



Axis License Plate Verifier

App-note

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1. Introduction

This document details the integration of the Axis License Plate Verifier software with CathesisVision LPR interface. The Axis License Plate Verifier is the camera-based video analytics module which provides LPR identification information. The information captured by the Axis License Plate Verifier app is then sent to the CathesisVision system through the CathesisVision LPR interface.

AXIS License Plate Verifier is an AXIS Camera Application Platform software that can be used in selected Axis cameras (ideally with I/O ports for direct control of a vehicle access barrier and built-in IR illumination) to allow vehicle entry/exit into a controlled area such as a parking lot.

Note:

1. For information regarding the regular operation of Axis License Plate Verifier services, please consult the relevant documentation.
2. The Axis License Plate Verifier system posts LPR identification data to the configured port on the CathesisVision NVR.
3. Cameras are configured in CathesisVision as standard and are recognised as an LPR camera.
4. The camera used and the NVR should be properly synced to the same time source with the same time zone.

1.1 Requirements

1.1.1 General Requirements

- CathesisVision 2023.3 or later.
- Windows 10: 64-bit and later; Windows Server 2016 and later.
- Minimum of 4GB of RAM required.
- Ubuntu 16.04 LTS; Ubuntu 20.04 LTS

Note: If the user plans on installing this integration on a Linux unit, contact support@cathesisvideo.com to gain access to the Linux installation files.

1.1.2 License Requirements

The CathesisVision LPR integration license requirements are as follows:

License No.	License Name	Description
CLPR-2000	Integration Device License	This license is the “base” license to integrate with the LRP system. It is applied to the server to which the LPR is connected. This licence will allow for the connection of a single integration device.
CLPR-1001	Per Detector License	These licenses apply to the detectors in a LPR system. The CLPR-1001 will license a single detector, and may be added on a detector-by-detector basis.

Note: In this integration, individual devices will require a CLPR-1001 license for each device as well as the applicable IP camera license for the CathesisVision product suite.

1.1.3 Third-Party Device Information

This integration was tested on:

Hardware name	Axis
Hardware model number	P1455-LE
Firmware as tested	10.4.0.1
Third-party software name	Axis License Plate Verifier
Third-party software version	2.7-1
Third party software license/s required	Yes

1.2 Integration Components

All CathexisVision integrations have two component levels: **Device** and **Object**.

Device	The device is CathexisVision software's interface, which handles all the interaction between CathexisVision and the integrated hardware. When an integration is added to the CathexisVision system, a device is added. The messages received from the device are called Device Events.
Objects	Objects are the individual pieces of hardware that comprise the integration. There may be multiple "object types" under the objects group. For example, the main controller and door nodes, of an access control system, are both objects. There are different types of objects.

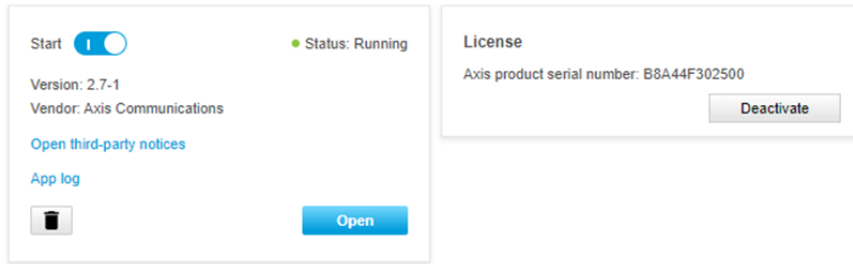
USEFUL LINKS

To view **tutorial videos** on CathexisVision setup, visit <https://cathexisvideo.com/resources/videos>

Find answers to Cathexis **Frequently Asked Questions**: <https://cathexis.crisp.help/en/?1557129162258>

2. Axis License Plate Verifier Setup

AXIS License Plate Verifier



→ Select the **Axis License Plate Verifier** set up.

→ Ensure that the Axis License Plate Verifier App has been installed and licensed as required.

Version: 2.7-1

→ Make sure the container is version 2.7-1 and above.

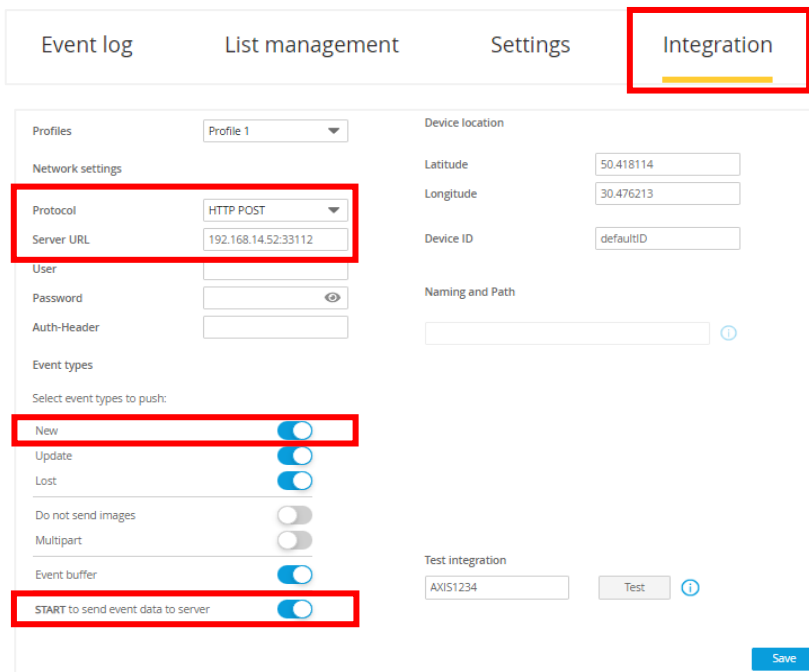


→ Click **Open**.

Enter the **Axis License Plate Verifier Application** and navigate to the **Integration** tab.

2.1 Integration Tab

The integration tab is where the **Axis License Plate Verifier** Application container is configured to push events to the CathexisVision ANPR integration.



→ Click on **Integration**.

→ **Protocol** must be set to: HTTP POST.

→ **Server URL** needs to be:

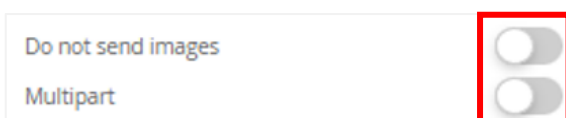
The **IP** of the **NVR** and set the **port** to **33112**.

Note: Manually create an inbound Windows firewall rule to allow LPR event data to be received by the NVR on TCP port 33112.

→ Select **New** to send at least new events.

→ **Check** "Send event data to server".

→ Click **Save**.



Note: For the CathexisVision overlays to work properly, ensure that the **Do not send images** and **Multipart** toggles are **off**.

3. Device Addition

Integrations are added on a server-by-server basis. They are managed in the Integration Devices panel, under the **Setup Tab** of the servers to which they are added.

3.1 Add a Camera

The first step is to add the Axis Camera by selecting **Servers / Cameras / Right-click / New**.

The screenshot shows a web application interface with a sidebar menu on the left and a main content area on the right. The sidebar menu is expanded to show 'Cameras' under the 'LWAZI-VM (MASTER)' server. The main content area displays a table titled 'LWAZI-VM - Cameras' with the following data:

Internal ID	Cam ID	Camera	Address	Driver	Model	Firmware
298	139	Axis New LPR	192.168.3.245	Axis	AXIS P1455-LE-3	10.4.0.1

The **Axis camera's driver, and IP address** are listed below:

New camera

Camera connection
Specify the connection details for the camera

Driver:

IP address:

Video input:

Port:

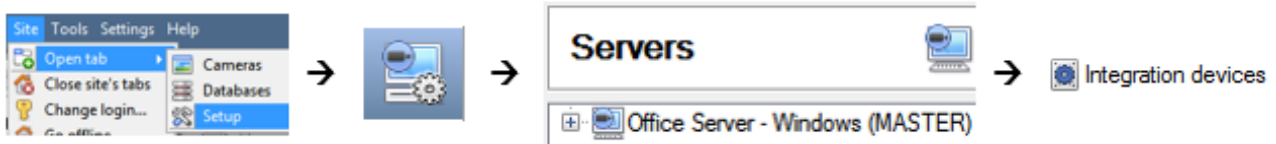
Login:

Password:

Encryption:

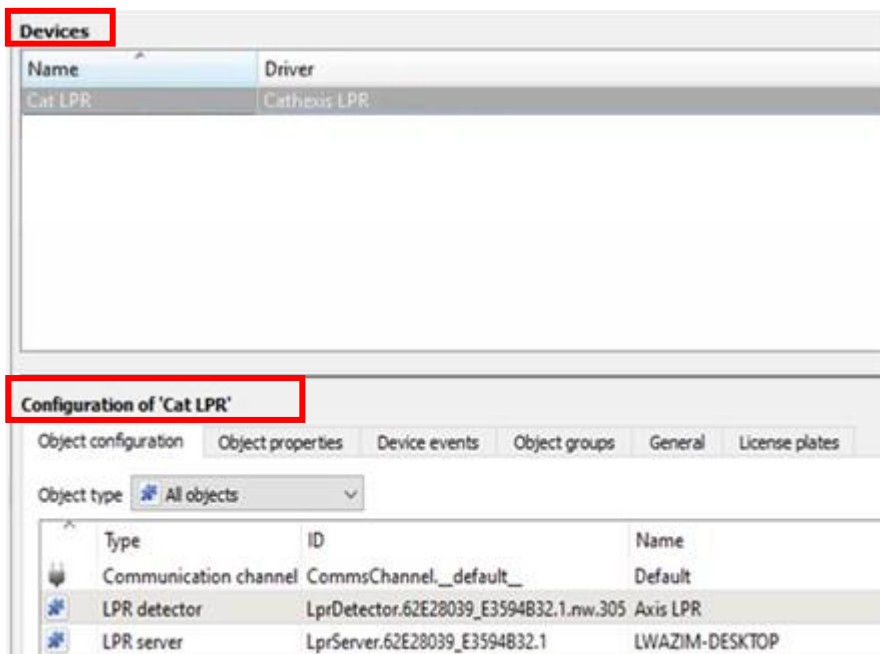
3.2 The Integration Devices Panel

To get to the Integration Panel, follow this path: **Site / Open tab / Setup / Configuration icon / Server / Integration devices.**



There are two sections in the Integration Panel:

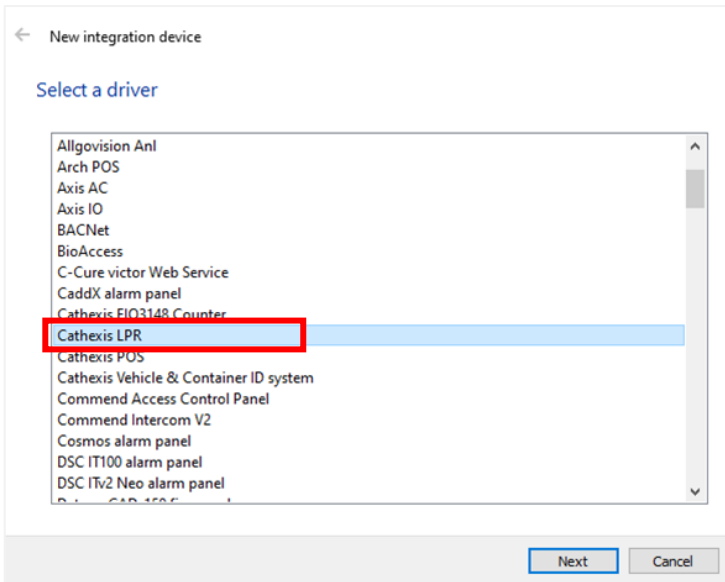
- The **Devices** list shows the integration devices attached to the integration database.
- The **Configuration** section enables editing/reviewing the device selected in the **Devices** section.



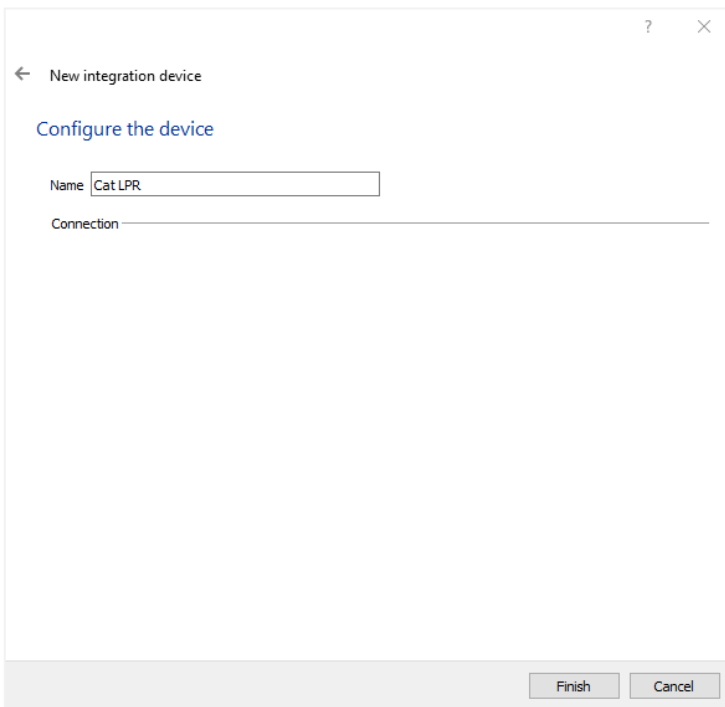
3.3 Add a New Device

New device

- In the Integration Panel, navigate to the **Devices** section.
- Click on the **New device** button on the right-hand side. This will open the addition dialogue.



→ Select the **Cathexis LPR** Driver from the list, and click Next.



→ Give the device a descriptive **name**.

→ Click **Finish**.

You will return to the **Configure the device** window.

3.4 Select Device

The newly added device will show in the Devices section.

WIN7-S1-PC - Integration devices	
Devices	
Name	Driver
lpr	Cathexis LPR

Click on the **device** name to select it.

4. Configuration

The configuration section is divided into five main tabs. These tabs are: **Object configuration**, **Object properties**, **Device events**, **Groups**, and **General**.

4.1 Object Configuration Tab

The object configuration tab is the tab where all the individual objects that comprise the integration may be viewed.

The Axis License Plate Verifier integration has four object types: **LPR detector**, **LPR server**, **Rule**, and **Communication channel**.

4.1.1 Object Configuration Tab

Configuration of 'Cat LPR'

Object configuration | Object properties | Device events | Object groups | General | License plates

Object type: All objects

Type	ID	Name	Cameras	Object groups	License
Communication channel	CommsChannel._default_	Default			
LPR detector	LprDetector.62E28039_E3594B32.1.nw.305	Axis LPR	Axis LPR		
LPR server	LprServer.62E28039_E3594B32.1	LWAZIM-DESKTOP			
LPR server	LprServer.62E28039_E3594B32.1.nw	LWAZIM-DESKTOP (network cameras)			

4.1.2 Object Configuration Buttons

	Click on New to add a new object.
	Click on Edit to open up an existing object for editing.
	Click on Delete to delete an existing object from the CathesisVision configuration.

4.1.3 Object Configuration Right-click Options

New...
Disable
Prioritise license
Delete
Properties

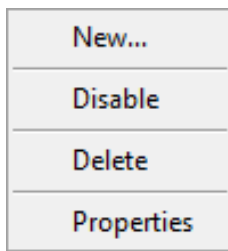
New will open the dialogue to add a new object.

Disable/Enable allows objects to be enabled/disabled manually.

Prioritise license allows the user to give specific objects priority when licenses are applied. This is useful if there are fewer licenses than objects.

Delete will permanently remove this object from the list.

Properties will open up the object editing window.



New will open up the dialogue box to add a new object.

Disable/Enable allows manually enabling/disabling individual objects.

Delete will permanently remove this object from the list.

Properties will open up the object properties. Here, the user can edit the object by assigning cameras and user access levels to it.

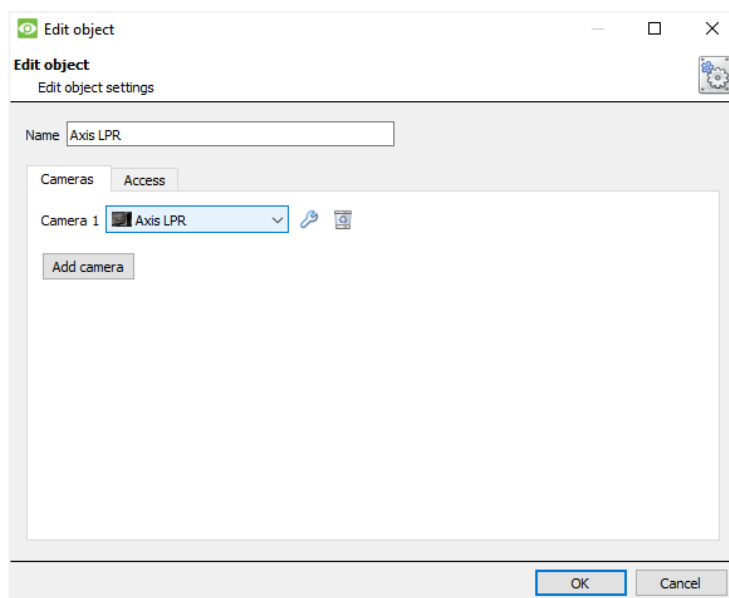
4.1.4 Edit Object

Open the object **editing window** by selecting object from the list, **double clicking** the object, **right-click Properties**, or clicking the **Edit button** at the bottom of the window.

This window is where cameras are added to objects, overlays are configured, and access rights to the integration are added. These are dealt with in two tabs: **Cameras** and **Access**.

4.1.4.1 Properties: Cameras

Adding a camera to an object will mean that whenever there is an event on that object, the recording from that camera will be related to the time and date of the object event, in the Integration database.



Add camera

To **add** a camera, click Add camera, and select the relevant camera from the drop-down menu.



To **delete** a camera, click the trash icon.



The spanner icon allows users to edit/configure overlays. This is addressed below in [3.1.4](#).

Note: If **continuous recording is not** set up on associated cameras, there is the risk of an object event triggering while the cameras are not recording. To record cameras only when an object triggers, set up **Events** that trigger a recording, when one of these objects is activated.

3.1.3.2 Properties: Access

Access can be used to protect sensitive objects, by allowing only certain user levels access to them.



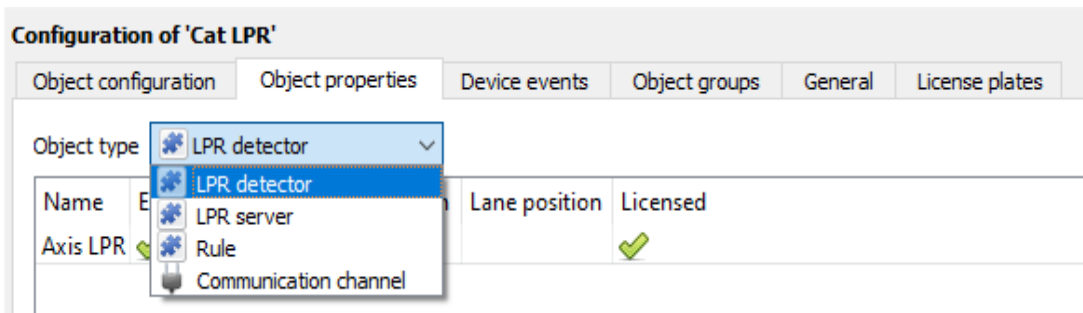
There will be a list of objects, for which access level may be set.

Note: If **Use default access rights** is checked, ensure that those default rights have been correctly defined. Click on **Configure default access** to do this.

4.2 Object Properties Tab

The Object properties tab allows objects to be viewed, sorted by type.

In the case of the Axis License Plate Verifier/Cathexis LPR integration, there is the option of viewing by **LPR detector**, **LPR server**, **Rule** and **Communication channel**.



4.3 Device Events Tab

The Device events tab lists real-time events happening on this device. Installers can ensure that the integration is functioning and monitor the Events happening on site.

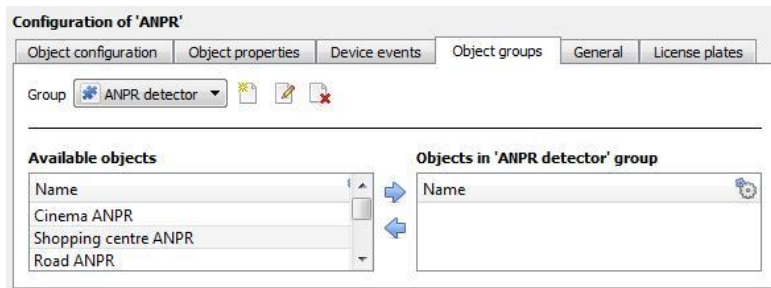
Return to CathexisVision and navigate to the Integration Panel. Open the Device events tab.

Time	License	License pattern	Confidence	Group
2015-11-24 10:03:13.277	ND72705		85	
2015-11-24 10:03:11.477	727054		97	
2015-11-24 10:03:07.077	ND72705		84	
2015-11-24 10:03:04.677	ND727054		89	
2015-11-24 10:03:03.077	ND72705		90	

Use the drop-down menu to sort the events. This integration only has a **License plate detection** event type.


4.4 Object Groups Tab

Groups of *the same type of object* can be created.

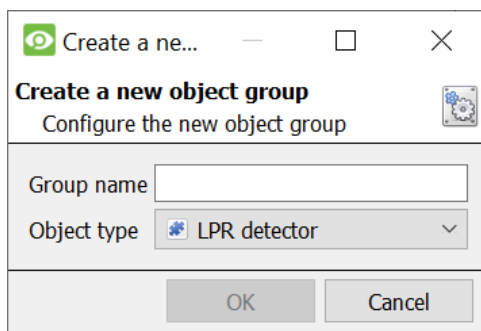


Tip: This is useful when setting up events, because events can be triggered by an object group. (E.g., a group will trigger an event if any of the doors in that group are triggered.)

4.4.1 Create a Group

 → To **create** a group, click on this icon.

A new dialogue box will open.




→ Give the group a descriptive **Group name**.

→ Click on the drop-down menu to select the **Object type**.

Note: Only objects of this type can be added to the group.

→ Click **OK**.

Note: Once a group has been created, the group's object type may not be edited.

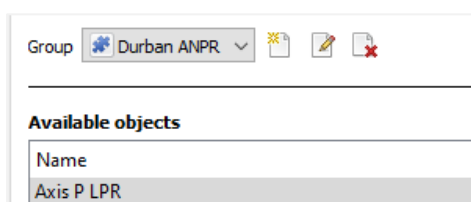
 To **edit** a group, click on this icon.

 To **delete** a group, click on this icon.

The next step is to add individual objects to the group.

4.4.2 Add or Remove Objects

After creating a group, a list of all the available objects for that group will be displayed in the Available objects panel, on the left-hand side. Objects can then be chosen from this list, and added to the group.



➡ To add these objects to the group, select them and click this arrow.

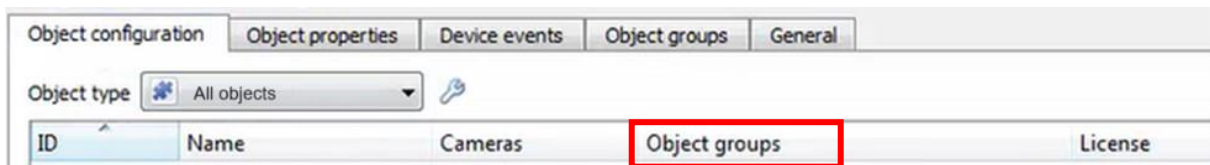
⬅ To remove these objects from the group, select them and click this arrow.

Note: Multiple objects may be selected at a time.

Objects in 'Durban ANPR' group	
Name	
Axis P LPR	

Once individual objects have been added to the group using the arrows (above), they will appear in the section on the right-hand side.

The object group information will also reflect in the Objection configuration tab:



4.5 General Tab

The General tab of the Configuration section (Integration panel) deals with the integration database. Setup must be completed here, before the Databases tab can be used to search events and view associated footage.

From the General tab, the user must:

- Select an existing database, or
- Configure a *new* database.

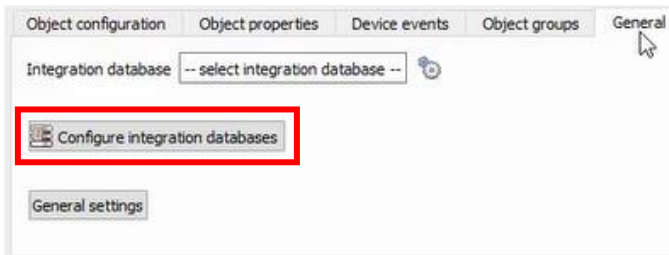
Note: Each integrated device needs to be attached to an integration database. Without setting up/adding a database here, the integration will not function properly within the CathesisVision system.

4.5.1 Configure a New Database

- The first time an integration database is added, the general integration database will need to be *initialised*.
- Once the general integration database has been initialised, then a database for a *specific integration* can be created.

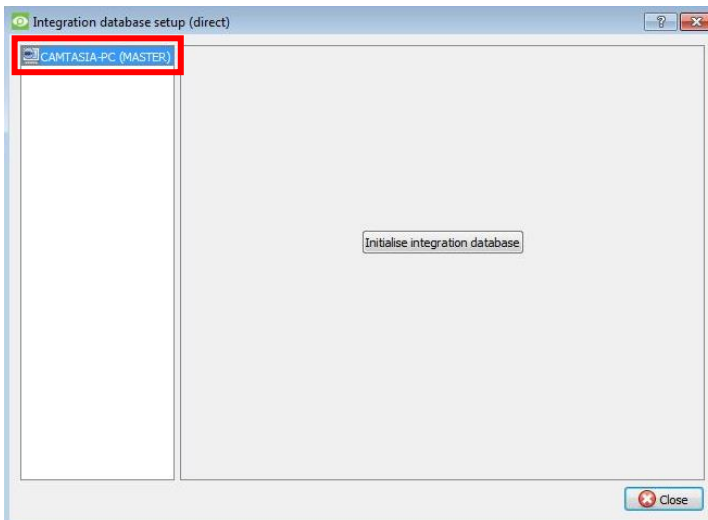
4.5.1.1 Initialise the Integration Database

If an integration database has not yet been created, follow the steps below.



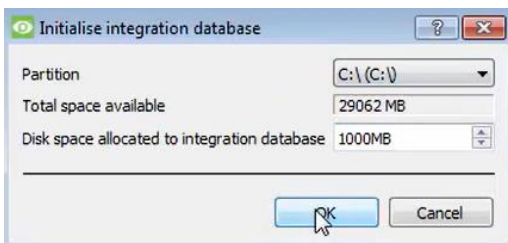
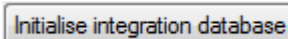
→ Click the **Configure integration databases** button from the General tab.

This opens the Integration database setup window.



→ **Select the unit** to which the database will be added, from the list on the left.

→ Then, click **Initialise integration database**.



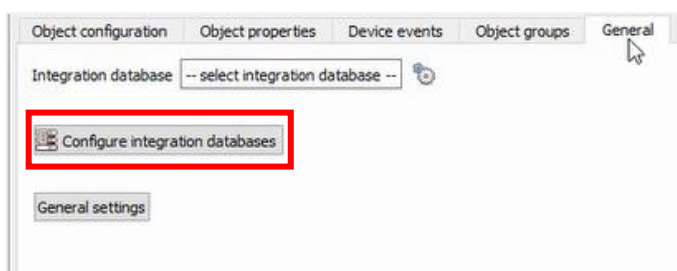
→ Choose the **partition** on which the database will be created.

→ Select **disk space** allocation.

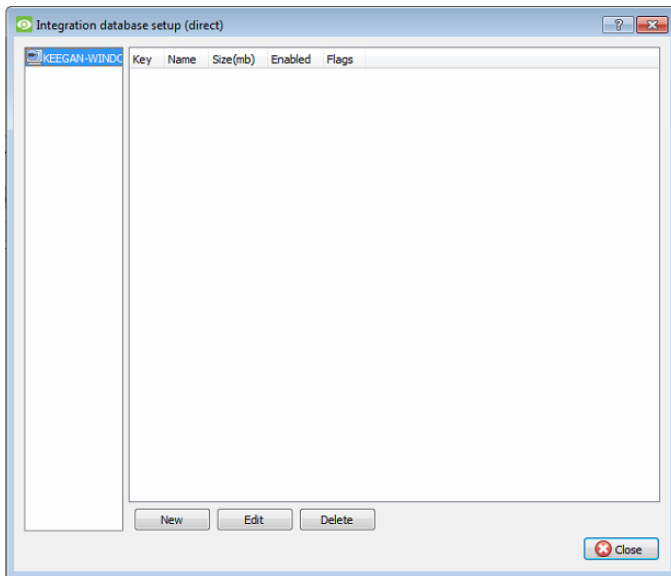
→ Click **OK**.

4.5.1.2 Add a New Devices Database

If the general integration database has already been initialised, or after initialising [\(3.5.2.1\)](#), the database can be added to the integration.



→ To add a new database, click the **Configure integration databases** button from the General tab.

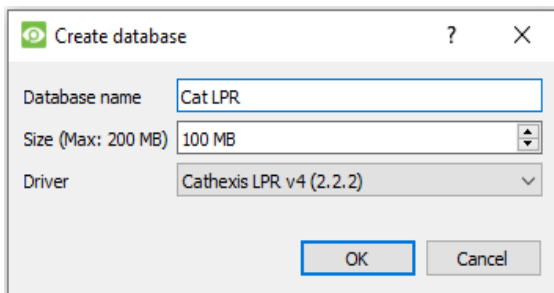


This opens the integration database setup window.



→ Click the **New** button.

A dialogue will appear for creating the integration database.

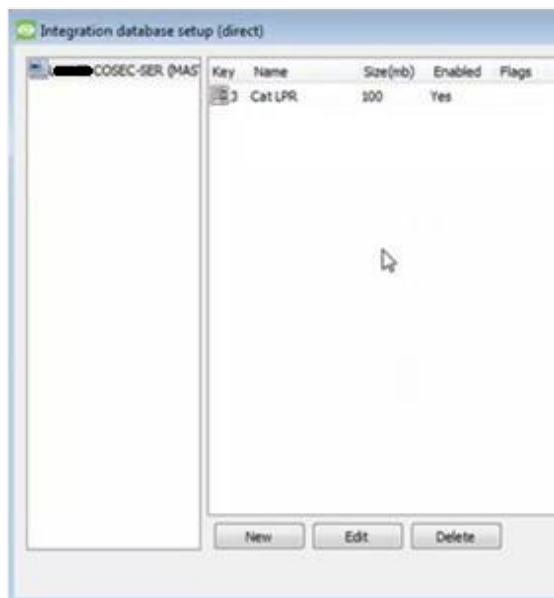


→ Give the database a descriptive **Database Name**.

→ Allocate a **Size** to the new device database.

→ Select the device **Driver (Cathesis LPR)**, from the drop-down list.

Click **OK** to create the database.



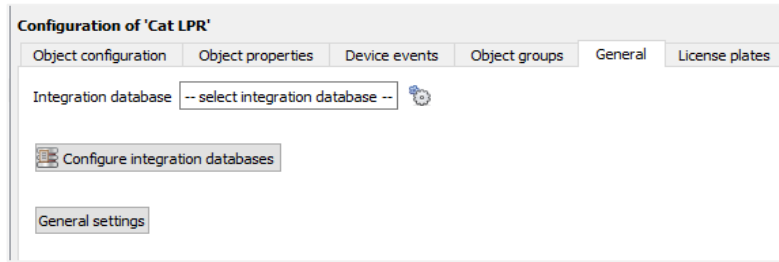
The newly created database will appear in the Integration database setup panel.




→ Click **Close** to return to the General tab.

4.5.2 Select the Cat LPR Integration Database

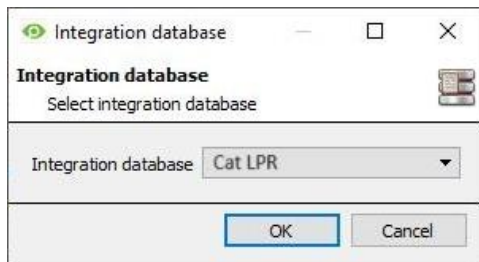
Once the database has been created, it must be actively selected.



→ Return to the General tab.

 → Then, click the **settings icon**.

A dialogue will appear. Only databases which relate to the device being added should appear.

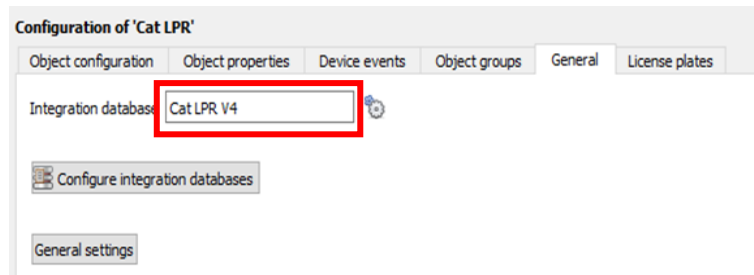


→ Select the **Cat LRP** from the drop-down menu.

→ Click **OK**.

Note: Only databases which relate to the device being added should appear.

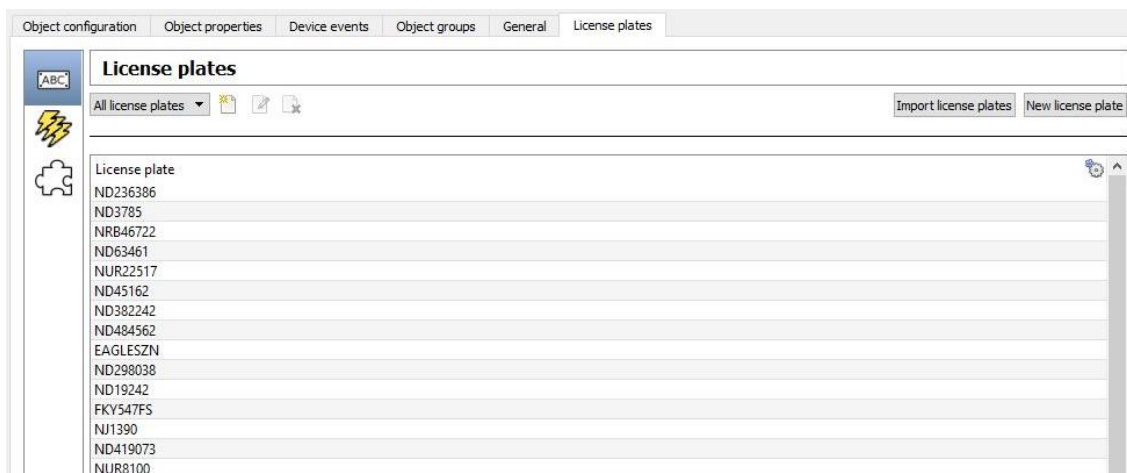
Once selected, the database will reflect in the General Tab as shown below.



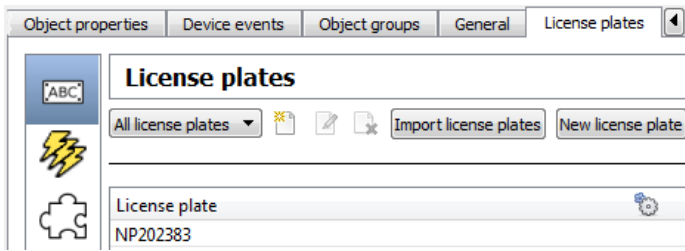
Note: The information on setting up an integration database may be found in the **Integration Devices General Settings** section of the *CathesisVision Setup Manual*.

4.6 License Plates Tab

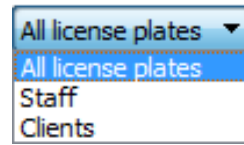
In the License Plates tab, license plates and license plate groups can be created, and traffic rules and plugins can be configured.



4.6.1 License Plates Section



Click the drop-down menu to change how license plates are displayed:



Display all license plates, or certain groups of license plates (if created).

4.6.2 Traffic Rules Section

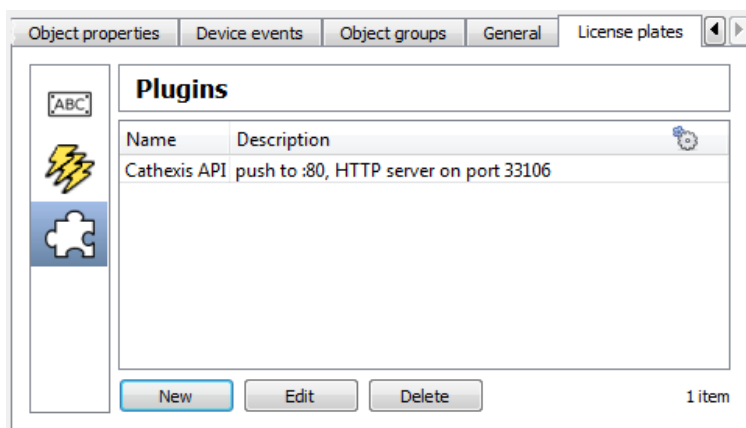


Traffic rules can be configured to generate messages when defined traffic patterns are detected. For example, a rule can be configured to generate a message if a license plate is seen multiple times at a given location in a certain period.

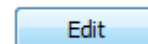
Currently there are four rules:

Visit location	Triggers if a license plate is seen at the same location multiple times.
Visit area	Triggers if a license plate is seen at multiple locations in a given time period.
Average speed	Generates an event based on the average speed of a vehicle between two points.
Loitering traffic	Triggers if a license plate has been in an area for too long.

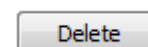
4.6.3 Plugins Section



Click **New** to configure new plugin.



Click **Edit** to edit plugin.

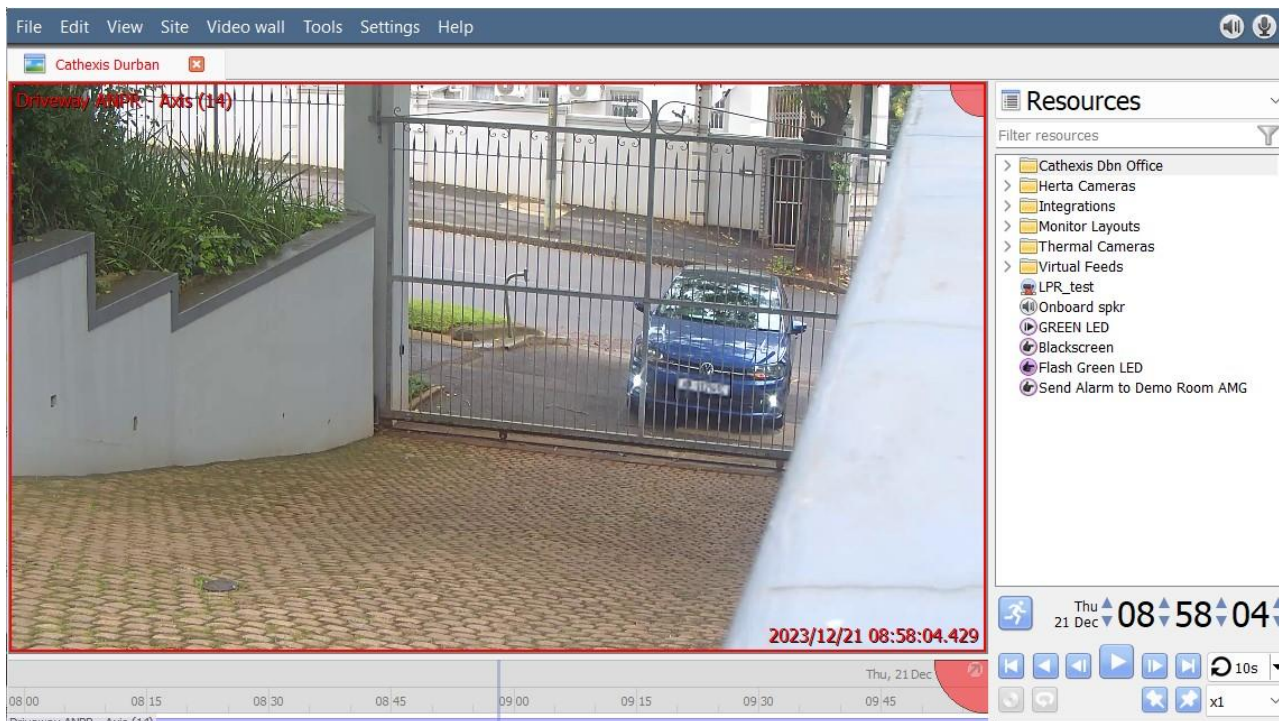


Click **Delete** to delete plugin.

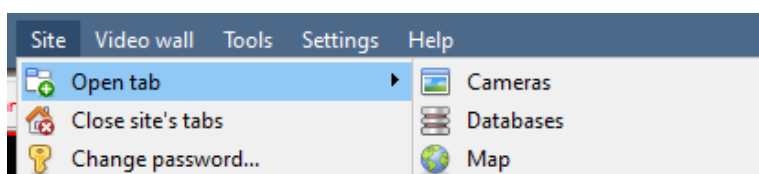
Note: The information on configuring the License Plates, Traffic Rules and Plugins sections may be found in the **Integration Devices Configuration (All)** section of the *CathexisVision ANPR Integration Guide*.

5. Camera Tab Overlay Setup

Once all the relevant settings have been configured, the camera *overlay* can be pulled through over the appropriate camera feed.



5.1 Navigate to the Cameras Tab



To see the camera feeds, go to the Cameras tab by following this path.

Site / Open tab / Cameras

5.2 Enable Overlays

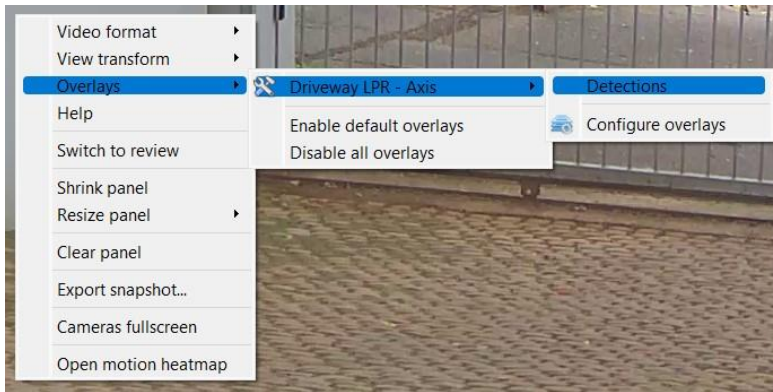
On the right-hand side of the screen, locate the Resources list.



Double-click the AXIS camera to select it.

The camera feed will display on the main panel.

5.2.1 Right-Click to Enable Overlays



Right-click the camera panel to see the context menu.

Hover over **Overlays**, and the **Axis** camera, and click **Detections** to enable.

5.2.2 Video Feed Options Panel

Another option is to use the Video feed options panel.



To bring up the overlay, **click the arrow** to the left of the screen, to pop out the Video feed options panel.

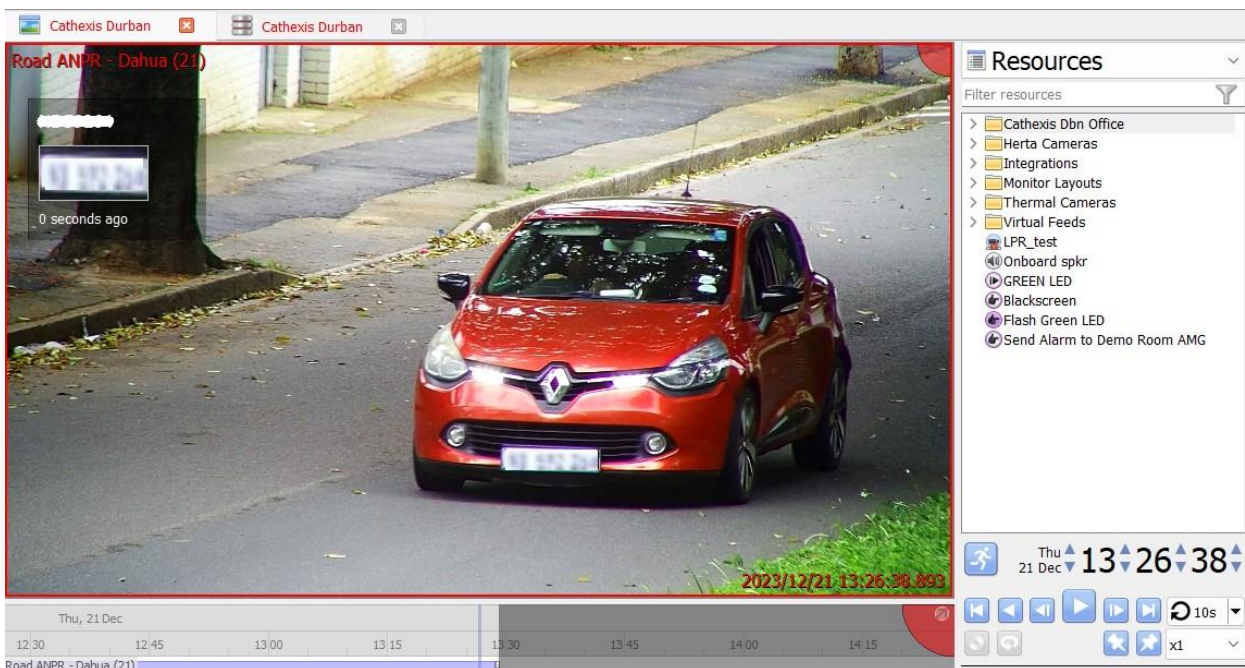
The Video feed options panel will present a number of options specific to the settings configured for that video feed.



Clicking this icon will bring up the overlay options for this video feed.

Then, **select the device** from the options and **enable** the overlay.

The overlay will appear over the video feed, as below.



6. Events

A CathesisVision event has a trigger, which causes an action. Set integrated devices to act as triggers, or as actions. This document will detail the **Axis License Plate Verifier** specific aspects of Events. There is a comprehensive guide to CathesisVision Events in the ***CathesisVision Setup Manual***.

Most of the data that CathesisVision receives from a device is presented in the Events interface. This gives the user a full range of options. As a result, some of the options presented in the interface may be *impractical* as an event trigger, or action.

6.1 Event Window

Events in CathesisVision are set up via the Event Window. This has four tabs:

- In the **General Tab**, an event is given a name, description, schedule, and priority.
- In the **Triggers Tab**, the trigger/s for the event is/are defined.
- In the **Actions Tab** the action/s which the event takes is/are defined.
- In the **Resources Tab**, the various site resources, which can be used as part of an event, are defined.

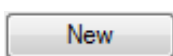
6.2 Creating an Event

To create an event using the Detnov CAD-150 device, navigate to Events by following the filepath:

Site Menu / Open Tab / Setup / Servers / Master Server / Events. This is shown below.



This will allow the user to enter the Events management area:



Once in Events management area, click the **New** icon at the bottom of the screen. Alternatively, right-click and select **New**.

This will open the **New Event window**.

The new event window has four tabs which can be used to set up the event: General, Triggers, Actions, and Resources.

6.3 General Tab

Create a new event under the General tab by filling in the fields.

→ Give the event a descriptive **Name**.

Set up a **Schedule** if desired by clicking the icon.

→ Select a **Priority**.

→ A description may be entered. Or, modify the **Description** if relevant according to the instructions below.

Note for group triggers: For an event to be databased under the name of a specific object, and not the name of the triggering group, modify the Description field in the **General tab** of the Event setup.

Click on the question mark icon to see a list of available descriptions.

6.4 Triggers Tab

A trigger is a user-defined input, for example, the user may choose to define the trigger as a door opening on an access control system.

Once the user defines the *trigger*, it can be used to cause a subsequent *action*.

The user will need to click on the hyperlinks (depicted alongside) to set up the trigger.

The subsections below provide instructions.

6.4.1 Set the Device as the Trigger

For a new event, the trigger type will default to “standard triggers”. The user will need to change this to the Detnov CAD-150system.

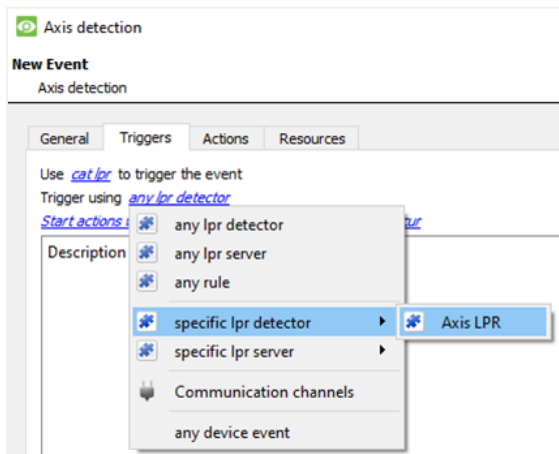
→ To change the event trigger, **click on “standard triggers”** (the hyperlink after the word “Use”).

This will open a drop-down menu with more options.

→ To set **Axis LPR** as the trigger, **select the device name** from the drop-down menu.

6.4.2 Trigger Types (Trigger Using)

It is useful to think of this as a **master trigger type**.



→ Click on the **hyperlink** after the words “Trigger using”.

This will open a drop-down menu.

→ Click an **option** from the menu to select.

See the table below for descriptions of the options on the drop-down menu.

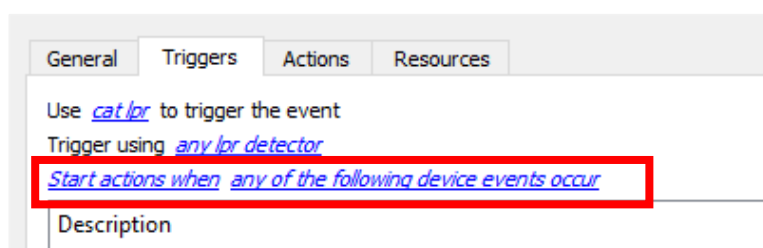
MENU OPTION	DESCRIPTION OF TRIGGER TYPE
Any [lpr detector]	This will trigger if anything happens on any detector.
Any [lpr server]	This will trigger if anything happens on any server.
Any [rule]	This will trigger if anything happens on rules in the system.
Specific [lpr detector]	This will trigger on the specific detector chosen, e.g., Axis LPR.
Specific [lpr server]	This will trigger on the specific server chosen.
Communication Channel	This will trigger if anything happens on the Communication channel.
Any device event	This will trigger, initially, when any event occurs on the integration.

Note for group triggers: For an event to be databased under the name of a specific object, and not the name of the triggering group, modify the Description field in **the General tab** of the Event setup.

Click on the question mark icon to see a list of available descriptions and instructions for how to enter these descriptions.

6.4.3 While/When and Any/All

The third row of hyperlinks further specifies when the event triggers. The user will choose to trigger either based on a *device event* occurring, or based on an *object property*.



To change these settings, click on the blue hyperlinks in the *third* row as shown in the image on the left.

The user can choose the option to:

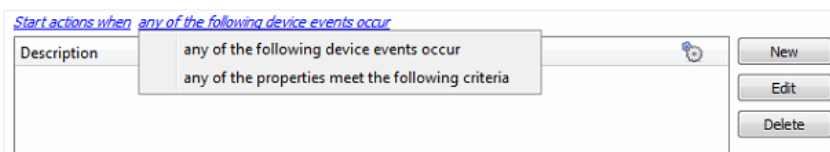
- **start actions when** any of the properties meet user-configured *criteria*, or any user-configured *device events* occur, or
- **perform actions while** any/all of the properties meet user-configured *criteria*.

<u>Start actions when</u>	any of the following device events occur any of the properties meet the following criteria
<u>Perform actions while</u>	any of the properties meet the following criteria all of the properties meet the following criteria

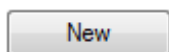
6.4.4 Define the Trigger (“Any Device Event” Option)

After using the hyperlinks to set up how the trigger will be defined, the user may proceed to creating a new *device event*.

One of these options is to select *any of the following device events occur*.



Pictured alongside is the **Triggers tab** where a user selects *any of the following device events occur*.

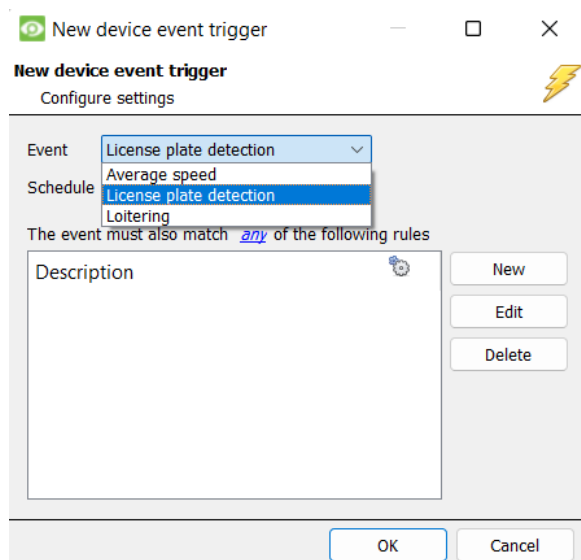


Click on **New** in the Triggers tab.

Clicking on New will bring up the **New device event trigger** dialogue box.

6.4.4.1 New Device Event Trigger

The user will then need to configure the new device event trigger.



→ Select the **type of Event** where applicable.

→ Choose a **schedule**.

→ Choose whether *any*, or *all* constraints need to be fulfilled to set off a trigger.

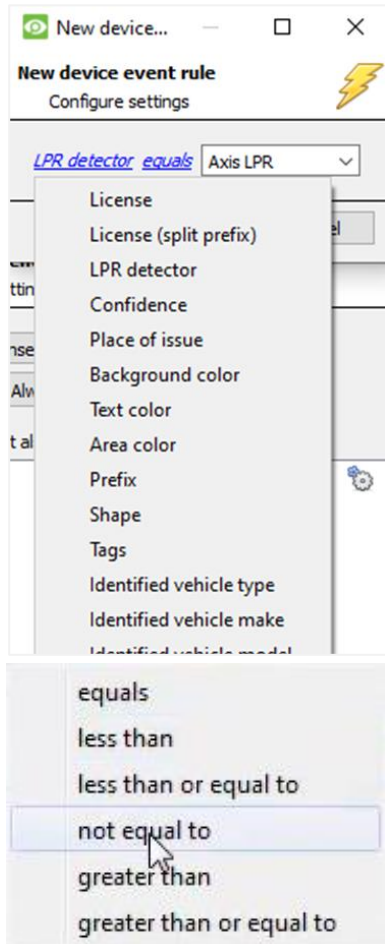
→ Use the **new/edit/delete** buttons on the right-hand side to add a device event rule (a constraint). Follow the instructions below.

6.4.4.2 New Device Event Rule

Note: From within the **New device event trigger** window (above), it is necessary to set further constraints. Multiple constraints can be set. If constraints are not defined, every device event will trigger this event.



To configure a New device event rule, **click on New** in the New device event trigger window. This will bring up a further window, called **New device event rule**.



→ To change the constraint, **click on the first hyperlink** ('Device' in this example).

This will bring up the full list of available constraints.

→ **Click an item** to select it.

→ To modify the way this constraint will be treated, **click on the second hyperlink** (which is "equals" in the example).

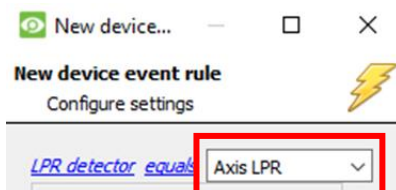
This will display a drop-down of further options.

→ Click an option to select.

Next, the constraint must be defined. Follow the instructions below to do this.

Defining a Constraint: Drop-Down Menu or Written Description

When all available options are known to CathesisVision, a drop-down menu will appear alongside the chosen constraint.



→ **Click an item** from the drop-down menu to select.

If the variables for a constraint are *not* pre-defined, fill them in manually.

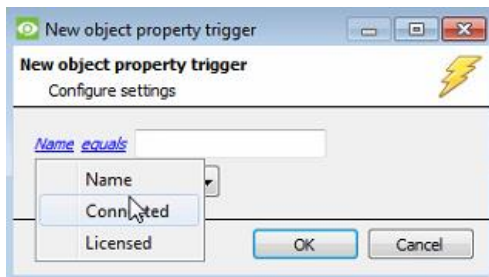
Note: Descriptions are case sensitive and must be identical to how they appear in the Object Properties tab. For example, the ID of a device or zone.

6.4.5 Define the Trigger (“Properties Meeting Criteria” Option)

If the user has defined the trigger by choosing according to *properties meeting criteria*, the **New object property trigger** dialogue box will open.

- In these instances, further constraints do not need be set, since they are being added one at a time.
- This option is better if a few triggers have been selected.
- This is also true for groups, since a group may only be made up of one object type.

6.4.5.1 New Object Property Trigger: Configure Settings

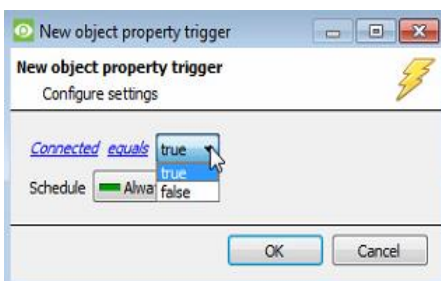


→ **Select the event type** by clicking the first hyperlink.

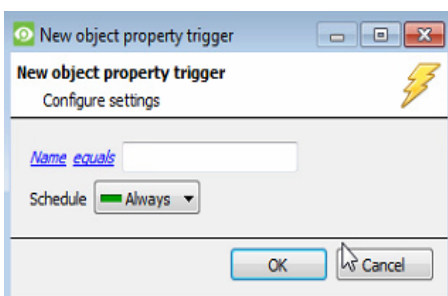
→ **Further define** the rule by clicking the second hyperlink.

Defining a Constraint: Drop-Down Menu or Written Description

When all available options are known to CathexisVision, a drop-down menu will appear alongside the chosen constraint.



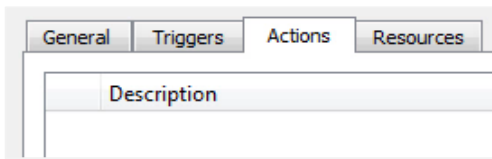
→ **Click an item** from the drop-down menu to select.



→ If the variables are not pre-defined, fill them in manually.

Note: Descriptions are case sensitive and must be identical to how they appear in the Object Properties tab.

6.5 Actions Tab

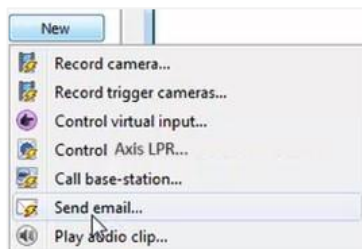


Having defined the triggers that will initiate an event, the user will need to define the Actions.

Select the **Actions tab** from the **New event** window.

6.5.1 Adding an Action

 → To add an action, click New in the Actions tab.



A list of **available actions** will appear. The drop-down contains all the available **action types**.

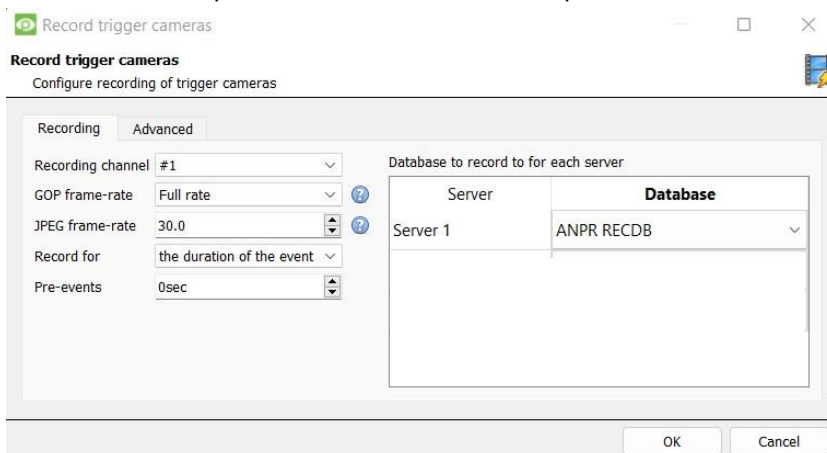
→ **Select an option**, for example, Record trigger Camera.

Note: Many CathesisVision integrations enable the user to control a device as a CathesisVision action. The Axis License Plate Verifier camera *cannot be controlled* as a system action, even though it shows on the drop-down menu.

6.5.1.1 Actions: Record Trigger Camera

If the user has selected a new action to record trigger camera, the following setup steps are required:

→ Click the drop-down menus to see more options and click to select the appropriate option.



→ Edit as necessary:

- **Recording channel**
- **frame rate**
- **recording duration**

→ Choose the **database** to which the video recordings will be saved.

→ Set **Pre-events** to determine the length of time recording will begin before the event.

→ Click **OK**.

The configured action will appear in the tab.

6.5.1.2 Actions: Call Base-Station

If the user has selected a new action to call base-station, the following setup steps are required. Use the tabs along the top of the window.

Call Base-Station Tab

→ Click the **edit icon** next to a base-station to configure.

→ In the window that opens, edit or enter the **name** of the base-station and select the **type**.

→ Ensure that the **correct IP address** has been entered. This is the IP to receive the alarms on the specific unit.

→ Click **OK**.

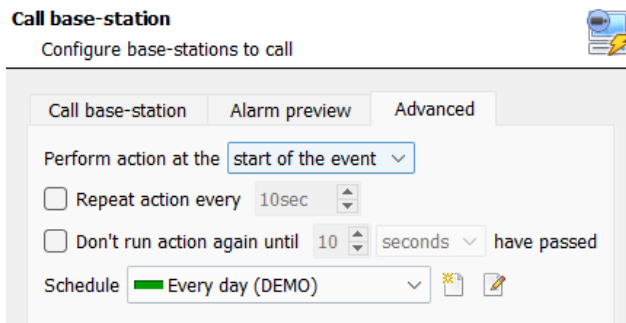
Alarm Preview Tab

→ **Click the checkbox** to Enable alarm preview.

→ Select an appropriate camera/s or click the **Use trigger cameras** checkbox.

→ Click **OK**.

Advanced

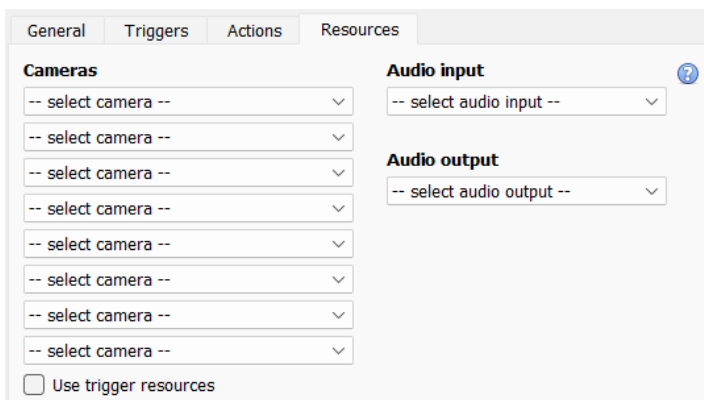


→ From the Advanced tab, **choose** to *perform the action* either at the start of the event, or once the event triggers have subsided.

The two checkboxes allow the user to set the action to repeat every few seconds, and/or not run for a period after it has triggered.

→ **Select the schedule.** This is a standard Cathesis schedule, which may be applied to the actions.

6.6 Resources Tab



In the Resources tab, users can select the cameras, audio input, and audio output to be used.

The default is to select “Use trigger resources.”

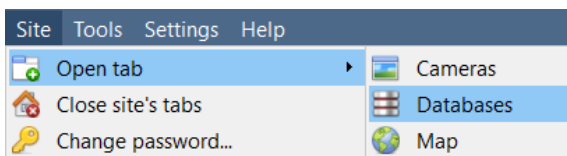
7. Database

The database tab allows one to navigate to the databased entries, for each individual database. In the database tab, each database is presented as a table. It has built in filters, and the ability to navigate by timestamp. If a database entry has an associated recording, this recording can be launched from within the Databases tab.

Most integrations will have a different database presentation, and unique filters, due to the different parameters sent to CathesisVision by the integrated device.

7.1 Navigate to the Database

View the information stored in the Integration database, first navigate to the Databases Tab:



→ Follow the path on the left: **Site / Open tab / Databases.**



→ Select the **Axis LPR** integration database from the database panel that opens on the left-hand side.

The databases are ordered under the NVRs to which they are attached.



To open and close this list, click on the arrow in the centre of the list.





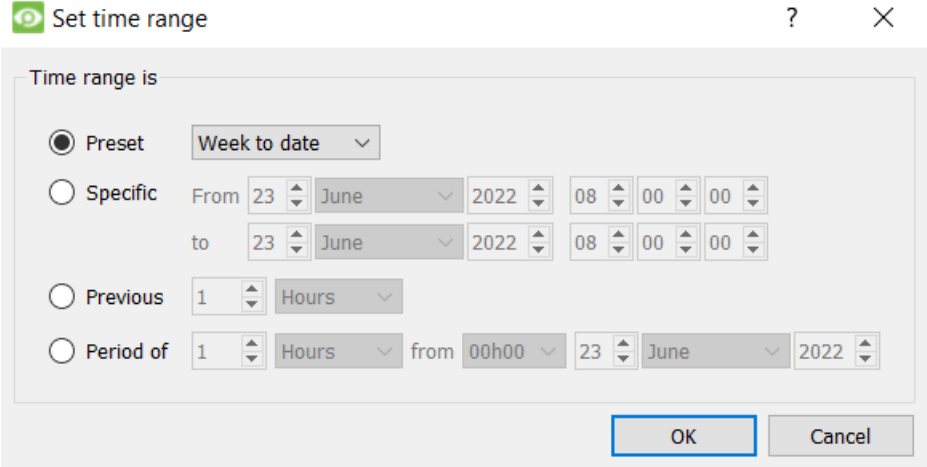

Below is an image of a LPR database.

Time	LPR Detector	License plate	Group	Confidence	Place of issue	Tags	Background color	Text color	Area color	Prefix	Shape	Links
2022-07-20 16:38:30	46128617	46128617			78 ITA							
2022-07-20 16:44:48	46128617	46128617			76 NOR							
2022-07-20 16:45:04	46128617	46128617			79 ITA							
2022-07-20 16:45:24	01728647	01728647			81 PRT							
2022-07-20 16:45:39	46128617	46128617			73 NOR							
2022-07-20 16:45:55	46128617	46128617			77 NOR							

7.2 Database Interface



<p>1</p> <p>View</p>	<p>Change the way that the database is presented. Some integration databases have multiple view options.</p> <p>Click the field to see the available options in the drop-down menu. The database view presentations available for the Cathesis LPR integrations are:</p> <div style="display: flex; align-items: flex-start;"> <div style="border: 1px solid gray; padding: 5px; margin-right: 10px;"> <p>View Licenses (groups) ▾</p> <p>Licenses (groups)</p> <p>Time Licenses (extended)</p> <p>Licenses (full)</p> <p>2023 Licenses (minimal)</p> <p>2023 Average speed</p> <p>2023 Average speed (all)</p> <p>2023 Loitering</p> <p>2023 Loitering (all)</p> </div> <ul style="list-style-type: none"> Licenses (groups) Licenses (extended) Licenses (full) Licenses (minimal) Average speed Average speed (all) Loitering Loitering (all) </div>
<p>2</p> <p>Sorted By</p>	<p>Sort the Events based on the following parameter: Time.</p> <div style="border: 1px solid gray; padding: 5px; width: fit-content;"> <p>sorted by Time ▾</p> </div>
<p>3</p> <p>Easy Search</p>	<p>Easy Search options allow quick searching of the database.</p> <p>Click the field to see the available options in the drop-down menu.</p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;"> <p>🔍 -- No EasySearch -- ▾</p> </div> <p>The following options are available:</p> <div style="display: flex; align-items: flex-start;"> <div style="border: 1px solid gray; padding: 5px; margin-right: 10px;"> <p>🔍 -- No EasySearch -- ▾</p> <p>-- No EasySearch --</p> <p>License Plate</p> <p>License Plate (partial match)</p> <p>Group</p> <p>LPR Detector</p> </div> <ul style="list-style-type: none"> License plate License Plate (partial match) Group LPR Detector </div>
<p>4</p> <p>Filter</p>	<p>Filter offers a more advanced manner of sorting information in the Integration Database table.</p> <p>For this integration the database can be filtered according to:</p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;"> <p>🔍 <i>Time is in the Week to date</i></p> </div> <div style="border: 1px solid gray; padding: 5px; margin-right: 10px;"> <p>Transaction</p> <p>Time</p> <p>License plate</p> <p>Confidence</p> </div> <ul style="list-style-type: none"> Time License plate confidence </div>

	<p>Once the filters dialogue is open, the following options are available:</p> <ol style="list-style-type: none"> To enable filters, check this box: <input checked="" type="checkbox"/> Enable filters To add a new filter, click on . The filter icon  will change to  when filters are active. To delete an added filter, click . <p>A Time range, within which the search will be conducted, may also be set. To set a Time range, click on the blue hyperlinked text which specifies time (e.g. in the week to date). This will bring up the following dialogue box, where the time range can be defined:</p>  <p>Note:</p> <ol style="list-style-type: none"> Multiple filters may be run simultaneously. Filters with the same parameters may be run more than once. To change a filter, click on the blue hyperlinked text. Filter fields that require typed input instead of a dropdown menu (such as zone in this integration) are case sensitive.
<p>5 Export</p>	<p>Generate metadatabase reports in PDF or CSV format. See below.</p>
<p>6 Manage Reports</p>	<p>Generate scheduled metadatabase reports. See below.</p>
<p>7 Go to Time</p>	<p>This navigates to a specific point in time, down to the second. To navigate to a timestamp, set the time using the time and date boxes.  Then, click on the arrow icon.</p>

7.2.1 Generate and Export Metadatabase Reports



→ Click the save icon to open the Export window.

→ Select the **Period** to export, and enter the required details.

→ Click **Next**.

→ Select the **Format** to export the report in; either CSV or PDF.

See below for the two options.

7.2.1.1 Export CSV

→ Select **CSV Format**.

→ Edit the **Filename** by either entering it straight into text field (replacing **report.csv**).



Or, click the folder to choose a new save folder and filename.

7.2.2.2 Export PDF

→ Select **PDF Format**.

→ Give the PDF a **Heading**.

→ Select either Landscape or Portrait **Orientation** of the PDF.

→ Edit the **Filename** by either entering it straight into text field (replacing **report.pdf**).

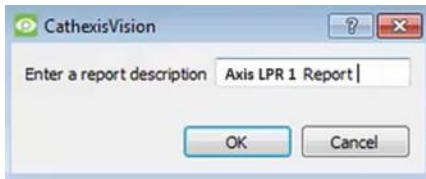


Or, click the folder to choose a new save folder and filename.

7.2.2 Scheduled Metadatabase Reports



→ Click the report icon to open the scheduled report window.

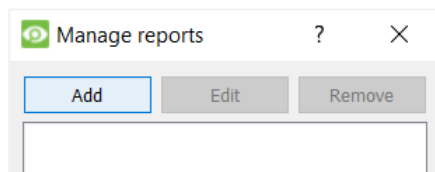


All created reports will be listed here.

→ Click **Add** to create a report.

→ Then **edit** to define the reporting schedule. See below for more detail.

7.2.2.1 New Scheduled Report

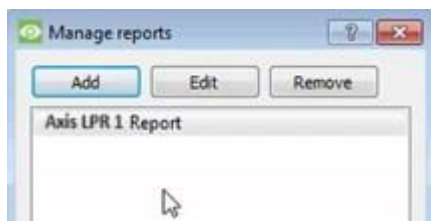


→ In the Manage reports window, click **Add**.



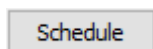
→ Give the report a description.

→ Click **OK** when done.



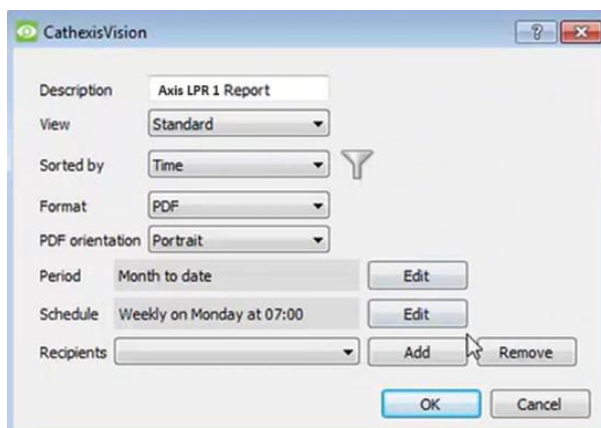
The item will appear in a list.

Once the new report is listed with the other reports, select it for editing to define the reporting schedule.



→ Either right-click the entry and select schedule or **select the entry** and **click the schedule button** at the bottom of the screen

→



→ Edit the **Description** if needed.

→ Edit the **View** options.

→ Select a **Sorted by** option.

→ Select the **Format**.

→ Select the **orientation** of the Format.

→ Select the **Period** to be reported on

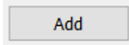
→ Define the **Schedule** for the report.

Select **Recipients** from the drop-down menu to whom reports will be sent.

Add/Remove Recipients

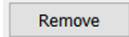
Use the icons to edit the drop-down menu.

Add recipient



Click **Add** and enter the email address of the recipient. Multiple recipients may be added. All will receive emails.

Remove recipient



Select the recipient from the dropdown menu and click **Remove**.

7.2.3 Metadata

Time	2023-12-21 09:27:12
LPR Detector	Driveway LPR - Axis P1355
License plate	██████████
Group	Blacklisted,Staff
Place of issue	
Tags	
Background color	white
Text color	black
Area color	black

The right side of the database displays metadata about the event entry.

7.2.4 Viewing an Entry's Associated Recording

The video player is embedded in the database view. The player uses the same timeline features as the cameras tab. If cameras are attached to device objects in the integration setup, and these cameras are set up to record continuously, each integration database entry will have a corresponding recording. See the image below.

Time	LPR Detector	License plate	Group	Driver name	Links
2023-12-21 13:33:30	Road LPR - Axis 1125				
2023-12-21 13:41:09	Road LPR - Axis 1125				
2023-12-21 13:41:10	Road LPR - Axis 1125				
2023-12-21 13:42:58	Road LPR - Axis 1125				
2023-12-21 13:45:31	Road LPR - Axis 1125				
2023-12-21 13:45:57	Road LPR - Axis 1125				
2023-12-21 13:46:39	ANPR- Dahua LPR				
2023-12-21 13:46:40	ANPR- Dahua LPR				
2023-12-21 13:46:56	Road LPR - Axis 1125				
2023-12-21 13:47:02	Road LPR - Axis 1125				
2023-12-21 13:47:49	ANPR- Dahua LPR				
2023-12-21 13:47:50	ANPR- Dahua LPR				
2023-12-21 13:47:59	Road LPR - Axis 1125				
2023-12-21 13:48:32	Road LPR - Axis 1125				
2023-12-21 13:48:47	Road LPR - Axis 1125				
2023-12-21 13:50:40	Road LPR - Axis 1125				
2023-12-21 13:54:33	Road LPR - Axis 1125				
2023-12-21 13:58:17	ANPR- Dahua LPR				
2023-12-21 13:58:18	ANPR- Dahua LPR				
2023-12-21 14:06:14	Road LPR - Axis 1125				
2023-12-21 14:06:43	Road LPR - Axis 1125				
2023-12-21 14:09:17	ANPR- Dahua LPR				
2023-12-21 14:10:04	Road LPR - Axis 1125				
2023-12-21 14:11:27	Road LPR - Axis 1125				
2023-12-21 14:12:21	Road LPR - Axis 1125				
2023-12-21 14:17:59	Road LPR - Axis 1125				
2023-12-21 14:21:50	ANPR- Dahua LPR				
2023-12-21 14:25:12	ANPR- Dahua LPR				
2023-12-21 14:25:23	Road LPR - Axis 1125				

Time	2023-12-21 09:27:12
LPR Detector	Driveway LPR - Axis P1355
License plate	██████████
Group	Blacklisted,Staff
Place of issue	
Tags	
Background color	white
Text color	black
Area color	black
Prefix	
Shape	
Driver name	
Company	
Vehicle type	
Vehicle make	
Vehicle model	
Vehicle colour	
Custom 1	
Custom 2	

8. Conclusion

This app-note was designed to deal specifically with this integration.

For further information about the CathesisVision software, consult the *CathesisVision Setup Manual* (<http://cathesisvideo.com/>). For support, email support@cathesisvideo.com.

A NOTE ON CAMERA CHANNELS

The CathesisVision software packages have **limits on camera channels**. A multi-sensor camera is physically a single device (camera) but it **requires a camera channel for each one of the internal cameras**. The same applies to an encoder: a 16-channel encoder will account for 16 camera channels on the CathesisVision software, even though it is a single device.

USEFUL LINKS

To view **tutorial videos** on CathesisVision setup, visit <https://cathesisvideo.com/resources/videos>

Find answers to Cathesis **Frequently Asked Questions**: <https://cathesis.crisp.help/en/?1557129162258>