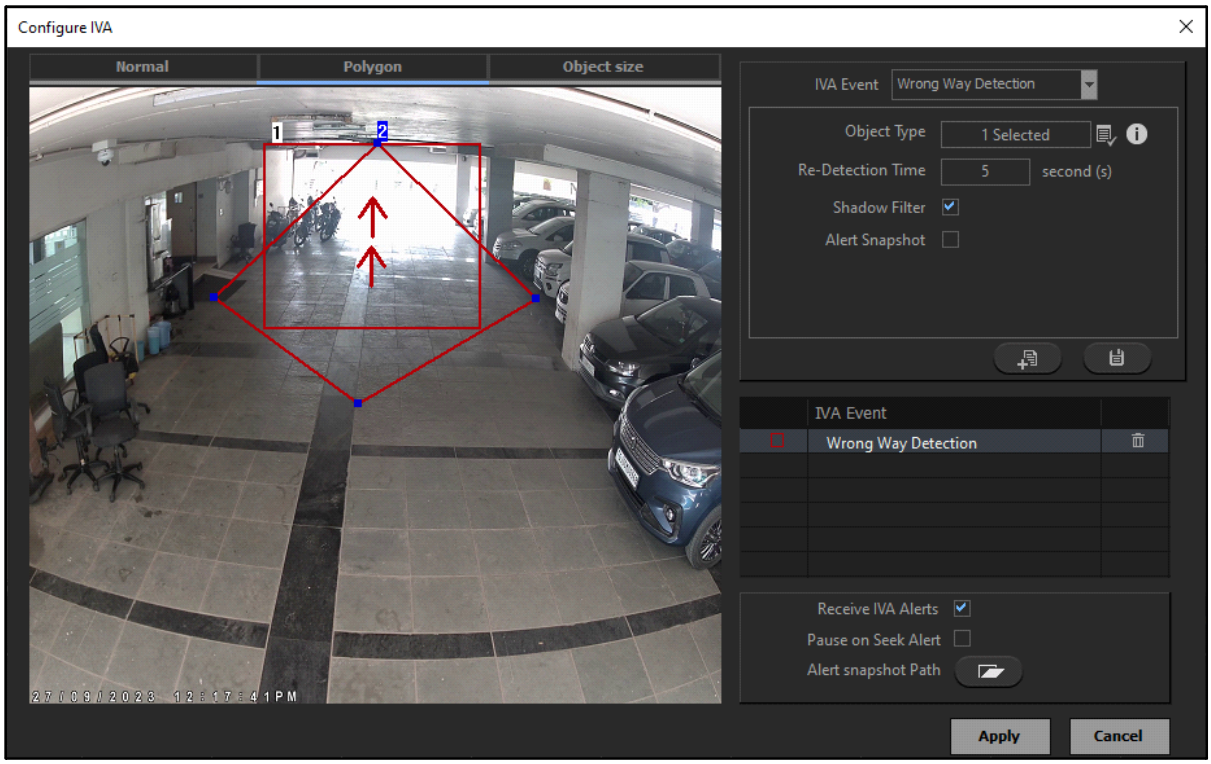
Once you have configured the Event parameters, you need to draw a Wrong Way Detection zone in the playback camera view.

You can either draw a square or polygon to define the zone.

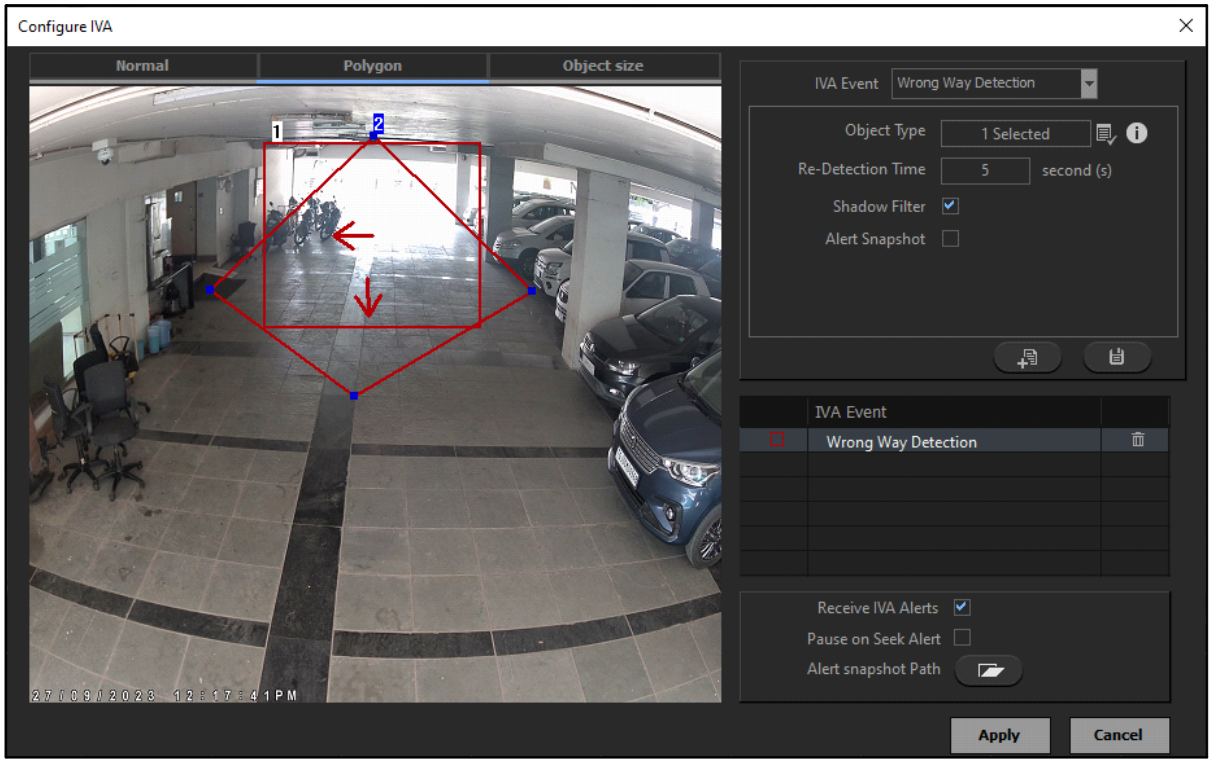
- Select either **Normal** or **Polygon** to draw the zone.
  - If you select **Normal**, drag the corners and sides of the square to configure the zone. Drag the entire zone to move its position on the screen. The zone number appears by default on the top-left side of the zone border.



- If you select **Polygon**, click on the camera view to place the vertex/node of the polygon. Click again on the desired place to join the previous vertex/node with the new vertex/node. Continue this process to complete the polygon. The zone number appears by default on the top-left side of the zone border.

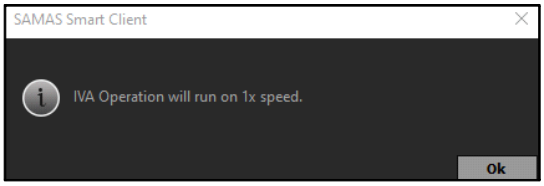


- Drag the arrow to set the direction of the zone. Any vehicles going in the direction of the arrow will be detected as going in Wrong Way.



When the zone configuration is in process, the **Save** icon starts blinking in Red color .

- Click **Save** once these configurations are done.
- Click **Apply** to apply the configurations. The following pop-up appears.



- Click **OK**.

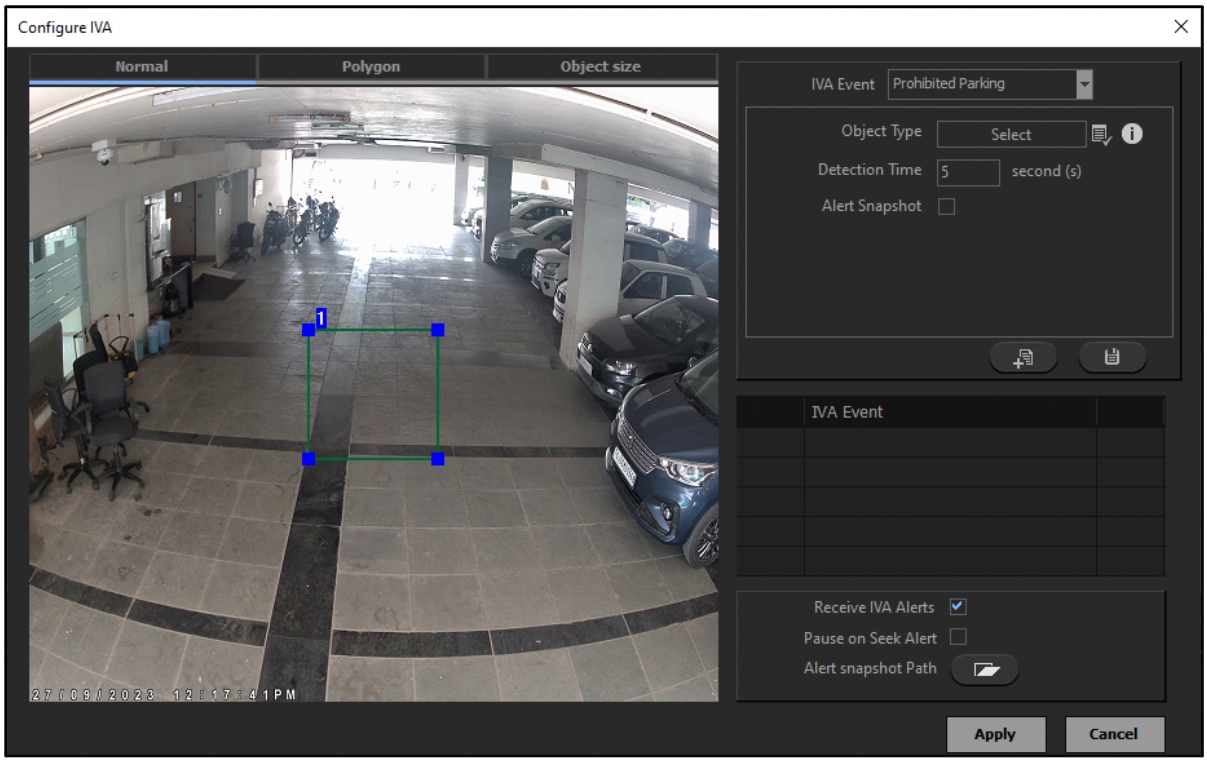
The configurations of IVA options for Wrong Way Detection are similar to Motion Detection. For details, refer to “IVA Options in the Playback Toolbar”.

Prohibited Parking

The Prohibited Parking feature enables you to configure Prohibited Parking Event for a camera.The Prohibited Parking feature monitors the playback stream of a camera and detects vehicles parked in the configured zone which is a No Parking Zone. This is useful in Traffic Management in busy areas such as Schools or Hospitals where illegal parking can be detected and appropriate actions can be taken.

To configure Prohibited Parking Event for a camera,

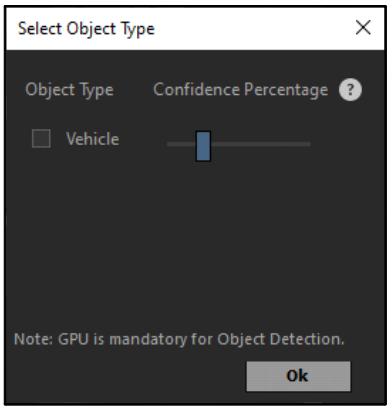
- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Prohibited Parking** from the drop-down list.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



  - Select the **Vehicle** check box and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

- **Detection Time**: Specify the time after which the vehicles parked in the configured zone should be detected as Prohibited Parking.
- **Alert Snapshot**: Select the check box to generate alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Prohibited Parking Event appears in the **IVA Event** list.

The configurations of Zone and IVA options for Prohibited Parking are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

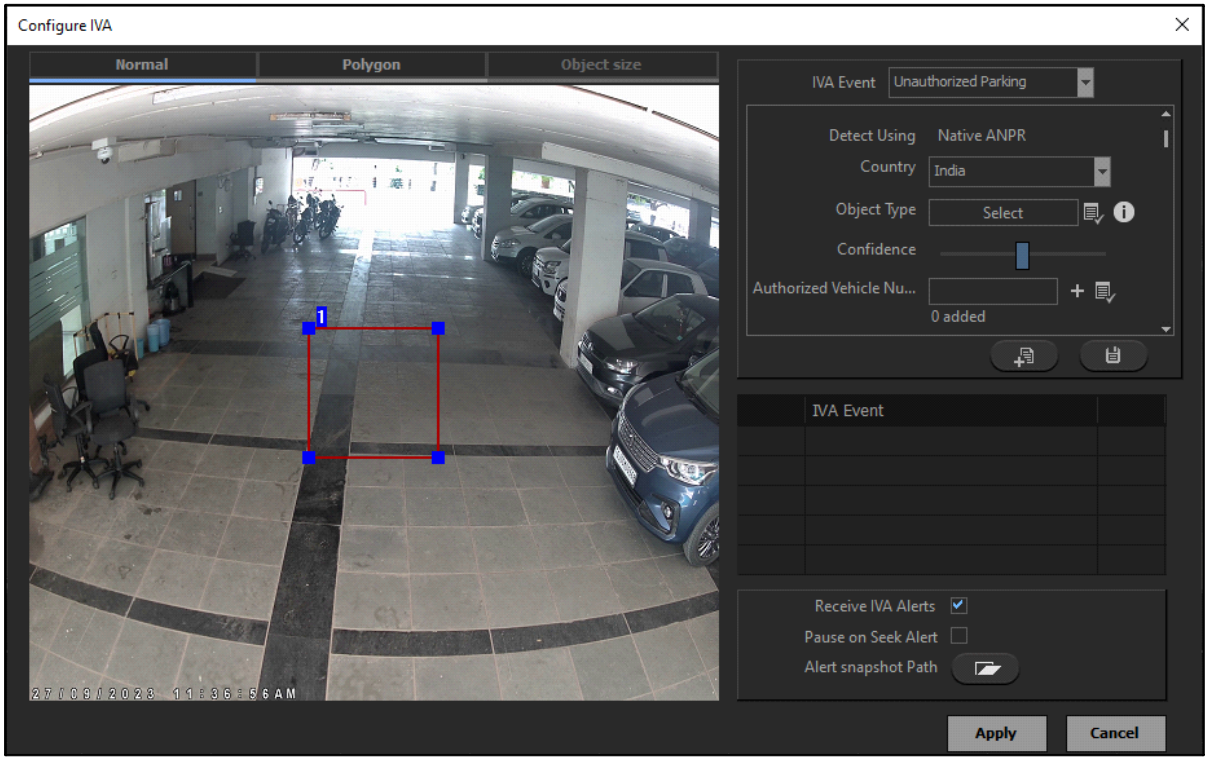
Unauthorized Parking

The Unauthorized Parking feature enables you to configure Unauthorized Parking Event for a camera.The Unauthorized Parking feature monitors the playback stream of a camera and detects vehicles parked in the configured zone which is alloted to someone else. This feature enables you to add authorized vehicle numbers to the configured zones that designates alloted parking. Any vehicle that is not listed in the allowed vehicle list will not be allowed to park their vehicle.

For example, in apartments or regional offices, people have allotted parking or authorized parking. When some other person or visitor parks their vehicle in someone else’s allotted parking, this creates a problem. As a result, Unauthorized Parking Event is useful to manage such situations.

To configure Unauthorized Parking Event for a camera,

- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

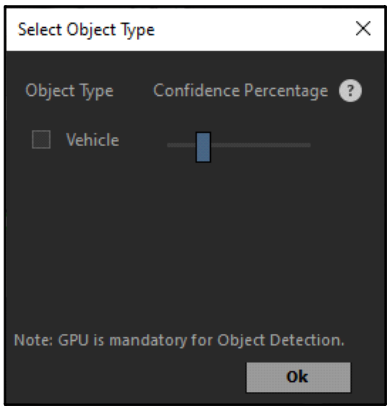
- **IVA Event**: Select **Unauthorized Parking** from the drop-down list.
- **Detect Using**: This displays the detection method as configured in the Admin Client— Native ANPR or CARMEN ARH.

  If you have selected **Native ANPR** in Detect Using in the Admin Client, configure the following parameter:

- **Country**: Select the country from the drop-down list where the camera is installed. This increases the efficiency of vehicle recognition.

The following parameter, that is, Object Type is same for both the detection methods—Native ANPR and CARMEN ARH.

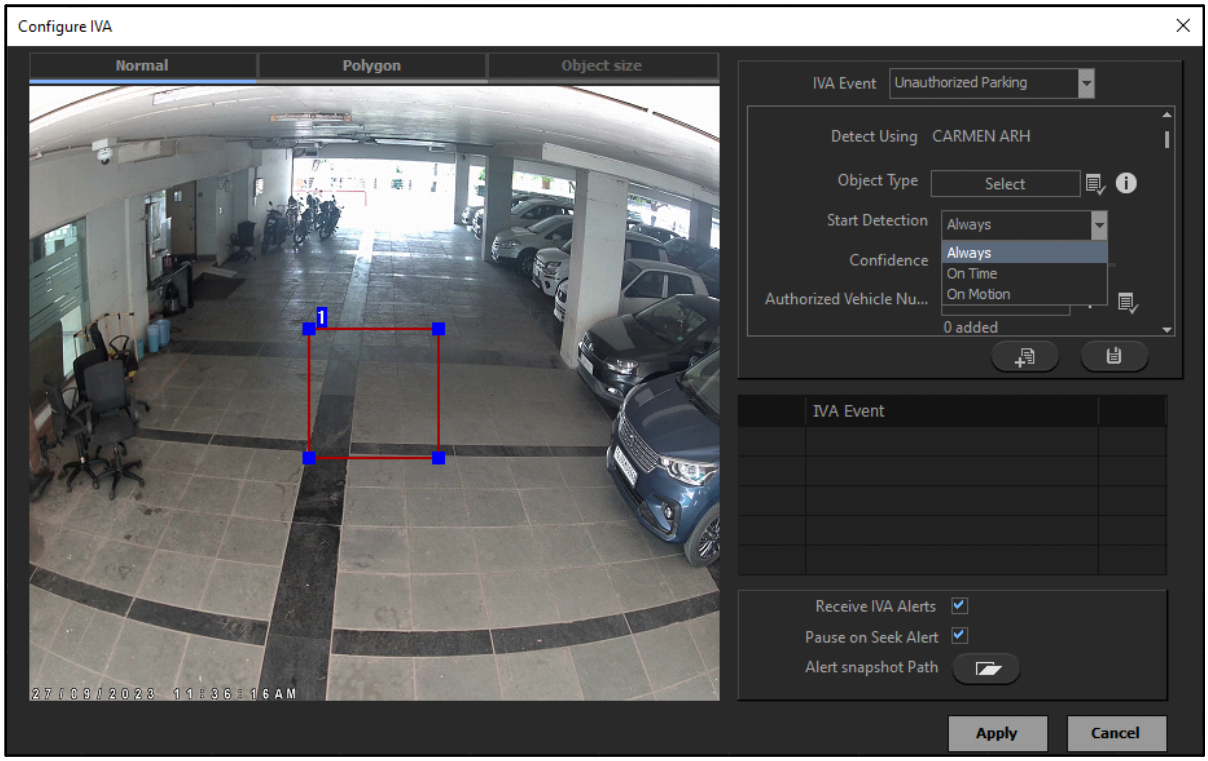
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



- Select the **Vehicle** check box and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

If you have selected **CARMEN ARH** in Detect Using in the Admin Client, configure the following parameters:

- **Start Detection**: Select the start detection method from the drop-down list — Always, On Time or On Motion.

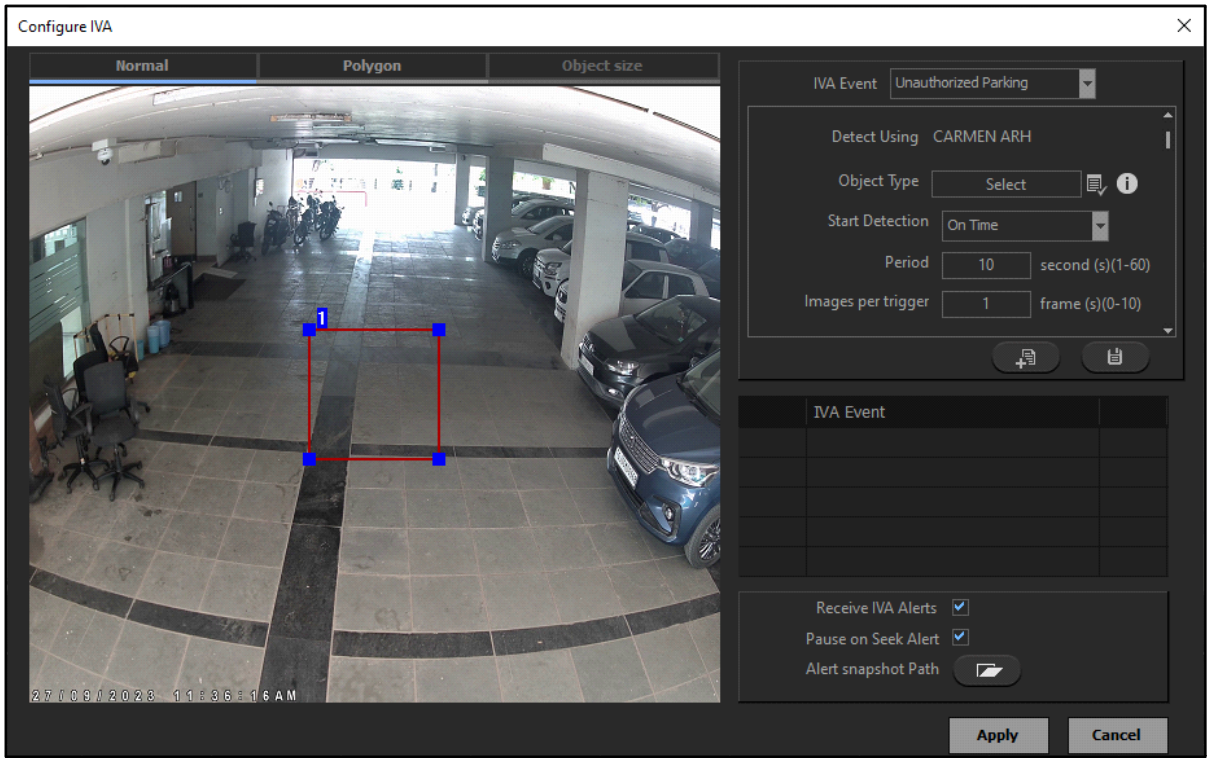


If you select **Always**, the IVA Server will process all the incoming image frames of the vehicle number plate and pass to ARH Engine for number plate detection.

If you select **On Time**, the IVA Server will process the number plate image frames and pass to ARH Engine as per set frequency of images per trigger and time period. In case, if the configured Images per Trigger is higher than frames received in the configured period, the maximum FPS is sent to ARH. For example, Period = 1 sec and Images Per Trigger = 10, but frames received in 1 sec = 5, then 5 Images per Trigger are sent to ARH Engine.

If you select the start detection as **On Time**, configure the following parameters:

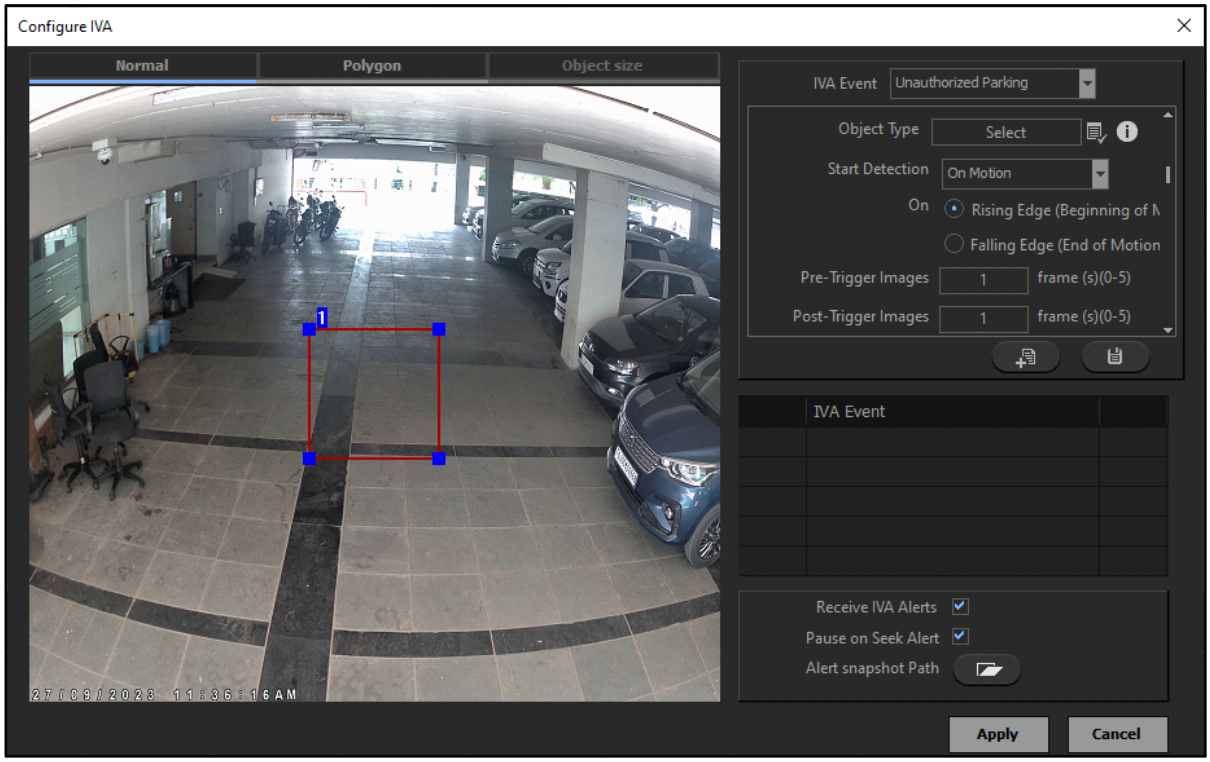
- **Period**: Specify the time interval after which the images will be sent to the ARH Engine.
- **Images per Trigger**: Specify the number of Images per Trigger that will be passed to the ARH Engine.



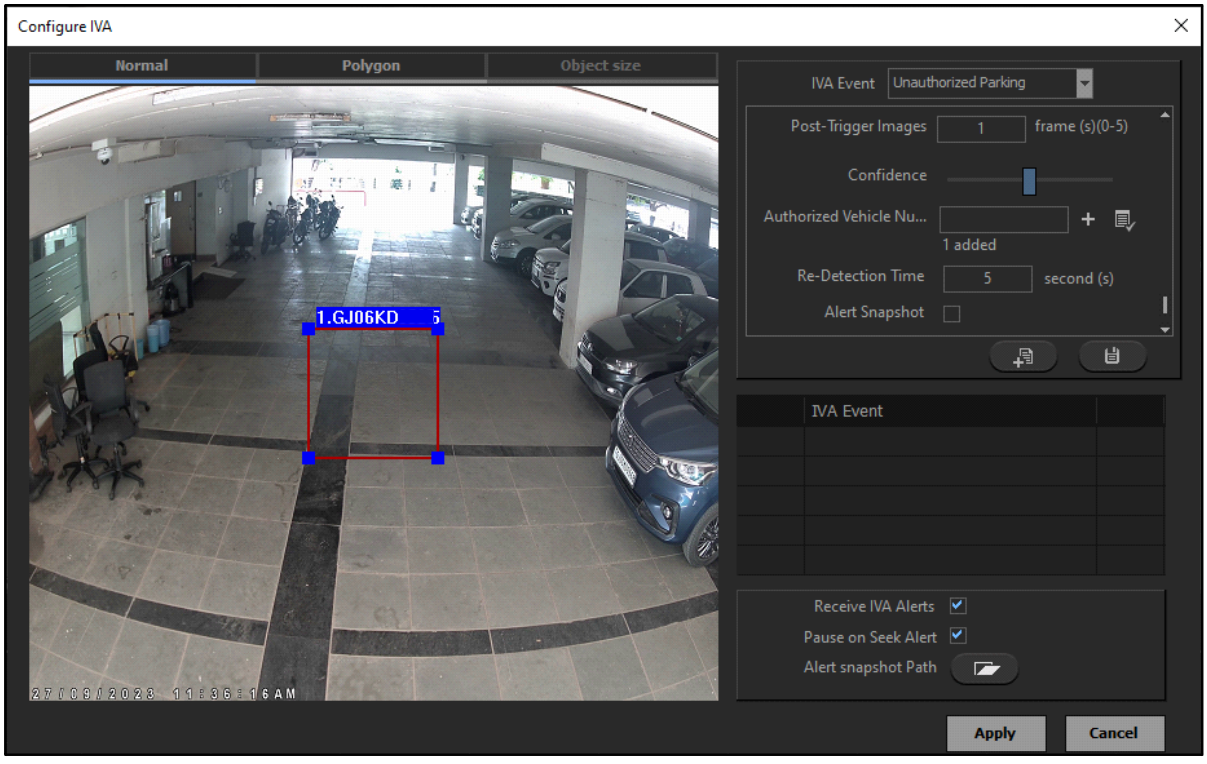
If you select **On Motion**, the IVA Server will process the number plate images and pass to ARH Engine on Rising Edge (Beginning of Motion) or Falling Edge (End of Motion).

If you select the start detection as **On Motion**, configure the following parameters:

- **On**: Select the desired option as to when the images should be passed to the ARH Engine — Rising Edge (Beginning of Motion) or Falling Edge (End of Motion).
- **Pre-Trigger Images**: Specify the number of images to be passed to the ARH Engine before the motion.
- **Post-Trigger Images**: Specify the number of images to be passed to the ARH Engine after the motion.



- **Confidence**: Drag the slider towards the right to increase or towards the left to decrease the confidence level.This indicates the accuracy with which vehicle will be detected.
- **Authorized Vehicle Number**: Specify the license number of the vehicle to which the configured zone is alloted for parking. Click **Add Authorized Vehicle Number** + to add the number. The license number will be displayed on the top of the configured zone.



Click **View Authorized Vehicle Number** to view the list of added license numbers. You can also delete the license numbers from the list. Click **Delete** corresponding to the license number to delete it.

- **Re-Detection Time**: Specify the time after which the Unauthorized Parking Event must be detected again after the previous detection.
- **Alert Snapshot**: Select the check box to generate alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Unauthorized Parking Event appears in the **IVA Event** list.

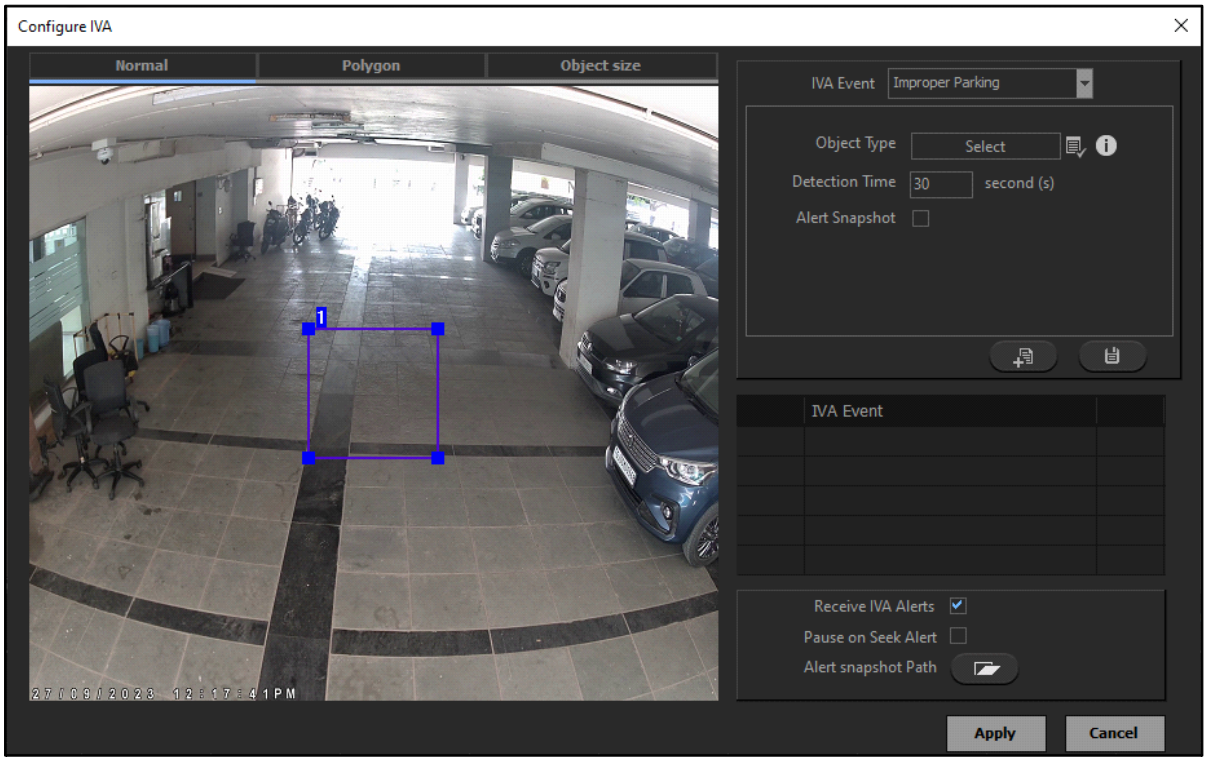
The configurations of Zone and IVA options for Unauthorized Parking are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

Improper Parking

The Improper Parking feature enables you to configure Improper Parking Event for a camera.The Improper Parking feature monitors the playback stream of a camera and detects vehicles parked in an improper manner in the configured zone. This is useful in Parking Management in areas such as Shopping malls or Markets where incidents of improper parking can be detected and appropriate actions can be taken.

To configure Improper Parking Event for a camera,

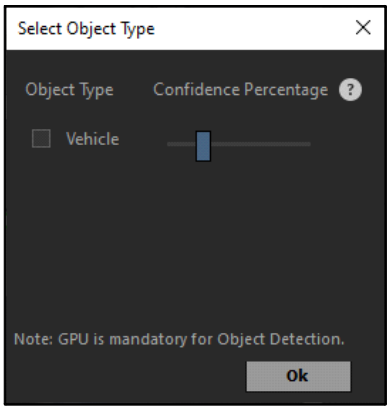
- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Improper Parking** from the drop-down list.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



  - Select the **Vehicle** check box and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

- **Detection Time**: Specify the time after which the vehicles parked in an improper way in the configured zone should be detected.
- **Alert Snapshot**: Select the check box to generate alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Improper Parking Event appears in the **IVA Event** list.

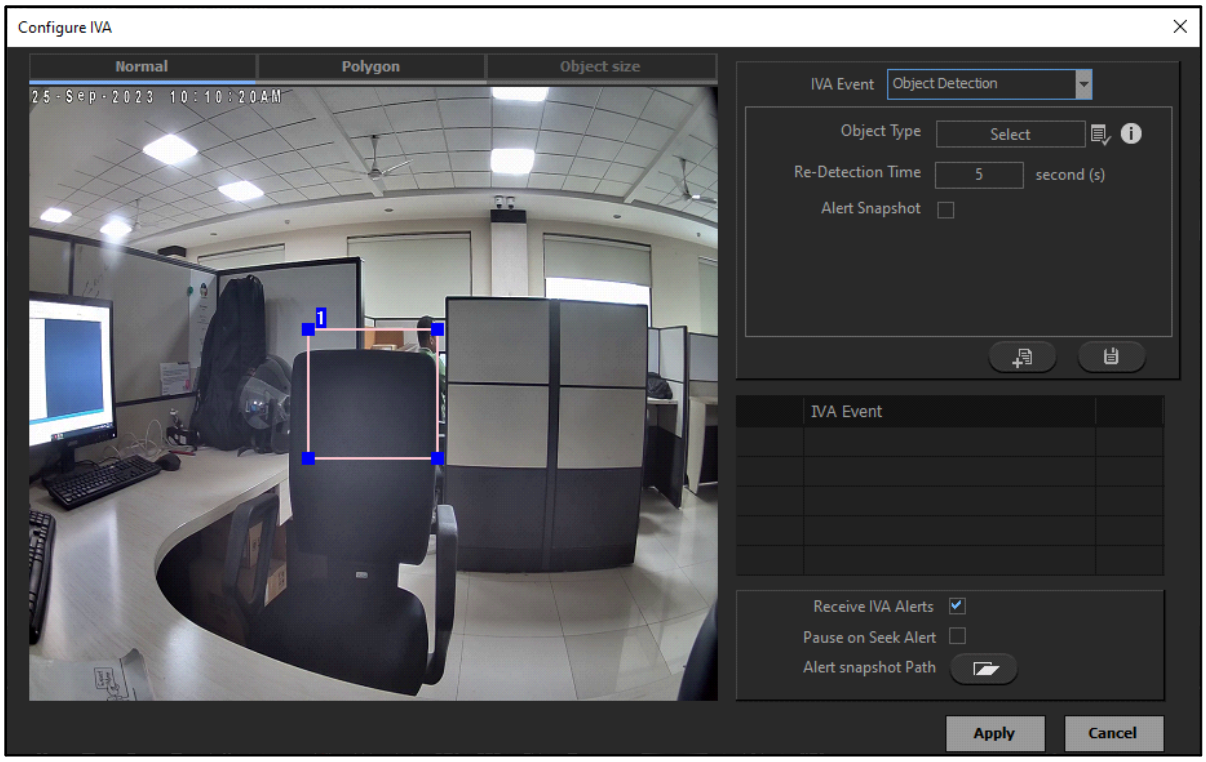
The configurations of Zone and IVA options for Improper Parking are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

Object Detection

The Object Detection feature enables you to configure Object Detection Event for a camera.The Object Detection feature monitors the playback stream of a camera and detects objects in the configured zone.This is useful in high-security areas such as near Server room, Bank lockers or areas such as Railway stations or Bus terminals where detecting suspicious objects is crucial.

To configure Object Detection Event for a camera,

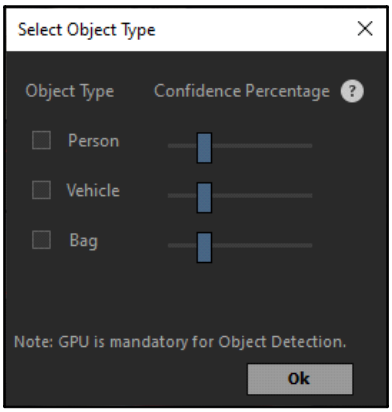
- Click **Investigator > IVA Options > Configure IVA**. The **Configure IVA** pop-up appears.



The IVA Event configuration is divided in two parts — Event Configuration and Zone Configuration.

Event Configuration

- **IVA Event**: Select **Object Detection** from the drop-down list.
- **Object Type**: Select the desired Object Type which should be detected in the Event using the **Object Type** picklist.
  - Click **Object Type** picklist. The **Select Object Type** pop-up appears.



  - Select the check boxes for the desired Object Types from the list and set the **Confidence Percentage** by dragging the slider. Drag the slider to the left to decrease the percentage or to the right to increase. This indicates the accuracy with which the selected Object Type is detected. A higher Confidence Percentage will enable more precise detection.The default percentage is 25. Click **Ok**.

- **Re-Detection Time**: Specify the time after which the Object Detection Event must be detected again after the previous detection.
- **Alert Snapshot**: Select the check box to generate alert when a snapshot is taken.
- **Receive IVA Alerts**: Select the check box to receive the Event alerts.
- **Pause on Seek Alert**: Select the check box to pause the IVA detection when the **Seek IVA Alert** is enabled from the Playback Toolbar during the IVA Detection.
- **Alert Snapshot Path**: Browse a path in the selected drive where you wish to store the snapshot. Click **Browse** . It will display all folders which are in the drive. Select the desired folder.

When the Event configurations are in process, the **Add To List** icon starts blinking in Red color .

- Click **Add To List** once these configurations are done. The Object Detection Event appears in the **IVA Event** list.

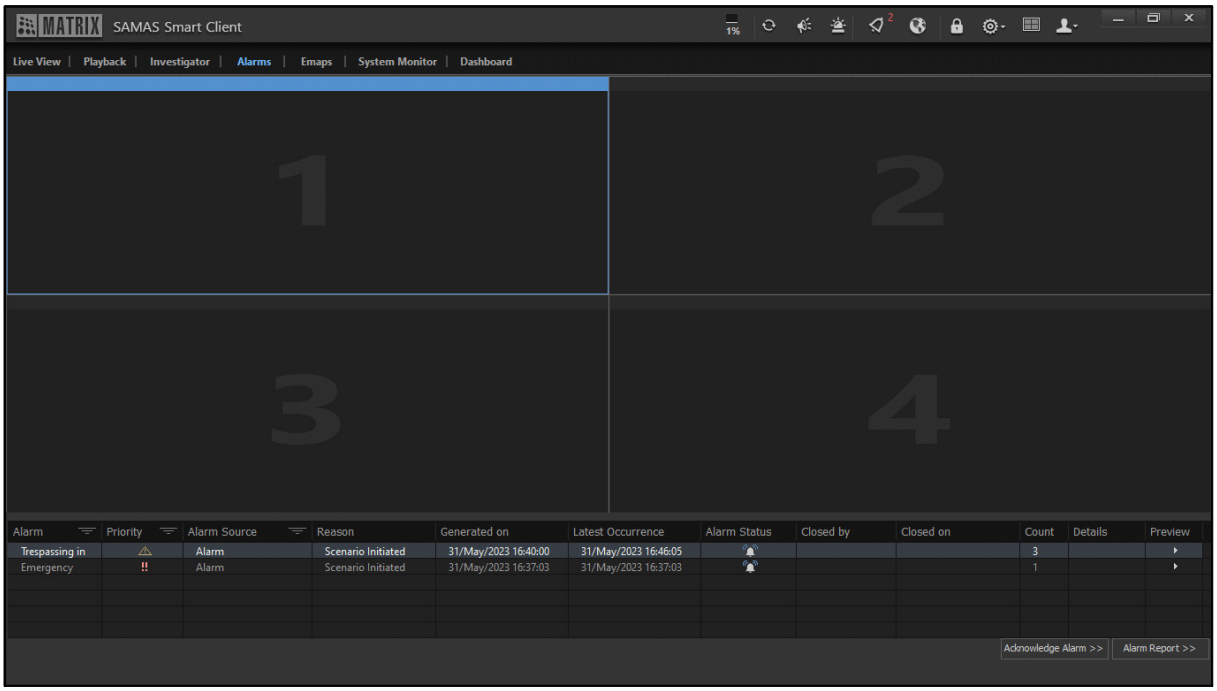
The configurations of Zone and IVA options for Object Detection are similar to Motion Detection. For details, refer to “Zone Configuration” and “IVA Options in the Playback Toolbar”.

CHAPTER 8 Alarms

The Alarms feature enables you to view the triggered alarms in the system. The alarms can be triggered as an action configured under the **Trigger Alarm** action for any Scenario from the Admin Client. The Alarm monitoring window displays the live view of the associated cameras. You can also acknowledge the alarm and view the alarm report using this feature.

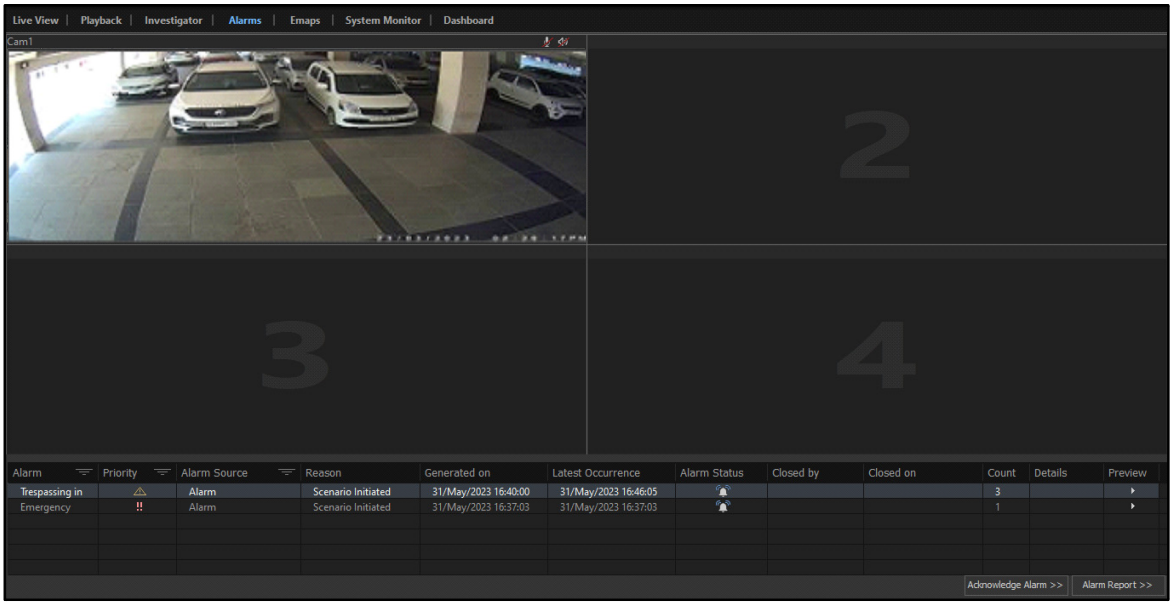
To configure Alarms,

- Click **Alarms**.



Once an alarm is triggered, the **Alarm Notification** appears in the Title Bar. The number of active alarms is also indicated.

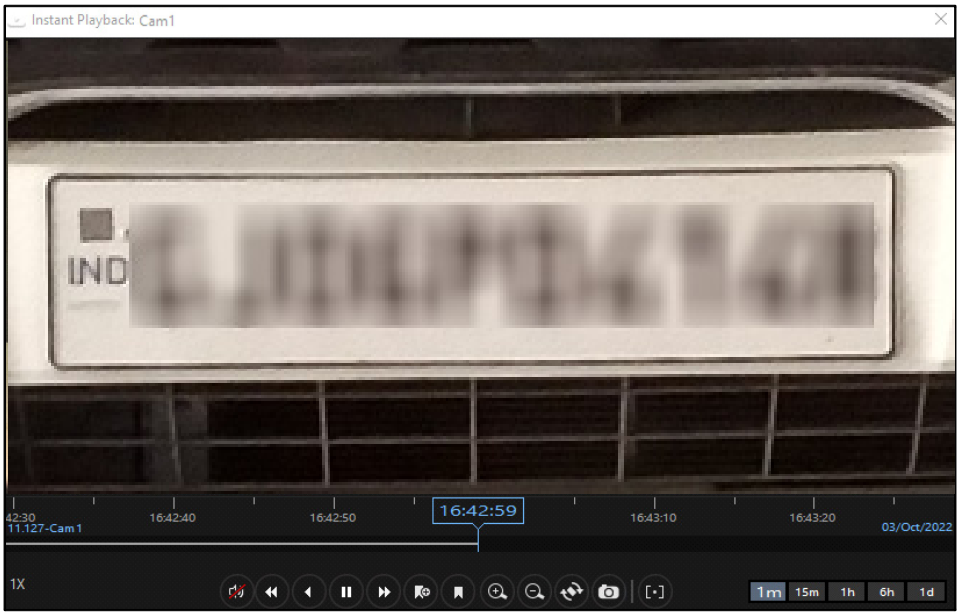
- Click **Alarm Notification** to view the active alarm.



The live view of the camera associated with the alarm starts as soon as the alarm is triggered. You can configure a few parameters by right-click on the monitoring window.

- Right-click on the monitoring window to view and configure the options — Instant Playback, Stop Preview, Rotate & Flip, Aspect Ratio, Turn Audio On and Turn Microphone On.

    - **Instant Playback**: Select Instant Playback. The **Instant Playback** pop-up appears.



    - The date, time and camera details are displayed in the playback as configured. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

    - **Stop Preview**: Select Stop Preview to stop the camera preview in the monitoring window.

- **Rotate and Flip**: Select Rotate and Flip to enable the rotation and flipping of the camera view. For details, refer to “Rotate and Flip”.
- **Aspect Ratio**: Select the desired aspect ratio from the options — Default, 1:1, 4:3 and 16:9.
- **Turn Audio On**: Select Turn Audio On to turn on the audio for the selected camera.
- **Turn Microphone On**: Select Turn Microphone On to turn on the microphone for audio inputs to the camera.

The active alarm details appear in the bottom panel. The alarm details displayed are — Alarm Name, Priority, Alarm Source, Reason, Generated On, Last Occurrence, Alarm Status, Closed by, Closed On, Count, Details and Preview.

The alarm priority can be configured from **General Settings > Templates > Alarms** in the Admin Client. The Priority of alarms is divided into five types as below:

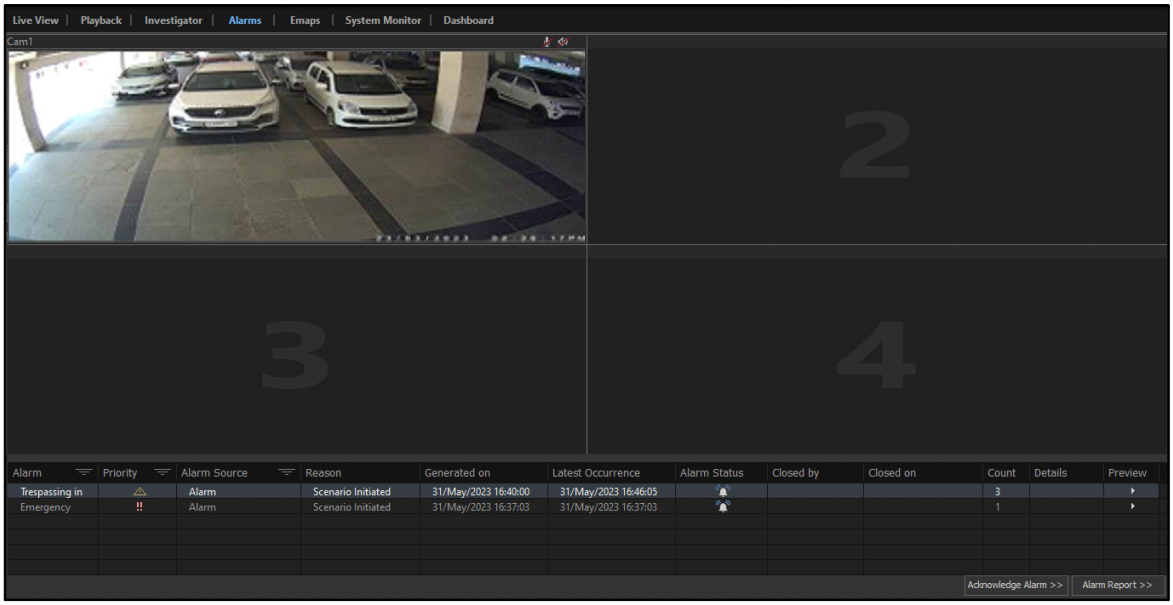
- **Critical:**
- **Severe:**
- **High:**
- **Normal**:
- **Low**:

The Alarm Status of the triggered alarms is mentioned below:

- **Active**:
- **Acknowledged:**
- **Expired**:

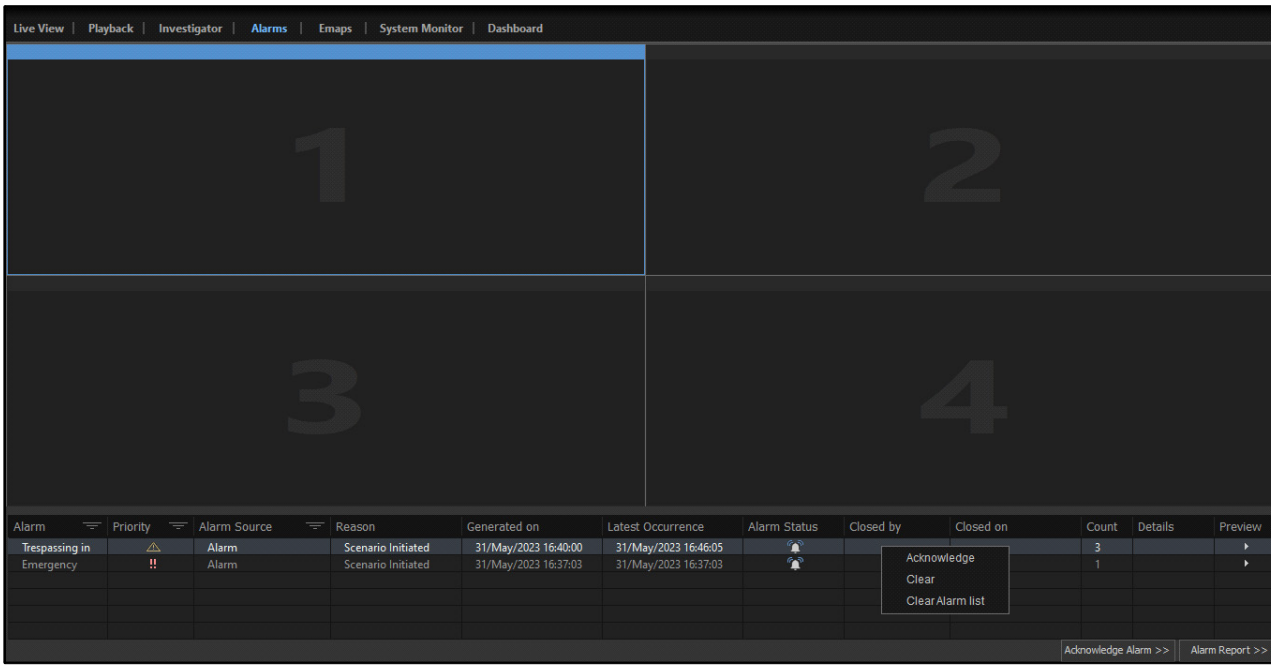
You can view the live view of the active alarm using the **Preview** option.

- Click **Preview** . The live view of the associated camera opens in the monitoring window.



- To stop the preview, right-click on the monitoring window and select **Stop Preview**.

Right-click on the details in the bottom panel to configure the following alarm parameters — Acknowledge, Clear, Clear Alarm List, Acknowledge Alarm and Alarm Report.

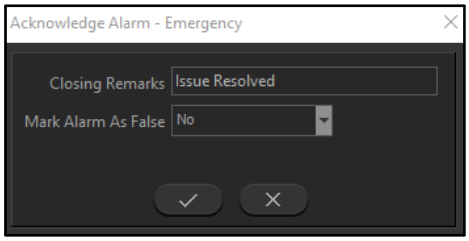


- **Acknowledge**: Select Acknowledge to acknowledge the alarm. For more details, refer to “Acknowledge Alarm”.
- **Clear**: Select Clear to clear the particular alarm from the list.
- **Clear Alarm List**: Select Clear Alarm List to clear all the alarms from the list.

Acknowledge Alarm

You can acknowledge the alarm to specify the reason or Scenario related details to mark it as done. This is particularly helpful when several alarms are configured for different Scenarios and acknowledging alarm can help to indicate that action has been taken according to the purpose of the alarm.

- Click Acknowledge Alarm. The **Acknowledge Alarm- Alarm Status** pop-up appears.

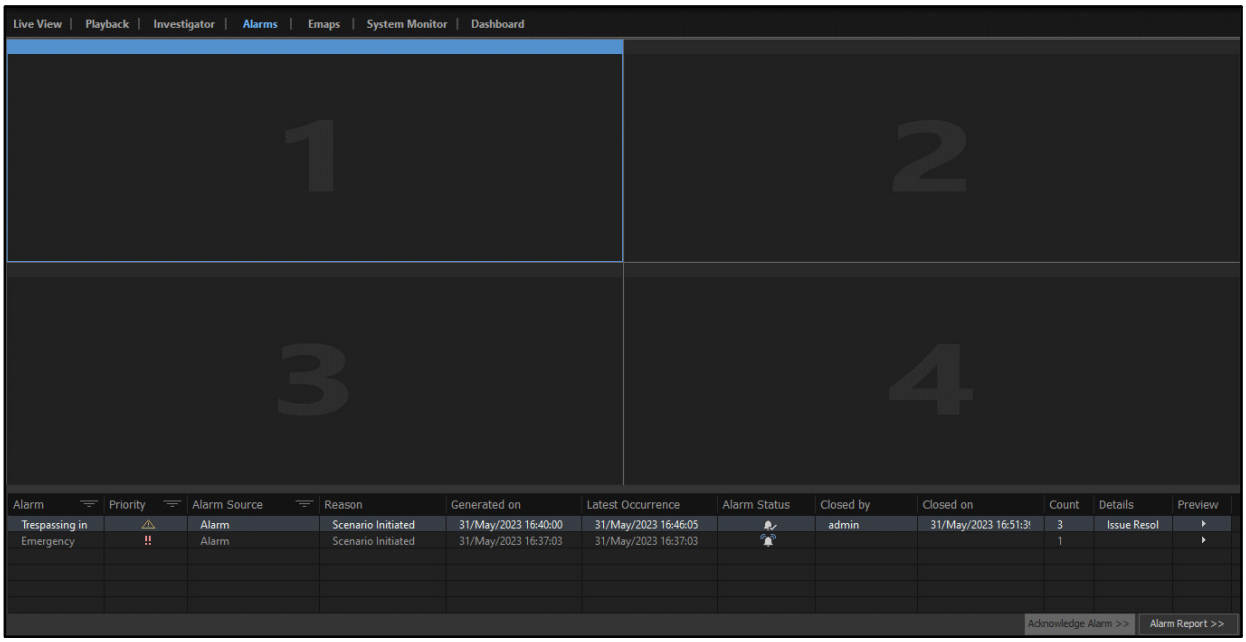


  Configure the following parameters.

  - **Closing Remarks**: Specify the closing remarks related to the alarm. The status will be updated in the alarm details once the alarm is acknowledged.
  - **Mark Alarm as False**: Select the option to mark the alarm as false or not from the drop-down list — Yes or No.

- Click **OK** ✓ to confirm or click **Cancel** ✗ to discard.

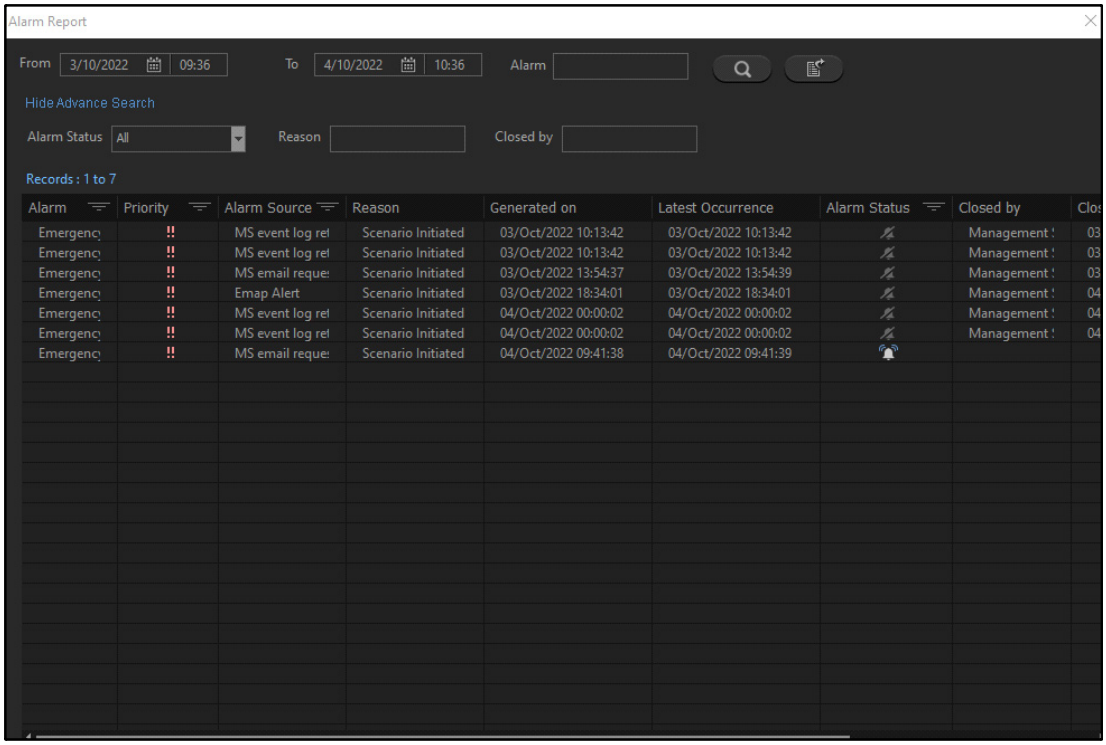
The alarm status details are updated once the alarm is acknowledged.



Alarm Report

You can also view the alarm reports using the Alarms feature. These reports display the details of alarms over a custom period of time. You can also export the Alarm Report and save it locally.

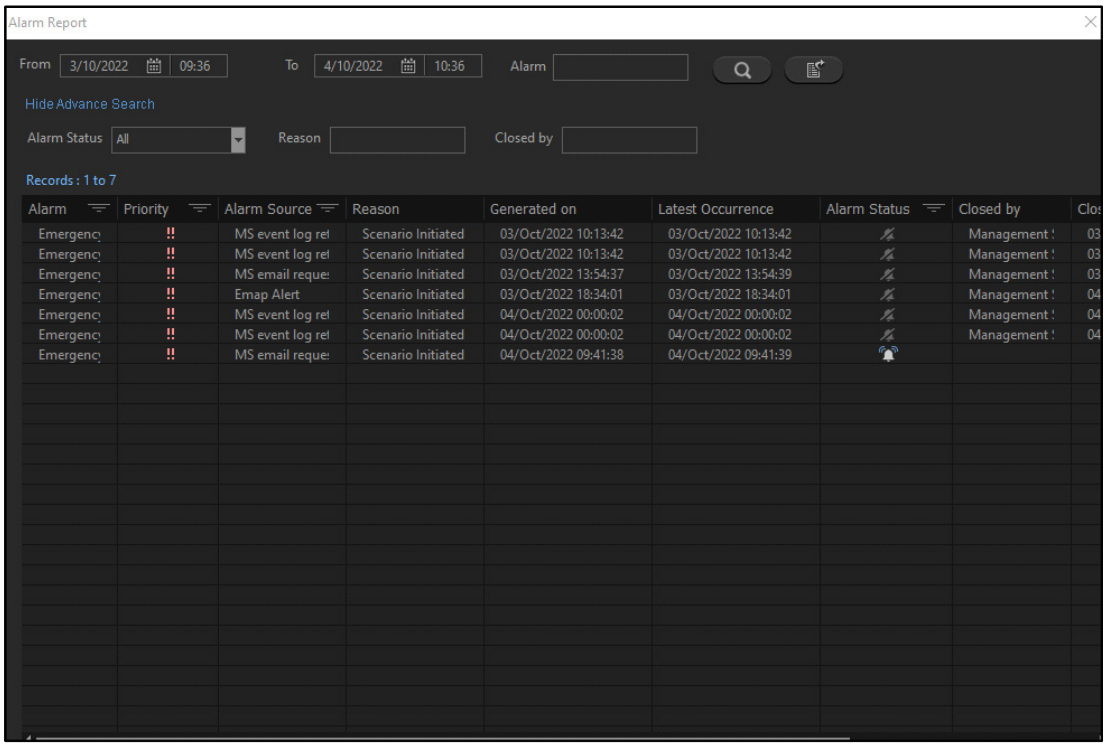
- Click **Alarm Report**. The **Alarm Report** pop-up appears.



Configure the following parameters.

- **From**: Select the date from which you wish to view the Alarms from the calendar and specify the time.
- **To**: Select the date till which you wish to view the Alarms from the calendar and specify the time.
- **Alarm**: Specify the name of the alarm that you wish to view.

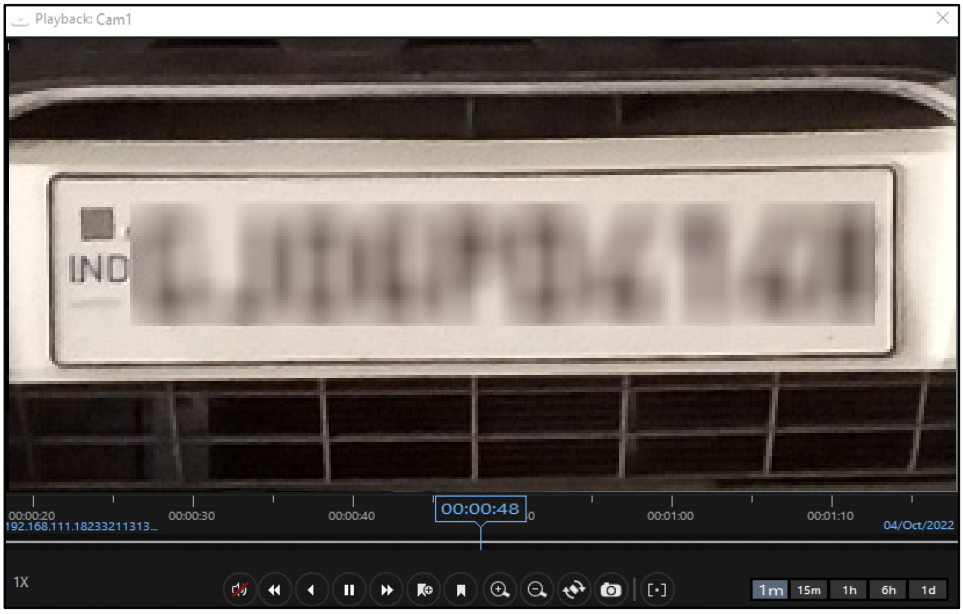
- Click **Advanced Search** to configure additional parameters for the search.
  - **Alarm Status**: Select the alarm status for which you wish to view the Alarms from the drop-down list — All, Active, Expired, Acknowledged.
  - **Reason**: Specify the reason of acknowledgment of the alarms, if any.
  - **Closed by**: Specify the name of the user who closed the alarm.
- Click **Search** . The list of all the Alarms for the configured duration appear in a list.



The Alarm details displayed are — Alarm Name, Priority, Alarm Source, Reason, Generated On, Latest Occurrence, Alarm Status, Closed by, Closed on, Count, Details and Playback.

You can view the playback for all the Alarms from the Alarm Report.

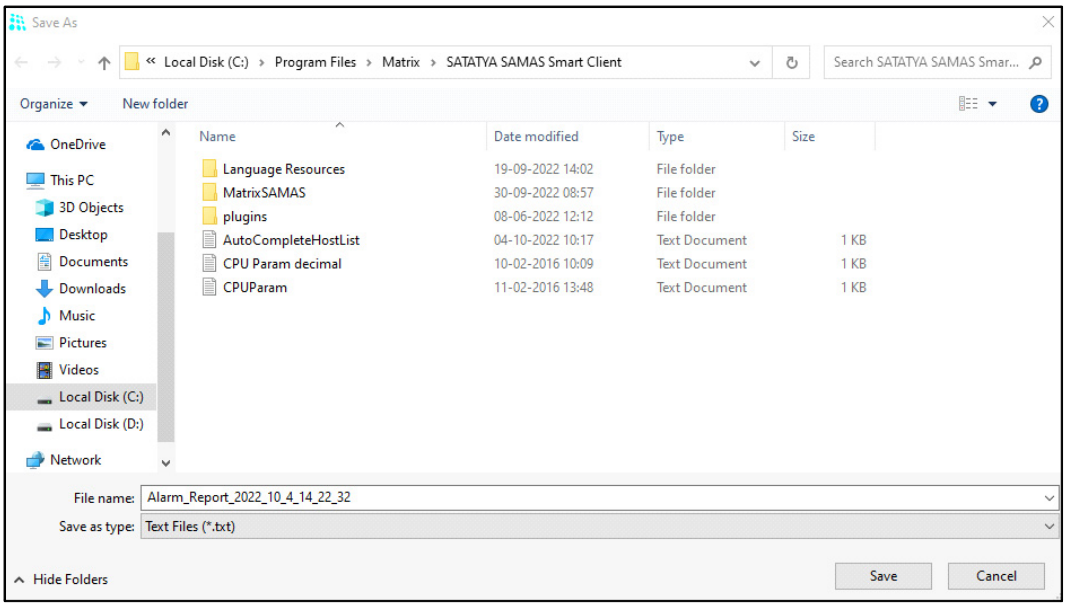
- Click **Playback** . The **Playback** pop-up appears.



- The date and the time when alarm was triggered is displayed on the playback. You can perform certain action on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

You can also export the Alarm Report to your system.

- Click **Export** . The **Save As** pop-up appears.



- Select the desired folder where you wish to save the Alarm Report file and specify the file name.
- Click **Save** to save the file or click **Cancel** to discard.

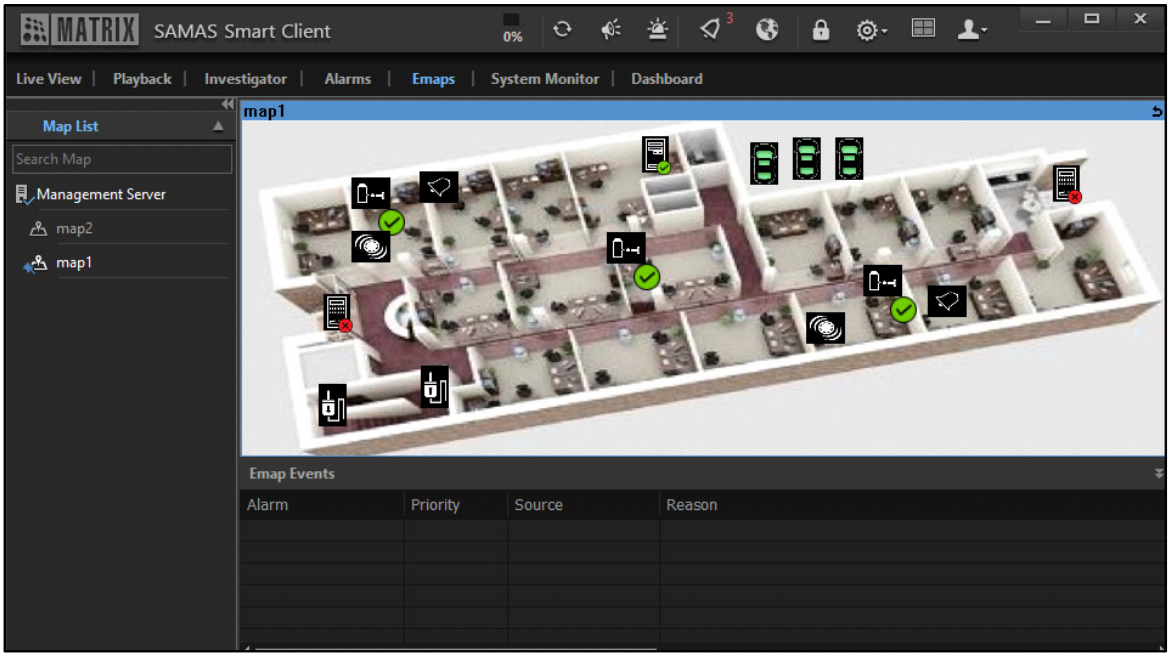
When Online Alarm occurs in Smart Client, and If the flag of Sound Alert is enabled then Smart Client plays the Sound Alert file which is available at the Sound Alert file path configured in Application Tab of General Settings by you.

CHAPTER 9 Emaps

The Emaps feature enables you to indicate the location of various devices in your premises using an Electronic Map. This functionality is used to define Electronic Maps in.jpg and.bmp formats in the Admin Client. Such Emaps can be used for indicating the location of cameras, sensors and other entities, as positioned for surveillance purposes. You can add alarm or camera entities on these maps for live monitoring from Admin Client. The Events generated for the entities placed on Emap can be viewed under the Emap Events section in the Smart Client. The Emap monitoring enables you to monitor the live videos and instant playback of the cameras, view alerts as well as acknowledge the alerts on the Emap.

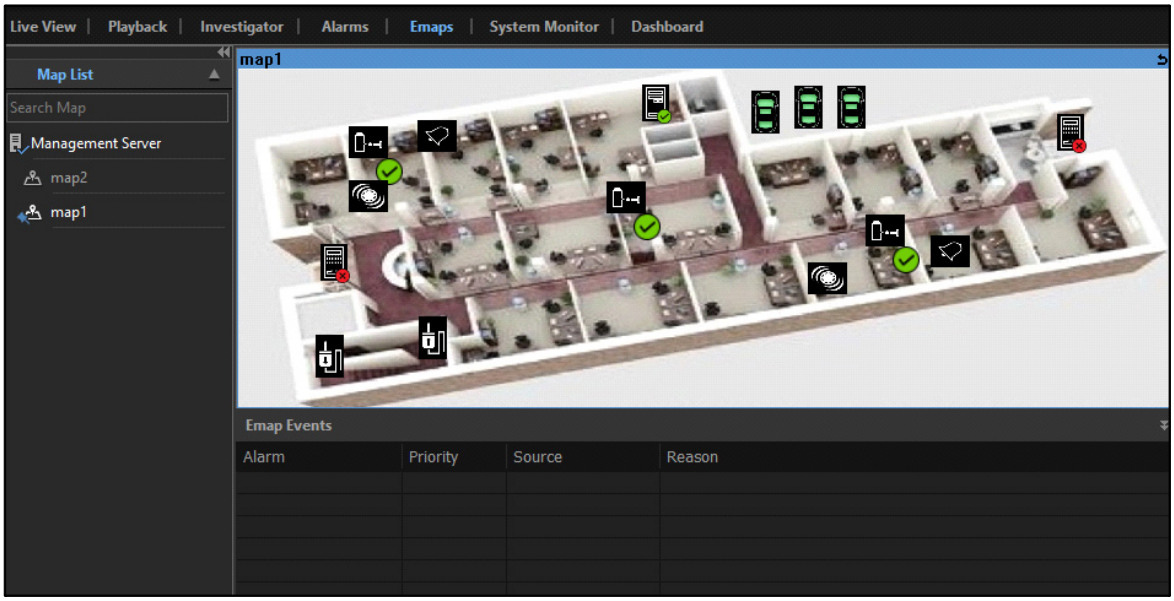
To configure Emaps,

- Click **Emaps**.



The list of all the Emaps configured in the Admin Client appears under the **Map List** section.

- Click the desired Emap from the list.

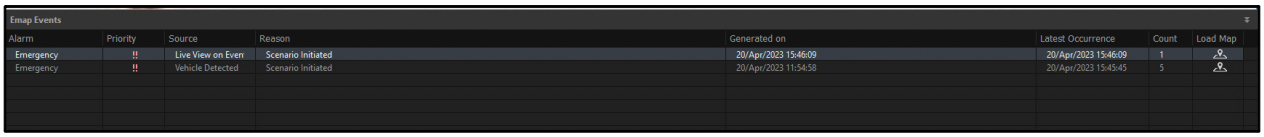


The configured entities appear along with the Emap. The connection status of the entities for example Cameras, Servers, Alarms is displayed along with the entity icon.

Make sure you assign a color for each Server entity added on Emap while configuration from the Admin Client for easy recognition of the same from the Smart Client.

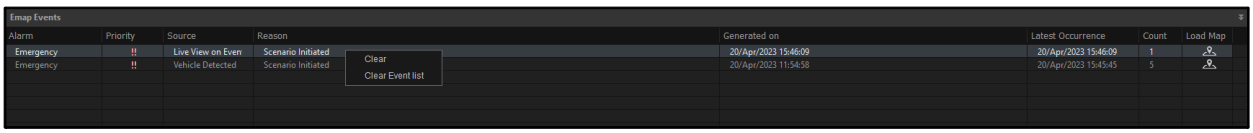
The Slot availability is also displayed along with the entity icon. Whenever a scenario is executed with Trigger Alarm as action, Emap Alert for that scenario is generated if configured.

The Emap Alert notification appears on the Title Bar with the number of Emap Alerts on the top right corner of the **Emap** icon. When an Event occurs on an entity that is assigned to the Emap, then that Event appears under the Emap Events section.



The Event details displayed are — Alarm, Priority, Source, Reason, Generated On, Latest Occurrence, Count and Load Map.

- Click **Load Map** to view the entity on the Emap.
- Right-click on any event in the Emap Events grid. The following options appear — Clear, Clear Alarm List.



- To clear a single event from the Emap Events grid, right-click on the desired event. Click on **Clear** to remove the selected event.

- To clear all the events, right-click on the any event. Click on **Clear Event list** to remove all the events from the grid.

Particular entity starts blinking on the Emap whenever an event for that entity occurs. On Event occurrence, you can configure certain parameters by right-clicking on each entity. These parameters differ from entity to entity.

Refer to the following links for the configuration details of parameters on right-click of different entities:

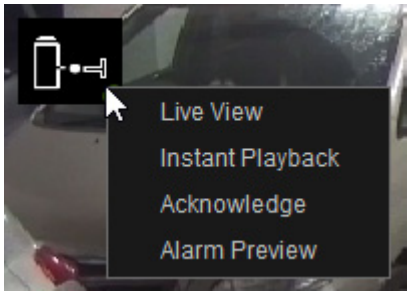
- “Camera: Right-click Parameters”
- “Sensor, Alarm AUX Input and AUX Output Ports”
- “COSEC Devices: Right-click Parameters”
- “Slot: Right-click Parameters”

Camera: Right-click Parameters

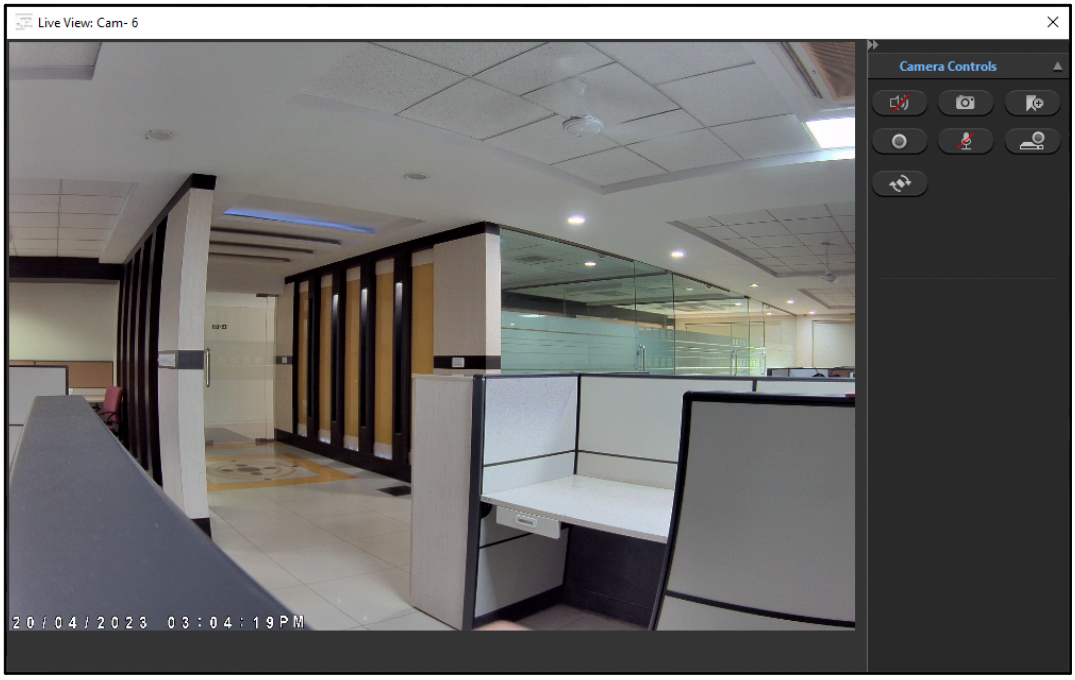
You can configure the following parameters — Live View, Instant Playback, Acknowledge and Alarm Preview.

Live View

- Right-click on the desired camera entity icon. Select **Live View**.



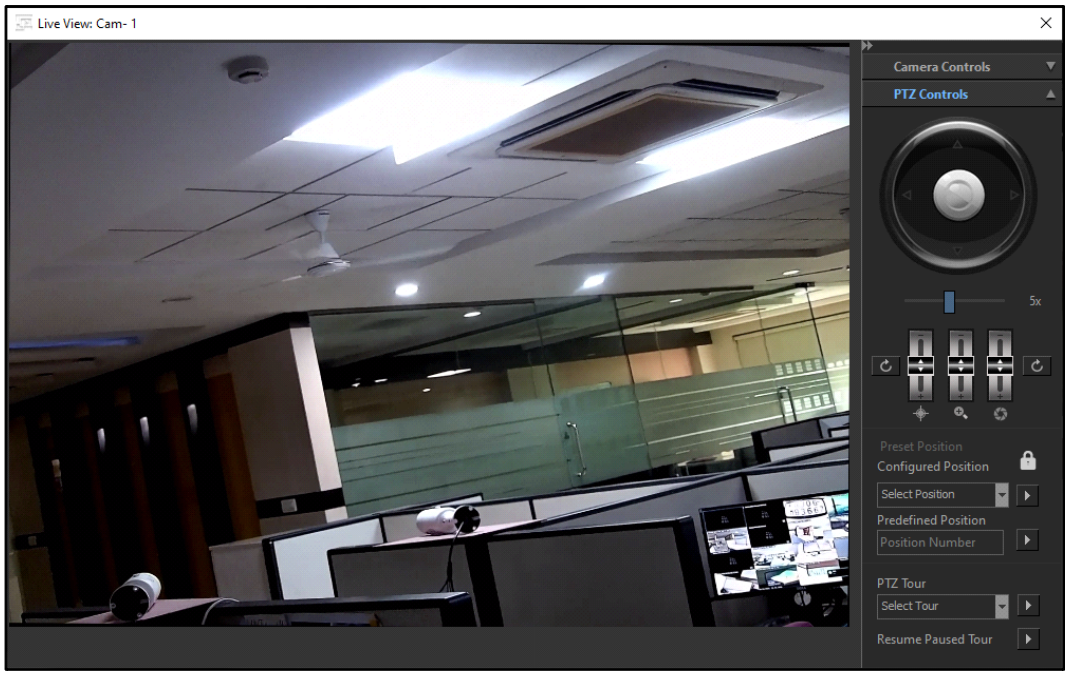
The Live View pop-up appears.



- The date, time and camera details are displayed in the live view as configured. You can perform certain actions on the live view of the camera using **Camera Controls** section. For more details, refer to “Camera Controls”.

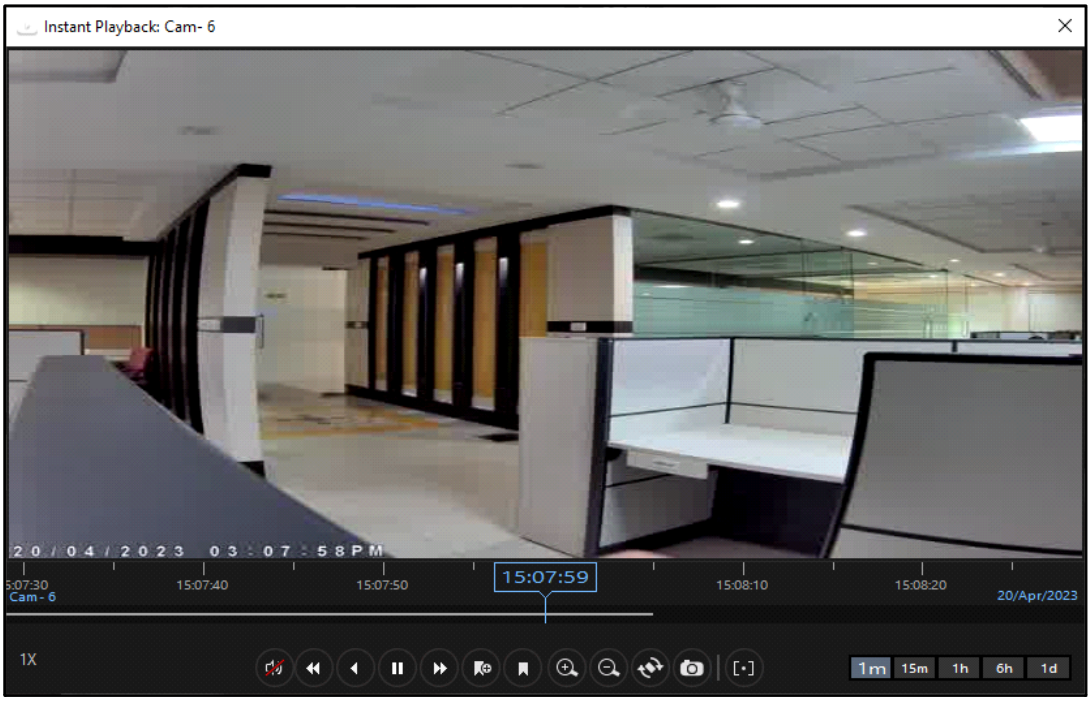
  If the camera is PTZ, you can additionally perform PTZ functions on the live view using **PTZ Controls**. For more details, refer to “PTZ Controls”.

Microphone can be used only if the user has rights to enable/disable it. The rights to use microphone are assigned from General Settings > System Account > User Group in the Admin Client.



Instant Playback

- Right-click on the desired camera entity icon. Select **Instant Playback**. The Instant Playback pop-up appears.



- The date, time and camera details are displayed in the playback as configured. You can perform certain action on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to “Bottom Pane Functionality-Playback Toolbar”.

Acknowledge

- Right-click on the desired camera entity icon. Select **Acknowledge**. The **Acknowledge Alarm-Alarm Status** pop-up appears. For details, refer to “Acknowledge Alarm”.

Alarm Preview

- Right-click on the desired camera entity icon. Select **Alarm Preview**. The live view of the associated camera opens in the monitoring window on the **Alarms** page. For details, refer to “Alarms”.

Sensor, Alarm AUX Input and AUX Output Ports

The entities — Sensor, Alarms, AUX Input Port and AUX Output Port start blinking on the Emap whenever an event for that entity occurs. Also, the event for that particular entity appears under the Emap Events section.

COSEC Devices: Right-click Parameters

You can configure the following parameters — Live View, Instant Playback, Lock, Unlock, Normal and Open.

For detailed configurations of Live View and Instant Playback, refer to “Camera: Right-click Parameters”. You can remotely open or close the COSEC Doors and also change their state. For details on additional parameters — Lock, Unlock, Normal and Open, refer to“COSEC Doors”.

Slot: Right-click Parameters

The slot entity displays the slot occupancy status indicating the Occupied and Available slots with red and green color respectively. You can configure the following parameters — Live View and Instant Playback. For details, refer to “Camera: Right-click Parameters”.

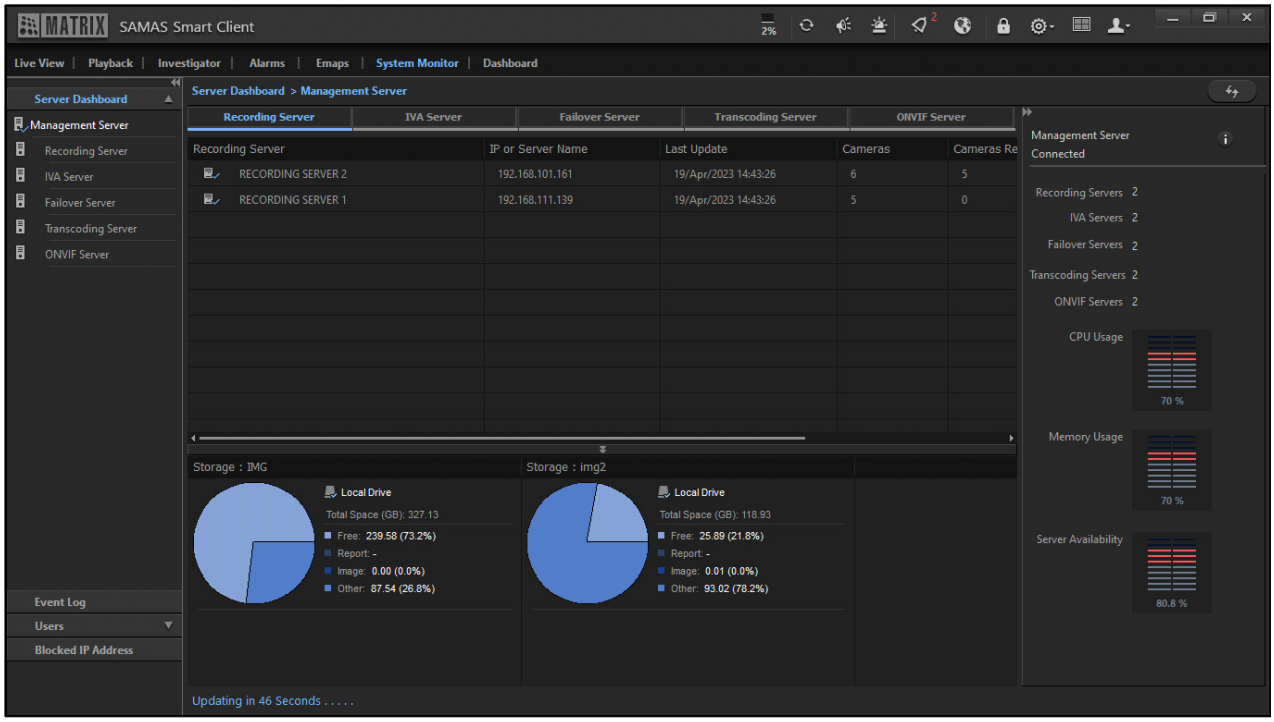
CHAPTER 10

System Monitoring

The System Monitor feature enables you to view live information related to Servers, Camera Availability, Server Performance, Real-time Storage Details, System Usage as well as Event Logs. This vital feature provides you an interface to view the current status of system entities (Servers, Cameras, Access Control Devices etc.) for the purpose of administrative monitoring. If SATATYA SAMAS is integrated with COSEC Access Control Management Solution, you will also be able to view COSEC Monitor Events in the Event Logs.

To configure System Monitor,

- Click **System Monitor**.



Make sure the users are assigned the entity rights for the desired Servers and Cameras to monitor them through System Monitoring.

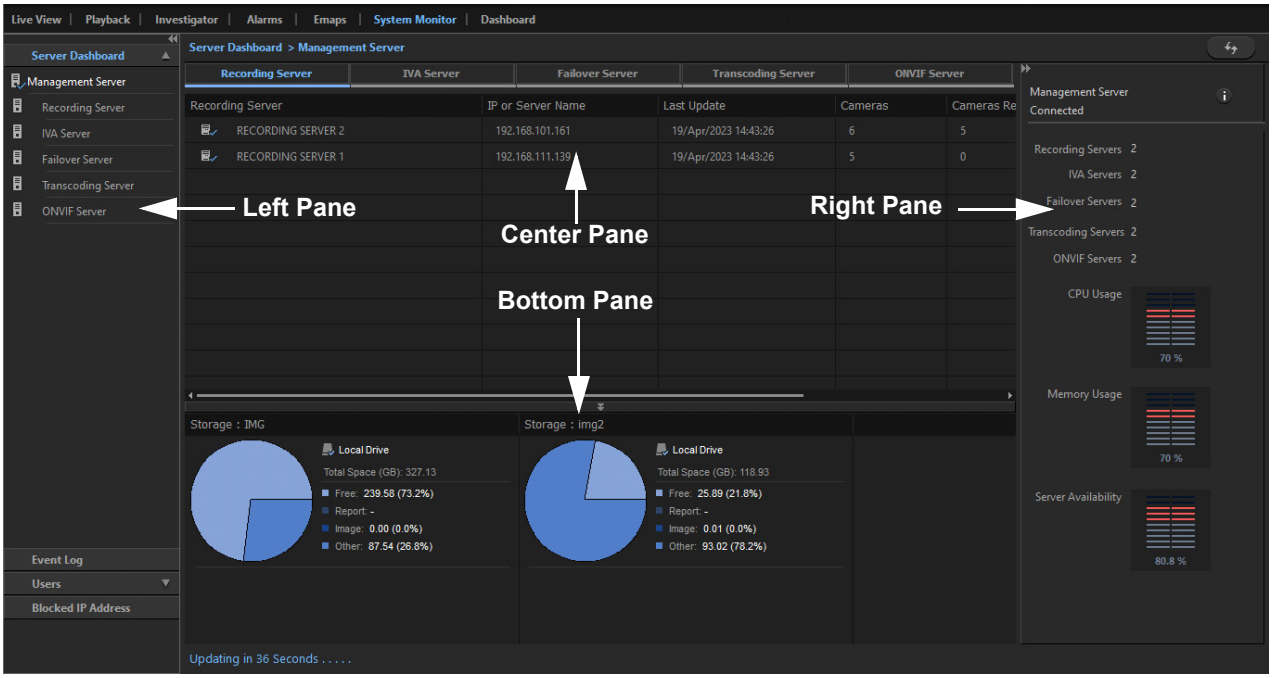
The System Monitor tab contains the following sections/pages — "Server Dashboard", "Event Log", "Users" and "Blocked IP Address".

Server Dashboard

The Server Dashboard page displays the details and live status of the Servers. You can view the storage and memory usage details from this page.

To view Server Dashboard,

- Click **System Monitor > Server Dashboard**.



The Management Server's details in different panes — Left Pane, Center Pane, Right Pane and Bottom Pane.

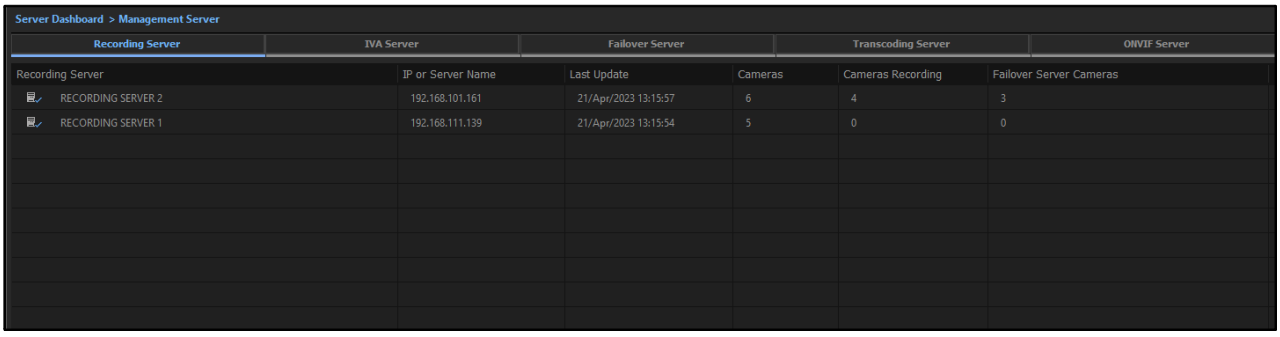
- Click **Refresh** to update the Management Server details.

Left Pane

The Left Pane displays all the pages of the System Monitor page.

Center Pane

The Center Pane displays all the Servers that are connected with the Management Server in different tabs.

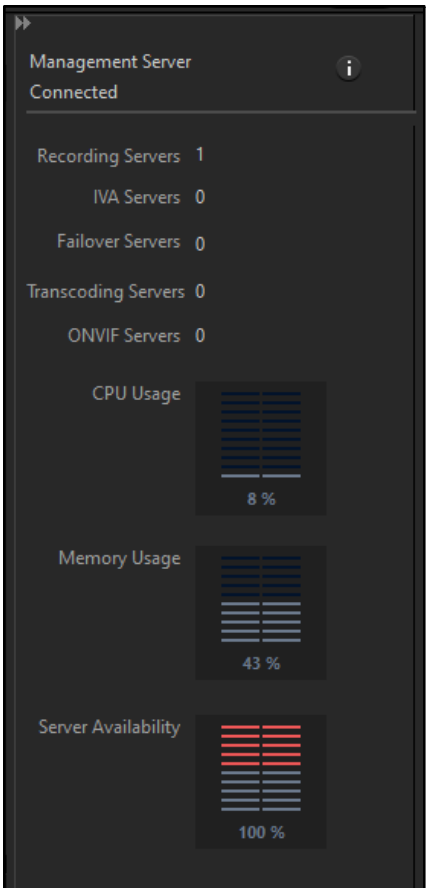


To view the details of each server, click the desired tab:

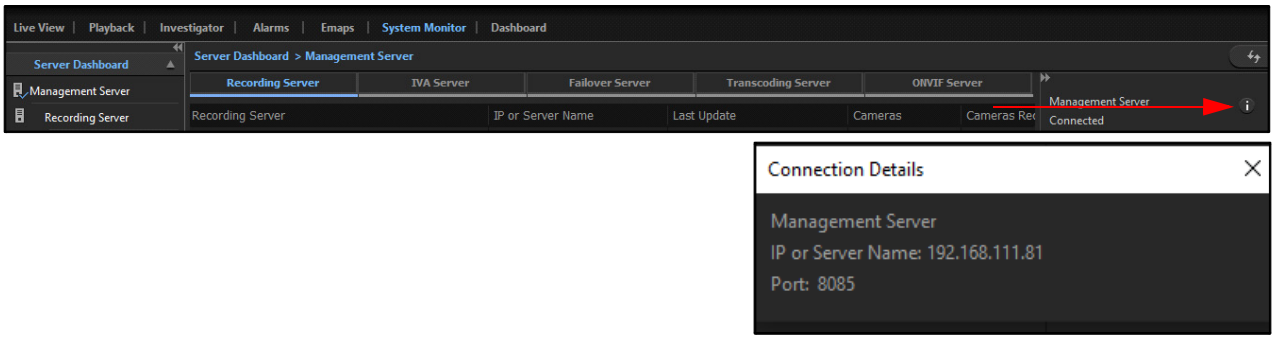
- “Recording Server”
- “IVA Server”
- “Failover Server”
- “Transcoding Server”
- “ONVIF Server”

Right Pane

The Right Pane displays the Connection Details, Number of different Servers connected with the Management Server, CPU Usage, Memory Usage and Server Availability details of the Management Server.

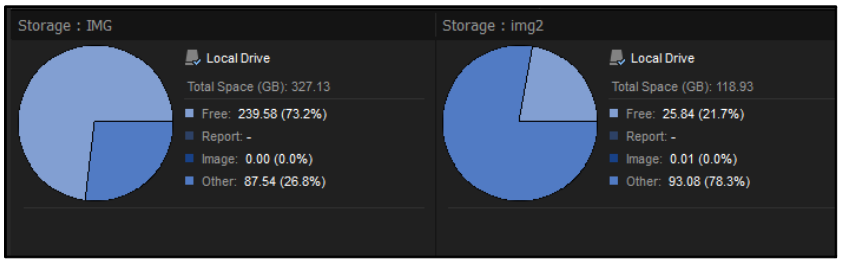


- Click **Connection Details** at top right corner of the Right Pane of Server Dashboard page to view the connection details of the Management Server. It displays the Management Server Name, IP or Server Name and Port.



Bottom Pane

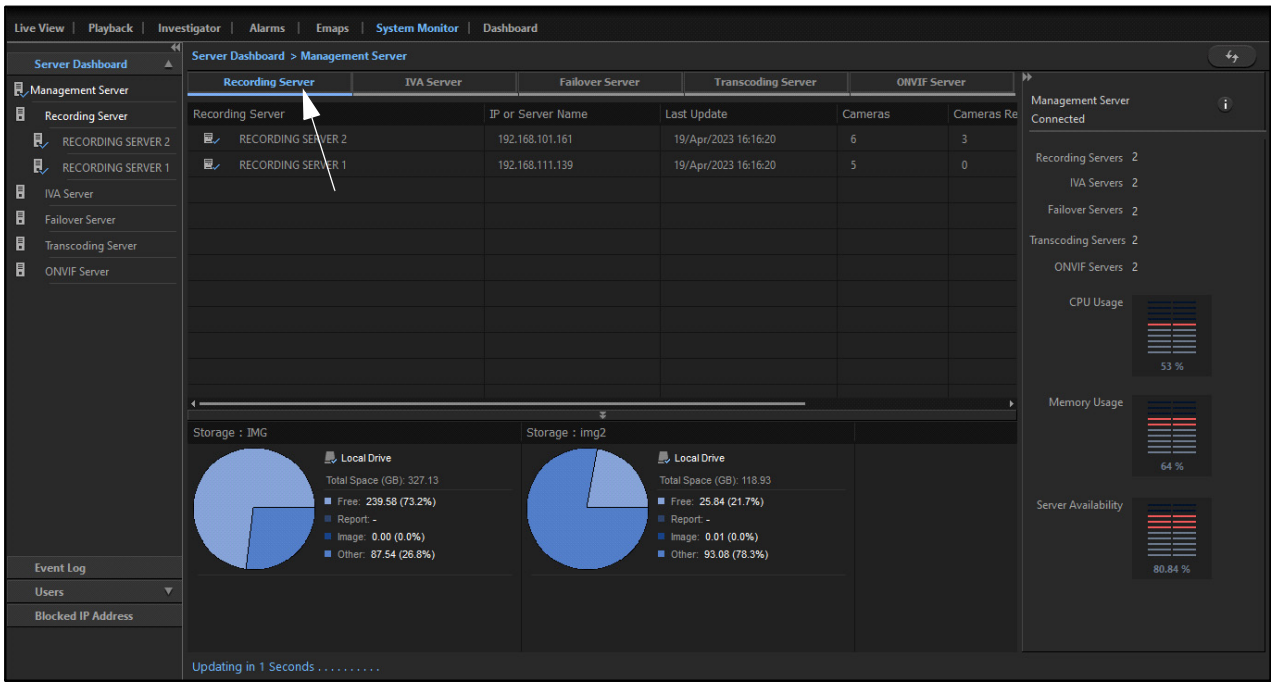
The Bottom Pane displays the Management Server's Storage Drive details.



The drive details displayed are — Drive Name, Drive Type, Total Storage Space (GB), Free Space, Space occupied by Reports, Space occupied by Images and Space occupied by other files.

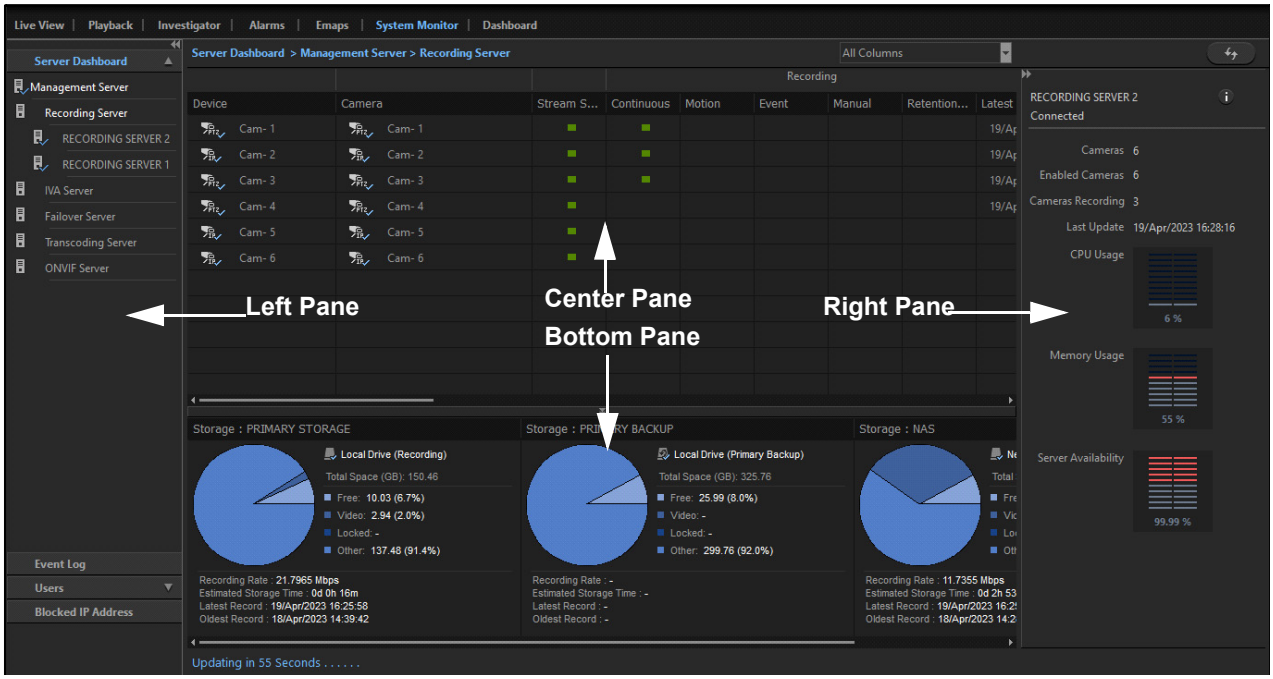
Recording Server

This tab enables you to view all the Recording Servers connected to the Management Server. You can also click on **Recording Server** from the Left Pane to view this tab.



The Server details displayed are — Recording Server Name, IP or Server Name, Last Update, Cameras, Cameras Recording and Failover Server Cameras.

- Double-click on a Recording Server to view its individual details.



The Recording Server's details are displayed in different panes — Left Pane, Center Pane, Right Pane and Bottom Pane.

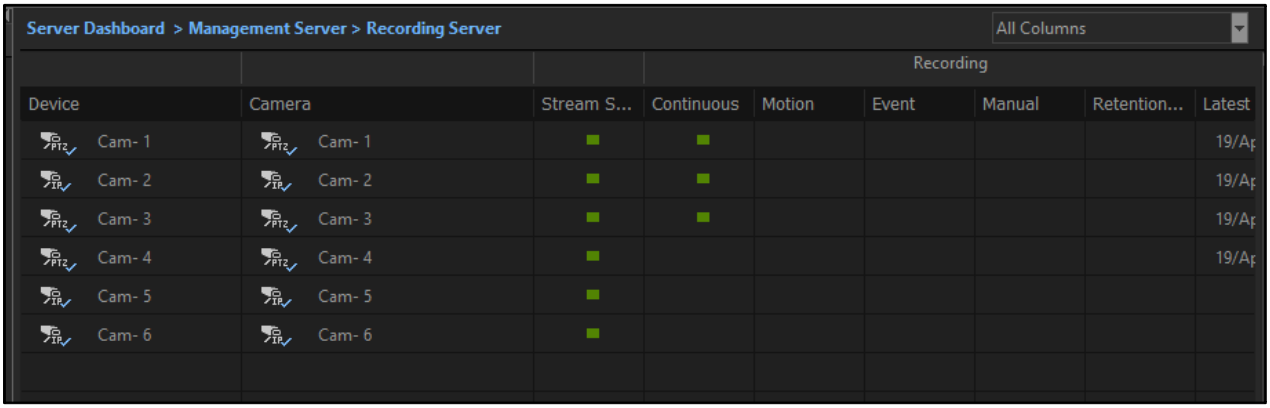
- Click **Refresh** to update the Recording Server details.

Left Pane

The Left Pane displays all the pages of the System Monitor module.

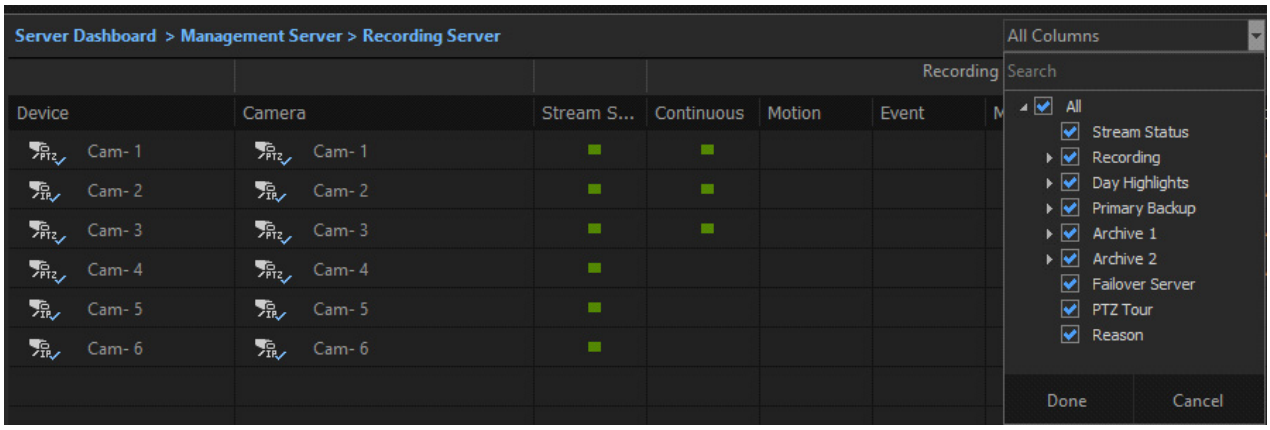
Center Pane

The Center Pane displays all the configuration details of the selected Recording Server.



You can customize the configurations parameters that you wish to display in the Center Pane. To do so,

- Click the **Show or Hide Columns** drop-down list.
- Select the check boxes for the parameters that should be displayed in the Center Pane. Clear the check boxes for the parameters that should not be displayed in the Center Pane.



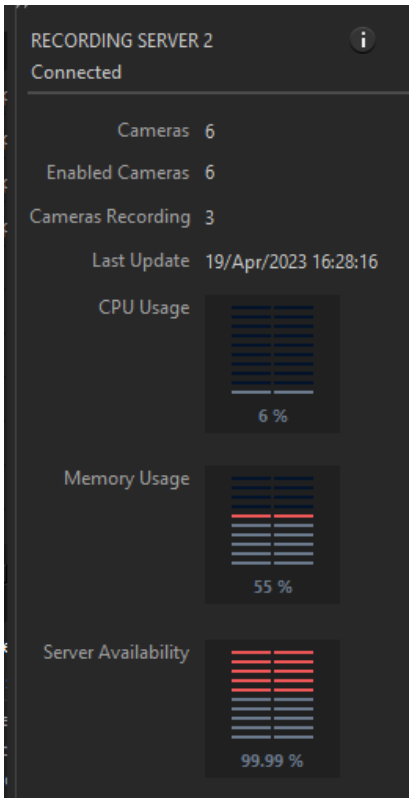
By default all the configuration parameters are displayed. The columns displayed in the Center Pane are:

- **Stream Status:** Stream Status displays the status of the current stream under which the recording is running. If the camera is on, it is indicated in green color.
- **Recording:** There are different types of Recording — Continuous, Motion, Event and Manual. Each is displayed separately. The type of recording which is currently running for the camera is indicated in green color.
- **Recording Retention Status:** Recording Retention Status displays the status of retention of camera recording. If the retention is running, it is indicated in green color.
- **Latest & Oldest Recording:** Latest and Oldest Recording displays the date and time of the Latest and Oldest recorded file which are available in the configured Storage Drive.
- **Day Highlights**: Day Highlights displays the hours of recording in minutes for the clip/record.
- **Day Highlights Status:** Day Highlights Status displays the status of Day Highlights. If the Day Highlights is running, it is indicated in green color.
- **Day Highlights Retention Status:** Day Highlights Retention Status displays the status of retention of camera Day Highlights. If the retention is running, it is indicated in green color.
- **Primary Backup, Archive 1 & Archive 2:** Primary Backup, Archive 1 and Archive 2 displays the following details — Drive Status, Retention and Latest and Oldest Backup. If the Backup is currently in progress, it is indicated in green color.
- **Failover Server:** Failover Server displays the name of the Failover Server assigned to a particular camera.
- **PTZ tour:** PTZ Tour displays the status of the PTZ tour. Whenever the PTZ tour is running for a particular camera, it is indicated in green color.
- **Reason:** Reason displays the justification for a particular camera if it is under maintenance.

The columns configured for display will be set to default after every logout from the Smart Client.

Right Pane

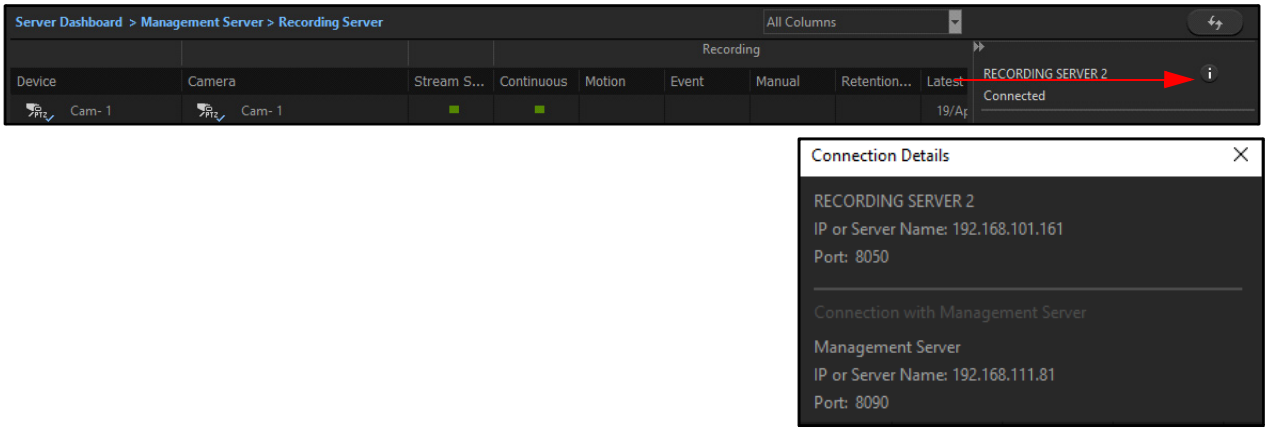
The Right Pane displays the Connection Details, Camera details., CPU and Memory usage details as well as Server Availability of the Recording Server.



The details displayed are — Number of Cameras added, Number of Cameras Enabled, Number of Cameras with Recording Status **On**, CPU Usage, Memory Usage and Server Availability. The date and time of last update is also displayed.

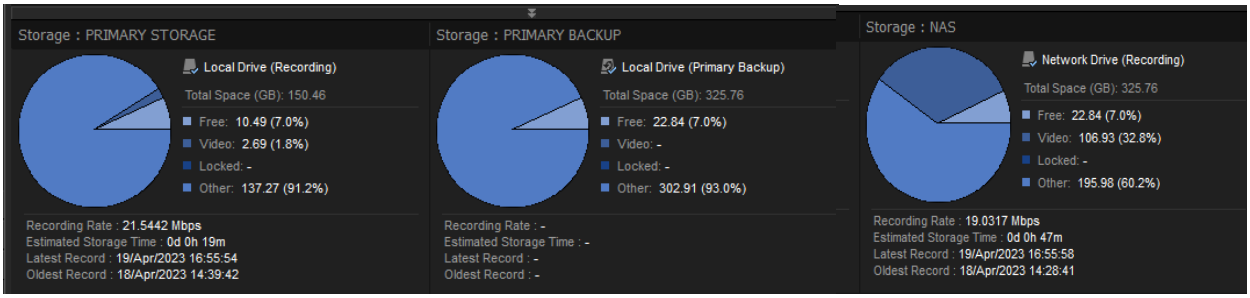
If Recording Server/Management Server are online, but CPU Usage and Memory are continuously displaying same values or 0 for Recording Server/Management Server, then it is possible that the system's performance counter may be corrupted.

- Click **Connection Details** at top right corner of the page, to view the connection details of the Recording Server. It displays the Management Server Name, IP or Server Name and Port with which Recording Server is connected currently.



Bottom Pane

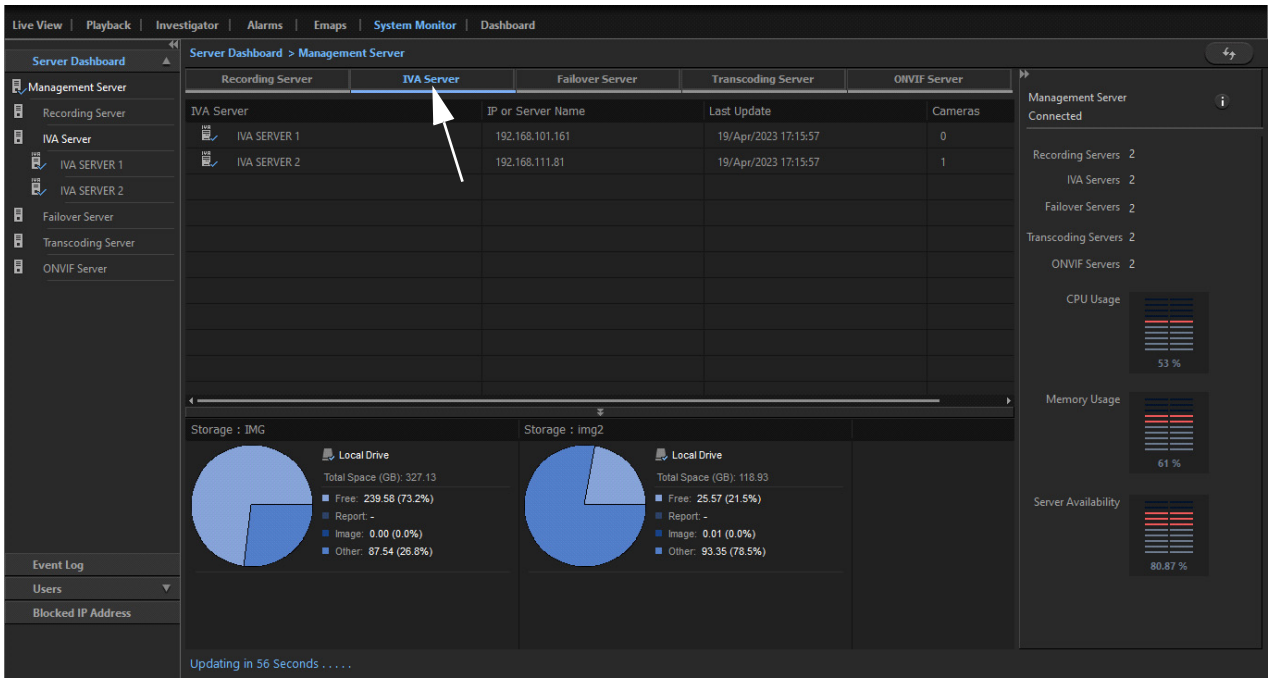
The Bottom Pane displays the Recording Server's Recording Storage Drive and Backup Drive details.



The drive details displayed are — Drive Name, Drive Type, Total Storage Space (GB), Free Space, Space occupied by Videos, Space occupied by other files and Locked Space. The Recording Rate, Estimated Storage Time, Latest Record and Oldest Record of the drive is also displayed.

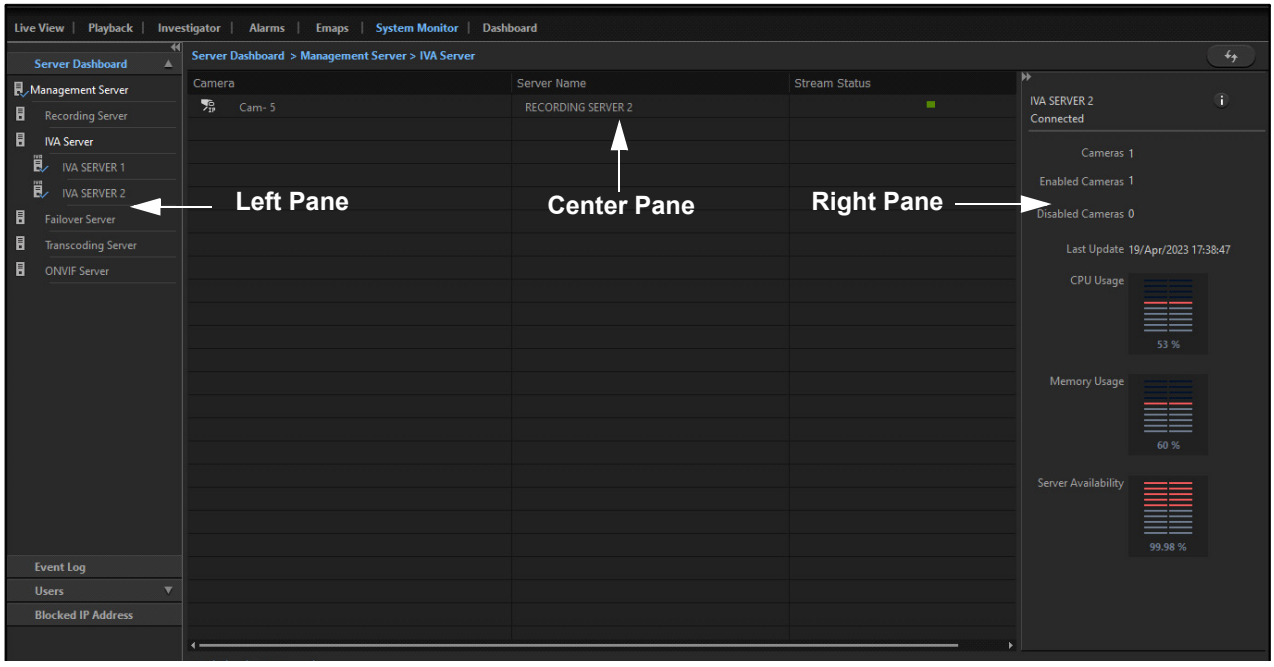
IVA Server

This tab enables you to view all the IVA Servers connected to the Management Server. You can also click on **IVA Server** from the Left Pane to view this tab.



The Server details displayed are — IVA Server Name, IP Address, Last Update and Cameras.

- Double-click on a IVA Server to view its individual details.



The IVA Server's details are displayed in different panes — Left Pane, Center Pane and Right Pane.

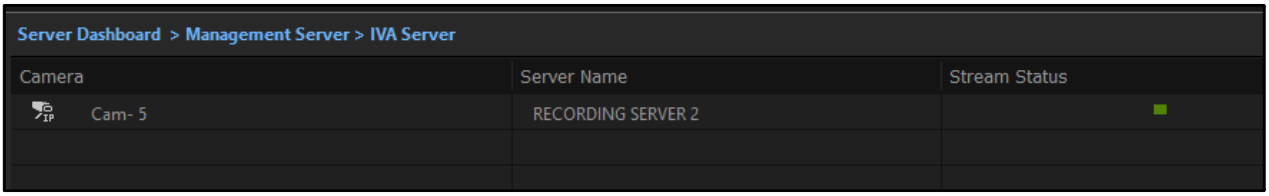
- Click **Refresh** to update the IVA Server details.

Left Pane

The Left Pane displays all the pages of the System Monitor module.

Center Pane

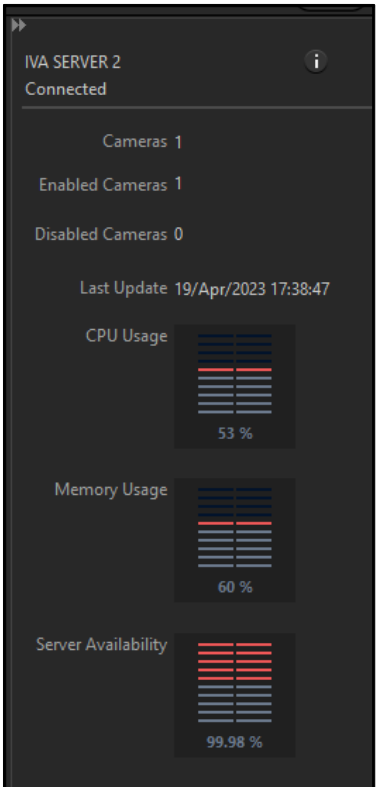
The Center Pane displays all the configuration details of the selected IVA Server.



The Server details displayed are — Cameras, Server Name and Stream Status. The camera for which IVA streaming is currently on is displayed by green color.

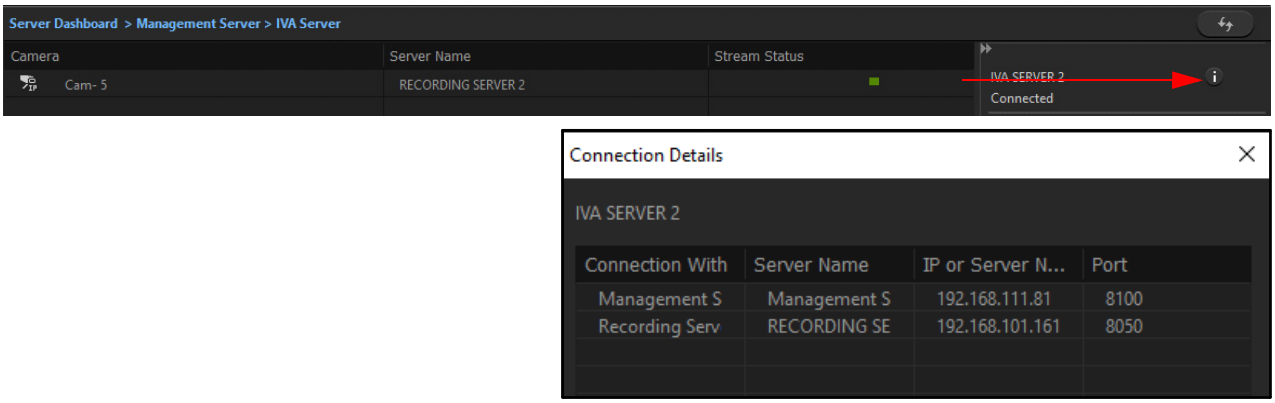
Right Pane

The Right Pane displays the Connection Details, CPU Usage, Memory Usage and Server Availability of the IVA Server along with Camera details.



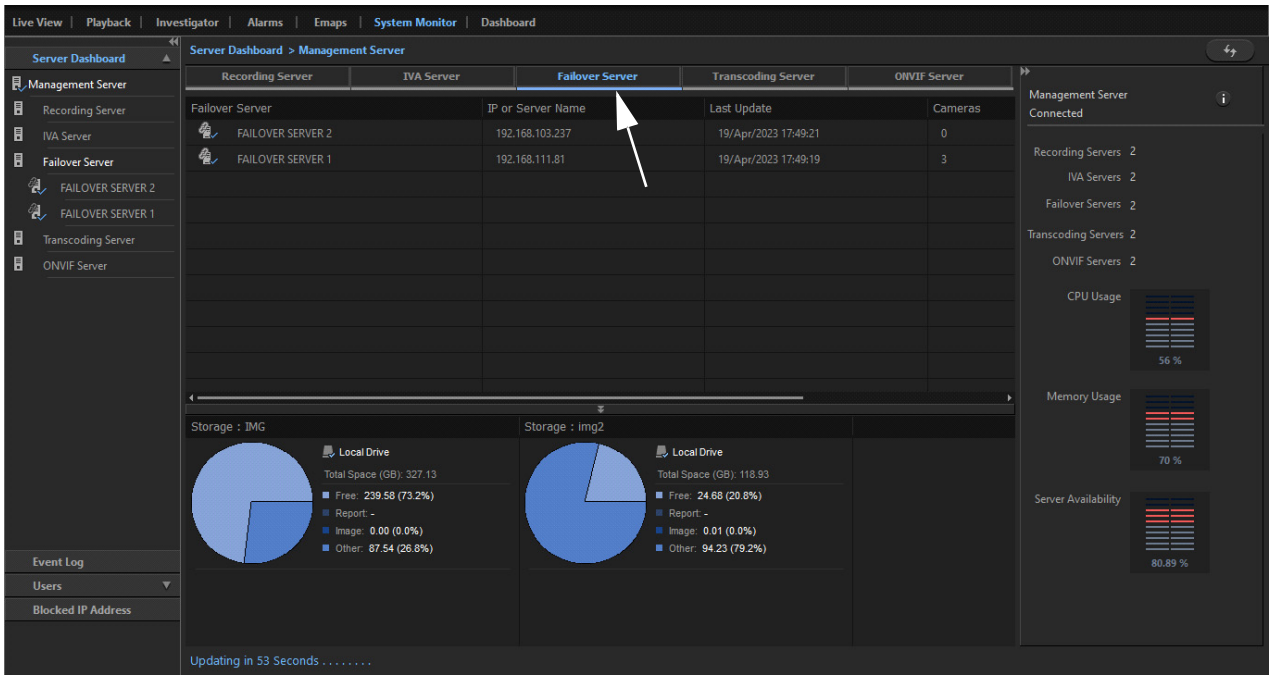
The details displayed are — Number of Cameras added, Number of Cameras Enabled, Number of Cameras Disabled, CPU Usage, Memory Usage and Server Availability. The date and time of last update is also displayed.

- Click **Connection Details** at top right corner of the page, to view the connection details of the IVA Server, It displays the connection details of the IVA Server with the Management Server and Recording Server. It displays the following details — Connection With, Server Name, IP or Server Name and Port.



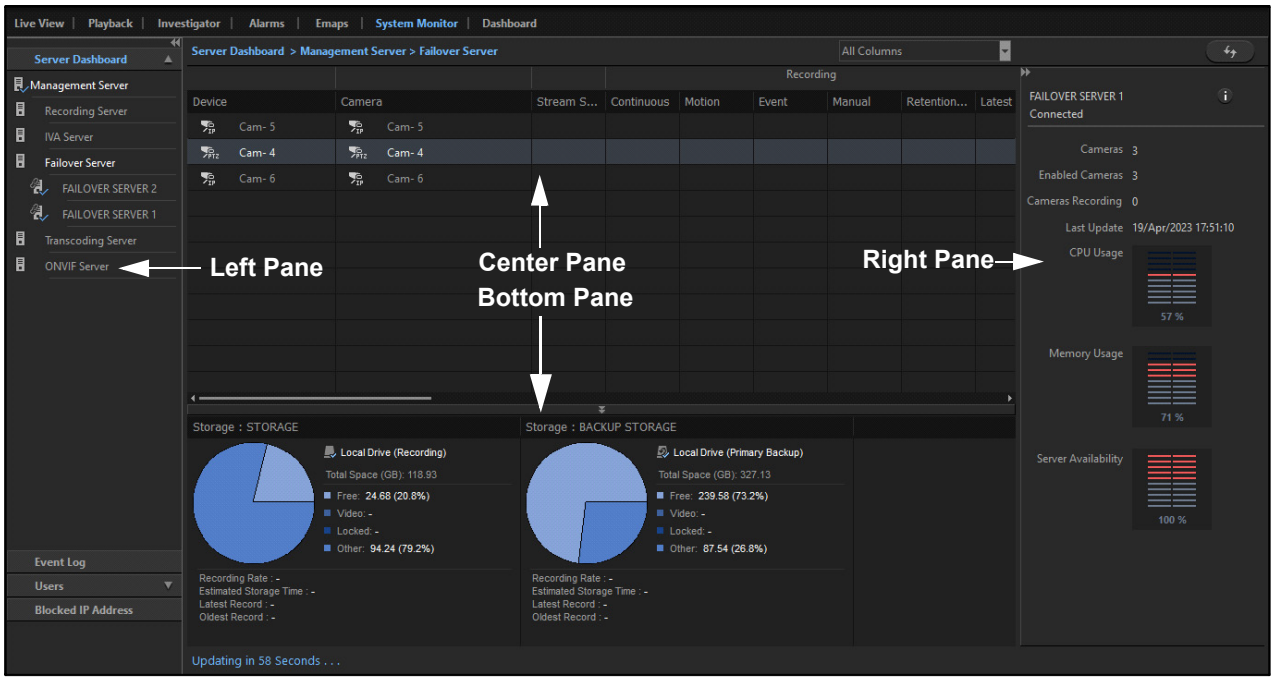
Failover Server

This tab enables you to view all the Failover Servers connected to the Management Server. You can also click on **Failover Server** from the Left Pane to view this tab.



The Server details displayed are — Failover Server Name, IP Address, Last Update, Cameras and Cameras Recording.

- Double click on a Failover Server to view its individual details.



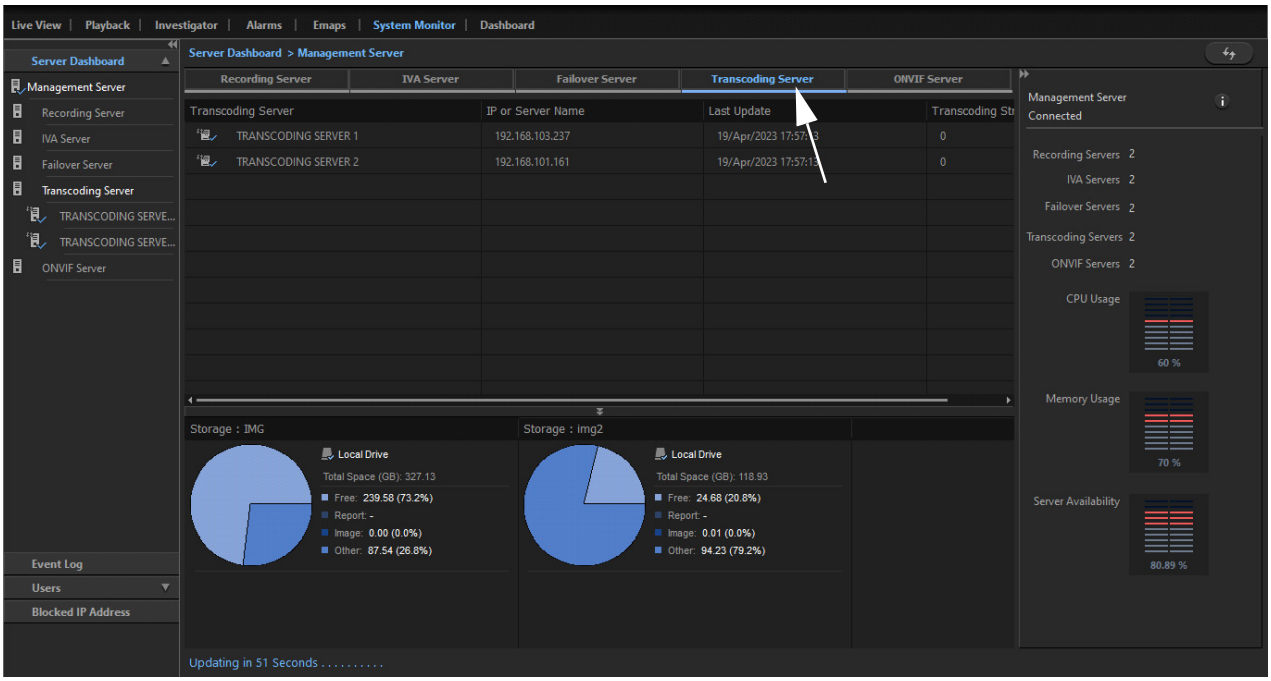
The Failover Server's details are displayed in different panes — Left Pane, Center Pane, Right Pane and Bottom Pane.

- Click **Refresh** to update the Failover Server details.

The details displayed for Failover Server are similar to that of the Recording Server. For more details, refer to "Recording Server".

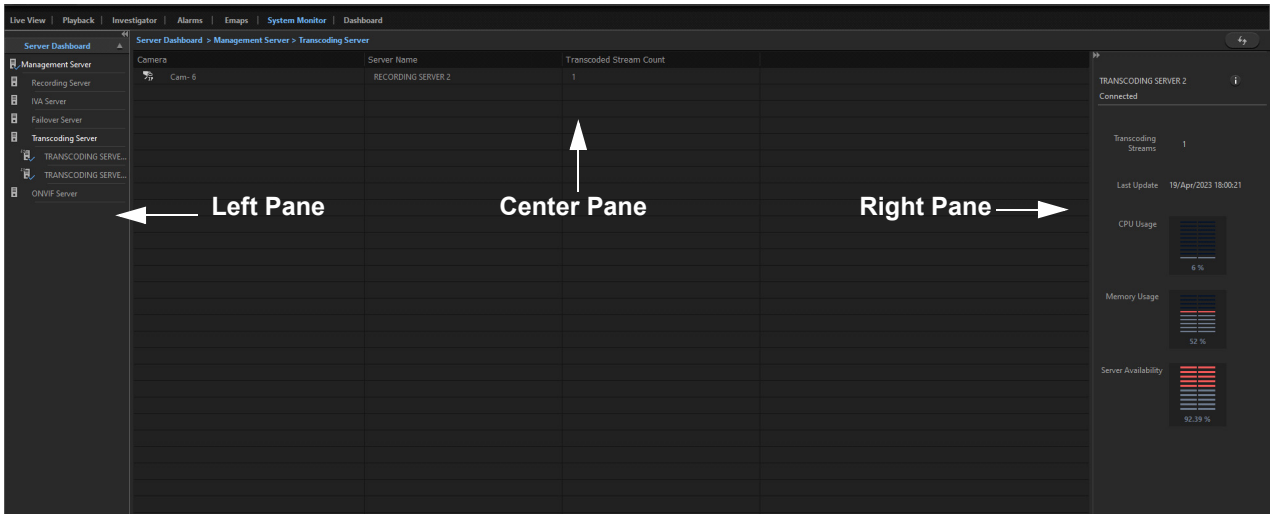
Transcoding Server

This tab enables you to view all the Transcoding Servers connected to the Management Server. You can also click on **Transcoding Server** from the Left Pane to view this tab.



The Server details displayed are — Transcoding Server Name, IP Address, Last Update and Transcoding Streams.

- Double-click on a Transcoding Server to view its individual details.



The Transcoding Server's details are displayed in different panes — Left Pane, Center Pane and Right Pane.

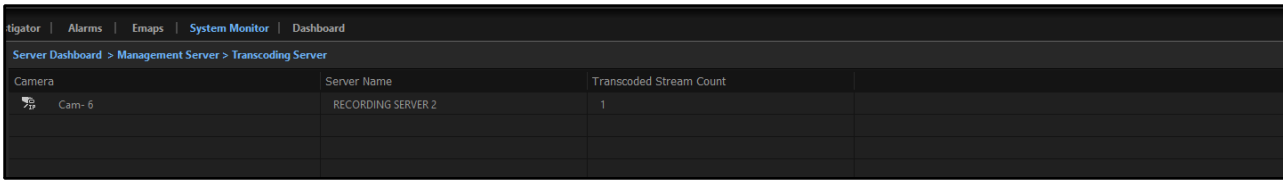
- Click **Refresh** to update the Transcoding Server details.

Left Pane

The Left Pane displays all the pages of the System Monitor module.

Center Pane

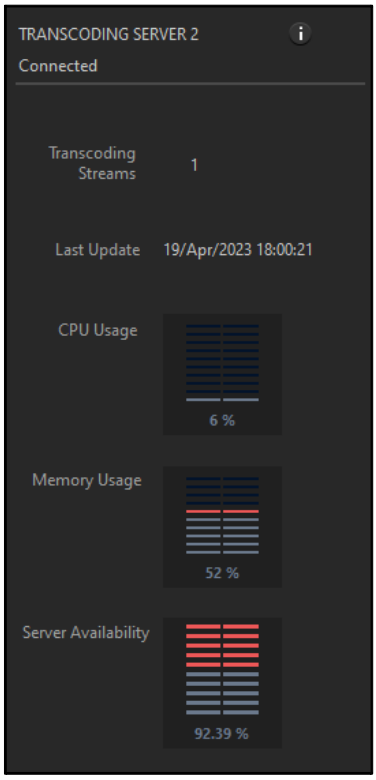
The Center Pane displays all the configuration details of the selected Transcoding Server.



The Server details displayed are— Cameras, Server Name and Transcoded Stream Count.

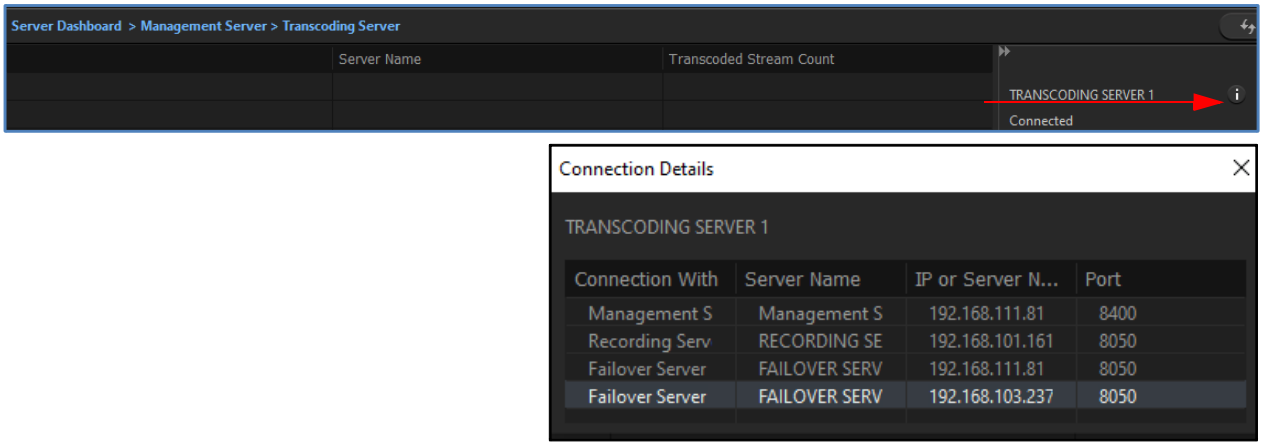
Right Pane

The Right Pane displays the Connection Details, CPU Usage, Memory Usage and Server Availability of the Transcoding Server along with stream details.



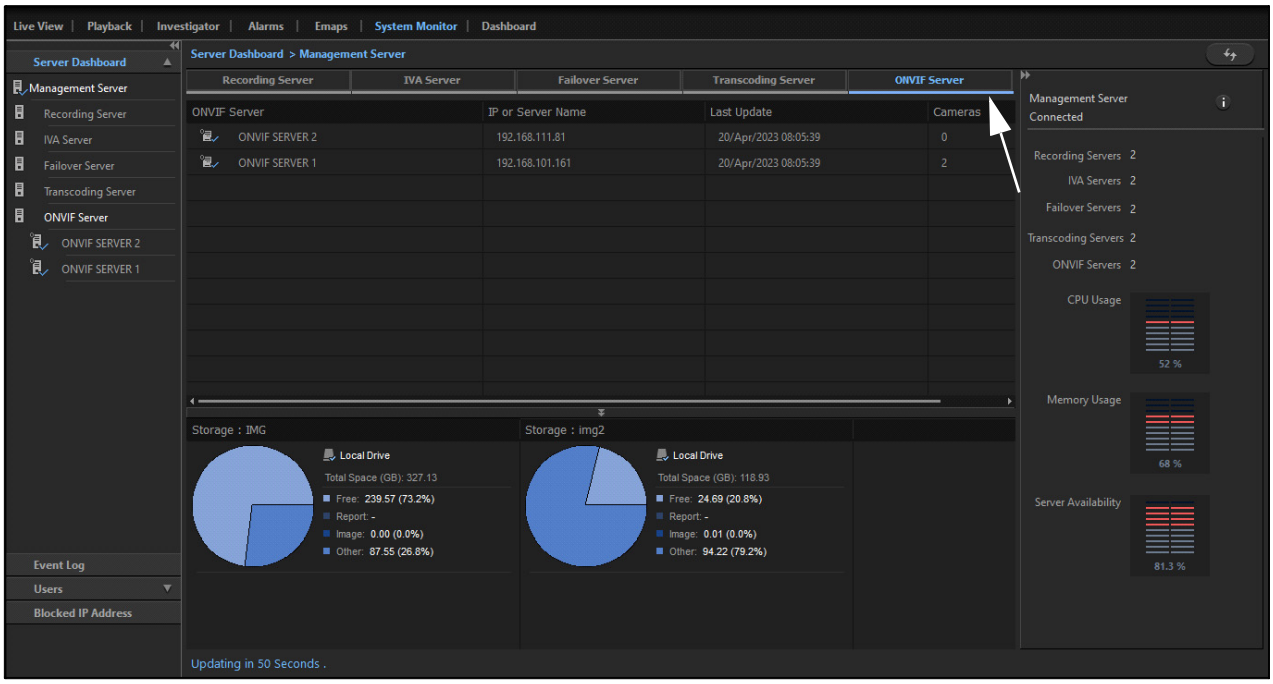
The details displayed are — Number of Transcoding Streams, CPU Usage, Memory Usage and Server Availability. The date and time of last update is also displayed.

- Click **Connection Details** at top right corner of the page, to view the connection details of the Transcoding Server. It displays the connection details of the Transcoding Server with the Management Server, Recording Server and Failover Server. It displays the following details — Connection With, Server Name, IP or Server Name and Port.



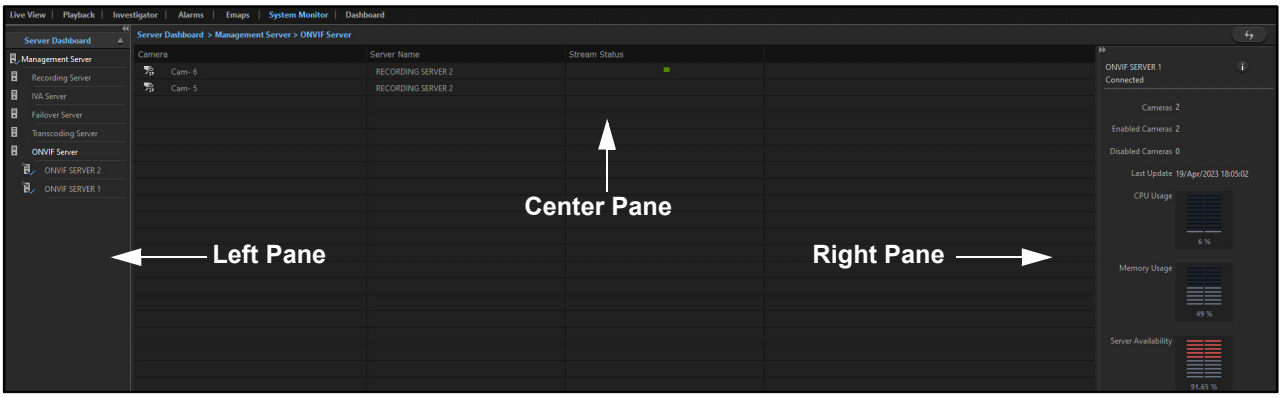
ONVIF Server

This tab enables you to view all the ONVIF Servers connected to the Management Server. You can also click on **ONVIF Server** from the Left Pane to view this tab.



The Server details displayed are — ONVIF Server Name, IP Address, Last Update and Cameras.

Double-click on a ONVIF Server to view its individual details.



The ONVIF Server's details are displayed in different panes — Left Pane, Center Pane and Right Pane.

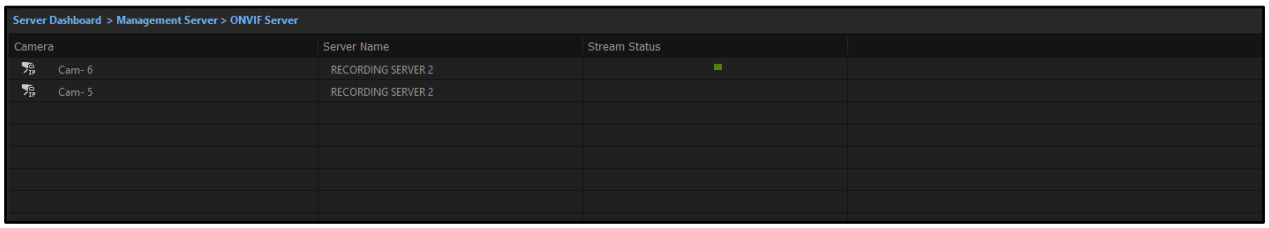
- Click **Refresh** to update the ONVIF Server details.

Left Pane

The Left Pane displays all the pages of the System Monitor module

Center Pane

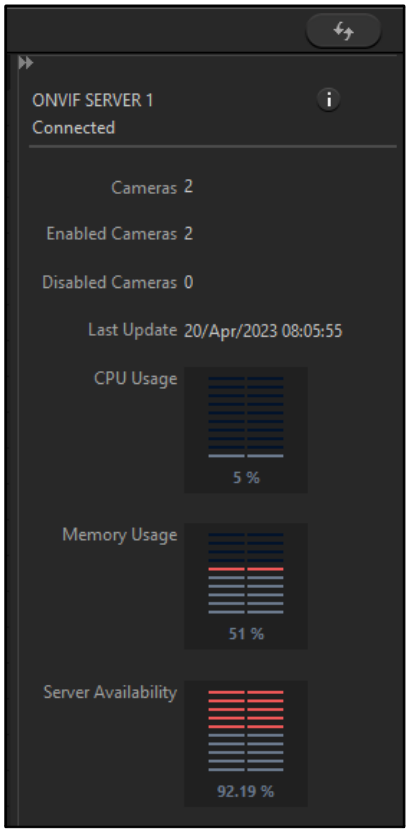
The Center Pane displays all the configuration details of the selected ONVIF Server.



The Server details displayed are — Cameras, Server Name and Stream Status. The camera for which ONVIF streaming is currently on is displayed by green color.

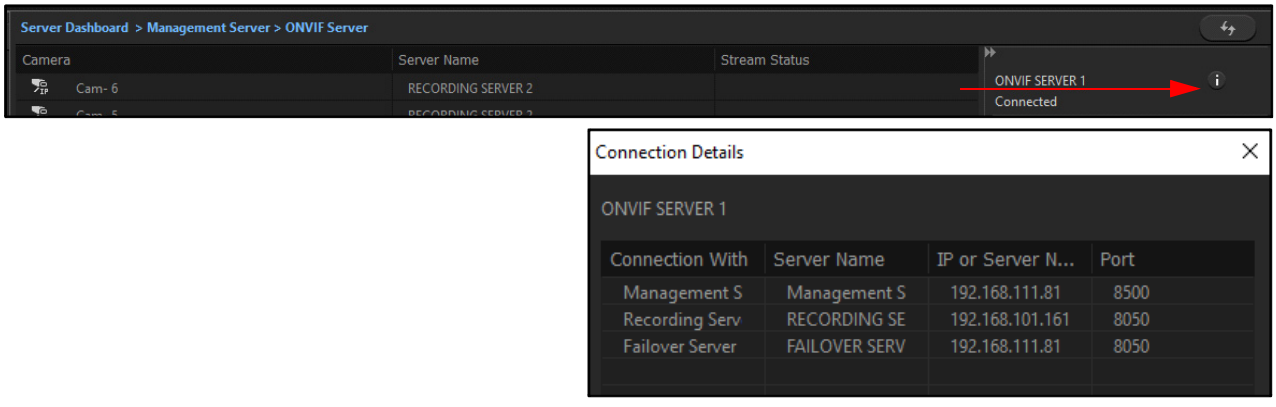
Right Pane

The Right Pane displays the Connection Details, the CPU Usage, Memory Usage and Server Availability of the ONVIF Server along with Camera details.



The details displayed are — Number of Cameras added, Number of Cameras Enabled, Number of Cameras Disabled, CPU Usage, Memory Usage and Server Availability. The date and time of last update is also displayed.

- Click **Connection Details** at top right corner of the page, to view the connection details of the ONVIF Server. It displays the connection details of the ONVIF Server with the Management Server and Recording Server. It displays the following details — Connection With, Server Name, IP or Server Name and Port.

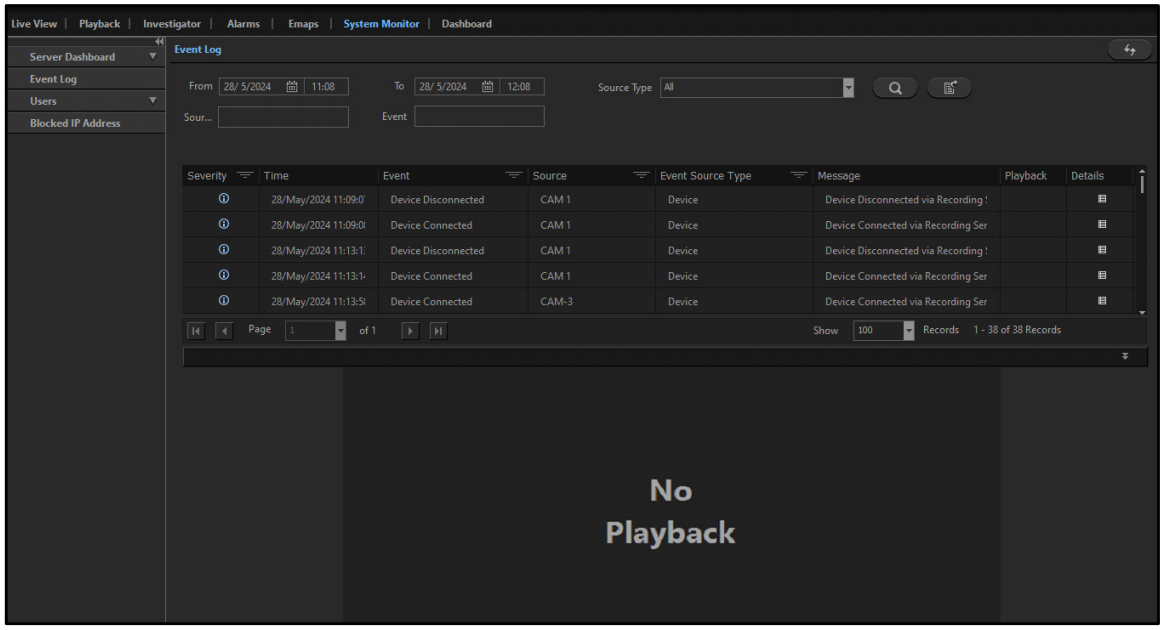


Event Log

The Event Log page enables you to view the Event logs for only those Events for which Event Monitoring Rights are assigned in the Admin Client. You can search and filter different Event logs from this page.

To configure Event Log,

- Click **System Monitor > Event Log**.

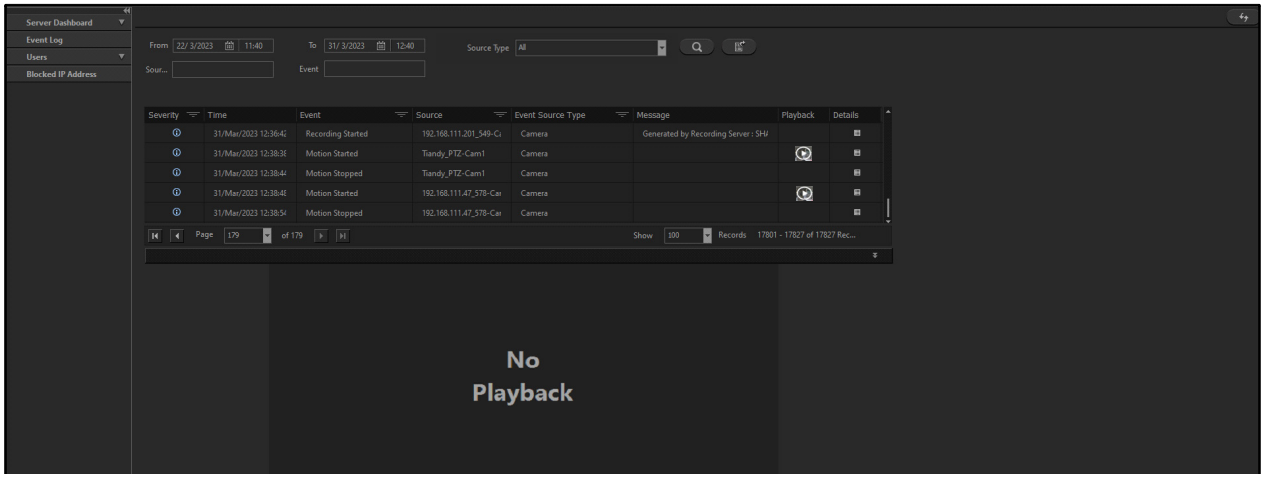


Configure the following parameters.

- **From**: Select the date from which you wish to view the Event Log from the calendar and specify the time.
- **To**: Select the date till which you wish to view the Event Log from the calendar and specify the time.
- **Source Type**: Select the Source Type for which you wish to view the Event Log from the drop-down list.
- **Source**: Specify the name of the Source according to the selected Source Type.
- **Event**: Specify the name of the Event of the Source Type for which you wish to view the Event Log.
- **Event Details**: If you have selected Source Type as Access Control, you can filter the Event Logs based on User Name and User ID. Type the desired User Name/ID in the text box. When you click Search, all the Events for the configured duration containing the entered User Name/ID will appear.

- Click **Search** . The list of all the Event Logs for the configured duration appear in a list.

The Event Log details displayed are — Severity, Time, Event, Source, Event Source Type, Message, Playback and Details.

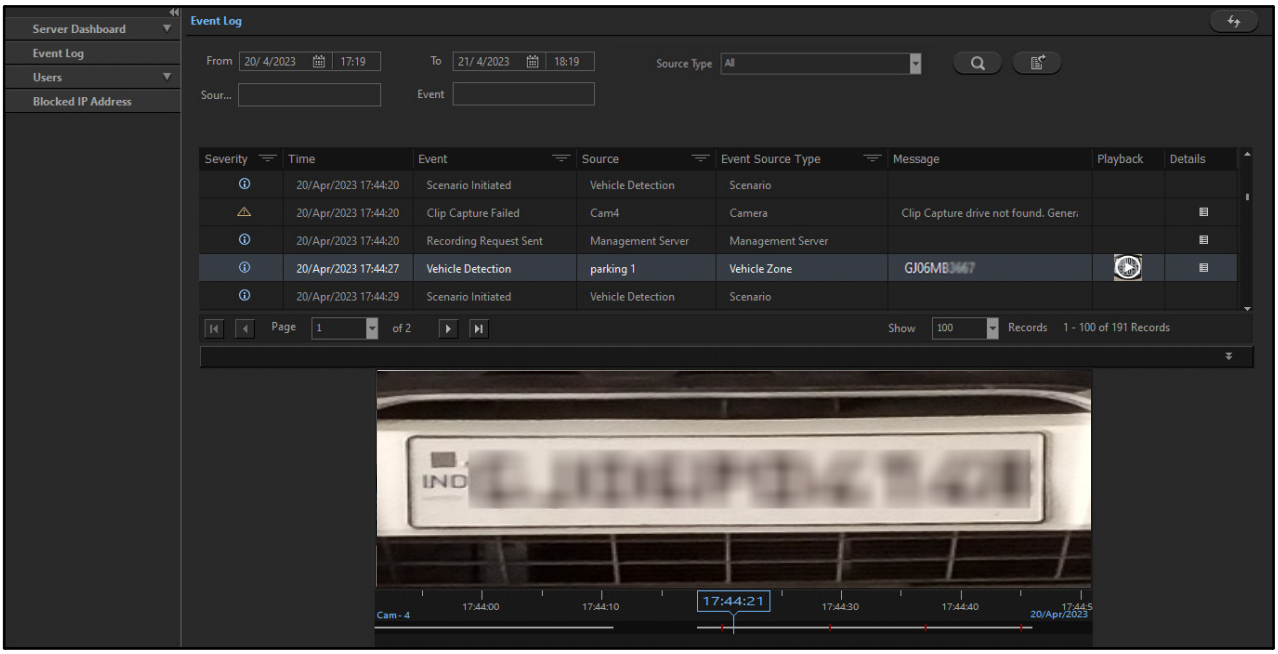


- You can filter the records. To do so, click **Filter** of the respective parameter — Severity, Event, Source, Event Source Type.

  Select the check box of the desired options and click outside the filter pop-up. The records appear as per the set filters.

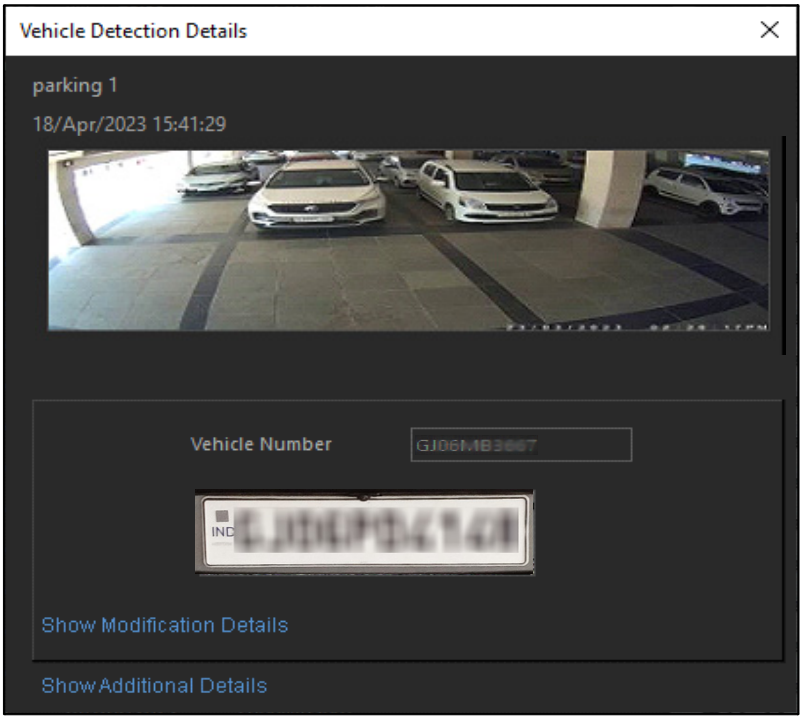
  To clear the filter, click **Filter** and then click **CLEAR FILTER** of the desired parameter.

- You can configure the following Event log parameters — Refresh, Playback and Details.
  - Click **Refresh** to refresh the Event logs.
  - Click **Playback** to play the recording of the captured Event. The playback begins below the Event log grid.



- The date, time and camera details are displayed in the playback as configured. You can perform certain actions on the playback recording of the camera using the **Playback Toolbar**. For more details, refer to "Bottom Pane Functionality-Playback Toolbar".

- Click **Details** corresponding to the desired log. The **Event Name- Details** pop-up appears.

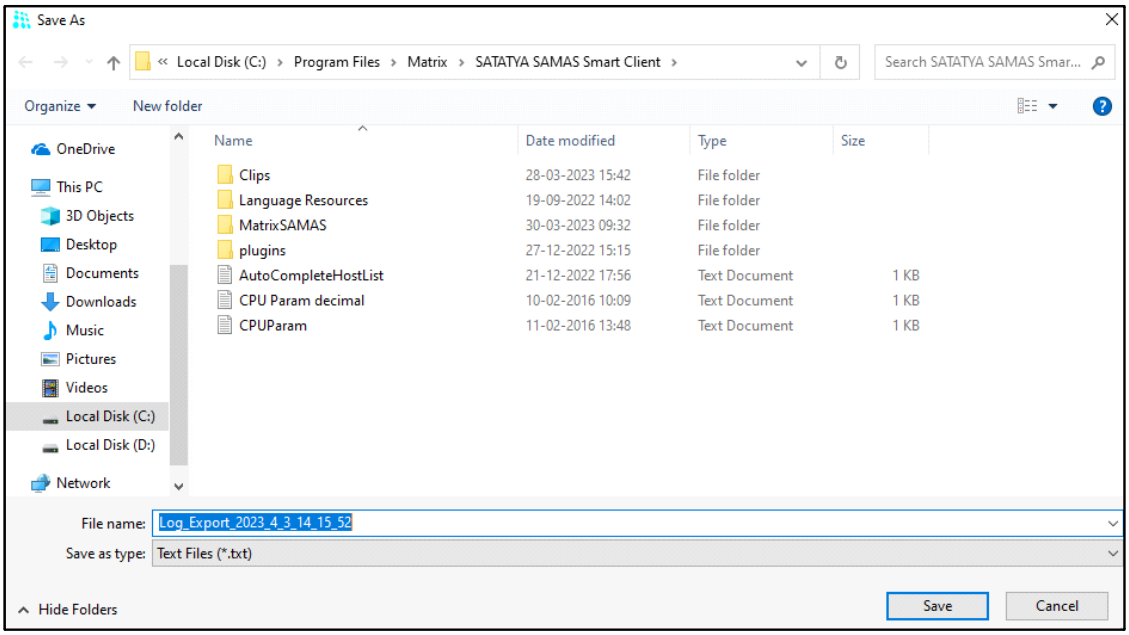


- The details of the entity linked with the Event appear as configured in the Admin Client.
- Click **Close** to close the pop-up.

The Name of the pop-up and the details displayed in it vary from log to log. It depends on the type of action (Add, Update or Delete) and the activity done.

You can also export the Event Logs. To do so,

- Click **Export** . The **Save As** pop-up appears.



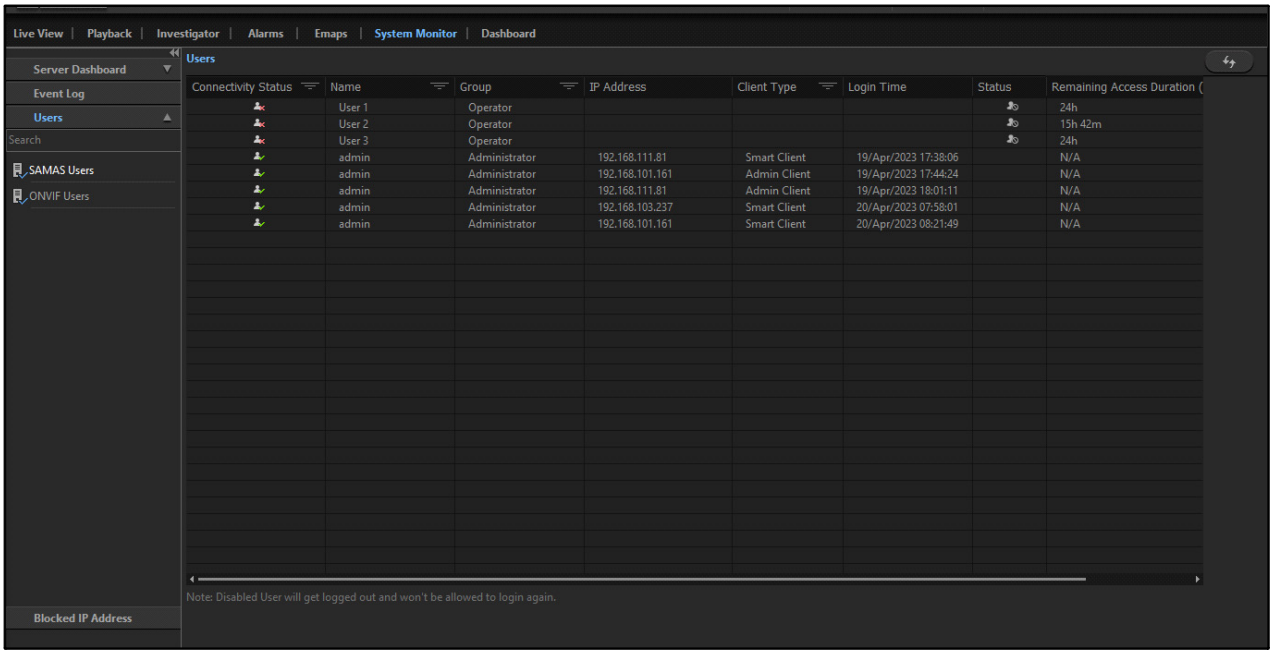
- Select the desired folder where you wish to save the Event Log file and specify the file name.
- Click **Save** to save the file or click **Cancel** to discard.

Users

The Users section enables you to view the users that are currently using the SATATYA SAMAS components — Admin Client, Smart Client, Mobile Client — and currently online RTSP clients.

To view and configure Online Users,

- Click **System Monitor > Online Users**.



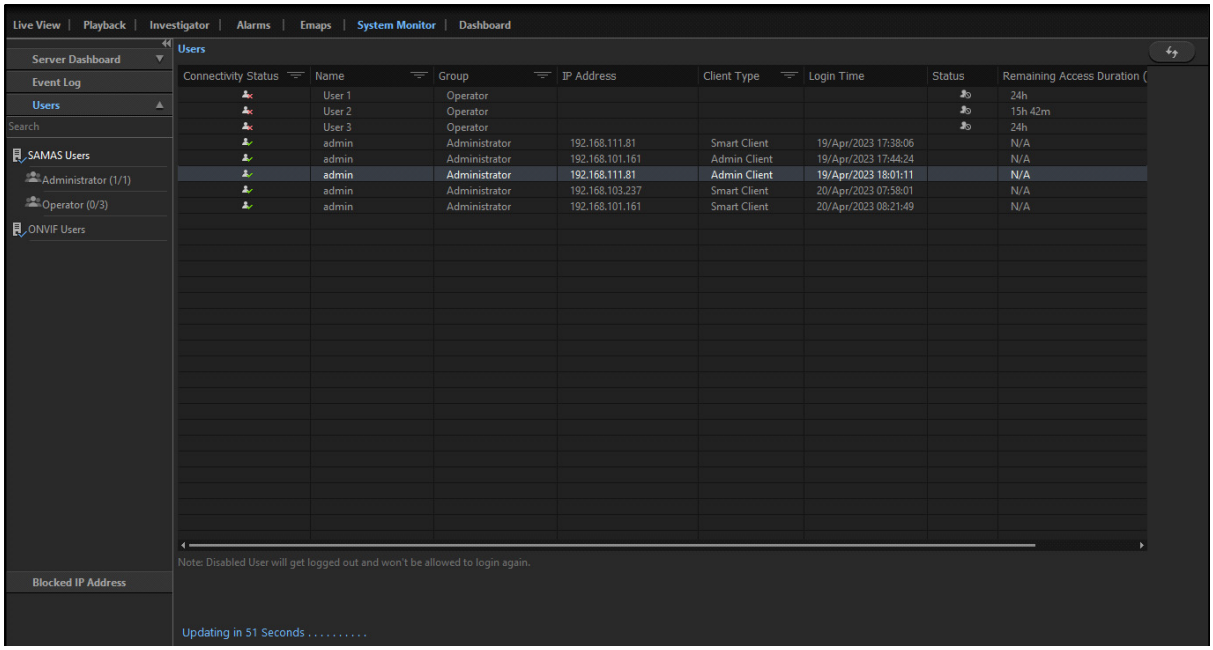
The Users section contains two pages — “SAMAS Users” and “ONVIF Users”.

SAMAS Users

The SAMAS Users page enables you to view the users that are currently using the SATATYA SAMAS components (Admin Client, Smart Client and Mobile Client).

To view and configure Online Users,

- Click **System Monitor > Users > SAMAS Users**.



The list of all the configured User Groups appears under the **Users** page of Smart Client. Click on any User Group to view the online users.

The following User Details are displayed — Connectivity Status, Name, Group, IP Address, Client Type, Login Time, Status and Remaining Access Duration (Approx.).

- You can filter the records. To do so, click **Filter** of the respective parameter — Connectivity Status (Offline/Online), Name, Group, Client Type.

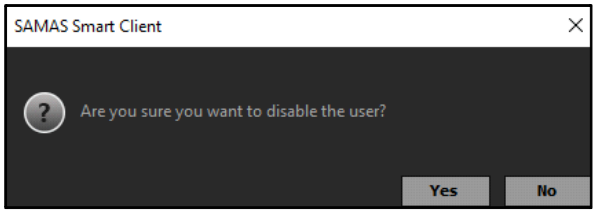
  Select the check box of the desired options and click outside the filter pop-up. The records appear as per the set filters.

  To clear the filter, click **Filter** and then click **CLEAR FILTER** of the desired parameter.
- You can also sort the data by clicking on the respect field names — Name, Group, IP Address, Client Type, Login Time.

You can also view the IP Address, Login Time, Client Type when you hover over the User Name in the left pane.

You can disable users to prevent them from logging in. To do so,

- Click **Disable User** under Status. The following pop-up appears.



- Click **Yes** to disable the user or click **No** to cancel.

To enable a disabled user,

- Click **Enable User** under Status. The disabled user can also be enabled from the Admin Client > General Settings > System Account > Users.

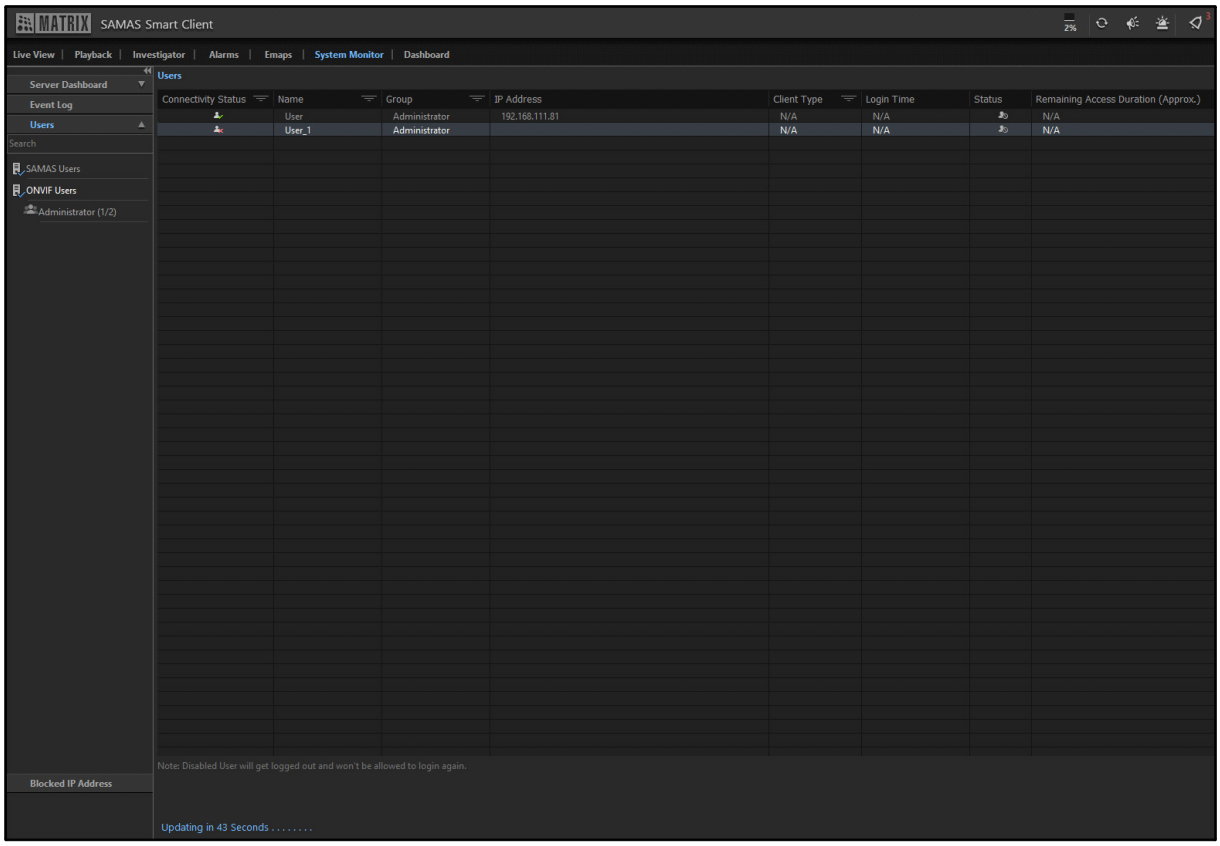
Admin User cannot be disabled.

ONVIF Users

The ONVIF Users page enables you to view the RTSP Clients that are currently active.

To view and configure ONVIF Users,

- Click **System Monitor > Users > ONVIF Users**.



The following User Details are displayed — Connectivity Status, Name, Group, IP Address, Client Type, Login Time, Status and Remaining Access Duration (Approx.).

- You can filter the records. To do so, click **Filter** of the respective parameter — Connectivity Status (Offline/Online), Name, Group, Client Type.

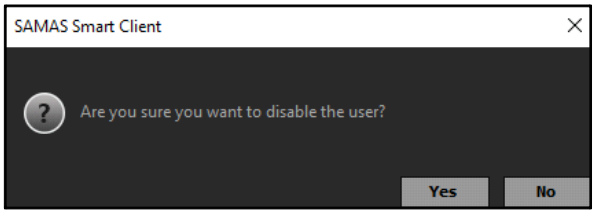
  Select the check box of the desired options and click outside the filter pop-up. The records appear as per the set filters.

  To clear the filter, click **Filter** and then click **CLEAR FILTER** of the desired parameter.
- You can also sort the data by clicking on the respect field names — Name, Group, IP Address, Client Type, Login Time.

You can also view the IP Address when you hover over the User Name in the left pane.

You can disable a user to prevent them from logging in. To do so,

- Click **Disable User** under Status. The following pop-up appears.



- Click **Yes** to disable the user or click **No** to cancel. Disabled user's active session will be terminated instantly.

To enable a disabled user,

- Click **Enable User** under Status. The disabled user can also be enabled from the Admin Client > General Settings > System Account > ONVIF Users.

Admin User cannot be disabled.

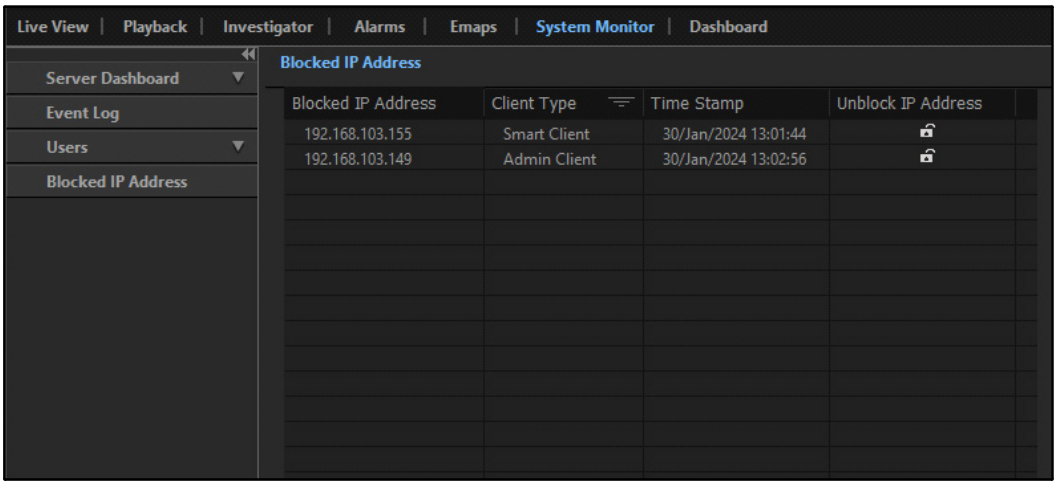
Blocked IP Address

The Blocked IP Address page enables you to view the list of IP addresses blocked as a result of the IP Blocking Policy. You can unblock the IP addresses from this page also. When any user's login fails due to blocked IP Address, then the reason for Login Failed Event will be displayed as IP Address Blocked in the Online Events as well as Event Log.

To ensure smooth functioning of this feature, make sure the Smart Client and MS are upgraded to the same version.

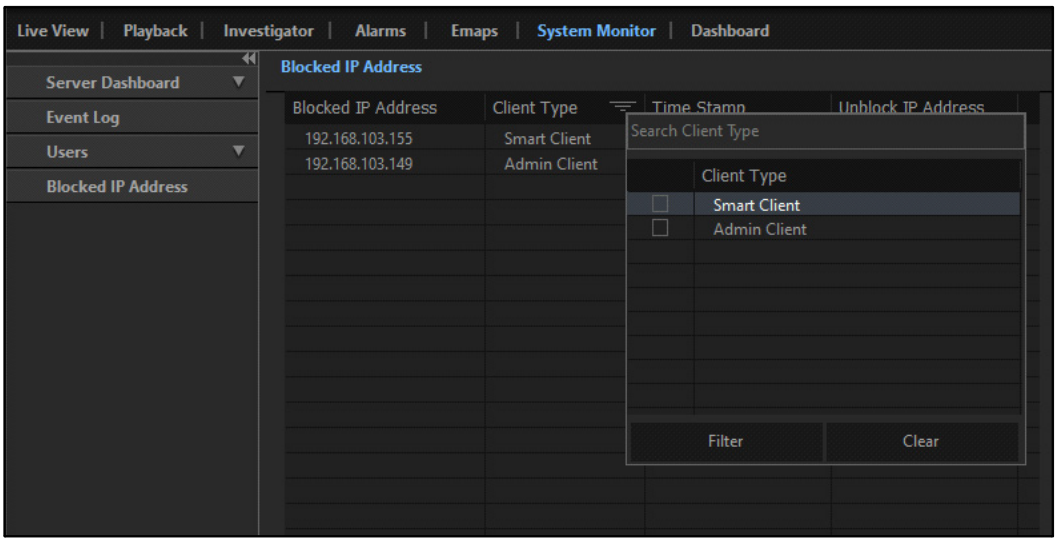
To view the Blocked IP Addresses,

- Click **System Monitor > Blocked IP Address**.



The following details are displayed —Blocked IP Address, Client Type, Time Stamp and Unblock IP Address.

- You can also filter the data. To filter according to the **Client Type**, click **Filter** .



- Select the desired check boxes from the **Client Type** filter list. Click **Filter** to filter the IP Addresses. The IP Addresses are sorted as per the set filters.
- Click **Clear** to clear all the filters.

You can unblock the desired IP Address.

- Click **Unblock IP Address** against the desired IP address. The IP address gets cleared from the list.

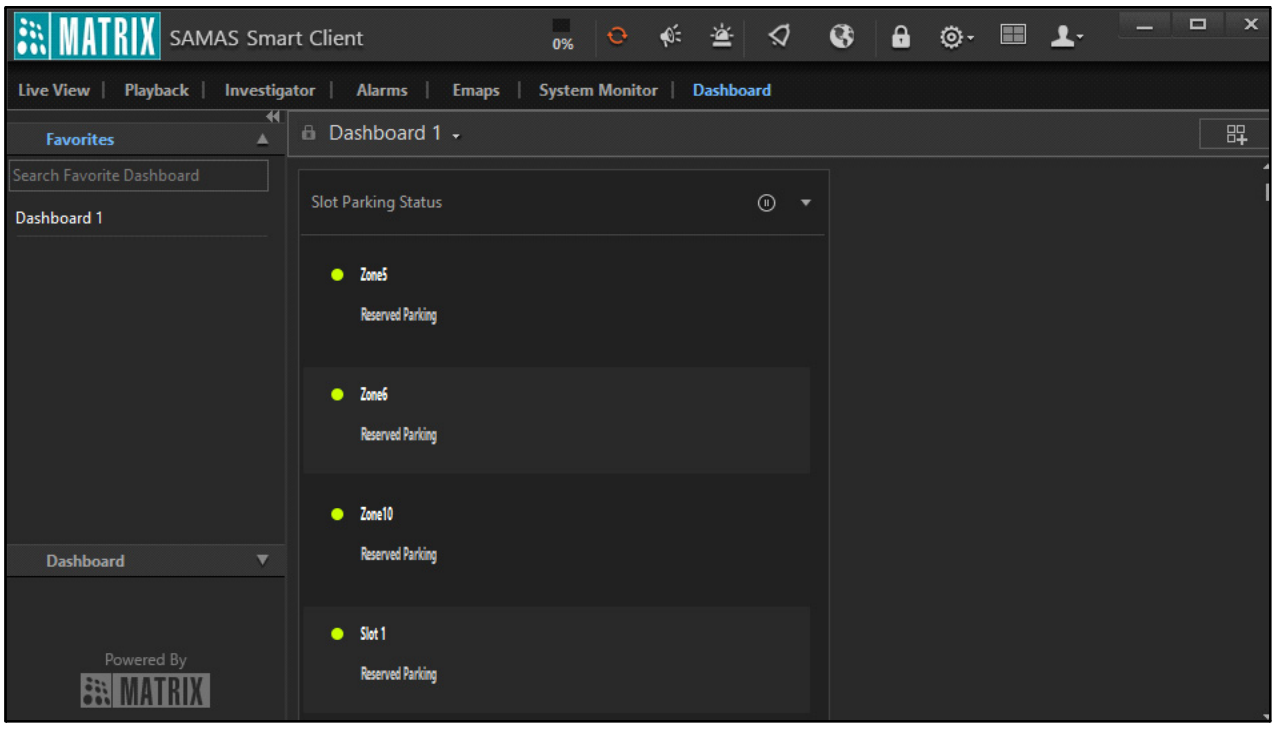
CHAPTER 11

Dashboard

The Dashboard is a monitoring feature that enables you to get real-time status of various SAMAS entities. You can keep a track of various Events occurring at different locations simultaneously from one place. The Dashboard feature enables you to configure various Dashboards and add widgets to them.

To configure Dashboards,

- Click **Dashboards**.



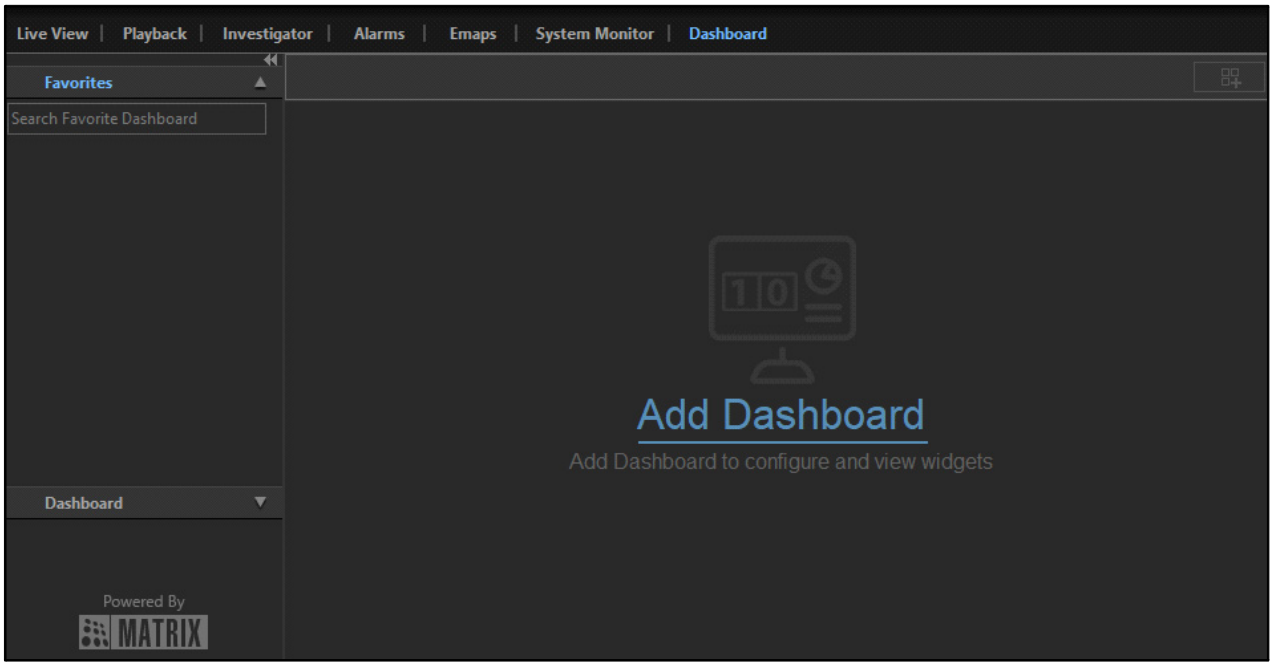
You need to add a dashboard and then add the desired widgets to it.

Add Dashboard

This option allows you to add a dashboard. You can either add a blank dashboard or start from an existing dashboard and customize it as required.

To add a dashboard,

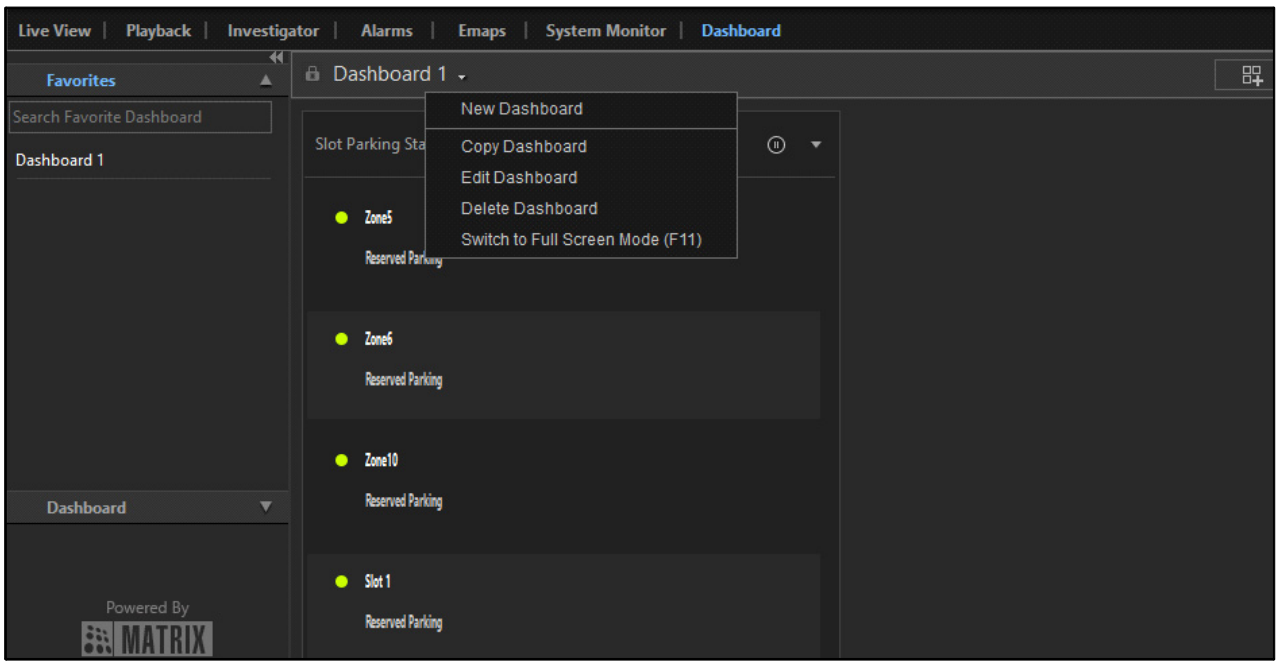
- Click **Add Dashboard,** if you are adding a dashboard for the first time.



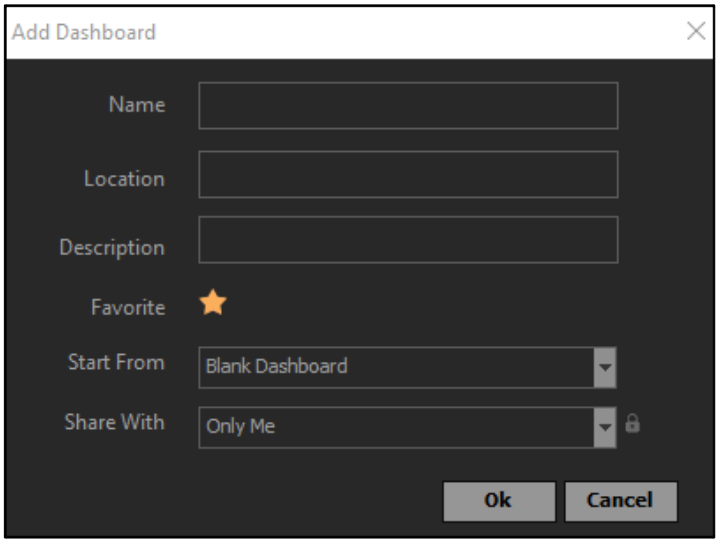
Rights to View, Create/Delete, Modify the Dashboard for the users, other than Admin, can be assigned from General Settings > System Account > User Group in the Admin Client.

You can also add a new dashboard from the existing dashboards.

- Select any of the existing dashboard from the left hand side pane. Click the Dashboard name in the right pane. Various options appear— New Dashboard, Copy Dashboard, Edit Dashboard, Delete Dashboard, Switch to Full Screen Mode.



- Click **New Dashboard**. The **Add Dashboard** pop-up appears.



Configure the following parameters.

- **Name**: Specify a suitable name for the new dashboard.
- **Location**: Specify the location of the new dashboard.
- **Description**: Specify the required description for the new dashboard.
- **Favorite**: Select **Favorite** to add the dashboard to favorites.
- **Start From**: Select the dashboard from where you wish the new dashboard to start from the drop-down list — Blank or any existing Dashboard.

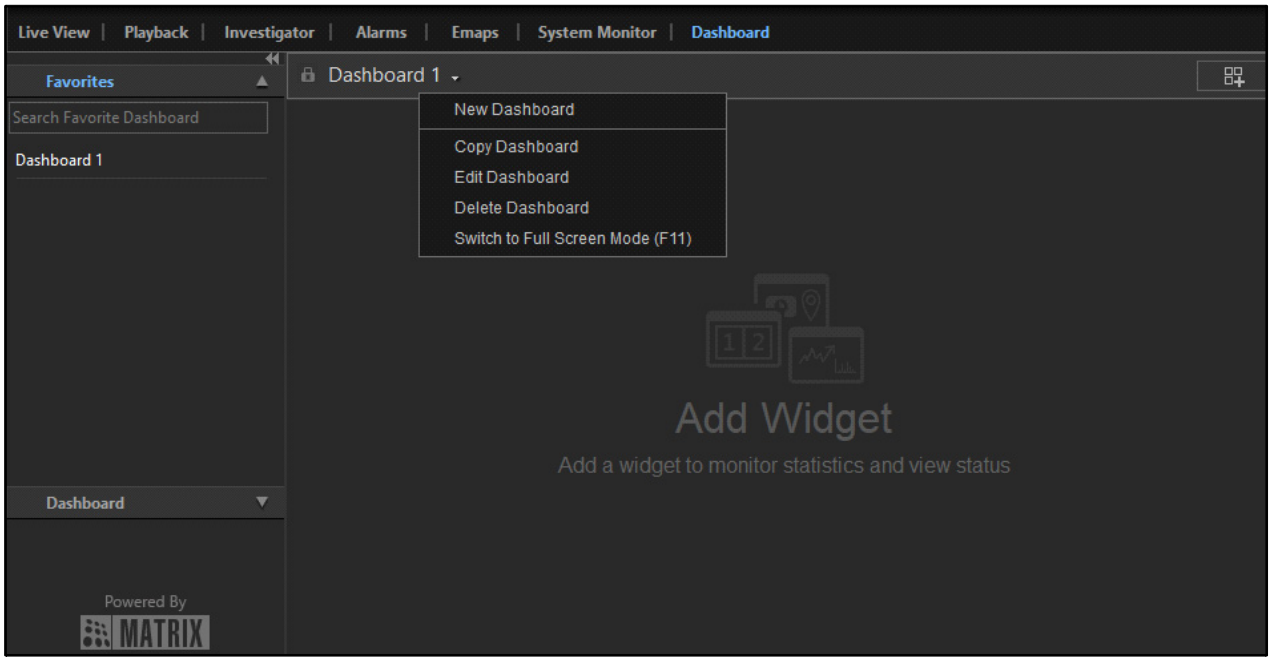
  Select **Blank** to create a new dashboard from the beginning.

  Select a previously configured dashboard to create a similar dashboard. This will copy all the widget of the selected dashboard to the new dashboard. To start with, you just need to add the desired widgets and can save your time.

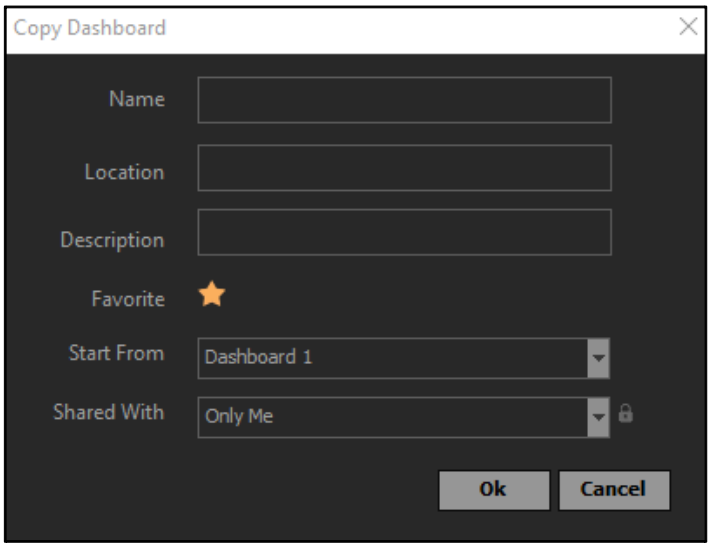
- **Share With**: Select the users with whom you wish to share the dashboard from the drop-down list — Only Me or Everyone.

- Click **OK** to create the dashboard or click **Cancel** to discard.

The new dashboard appears in a list on the left hand side. You can configure the following dashboard parameters — New Dashboard, Copy Dashboard, Edit Dashboard, Delete Dashboard and Switch to Full Screen Mode by clicking on the Dashboard name in the right pane.

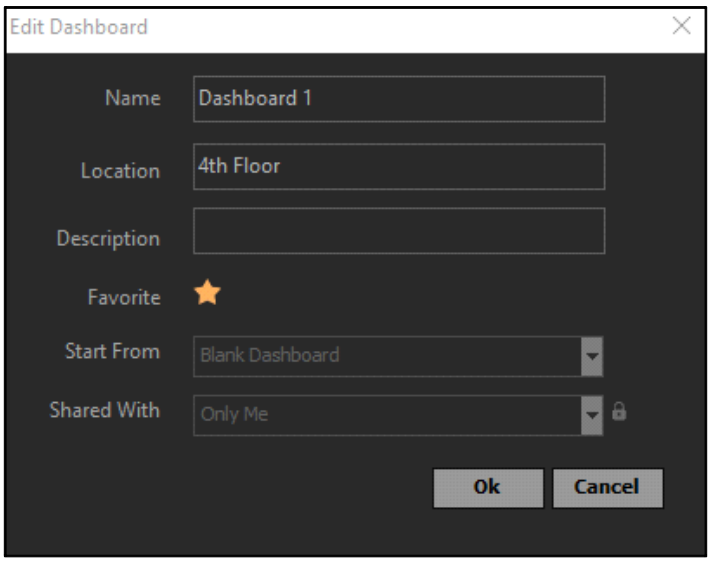


- **New Dashboard**: Selecting New Dashboard allows you to create a new dashboard. For more details, refer to “Add Dashboard”.
- **Copy Dashboard**: Selecting Copy Dashboard allows you to copy an existing dashboard. The widgets of the existing dashboard are also copied to the new dashboard.
  - Click **Copy Dashboard**. The **Copy Dashboard** pop-up appears.



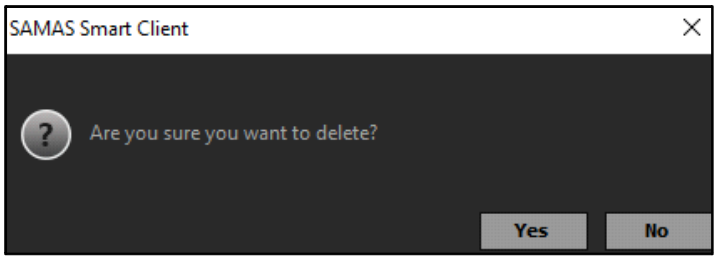
The configurations for Copy Dashboard are similar to that of adding a new dashboard. For details, refer to “Add Dashboard”.

- **Edit Dashboard**: Selecting Edit Dashboard allows you to edit the dashboard. You can only edit the following dashboard parameters — Name, Location, Description and Favorite.
  - Click **Edit Dashboard**. The **Edit Dashboard** pop-up appears.



The configurations for Edit Dashboard are similar to that of adding a new dashboard. For details, refer to “Add Dashboard”.

- **Delete Dashboard**: Selecting Delete Dashboard allows you to delete the dashboard.
    - Click **Delete Dashboard**. The following pop-up appears.



    - Click **Yes** to confirm or click **No** to discard.
- **Switch to Full Screen Mode**: Selecting Switch to Full Screen Mode displays the dashboard in full screen mode.

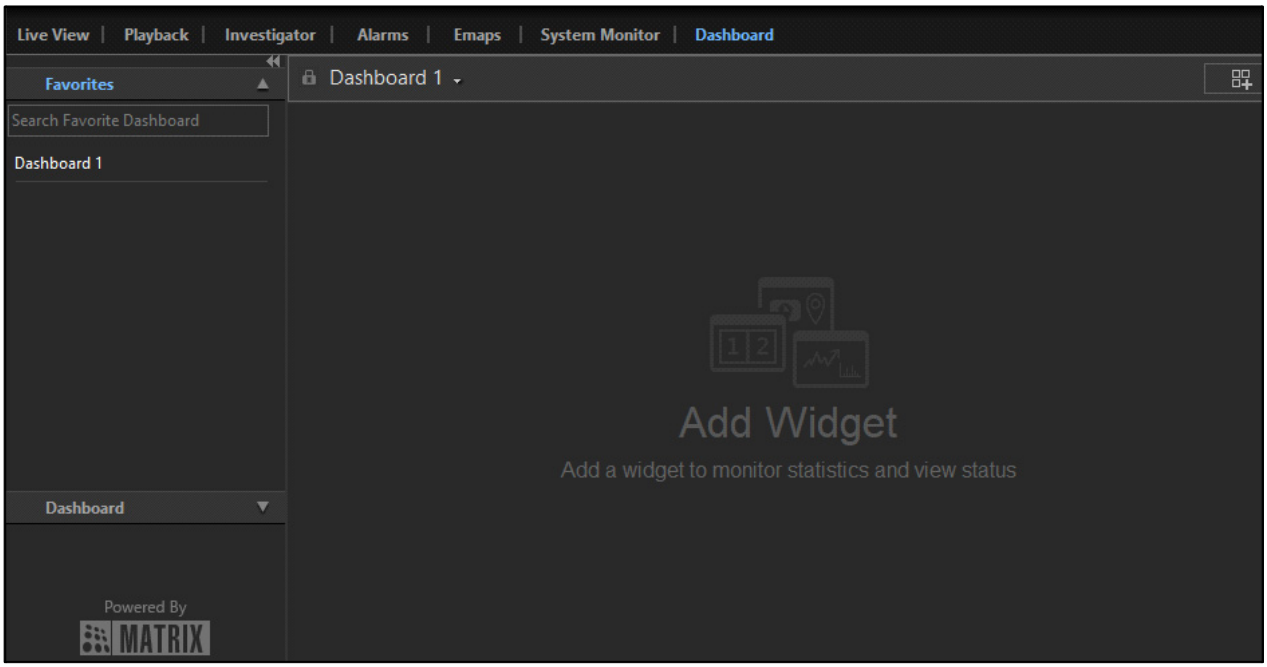
Once a dashboard is created, the next step is to add Widgets to it. For details, refer to “Add Widgets”.

Add Widgets

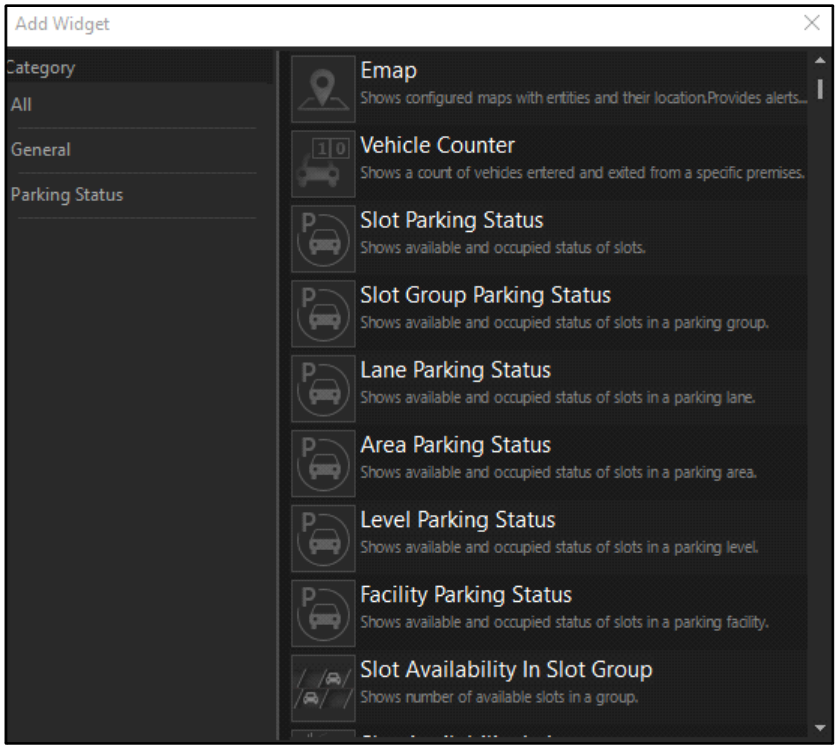
This option allows you to add widgets. You can either add new widgets to a blank dashboard or copy widgets from an existing dashboard and customize them as required.

To add a widget,

- Select the desired Dashboard from the list on the left hand side pane.
- Click **Add Widget** on the right.



- The **Add Widget** pop-up appears.



- A list of all the widgets appears on the basis of categories — All, General, Parking Status. The **All** category consists of all the available widgets. The **General** category consists of only **Emap** widget. The **Parking Status** category consists of all the parking and vehicle related widgets. Double-click the required widget to configure and add it to the dashboard.

Each widget needs to be configured before adding it to the dashboard. Refer to the following links for the configuration details of each widget.

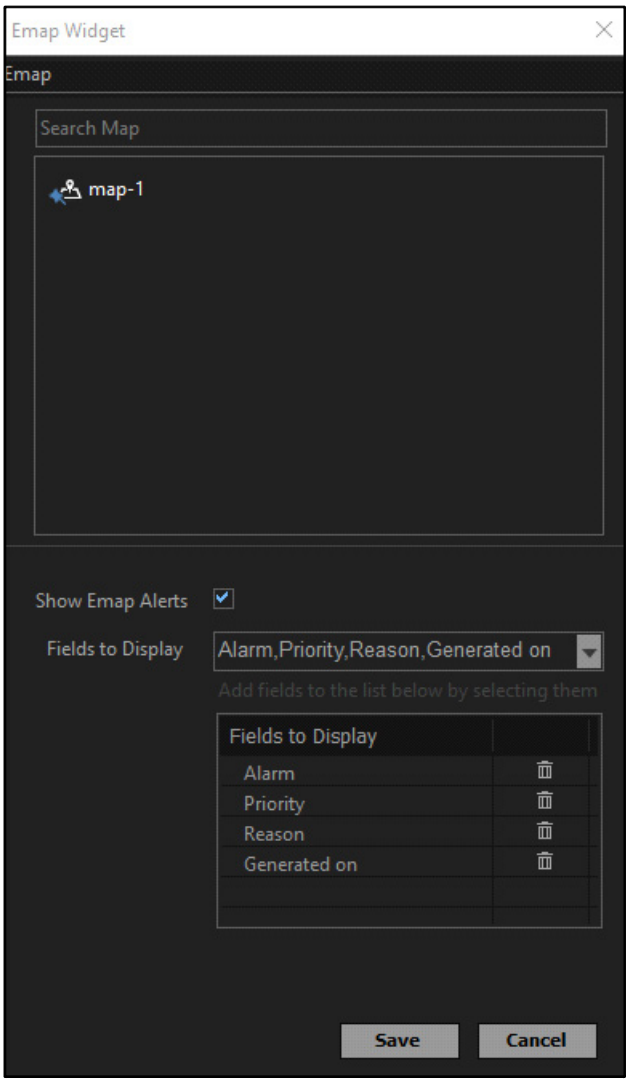
- “Emap Widget”
- “Vehicle Counter Widget”
- “Parking Status Widgets”
- “Slot Availability Widgets”

Emap Widget

The Emap widget allows you to view the status of configured Emap entities. The Emap widget is helpful to provide a real-time status of parking or slot availability in combination with the respective widgets.

To add Emap Widget,

- Select the **Emap** Widget from the **Add Widget** pop-up. The **Emap Widget** pop-up appears.



Configure the following parameters.

- **Emap**: Select the desired Emap from the list. You can also search for an Emap using the search bar. All the Emaps configured in the Admin Client appear here.

- **Show Emap Alerts**: Select the check box if you wish to receive Emap Alerts.

*Emaps Alert will be generated only if the **Emap Alert** check box is selected in **Trigger Alarm** action in the Admin Client.*

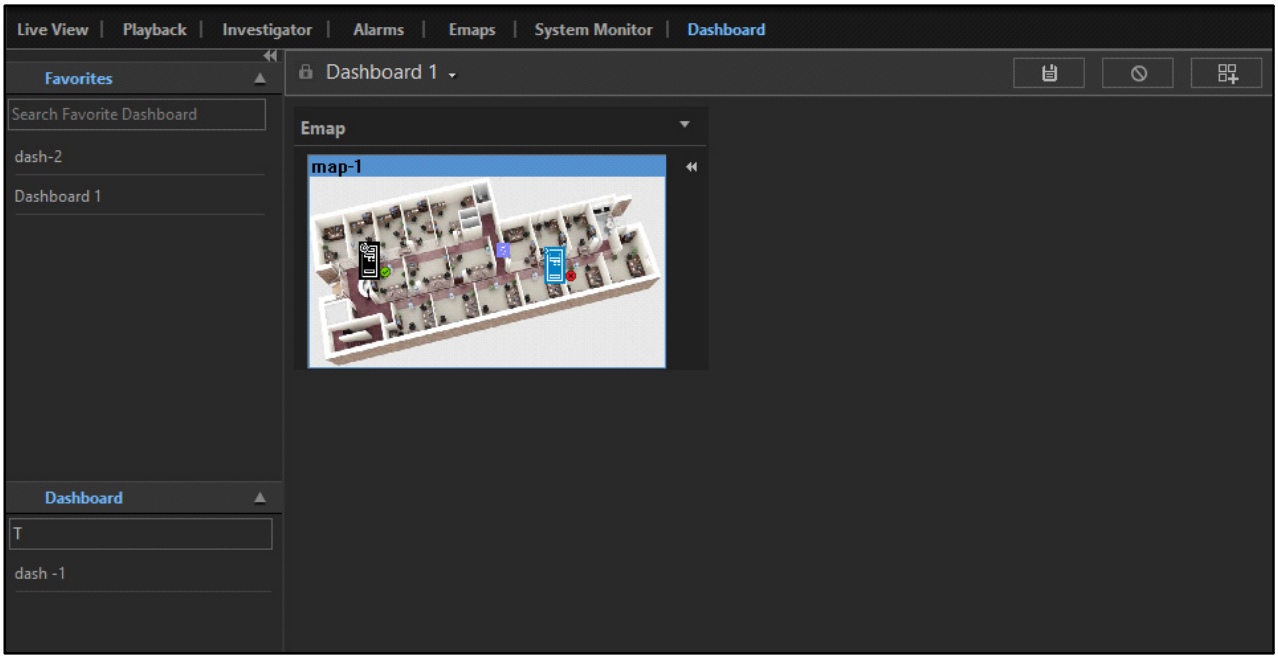
- **Fields to Display**: Select the check boxes of the desired fields to be displayed in the Emap widget from the drop-down list.

  The selected fields appear in the Fields to Display list. You can also delete the fields from this list if required.

  - Click **Delete** corresponding to the desired field to delete it from the list.

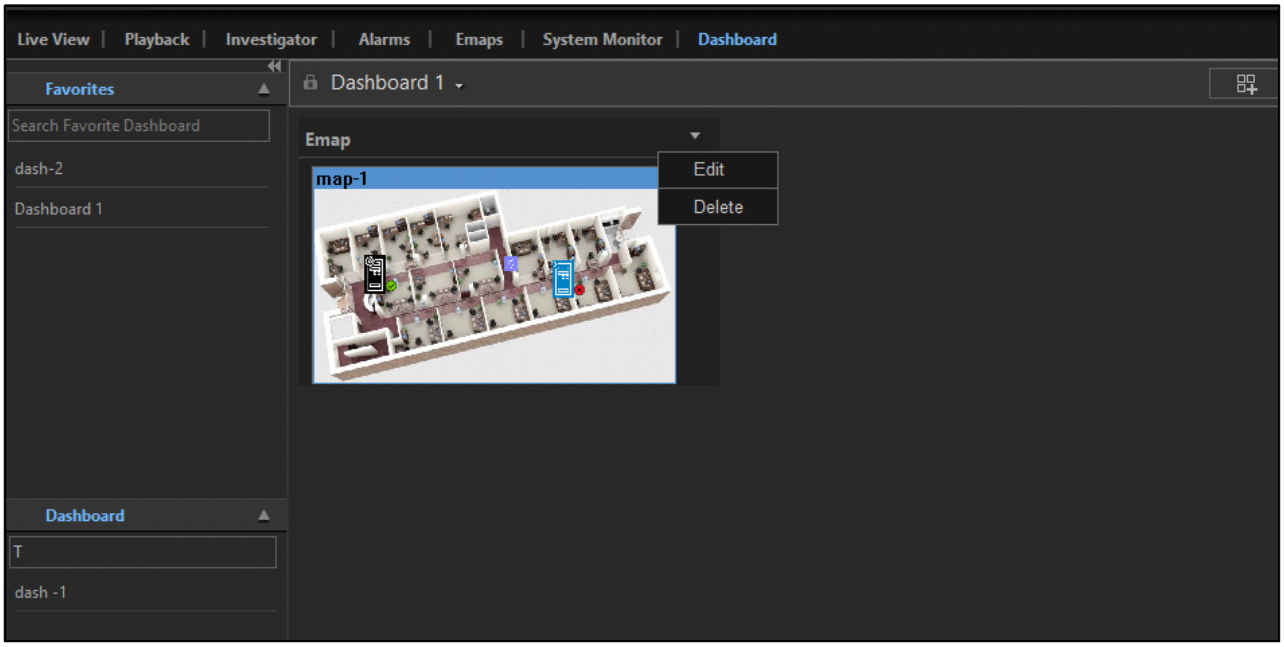
- Click **Save** to save the settings or click **Cancel** to discard.

The new widget appears on the Dashboard.

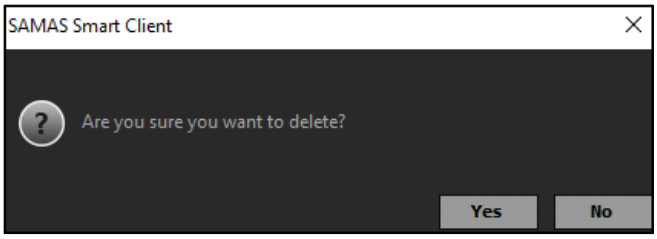


- Click **Save** to save the widget or click **Cancel** to discard.

Once the widget is saved, you can configure the following widget parameters — Show/Hide Emap Alerts, Edit and Delete Widget.



- **Show/Hide Emap Alerts**: Click **Show** or **Hide** to show or hide the Emap Alerts panel.
- **Edit**: Click Edit to edit the widget configurations. For details, refer to “Emap Widget”.
- **Delete**: Click Delete to delete the Emap widget. The following pop-up appears.



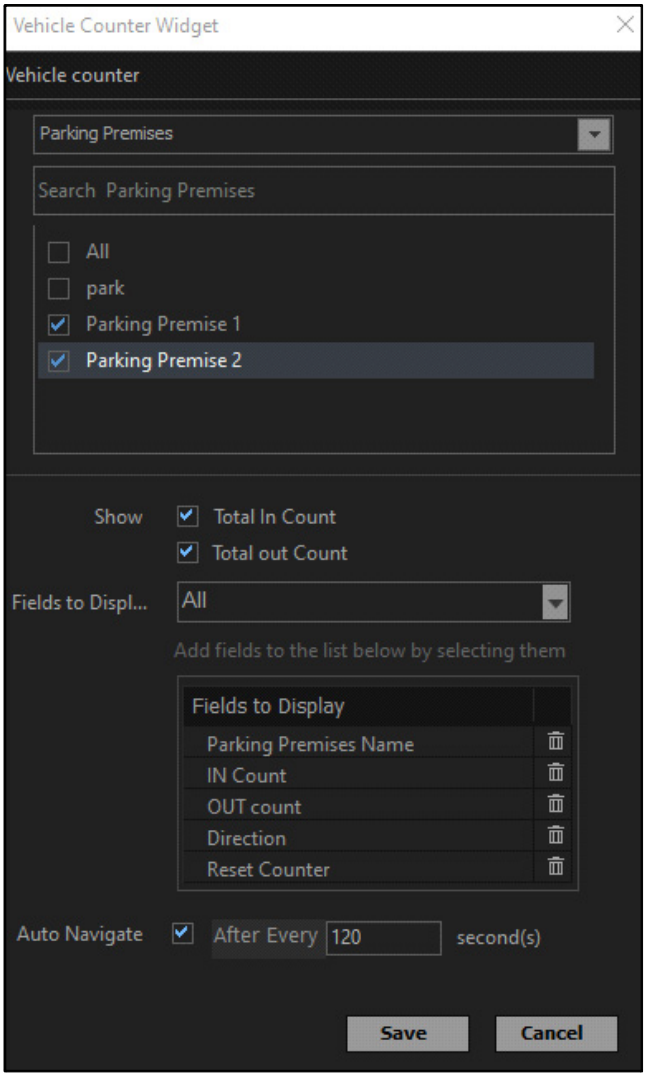
- Click **Yes** to confirm or click **No** to discard.

Vehicle Counter Widget

The Vehicle Counter Widget allows you to view the count of vehicles entering and exiting a configured Parking Premises. The Vehicle Counter Widget is helpful to provide a real-time status of number of vehicles in the premises.

To add Vehicle Counter Widget,

- Select the **Vehicle Counter** widget from the **Add Widget** pop-up. The **Vehicle Counter Widget** pop-up appears.



Configure the following parameters.

- **Parking Premises**: Select the type of premise you wish to assign to the widget from the drop-down list — Parking Premises or Parking Premises Group. Select the check boxes of the desired Parking Premises or Parking Premises Group from the list. You can also search for a Parking Premise using the search bar. All the Parking Premises or Parking Premises Groups configured in the Admin Client appear here.

- **Show**: Select the check boxes of the Vehicle Count — Total In Count, Total Out Count— that you wish to be displayed in the widget.

  Total In Count: Select this check box to view the Total In Count of the vehicles in the premises.

  Total Out Count: Select this check box to view the Total Out Count of the vehicles in the premises.

*The count will be displayed only if the **Vehicle Counting** Event is configured in the Admin Client.*

- **Fields to Display**: Select the check boxes of the desired fields to be displayed in the Emap widget from the drop-down list.

The selected fields appear in the Fields to Display list. You can also delete the fields from this list if required.

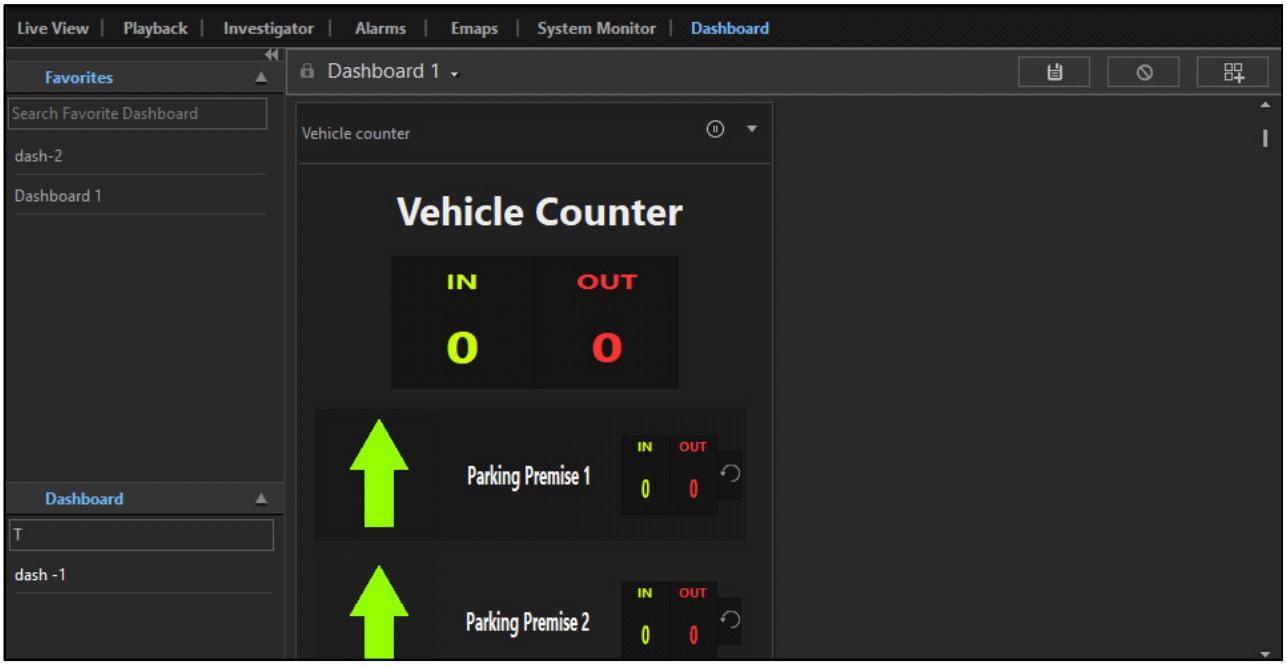
- Click **Delete** corresponding to the desired field to delete it from the list.

- **Auto Navigate**: Select the check box and specify the time after which the system should navigate automatically to the next screen of the Vehicle Counter Widget. Auto Navigation feature allows you to navigate to the next screen of the widget after the defined time. The example below illustrates the functionality of the feature.

  For example, you have kept the dimension of the widget such that status of maximum 3 Parking Premises can be displayed at a time, but you have selected 6 Parking Premises while configuring widget. In this case, Auto Navigate feature is useful. The widget will first display the status of 3 Parking Premises and then after a duration of 5 seconds (as configured), other 3 Parking Premises will be displayed.

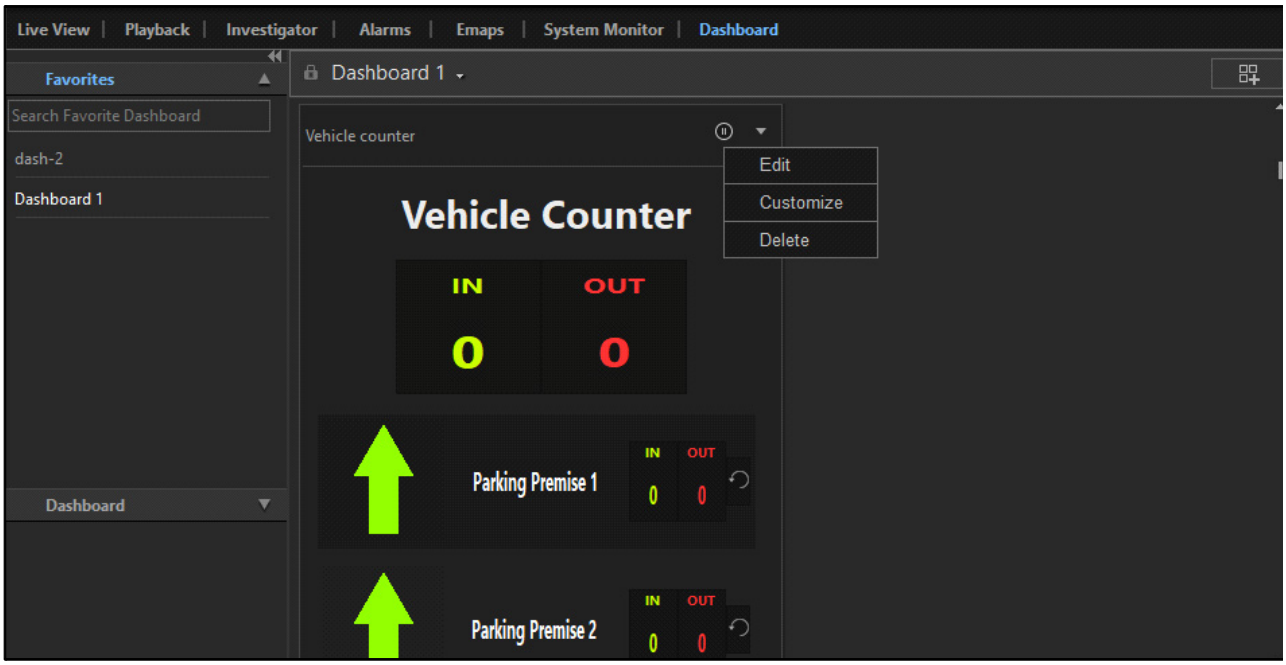
- Click **Save** to save the settings or click **Cancel** to discard.

The new widget appears on the dashboard.

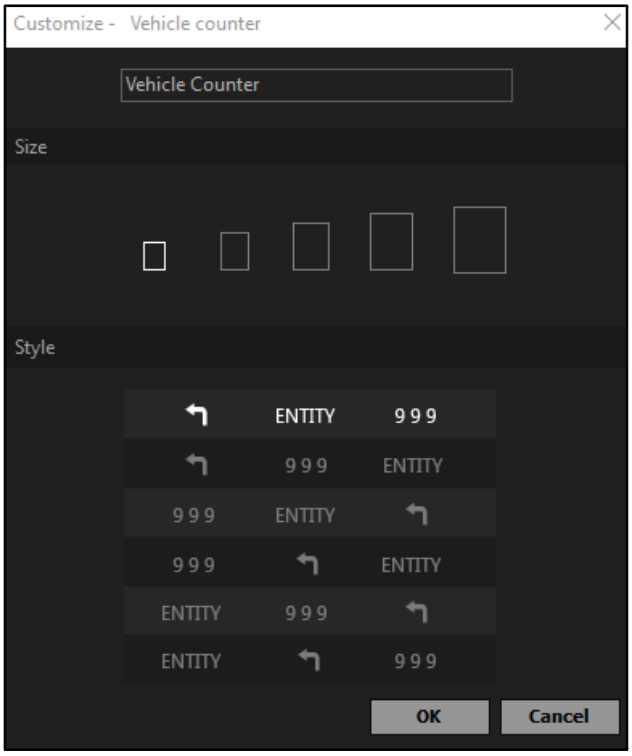


- Click **Save** to save the widget or click **Cancel** to discard.

  Once the widget is saved, you can configure the following widget parameters — Pause/Play Widget, Edit, Customize, Delete Widget and Reset Counter.



- **Pause/Play**: Click **Pause** or **Play** to Start/Stop the auto-navigation. This will be available when more than one Premise is selected.
- **Edit**: Select Edit to edit the widget configurations. For details, refer to “Vehicle Counter Widget”.
- **Customize**: Select Customize to customize the size and placement of details on the Vehicle Counter widget. You can also customize the shape of the arrows displayed on the widget.
  - Click **Customize**. The **Customize- Vehicle counter** pop-up appears.



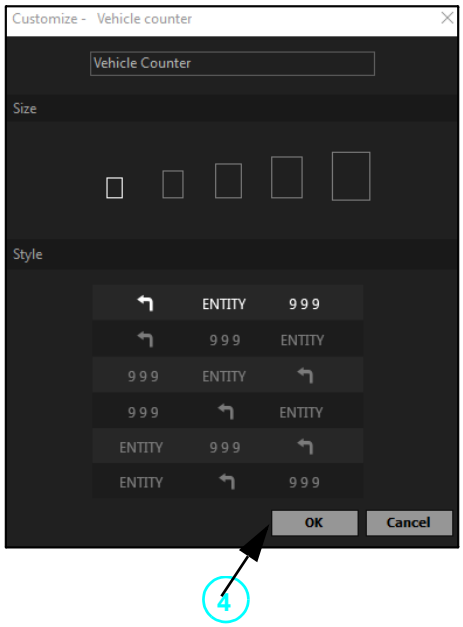
Configure the following parameters.

- Change the name of the widget, if required.
- **Size**: Select the size of the entity icon from the options — Extra Small, Small, Medium, Large and Extra Large.
- **Style**: Select the style in which the details should be placed on the Vehicle Counter Widget from the various options.

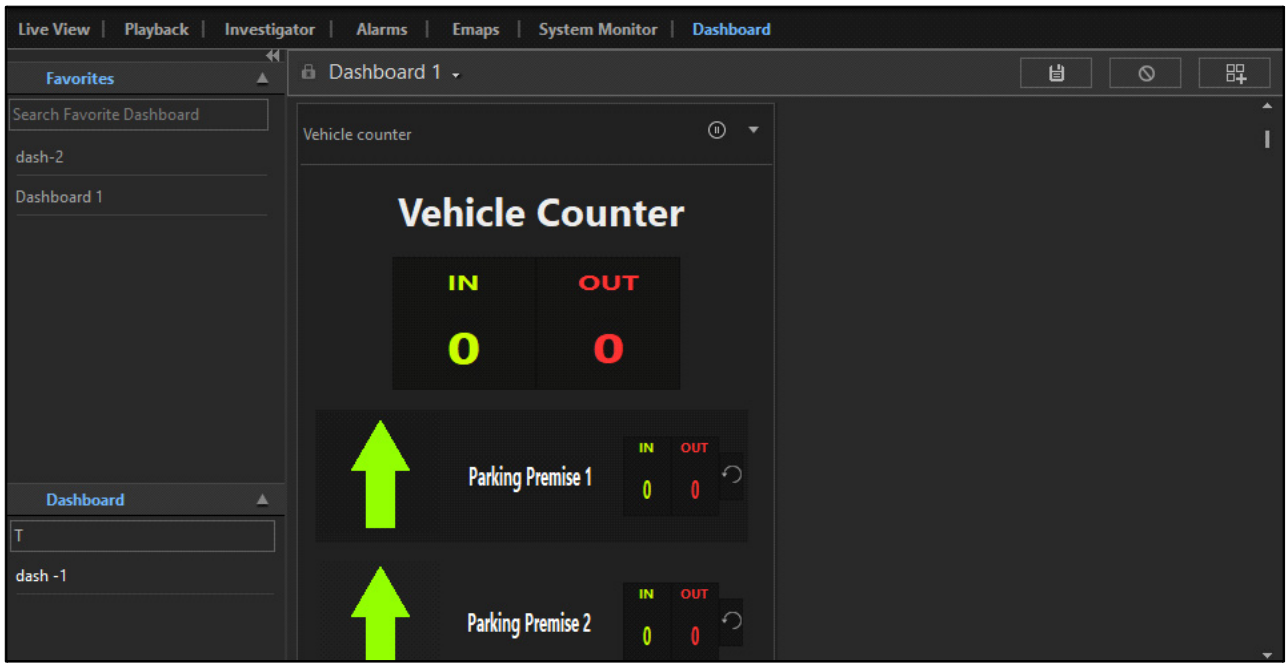
- Click **OK** to confirm or click **Cancel** to discard.

To change the direction of the arrow in the widget,

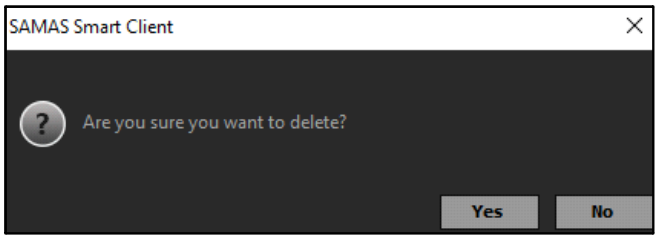
- Click **Customize**.
- Click on the arrow for which you wish to change the direction on the widget.



- Select the desired direction of the arrow.
- Click **OK** to confirm or click **Cancel** to discard.
- **Reset Counter**: Click to reset the Vehicle Counter to zero. All the summary of In and Out count of vehicles is lost and the counter resets to zero.



- **Delete**: Select Delete to delete the Vehicle Counter widget.
    - The following pop-up appears.



- Click **Yes** to confirm or click **No** to discard.

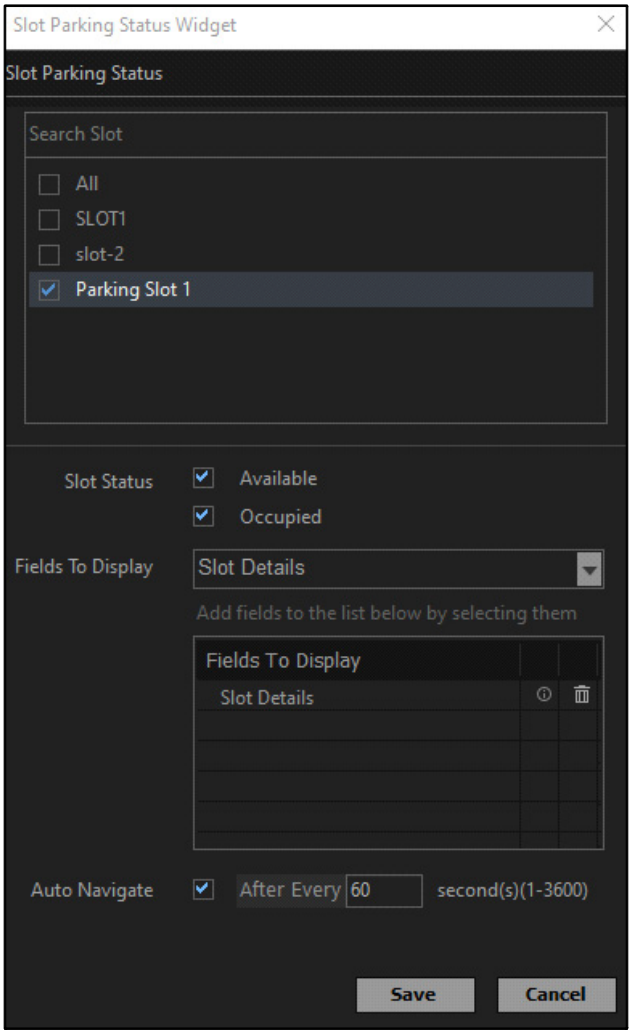
Parking Status Widgets

The Parking Status Widgets allow you to view the parking status of various entities like Slots, Slot Groups, Lanes, Areas, Levels and Facilities. These widgets are helpful to know the real-time status of parking in these premises which helps to manage the vehicle traffic easily.

The configurations for all the Parking Status Widgets is similar, namely Slot Parking Status, Slot Group Parking Status, Lane Parking Status, Area Parking Status, Level Parking Status and Facility Parking Status. Hence, all these widgets are explained under the Parking Status Widgets.

To add Parking Status Widgets,

- Select the **Slot Parking Status** widget from the **Add Widget** pop-up. The **Slot Parking Status Widget** pop-up appears.



Configure the following parameters.

- **Slots**: Select the check boxes of the desired slots from the list. You can also search for a slot using the search bar. All the slots configured in the Admin Client appear here.
- **Show Status**: Select the check boxes of the type of Status — Available, Occupied — you wish to be displayed in the widget.

  Available: Select the check box to view the available slots in the premises.

  Occupied Select the check box to view the occupied slots in the premises.
- **Fields to Display**: Select the check boxes of the desired fields to be displayed in the Slot Parking Status widget from the drop-down list.

  The selected fields appear in the Fields to Display list. You can delete the fields from this list.

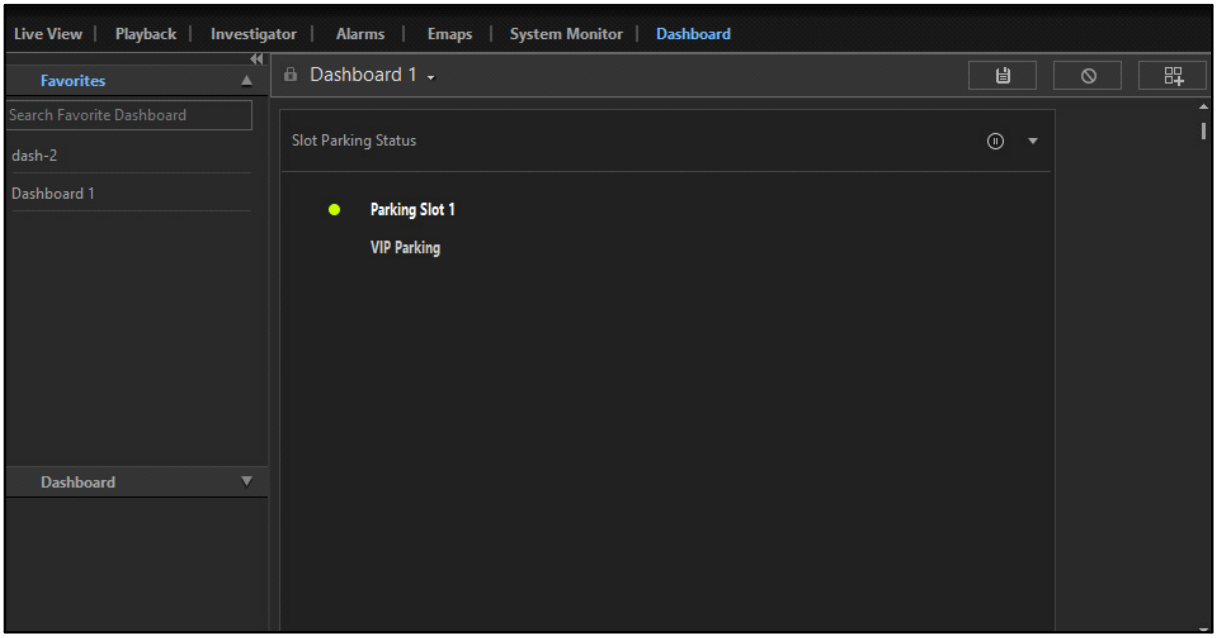
  - Click **Delete** of the respective field to delete the field from the list.
- **Auto Navigate**: Select the check box and specify the time after which the system should navigate automatically to the next screen of the Slot Parking Status widget. Auto Navigation feature allows you

to navigate to the next screen of the widget after the defined time. The example below illustrates the functionality of the feature.

For example, you have kept the dimension of widget such that status of maximum 3 slots can be displayed at a time, but you have selected 6 slots while configuring widget. In this case, Auto Navigate feature is useful. The widget will first display the status of 3 slots and then after the duration of 5 seconds (as configured), other 3 slots will be displayed.

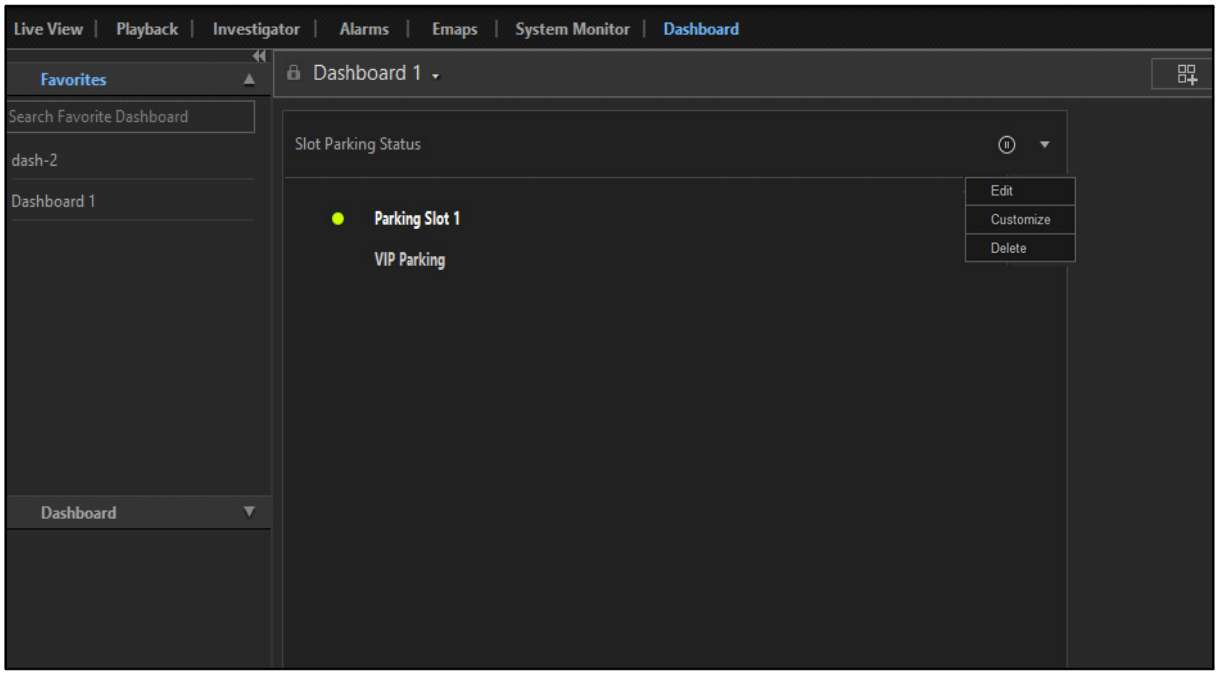
- Click **Save** to save the settings or click **Cancel** to discard.

The new widget appears on the dashboard.

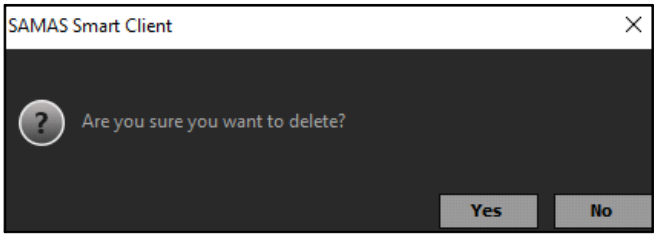


- Click **Save** to save the widget or click **Cancel** to discard.

Once the widget is saved, you can configure the following widget parameters — Pause/Play Widget, Edit and Delete Widget.



- **Pause/Play**: Click **Pause** or **Play** to Start/Stop the auto-navigation.
- **Edit**: Select Edit to edit the widget configurations. For details, refer to “Parking Status Widgets”.
- **Delete**: Select Delete will delete the Slot Parking Status widget.
    - Click **Delete**. The following pop-up appears.



    - Click **Yes** to confirm or click **No** to discard.

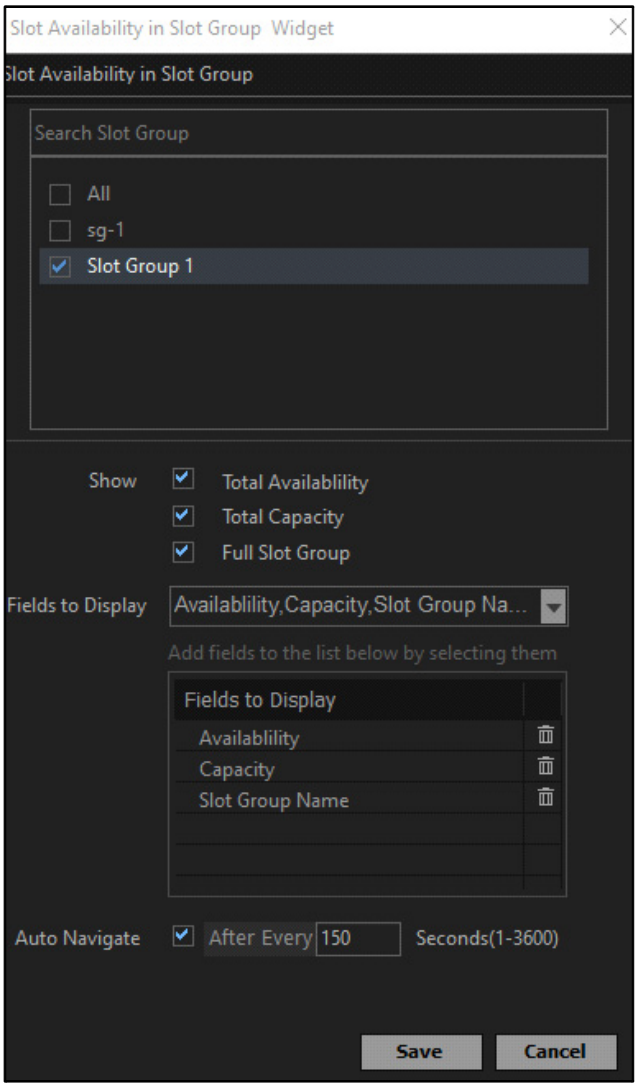
Slot Availability Widgets

The Slot Availability Widgets allow you to view the availability status of various entities like Slots, Slot Groups, Lanes, Areas, Levels and Facilities. These widgets are helpful to know the real-time status of the entities in parking premises which helps to manage the vehicle parking easily.

The configurations for all the Slot Availability Widgets is similar, namely, Slot Availability in Slot Group, Slot Availability in Lane, Slot Availability in Area, Slot Availability in Level and Slot Availability in Facility. Hence, all these widgets are explained under the Slot Availability Widgets.

To add Slot Availability Widgets,

- Select the **Slot Availability in Slot Group** Widget from the **Add Widget** pop-up. The **Slot Availability in Slot Group Widget** pop-up appears.



Configure the following parameters.

- **Slot Groups**: Select the check boxes of the desired slot groups from the list. You can also search for a slot groups using the search bar. All the slot groups configured in the Admin Client appear here.

- **Show**: Select the check boxes of the type of availability —Total Availability, Total Capacity, Full Slot Group — you wish to be displayed in the widget.

  Total Availability: Select the check box to view all the available slot groups in the premises.

  Total Capacity: Select the check box to view all the configured slot groups in the premises.

  Full Slot Group: Select the check box to view the fully occupied slot groups in the premises.

- **Fields to Display**: Select the check boxes of the desired fields to be displayed in the Slot Availability in Slot Group Widget from the drop-down list.

  The selected fields appear in the Fields to Display list. You can delete the fields from this list.

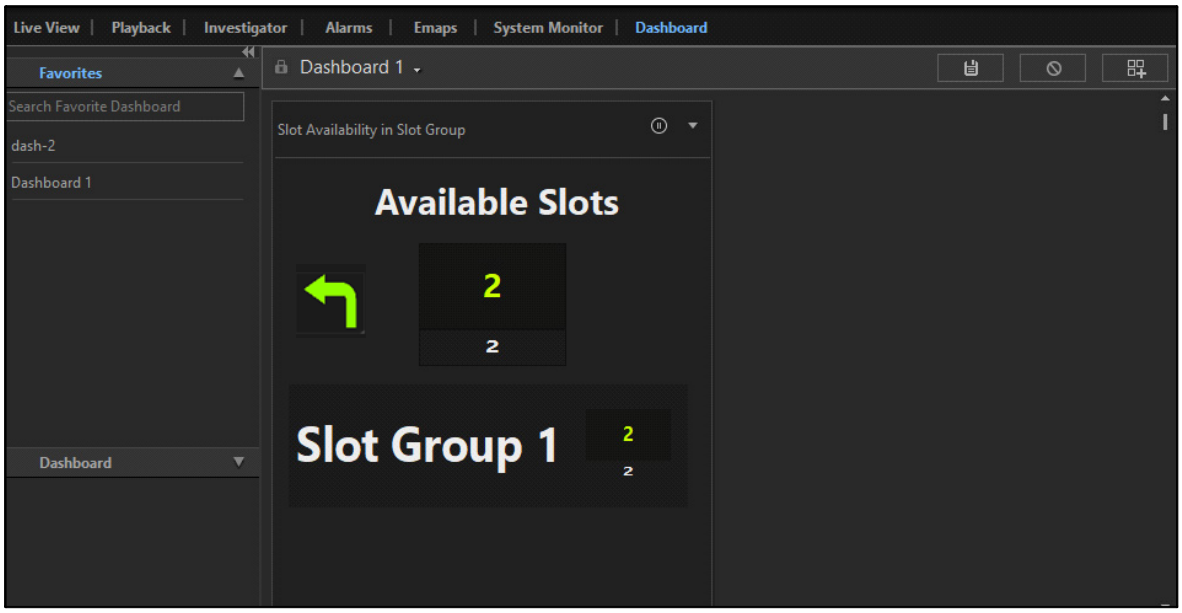
- Click **Delete** of the respective field to delete the field from the list.

- **Auto Navigate**: Select the check box and specify the time after which the system should navigate automatically to the next screen of the Slot Availability in Slot Group widget. Auto Navigation feature allows you to navigate to the next screen of the widget after the defined time. The example below illustrates the functionality of the feature.

  For example, you have kept the dimension of widget such that status of maximum 3 slots can be displayed at a time, but you have selected 6 slots while configuring widget. In this case, Auto Navigate feature is useful. The widget will first display the status of 3 slots and then after the duration of 5 seconds, the other 3 slots will be displayed.

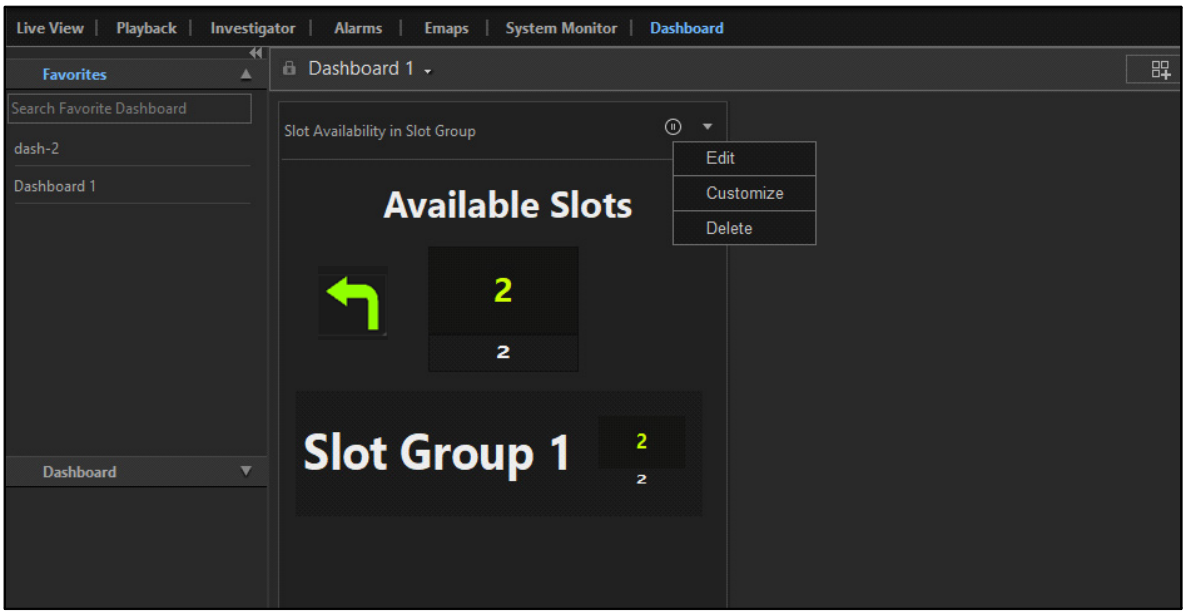
- Click **Save** to save the settings or click **Cancel** to discard.

The new widget appears on the dashboard.

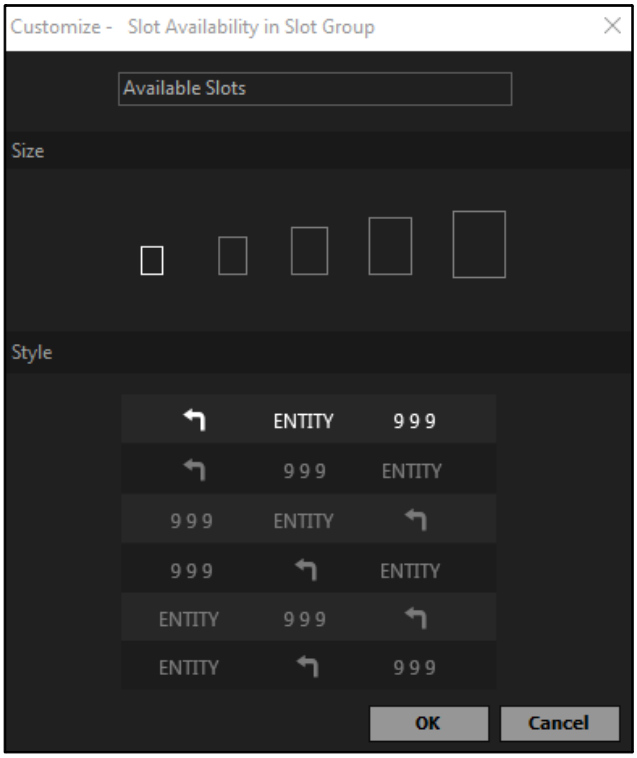


- Click **Save** to save the widget or click **Cancel** to discard.

Once the widget is saved, you can configure the following widget parameters — Pause/Play Widget, Edit, Customize and Delete Widget.



- **Pause/Play**: Click **Pause** or **Play** to Start/Stop the auto-navigation.
- **Edit**: Selecting Edit option will allow you to edit the widget configurations. For details, refer to "Slot Availability Widgets".
- **Customize**: Selecting the Customize option will allow you to customize the size and placement of details in the Slot Availability in Slot Group widget.
  - Click **Customize**. The **Customize- Slot Availability in Slot Group** pop-up appears.



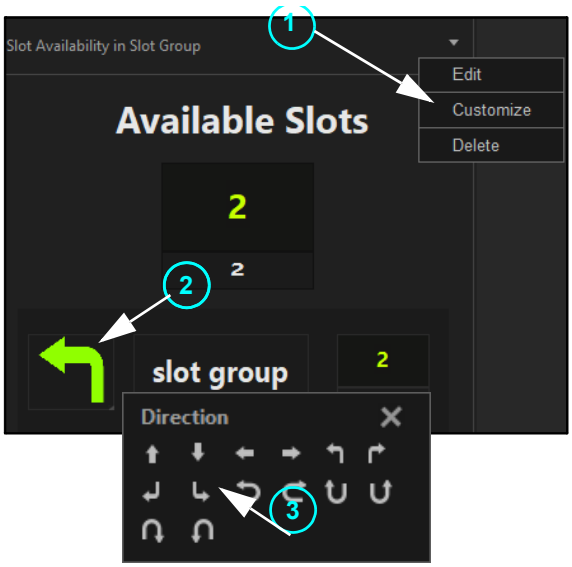
Configure the following parameters.

- Change the name of the widget, if required.
- **Size**: Select the size of the entity icon from the options — Extra Small, Small, Medium, Large and Extra Large.
- **Style**: Select the style in which the details should be placed on the Slot Availability in Slot Group widget from the various options.

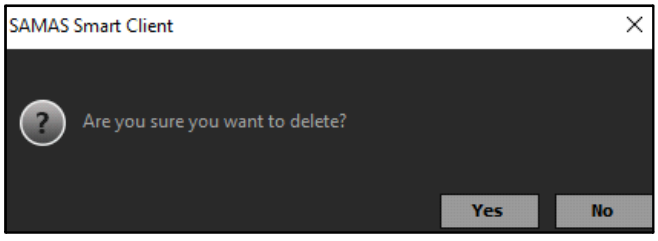
- Click **OK** to confirm or click **Cancel** to discard.

To change the direction of the arrow in the widget,

- Click **Customize**.
- Click on the arrow for which you wish to change the direction on the widget.



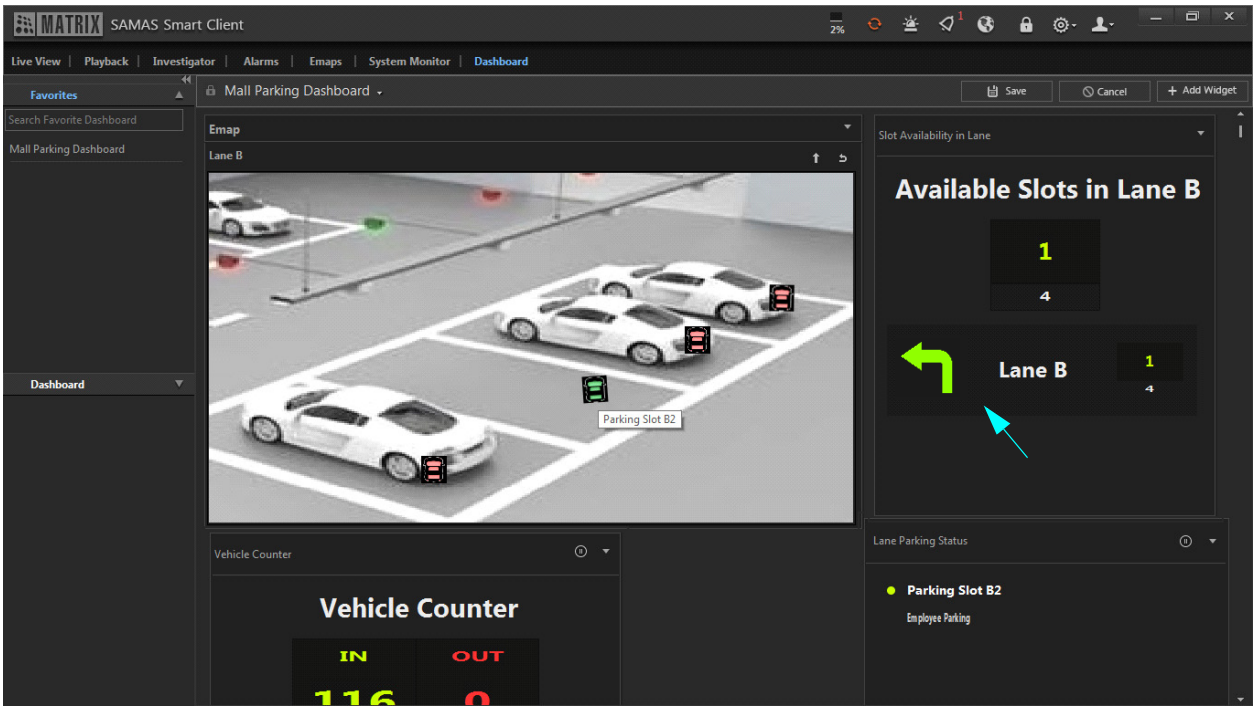
- Select the desired direction of the arrow.
- Click **OK** to confirm or click **Cancel** to discard.
- **Delete**: Selecting Delete option will delete the Slot Availability in Slot Group widget.
  - Click **Delete**. The following pop-up appears.



  - Click **Yes** to confirm or click **No** to discard.

Let us understand the utility of a customized dashboard with the help of an example.

For example, take the scenario of a Mall, where the Parking Management Personnel creates a dashboard, namely, **Mall Parking Dashboard**. The person can add different widgets to monitor multiple real-time events simultaneously from one place and manage the parking premises effectively.

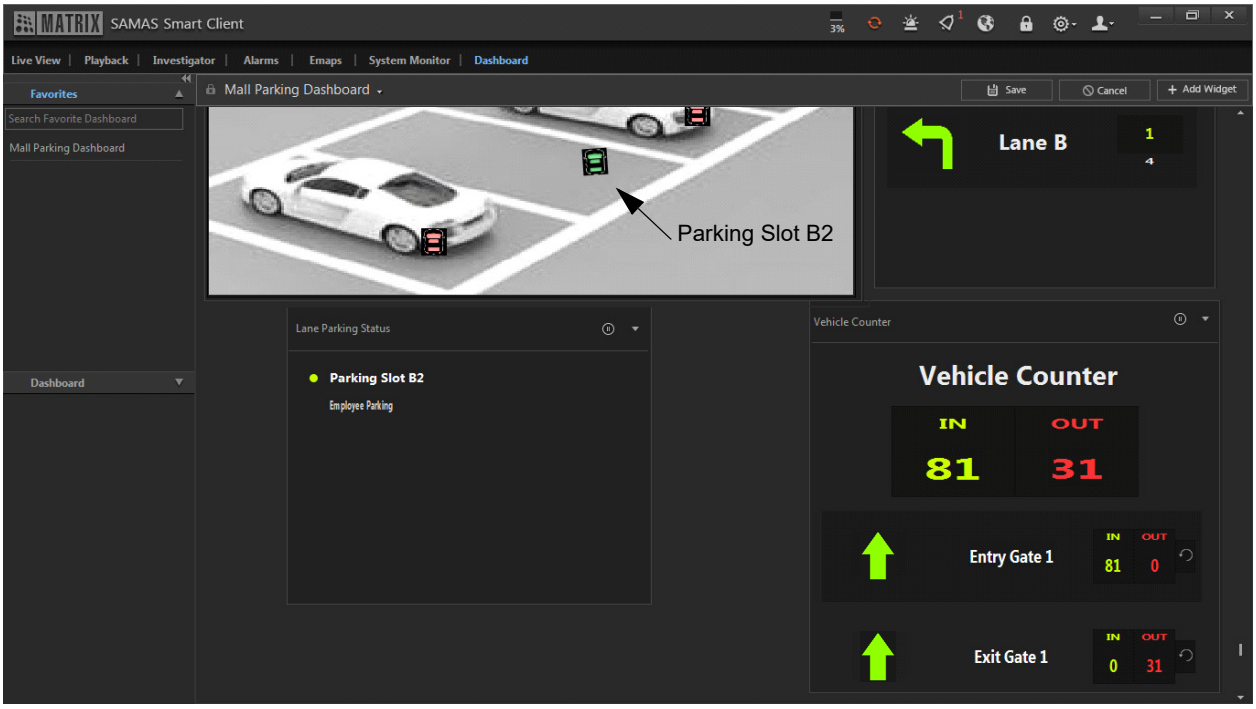


The Parking Management Personnel added 4 widgets that facilitate smooth management of Lane B parking. The following widgets were added — Emap for Lane B, Slot Availability in Lane, Vehicle Counter and Lane Parking Status.

The configured widgets display the following information:

- **Emap Widget**: The Emap Widget displays the location of the Lane B parking, indicating the Occupied and Available slots with red and green color slot entity respectively. To view the live parking of the car, right-click on the slot entity and select Live View option. For more details, refer to “Slot: Right-click Parameters”.

- **Slot Availability in Lane**: Along with the Emap, the Slot Availability in Lane widget displays the Total Capacity of the Slots in Lane B, that is, 4 and the Total Slots Available for parking in Lane B, that is 1. The available slot is depicted with green color slot entity in the Emap.



- **Lane Parking Status**: The Lane Parking Status widget displays the slots available for parking in the Lane B. In this scenario, Parking Slot B2 only is available for parking as shown in the Emap as well.

- **Vehicle Counter**: The Vehicle Counter widget enables the Parking Management Personnel to keep the track of vehicles entering and exiting the Mall from the Entry Gate1 and Exit Gate1.

In this way, by configuring the dashboard and widgets appropriately, the parking management personnel can monitor multiple events simultaneously from one place easily and efficiently.

The count will be displayed only if the Vehicle Counting Event is configured in the Admin Client > Parking Management module > Security Sections.

CHAPTER 12

Evidence Receipt for Weighbridge Application

In the Smart Client, you can generate the Evidence Receipt for the Entry/Exit transactions that occur at Stations. Once an Entry/Exit transaction is initiated, you will get the Evidence Receipt of that respective transaction. This is particularly useful for the Weighbridge Management Personnel for generating receipts easily. All the configurations of the selected **Evidence Receipt** in the Admin Client are reflected in the Entry/Exit Transaction Receipt. For detailed configurations, refer **Weighbridge Application** in the Admin Client.

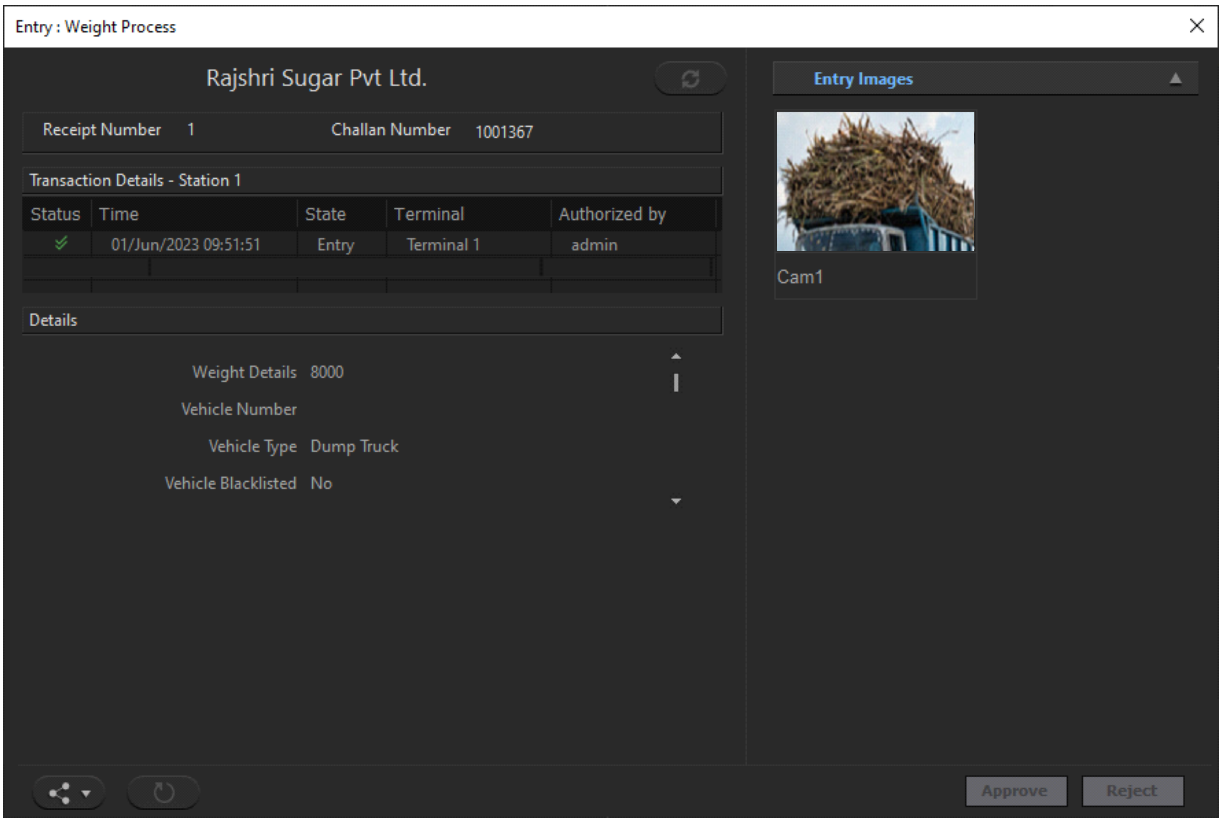
In Entry Transaction Receipt, the Entry Custom Fields and Entry Snapshots configured in the Admin Client are reflected. Each Exit Transaction needs to be mapped with its corresponding Entry Transaction. So, in Exit Transaction Receipt Entry and Exit Custom Fields with Entry and Exit Transaction Snapshots are reflected.

Make sure the event Entry/Exit Transaction Initiated is configured for the desired Stations in the Admin Client.

Make sure you have selected the **Event Popup** check box against the Weighbridge Events in “Event Alerts” in “General Settings” to receive the Entry and Exit Transaction Receipt pop-ups.

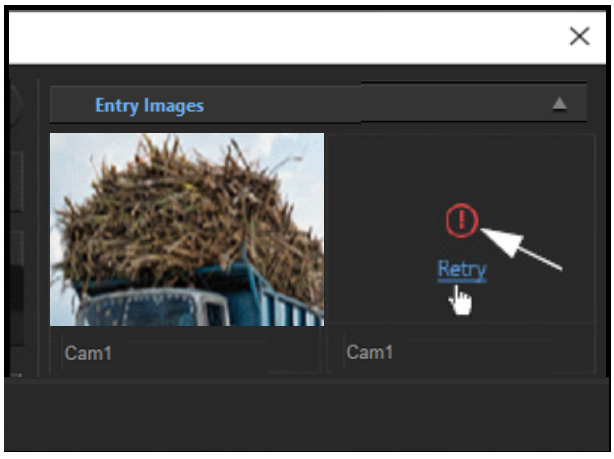
Entry Transaction Receipt

Whenever the Entry Transaction is initiated, the **Evidence Receipt** pop-up appears.



*If the images do not upload, click **Retry** to reload the images. The system will retry to fetch the images from configured Image Storage Drive.*

You can see the possible reason for failure by hovering the mouse on failure icon.



The receipt will load the data until the **Wait Time** specified for the Transaction Receipt in the Admin Client. Within this Wait Time, the system fetches Entry Receipt fields and Entry Snapshots.

Once the receipt loads successfully, the fields appear as configured for the Entry Transaction in the Admin Client.

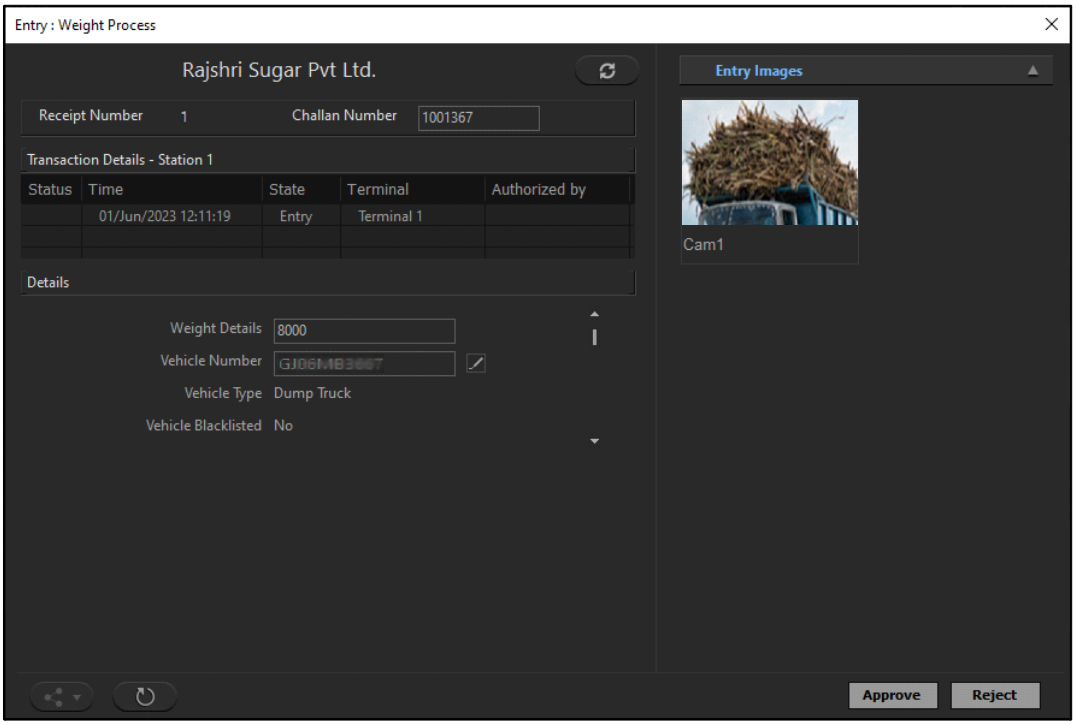
Various details mentioned below will be displayed as configured in the Admin Client.

- The **Name**, **Header**, **Footer** of the Receipt.
- **Receipt Number:** It displays the Receipt Number as a unique identification of the receipt generated by SAMAS. It will be generated automatically once the Entry Transaction is Approved or Rejected.
- **Challan Number:** This is the Manual Transaction Reference field which is Configured in the Admin Client > Evidence Receipt > Entry Fields. Here it is entered as a Challan Number.
- **Transaction Details:** It displays the Details of the Transaction occurred at a particular Station (for example: Vadodara Weighbridge).
  - **Status:** It displays the status of the transaction. The status will display **(Approved)** if the Transaction is approved or **(Rejected)** if the Transaction is rejected by the authorized person. The status will remain blank if the transaction is unattended.
  - **Time:** It displays the Date and Time at which the Transaction occurred.
  - **State:** It displays the State of the transaction that is — Entry or Exit.
  - **Terminal:** It displays the name of the Terminal that belongs to the particular station where the weight is detected.
  - **Authorized by:** It displays the name of the user who has Authorized the Transaction. The field will remain blank if the Transaction is unattended.
- **Weight Details:** This displays the custom fields which are configured with field value type as Weight and Expression in the Admin client.
- **Details:** It displays the custom fields of Entry transaction receipt which are configured with field value type as Event, Static or Manual.
- You can also modify the Weight and Vehicle Number by clicking **Edit** .

  Click **Save** to save or **Cancel** to cancel the modification.
- **Enroll Vehicle:** Before Approving/Rejecting the Entry Transactions and Exit Transactions, if the Vehicle is Unidentified and user has Media Rights of Enroll Vehicle (Admin Client > General Settings > System Accounts > User Groups) then **Enroll** icon will appear besides the custom field for which Event Parameter is configured as Vehicle Number in the Admin Client > Evidence Receipt. For Enrolling the Vehicle, refer to “Enrolling Vehicle”.

  After successful enrollment of the vehicle, **Vehicle Enrolled** event will be generated and notified.

- **Entry Images:** This collapsible panel displays images as configured in the Admin Client > Evidence Receipt > Entry > Snapshots.



User cannot recapture the images once they are captured and are visible at Entry Images.

- **Refresh** : To Reload/Refresh the receipt.
- **Reset**: To Reset the Receipt details and reenter the details again.
- Once the details are updated, you can **Approve** or **Reject** the Entry Transaction.

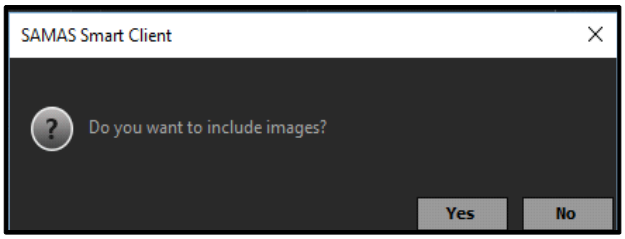
The Receipt cannot be modified once it is Approved or Rejected.

Options After Approving/Rejecting Entry Transactions

Share : This option is enabled once the Transaction is **Approved** or **Rejected**.

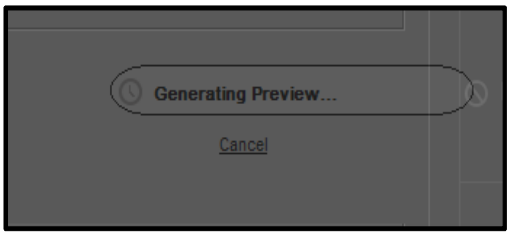
Click **Share** the following options are available:

- **Share As:** To share the Receipt with the desired person using the desired application.
- **Print**: To Print/Preview the receipt.Click **Print** and the pop-up appears on the screen.



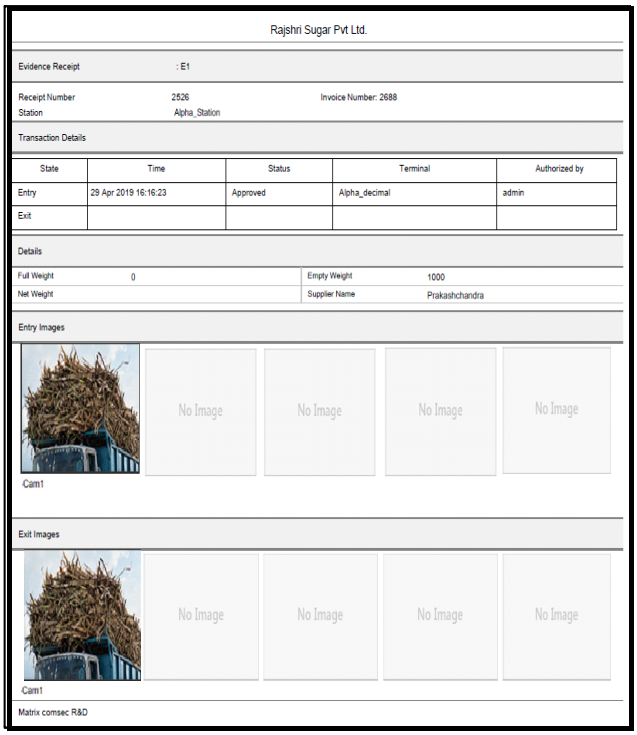
Click **Yes** to Print/Preview the Evidence Receipt included with the Entry Transaction images or **No** to Print/ Preview the Evidence Receipt without including the Entry Transaction Images.

The pdf of the Receipt will be generated. Click **Cancel** to cancel the pdf generation.

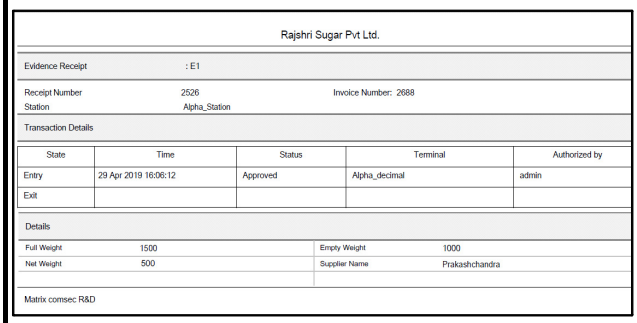


Once the Receipt is loaded, the preview in .pdf format appears on the screen. You can Print the receipt from the Preview page.

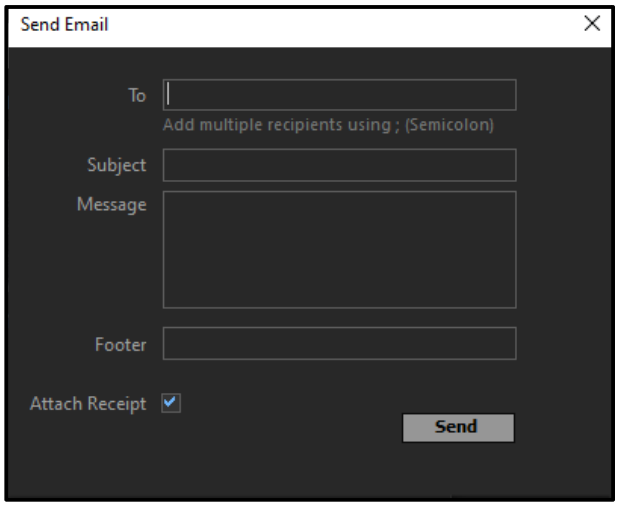
With Images



Without Images

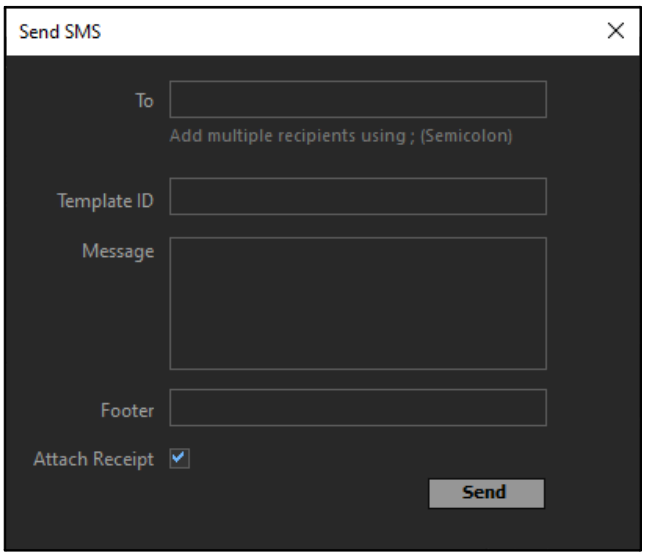


- **Email:** You can mail the Receipt to the desired person.



  - **To:** Enter the Email ID.
  - **Subject:** Enter the Subject of the Email.
  - **Message:** Enter the Message to be sent in the Email.
  - **Footer**: Enter the Footer of the Email.
  - Select the **Attach Receipt** check box, if you wish to send the Receipt as a attachment in .pdf format.
  - Click **Send**.

- **SMS:** You can message the Receipt to the desired person.



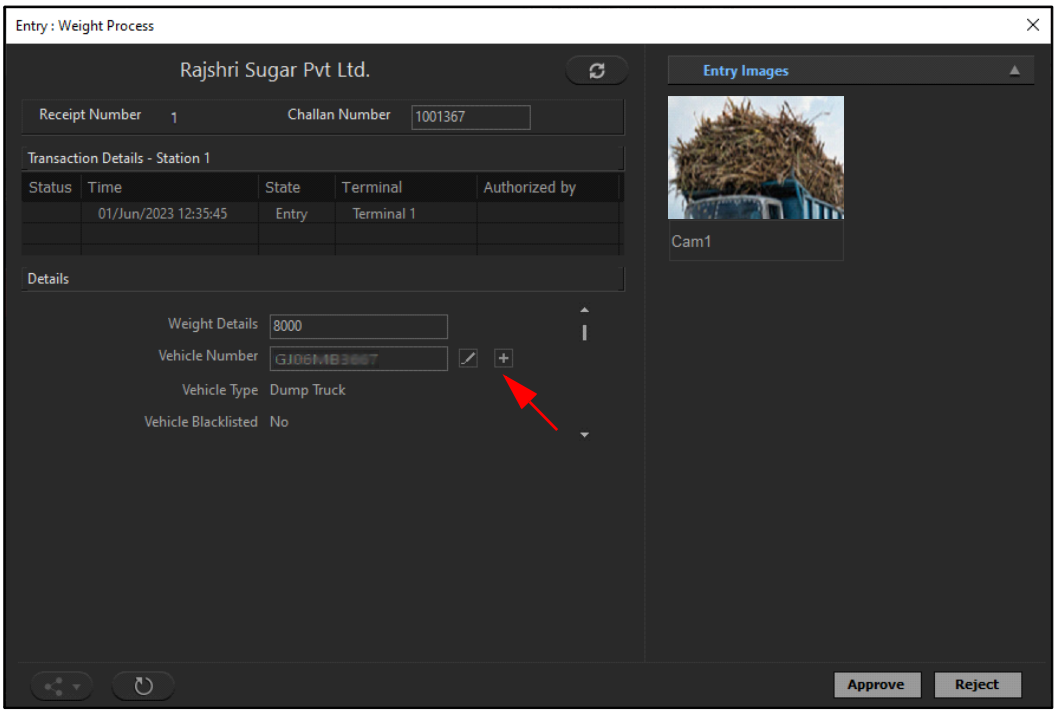
  - **To:** Enter the Mobile Number.
  - **Template ID**: The SMS Template ID is provided by the Service Provider while registering the template. Make sure you enter the correct SMS Template ID as per the registered templates to ensure successful sending of the SMS.

- **Message:** Enter the Message to be sent in the SMS.
- **Footer**: Enter the Footer of the SMS.
- Select the **Attach Receipt** check box, if you wish to send the Receipt as a attachment in .pdf format.
- Click **Send**.

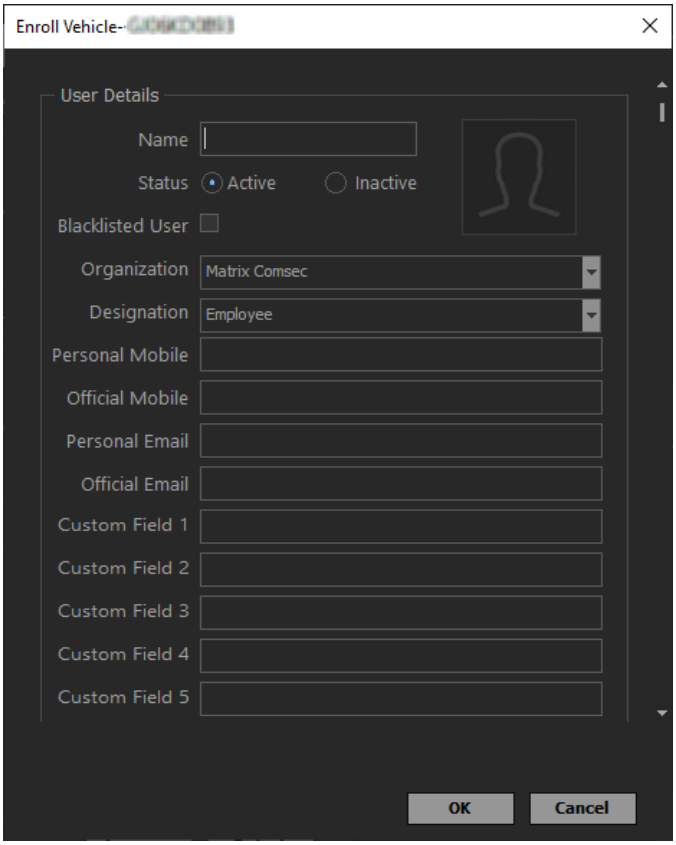
Enrolling Vehicle

Before Approving/Rejecting the Entry Transactions and Exit Transactions, if the Vehicle is Unidentified and user has Media Rights of Enroll Vehicle (Admin Client > General Settings > System Accounts > User Groups) then

Enroll icon will appear besides the custom field for which Event Parameter is configured as Vehicle Number in the Admin Client > Evidence Receipt. For Enrolling the Vehicle, refer to “Enrolling Vehicle”



Click **Enroll** to enroll the unidentified vehicle. Configure the User Details and Vehicle Details:

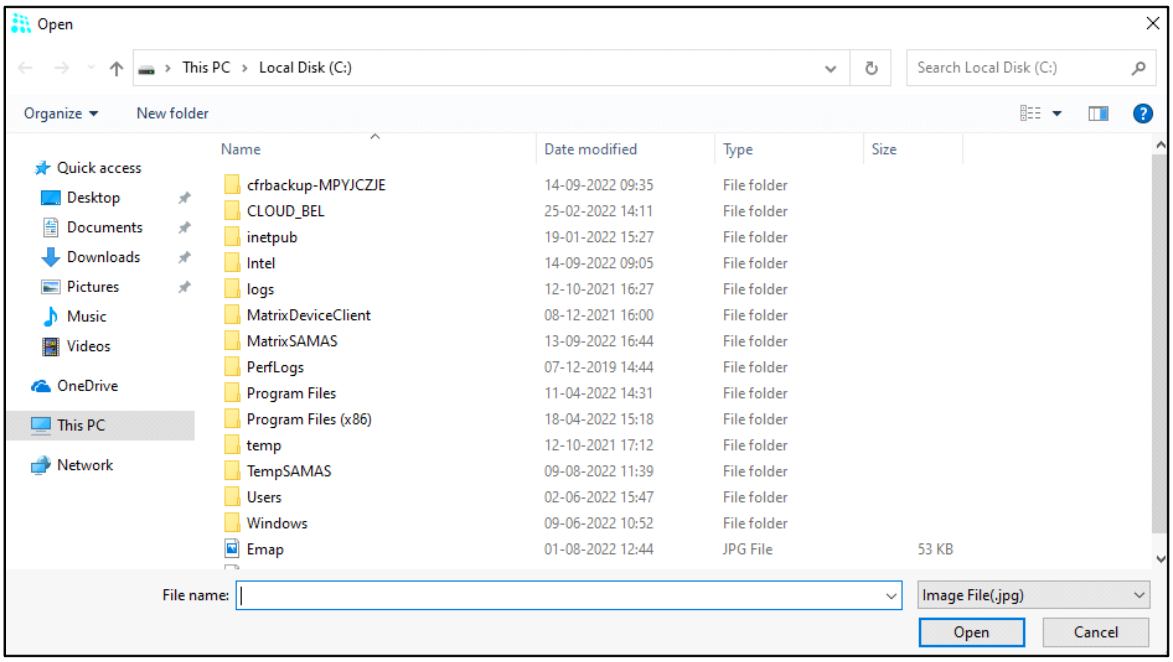


Configure the following parameters:

- **Name**: Specify the name of the user.
- **Status**: Select the status of the user from the drop-down list — Active or Inactive.
- **Blacklist**: Select the check box if you wish to blacklist the user. If the check box is enabled, the status is set to Inactive automatically.
- **Organization**: Select the Organization with which the user is associated from the drop-down list.
- **Designation:** Select the Designation of the user from the drop-down list.
- **Personal Mobile**: Specify the Personal Mobile Number of the user.
- **Official Mobile**: Specify the Official Mobile Number of the user.
- **Personal Email**: Specify the Personal Email Address of the user.
- **Official Email**: Specify the Official Email Address of the user.
- **Custom Field:** User Custom fields are used to add extra user information as per your requirement in the User Profile.
- **Remarks**: Enter the remarks for the user, if required.

Once these configurations are done, you need to add a profile picture of the user.

- Click on the **Profile Photo** . The **Open** pop-up appears.



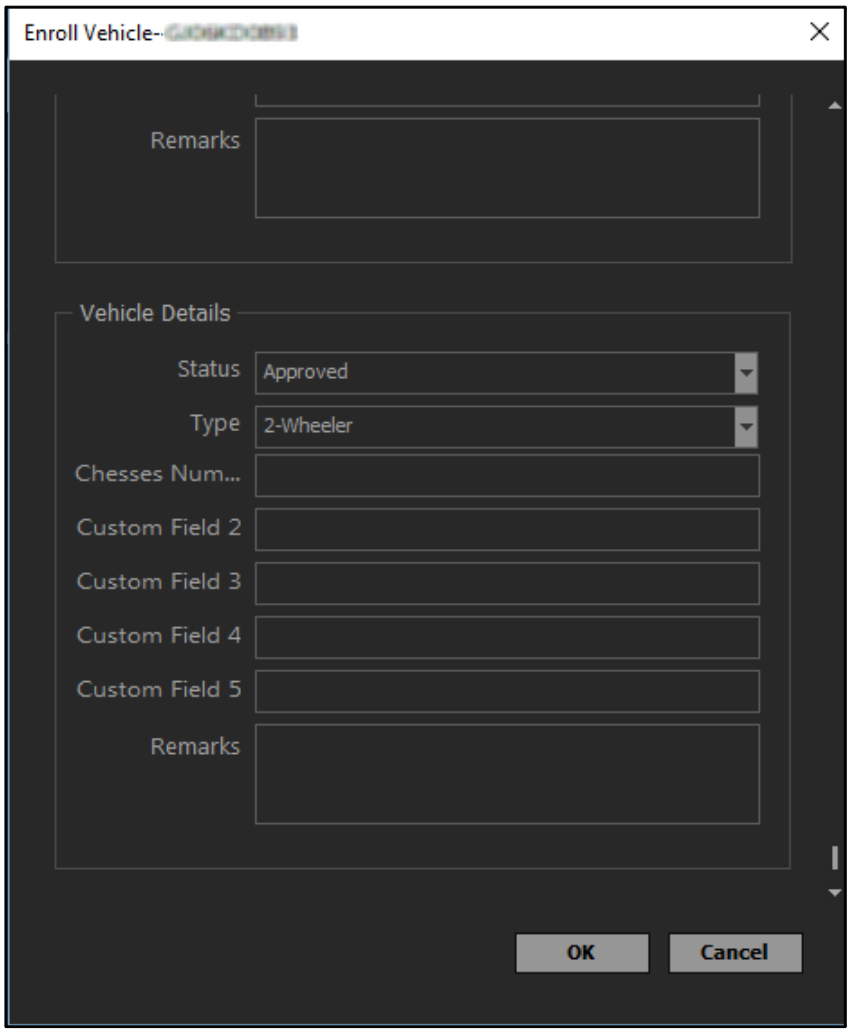
- Select the desired image to be uploaded.
- Click **Open** to upload the image or **Cancel** to discard.

*The size of the User image can be of upto **50kb** and formats supported are **.jpg** or**.bmp**.*

The Profile picture appears along with the configured details. You can browse another picture or delete it.

- Click again on the **Profile Photo**, if you wish to select another picture from the desired path.
- Click **Delete** to delete the profile picture.

Vehicle Details



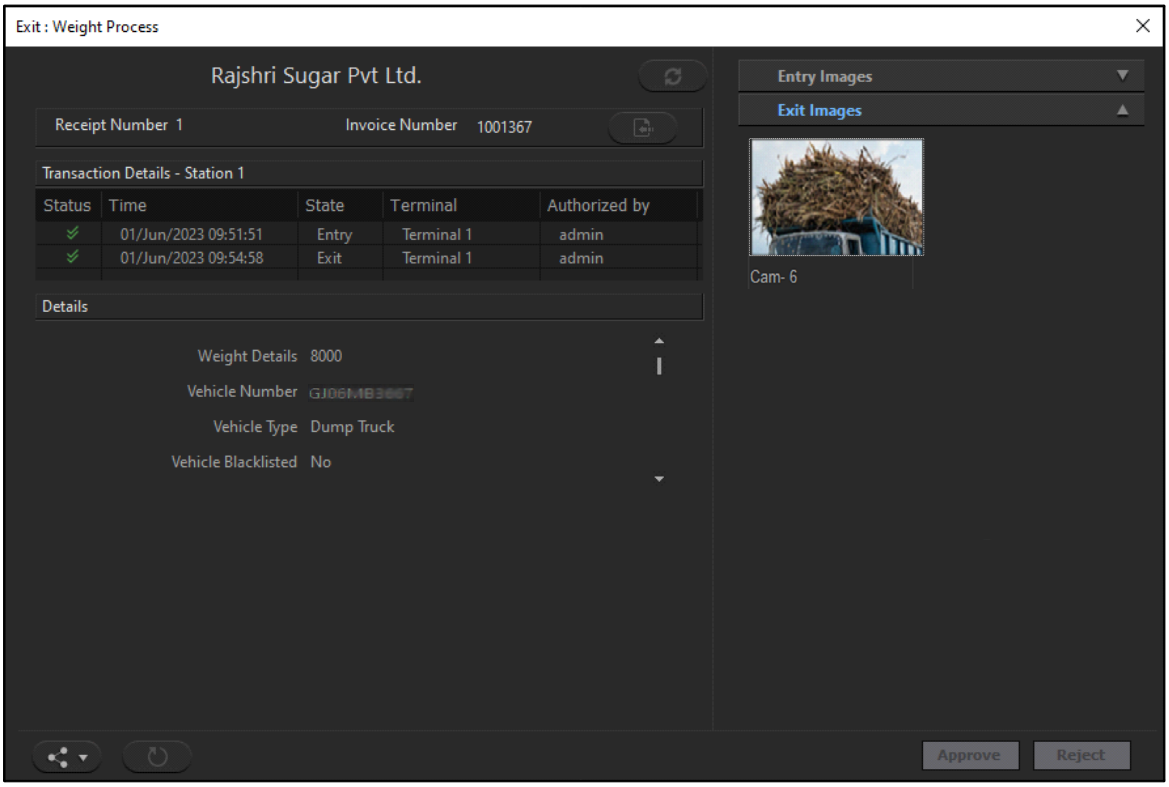
Configure the following parameters:

- **Vehicle Status**: Select the Vehicle Status to be assigned to the vehicle from the drop-down list.
- **Vehicle Type**: Select the type of vehicle from the drop-down list.
- **Custom Fields**: Vehicle Custom fields are used to add extra vehicle information as per your requirement in Vehicle details of the User Profile.
- **Remarks**: Enter the remarks for the user's vehicle, if required.

Click **OK.** The vehicle is enrolled successfully.

Exit Transaction Receipt

Whenever vehicle arrives at Exit terminal, Exit Transaction will get initiated and Exit Transaction Receipt will be displayed in the Smart Client.



Receipt Number: Enter the Receipt Number printed on the Entry Transaction Receipt to map the details of Entry Transaction.

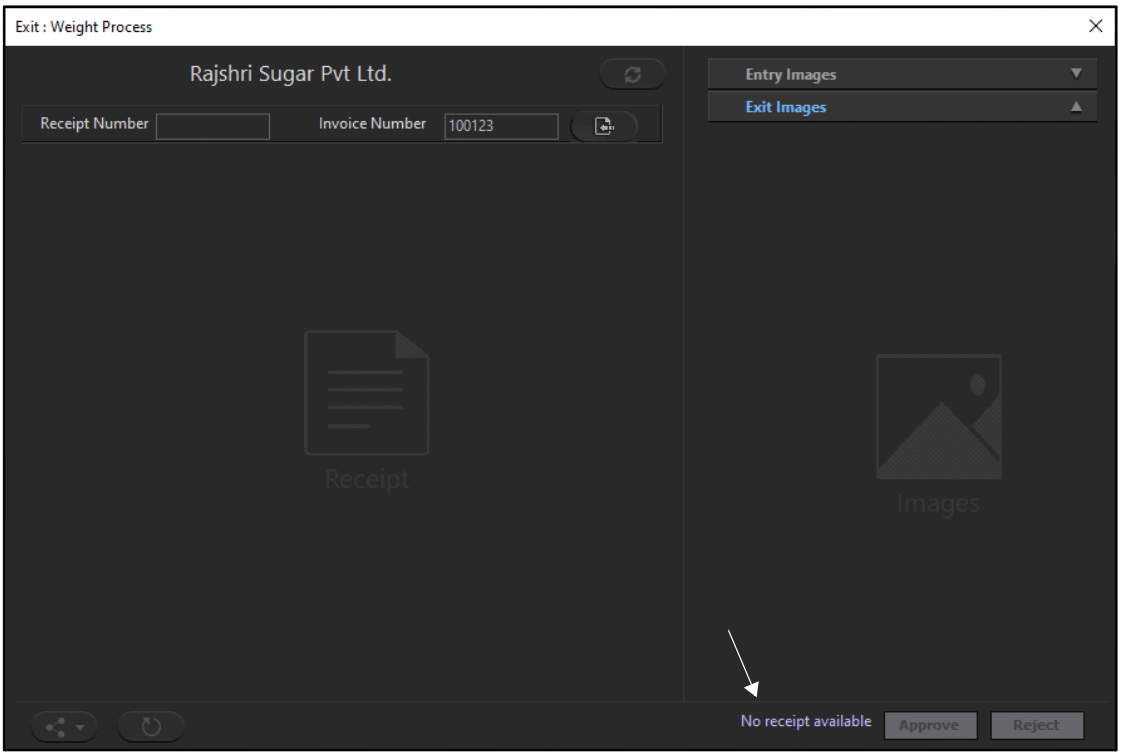
Challan Number: You can enter the Challan Number also which was entered on the Entry Receipt, to map the details with Entry Transaction.

Show Entry Details is enabled after entering the Receipt Number or Challan Number. Click **Show Entry Details** to see the details of the Entry Transaction that occurred at the Entry Terminal with the entered Receipt Number/Challan Number.

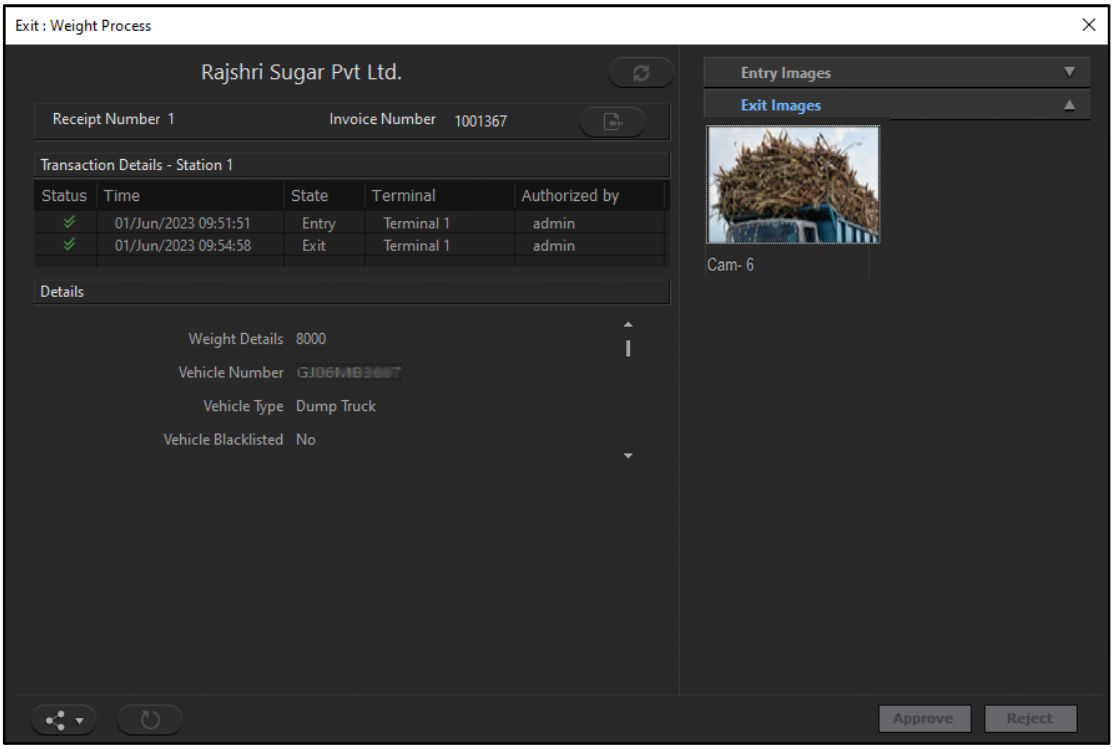
In this case there are two possibilities:

- The Entry Receipt corresponding to the Entry Transaction is not found
- The Entry Receipt corresponding to the Entry Transaction is found

If No Entry Transaction is found for the entered Receipt Number/Challan Number then error message displayed is **No Receipt Available**.

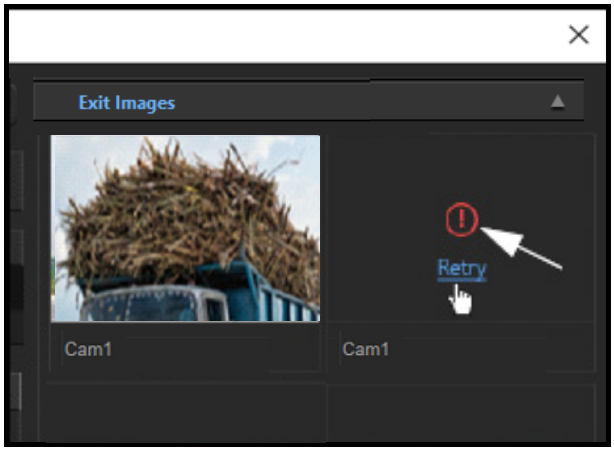


If the Entry Transaction is found with the entered Receipt Number/Challan Number then Exit Transaction Receipt will be generated along with Entry and Exit Fields as well as Snapshots.



*If the images do not upload, click **Retry** to reload the images. The system will retry to fetch the images from configured Image Storage Drive.*

You can see the possible reason for failure by hovering the mouse on failure icon.



- **Entry/Exit Images:** These panels display the respective images as configured in the Admin Client.
- **Refresh** : To Reload/Refresh the receipt.
- **Reset** : To Reset the Receipt details and reenter the details again.

Once the details are updated, you can **Approve** or **Reject** the Exit Transaction.

Share : This option is enabled once the Transaction is **Approved** or **Rejected**. For more details, refer to “Options After Approving/Rejecting Entry Transactions”.

Appendix

Frequently Asked Questions (FAQs)

1. Why can't I connect to my Management Server?

1. Ensure that the license dongle is available.
2. Check that the Management Server is connected to the database to authenticate the user.
3. Ensure that the Server and Client are connected to the Network.
4. Verify that the ports in the Server and Client are configured properly. Make sure the IP address and ports in server and client are same.
5. The default ports are:
    a. Admin Client port: 8711
    b. Smart/Media Client port: 8085
    c. Recording Server port: 8090
    d. COSEC Server port: 8089
    e. License Server port:8095
    f. IVA Server port: 8100
    g. Transcoding Server port: 8400
    h. ONVIF Server port: 8500
7. If you are already using the ports specified here then you can change the port from the configuration settings of the Management Server.
8. Ensure that the Management Service is running on the Server (PC where the Management Server is installed).

2. Why can't I connect to my Recording Server?

1. Check that the Recording Server, that is the PC where Recording Server is installed is connected to the Network.
2. Ensure that the Recording Service is running.

3. What are the system requirements for SATATYA SAMAS Application?

Different components have different System requirements. Please refer SATATYA SMAS Installation Guide for the each component.

4. Which operating systems support SATATYA SAMAS Solution?

Please refer to the **SATATYA SAMAS Installation Guide** for details.

5. Which ports must be open to connect SATATYA SAMAS with DVR,NVR or HVR behind the firewall?

Unless the port of devices is not changed, the default ports required to be free are:

- HTTP: 80
- RTSP: 554
- TCP: 8000

6. How do I create Views?

Select the Cameras and place them in the monitoring window. Click My Views and click Save as. Assign a name to the view. Click OK to save the view.

7. Can I control my PTZ camera?

Yes, you can control PAN, Tilt and Zoom functions (that is, direction, angle and zoom) of PTZ camera from the Smart Client.

8. Can I view live and recorded video at the same time?

Yes, we have two options for this.

1. From the Live Monitoring window select the Live Pop-up View option. So the live view will start in pop-up window. Now you can switch to Playback or Investigator tab to view the recordings of different camera.
2. You can view live view of a camera in one monitoring window and start the instant playback of other camera in other window.

9. Would I be able to export a part of Recordings from my Camera and present it as evidence in cases like burglary?

Yes. Navigate to Smart Client > Investigator tab. Select the Camera, select the date and search the recordings. Now play the recording. Click **Show Export Time Selection** to mark the part of recordings to be exported. Click **Export** to export the recordings. These recordings can be used as evidence in burglary cases.

10. How can I navigate through my Recordings?

Recordings can be stored in Local Drive or Network Drive as configured from the Admin Client. Local Drive is the PC where Recording Server is installed. Network Drive can be any system in the same network as the Recording Server.

The recordings from the local or network drive can be viewed in the SAMAS Media Player.

- If the Media Player and the Local Recordings are in the same PC, then you can easily scan the drive in Media Player and view the recordings.
- If the Media Player is in PC-1, Local Drive Recordings in PC-2 and Network Drive Recordings in PC-3 then add both PC-2 and PC-3 drives to Map Network Drive tab from My Computer of PC-1. Now you will be able to scan the added drives and view the recordings.

11. How to configure Network Drive?

Click Admin Client > Servers and Devices > Select Recording Server > Storage > Add Drive > Network Drive. Configure the Drive Settings.

Assign a name for **Storage** and browse the path to the folder where you wish to store the recordings. Enter the **User Name** and **Password** of the computer where the Network Drive is to be configured. For more details refer to the SATATYA SAMAS Admin Client Manual.

While Adding Network Drive, Recording Server must be running with the current user account logged in into the operating system.

12. Operating System error is displayed while adding Network Drive. What do I do?

Click Matrix SAMAS Recording Service on the computer where Recording Server is installed. Right-click and select Properties. Select Log On tab and click This Account. Specify the windows user name with prefix ".\", then click Apply and restart the service. For more details see SATATYA SAMAS Admin Client Manual.

13. How to configure the FTP Drive?

Click Admin Client > Servers and Devices > Select Recording Server > Storage > Add Backup Drive > FTP Drive. Configure the Drive Settings.

Assign a name for **Storage** (Example: SR) and IP address for the **FTP Server Name**, that is the IP address of PC where FTP Drive is to be configured. (Example: 192.168.103.46).

The default **FTP Port** is 21. Specify the **Storage Path** where backup is to be uploaded. (Example: \\192.168.103.46\d\Matrix).

Enter the **User Name** and **Password** of the FTP Drive. Click **Test** to check the connection. Ensure that FTP Service is running on the PC where the FTP Server is configured. After successful connection click on **OK**. The FTP Drive will be added to the Backup Drives list.

14. Can I view the recordings in VLC Player?

To view the recordings in VLC, Windows Media Player or any other player you need to convert the recordings in .avi format. For this you can export the recordings from Playback or Investigator controls.

15. Where are my Snapshot images saved?

Snapshot images are saved at the location specified in Application tab of General Settings from the Media Client. The default Snapshot path is C:\MatrixSAMAS\Snapshot

16. What Video Analytic applications are available?

1. Motion Detection
2. Object Detection
3. Camera Tampering
4. Intrusion Detection
5. No Motion Detection
6. Trip-Wire Detection
7. Face Detection
8. Vehicle Detection
9. People Counting
10. Vehicle Counting
11. Tailgating
12. Unauthorized Parking
13. Improper Parking
14. Premises Availability
15. Wrong Way Detection
16. Prohibited Parking
17. Missing Object
18. Loitering Detection

17. What are the overall functionalities available with SATATYA SAMAS Solution?

- Live View of Camera Video

- Simple and Event based Recording
- Synchronous Playback, Asynchronous Playback and Instant Playback
- Intelligent Video Analytics through Investigator
- IVA Modules with add-on license
- Basic Scenarios
- Advanced Scenarios with add-on license
- Media Player
- Page and Window Sequencing
- Event and Action Management
- System Monitoring
- Emaps with multi-hierarchy support
- Dashboard
- Mail and SMS notification
- Matrix Access Control
- SAMAS and ONVIF User Status

18. Do I need to have any Network Video Recorder (NVR) apart from SATATYA SAMAS Solution?

No, the SATATYA SAMAS solution is integrated with the Recording Server which provides both Recording and Streaming Capabilities. The IP Cameras can be connected directly with the Recording Server without the need of any NVR. For Analog Cameras you must have DVR or HVR.

19. What are the types of Camera supported?

SATATYA SAMAS supports Analog Cameras through DVR/HVR and IP Cameras.

The brands which are supported are: Matrix, Acti, Axis, DLink, HIKVISION, Infinova, Samsung, Panasonic, Vivotek, Brickcom, Dahua, Grandstream, Bosch.

20. I have a camera of brand not mentioned in the above list. How can I connect it?

If your camera supports UPnP then you can connect the camera temporarily through ONVIF. If UPnP is not supported then you have to add the camera manually.

If your camera does not support ONVIF then you can add the camera manually as Generic Camera.

RS and FOS are using ONVIF Version 23.12 Rev 61 for ONVIF Client activity.

ONVIF Server is using ONVIF Version 20.16 for ONVIF Server activity.

For more details on adding the cameras, refer to the SATATYA SAMAS Admin Client Manual.

21. How many number of cameras can be added to the SAMAS System?

Virtually unlimited number of cameras can be added from the software provided best hardware configuration is available in terms of processing speed and network bandwidth. SAMAS Client-Server architecture allows user to manage multiple Recording Servers and view all camera live videos in the Smart Client. Ensure that the license is available with the user.

22. How can I purchase the SAMAS License?

The SAMAS License is available based on Number of Cameras supported, Number of Simultaneous Active User Sessions and Number of Parking Entities. The Detection through IVA and other IVA Module features are available as Add-on license.

To buy the license contact the Matrix Channel Partners.

23. Which license is required for the Client Software? Is there an extra charge for the Server License?

The Client Software license is included in the package. There is no extra charge for client or server license. But after the expiry of Annual Support Package you have to renew the license for new upgradations.

24. Where can I install the SATATYASAMAS setup?

The SATATYA SAMAS can be installed at any location, within a specific site or multiple sites. This allows the flexibility in design of the video surveillance infrastructure from centralized to distributed to anywhere in between. The servers can be easily integrated into an existing network for ease of management within current IT infrastructures.

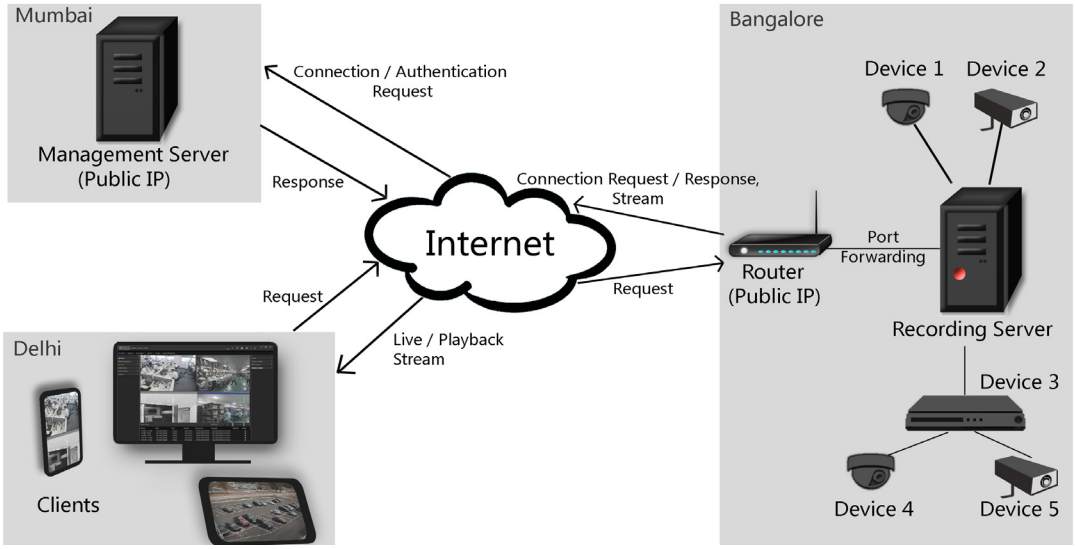
25. I have cameras which do not support Event Detection like Motion Detection, Intrusion Detection etc. Can I still use Intelligent Video Analytics feature?

Yes, SAMAS provides IVA Server which enables detection of events like Motion detection, Intrusion detection, Camera Tampering, No Motion Detection, Trip-wire Security, Tailgating, Unauthorized Parking Prohibited Parking, Improper Parking, Premises Availability, Wrong Way Detection, Vehicle Detection, People Counting and Vehicle Counting.

26. My Management Server is at Mumbai, Recording Server and cameras are at Bangalore and Smart Client is at Delhi. How can I connect to the Servers and view the camera stream?

Assign a Public IP to the Management Server. Then it will be accessible using the Internet.

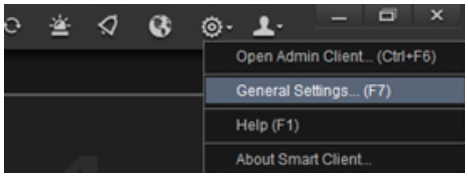
Now for the Recording Server, Port is to be forwarded through Router through which it is connected with the Management Server. Similarly, for the Smart Client at Delhi, Port is to be forwarded through Router which request the Recording Server for the camera stream.



26. Can I disable/enable the Users?

Yes, you can enable/disable a User from System Monitor > Users. Click the Disable/Enable icon under Status. Refer System Monitoring for details.

Keyboard Shortcuts



For enhanced accessibility and faster navigation, various functions on the SATATYA SAMAS Smart Client can be performed using keyboard shortcuts. A list of available shortcut keys have been provided below with the actions they perform. Shortcut keys are also displayed on the mouse tool tip, wherever applicable (see image).

GENERAL

Ctrl + Shift + Esc	Open Task Manager
Ctrl + TAB (Cyclic)	Switch to next TAB (Application Pages/Tabs)
Ctrl + Shift + TAB (Cyclic)	Switch to previous TAB (Application Pages/Tabs)
Enter	Trigger Call to Action button – Apply, Save
Esc	Cancel
Alt + F4	Close
Ctrl + A	Select All
Ctrl + X	Cut
Ctrl + C	Copy
Ctrl + M	Search for the more event records if available
Ctrl + V	Paste
Ctrl + F	Find
Ctrl + Z	Undo
Ctrl + Y	Redo
F5	Refresh
F11	Full Screen
Windows + D	Desktop
Ctrl + F6	Open Admin Client
Ctrl + G	Playback jump to time

TOOLBAR

F11	Toggle Full Screen
F4	Sync Configuration
Alt + A	Active Alarms
Alt + M	Emap Alerts
F1	Help
Alt + Shift + L	Logout
F7	General Settings
Alt + Space + N	Minimize Application

Alt + Space + Enter	Restore Down / Maximize Application
Alt + F4	Close
Ctrl + Shift + Esc	CPU Usage
F9	Emergency Event
Ctrl + K	Lock Client

MONITORING WINDOW

Ctrl + O	Assign Camera or Sequence
Ctrl + N	Assign Sequence -> Create Sequence
Ctrl + Arrow Left / Ctrl + Arrow Right	Previous Window / Next Window
Ctrl + Home / Ctrl + End	Go to First Page / Go to Last Page
Alt + Enter	To view stream of selected camera in 1x1 layout
Ctrl + Page Up / Ctrl + Page Down	Previous Page / Next Page

LIVE VIEW (Alt + L)

CAMERA CONTROLS (Alt + C)	
Ctrl + Shift + U	Turn On
Ctrl + Shift + M	Turn Off
Ctrl + Arrow Up	Volume Up
Ctrl + Arrow Down	Volume Down
Ctrl + Alt + M	Turn Microphone On/Off
Shift + S	Take Snapshot
Ctrl + Backspace	Clear Window
Ctrl + B	Add Bookmark
Ctrl + R	Turn Manual Recording On / Off
Ctrl + I	Instant Playback
Ctrl + Enter	Live Popup View
Shift + A	Change Aspect Ratio
Ctrl + H	Video Enhancer
PTZ CONTROLS (Alt + P)	
Shift + F	Auto Focus
Shift + I	Auto Iris
F8	Turn PTZ On/Off
MONITOR CONTROLS (Alt + M)	
Alt + T	Show / Hide Caption
Ctrl + Delete	Clear Page
Ctrl + Shift + Delete	Clear All Pages

Ctrl + Plus	Zoom In
Ctrl + Minus	Zoom Out
MY VIEWS (Alt + V)	
Ctrl + S	Save View
Ctrl + Shift + S	Save View As
WINDOW SEQUENCE (Alt + S)	
Ctrl + Spacebar	Play Sequence
Ctrl + Spacebar	Pause Sequence
Ctrl + Q	Pack Sequence
Ctrl + Shift + Q	Unpack Sequence
Ctrl + N	Create Sequence
Ctrl + Shift + U	Turn On
Ctrl + Shift + M	Turn Off
Windows Key + D	Minimize Application + Turn Off
ONLINE (Alt + O)	
Alt + E	Event Log
Alt + O	Show Online
Arrow Up / Arrow Down	Navigate up/down through rows
Home / End	Navigate to first/last rows
LAYOUTS	
Arrow Left / Right / Up / Down	Navigate through layouts
CAMERAS (Alt + C)	
Arrow Right	Open Camera Tree
Arrow Left	Close Camera Tree

PLAYBACK (Alt + P)

EVIDENCE LOCK (Alt + E)	
Ctrl + N	Create Evidence Lock
Ctrl + Shift + F	Search Evidence Lock
PLAYBACK CONTROLS	
Alt + F	Play Forward
Alt + R	Play Reverse
Ctrl + P	Print Snapshot
Alt + Arrow Left	Previous Frame
Alt + Arrow Right	Next Frame
Alt + Arrow Up	Speed Up
Alt + Arrow Down	Speed Down
Ctrl + Backspace	Clear Window

Ctrl + Shift + U	Turn On
Ctrl + Shift + M	Turn Off
Ctrl + Arrow Up	Volume Up
Ctrl + Arrow Down	Volume Down
Shift + S	Take Snapshot
Ctrl + B	Add Bookmark
F11	Toggle Full Screen
Shift + Arrow Left	Previous Motion
Shift + Arrow Right	Next Motion
Ctrl + T	Show Export time selection
Ctrl + T	Hide Export time selection
Ctrl + L	Start Loop Play
Ctrl + L	Stop Loop Play
Shift + E	Export
Ctrl + D	Export Details
Shift + T	Time Selection (1m, 15m, 1h, 6h, 1d)

INVESTIGATOR (Alt + I)

Alt + B	Bookmark
Ctrl + Shift + F	Bookmark Search
Ctrl + F	Search

ALARMS (Alt + A)

Alt + A	Acknowledge Alarm
Alt + R	Alarm Report
Alt + A	Acknowledge Alarm
Alt + R	Alarm Report

EMAPS (Alt + E)

Alt + M	Maps
Ctrl + Z	Go to Previous Map
Alt + Arrow Up	Go to Parent Map

WINDOWS

EVENT LOG WINDOW	
Ctrl + E	Export
Alt + F4	Close
Ctrl + F	Search

EXPORT WINDOW	
Ctrl + E	Export
QUICK VIEW	
Ctrl + Number	Assign Live View of that camera to an empty monitoring window.
Ctrl + Number + . + P	Instant Playback
Ctrl + Number + . + C	Load Live View in current window

Disposal of Products/Components after End-Of-Life

Main components of Matrix products are given below:

- **Soldered Boards:** At the end-of-life of the product, the soldered boards must be disposed through e-waste recyclers. If there is any legal obligation for disposal, you must check with the local authorities to locate approved e-waste recyclers in your area. It is recommended not to dispose-off soldered boards along with other waste or municipal solid waste.

- **Batteries:** At the end-of-life of the product, batteries must be disposed through battery recyclers. If there is any legal obligation for disposal, you may check with local authorities to locate approved batteries recyclers in your area. It is recommended not to dispose off batteries along with other waste or municipal solid waste.

- **Metal Components:** At the end-of-life of the product, Metal Components like Aluminum or MS enclosures and copper cables may be retained for some other suitable use or it may be given away as scrap to metal industries.

- **Plastic Components:** At the end-of-life of the product, plastic components must be disposed through plastic recyclers. If there is any legal obligation for disposal, you may check with local authorities to locate approved plastic recyclers in your area.

After end-of-life of the Matrix products, if you are unable to dispose-off the products or unable to locate e-waste recyclers, you may return the products to Matrix Return Material Authorization (RMA) department.

Make sure these are returned with:
- proper documentation and RMA number
- proper packing
- pre-payment of the freight and logistic costs.

Such products will be disposed-off by Matrix.

“SAVE ENVIRONMENT SAVE EARTH”

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