FF Group LPR Integration

App-note

Contents

1. Introduction

This document details the integration of FF Group software with CathexisVision LPR interface. The FF Group is the camera-based video analytics module which provides LPR identification information. The information captured by the FF Group app is then sent to the CathexisVision system through the CathexisVision LPR interface.

Note:

1. For information regarding the regular operation of FF Group services, please consult the relevant documentation.
2. The FF Group system posts LPR identification data to the configured port on the CathexisVision NVR.
3. Cameras are configured in CathexisVision as standard and are recognised as an LPR camera.

1.1 CathexisVision Requirements

1.1.1 Software

- CathexisVision 2021.1 and later. (**Note**: The FF Group make/model/colour feature is supported in CathexisVision 2023.1 and later, with supported integrated cameras, but it is advisable to use CathexisVision 2023.2 and later for the latest FF Group firmware changes.)
- Windows 10: 64-bit and later; Windows Server 2016 and later.
- Minimum of 4GB of RAM required.

Note: If the user plans on installing this integration on a Linux unit, contact support@cathexisvideo.com.

1.1.2 License Requirements

License Name	License Description
CLPR-2000	LPR Device
CLPR-1001	LPR Lane

Note: In this integration, individual devices will require a license for each device. A standard IP camera package license per camera will also be required, in addition to the above integration licenses.

A NOTE ON CAMERA CHANNELS

The CathexisVision 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 CathexisVision software, even though it is a single device. Even when a camera or device only uses a single IP license, the camera channel limit will still apply.

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*

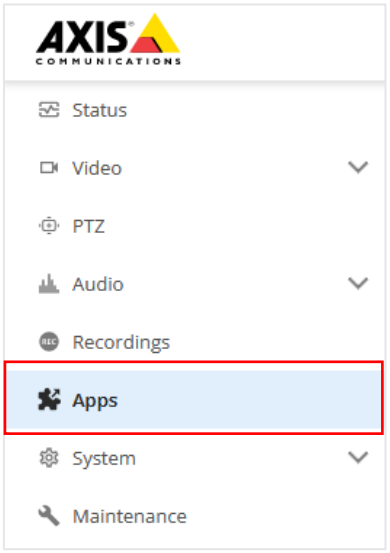
2. FF Group Setup

Each camera's web interface will vary.

The steps for setting up Axis, Mobotix or Hanwha Wisenet cameras are listed below.

2.1 Axis Cameras

Note: The app recognises plates from Caucasus, CIS, Europe, Israel, Palestine, Turkey, Taiwan, Vietnam, Indonesida, Hong Kong, Australia, South Africa, New Zealand, USA, and Canada.

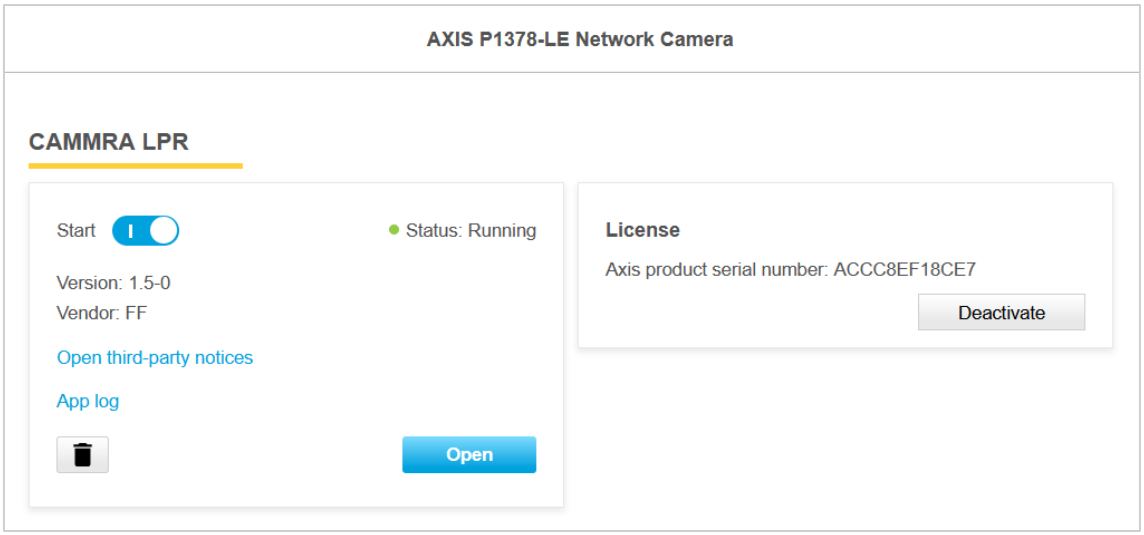
1. 

Select the Apps tab from the camera's web interface.

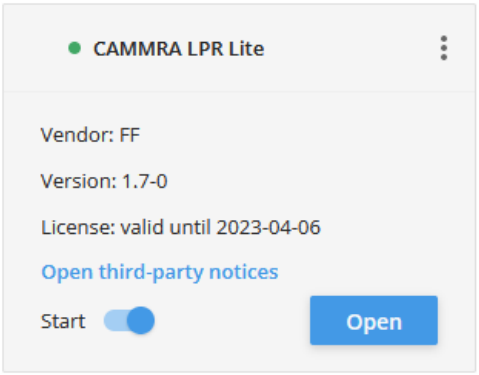
Ensure that the FFGroup App has been installed and licensed as required.

Select the **FFGroup** Setup.

2. Enter the **FFGroup** Application:

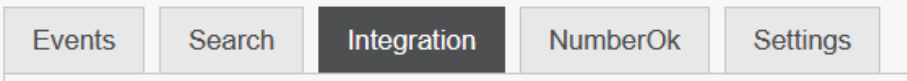


3. Make sure that the version is 1.6-3 or higher.

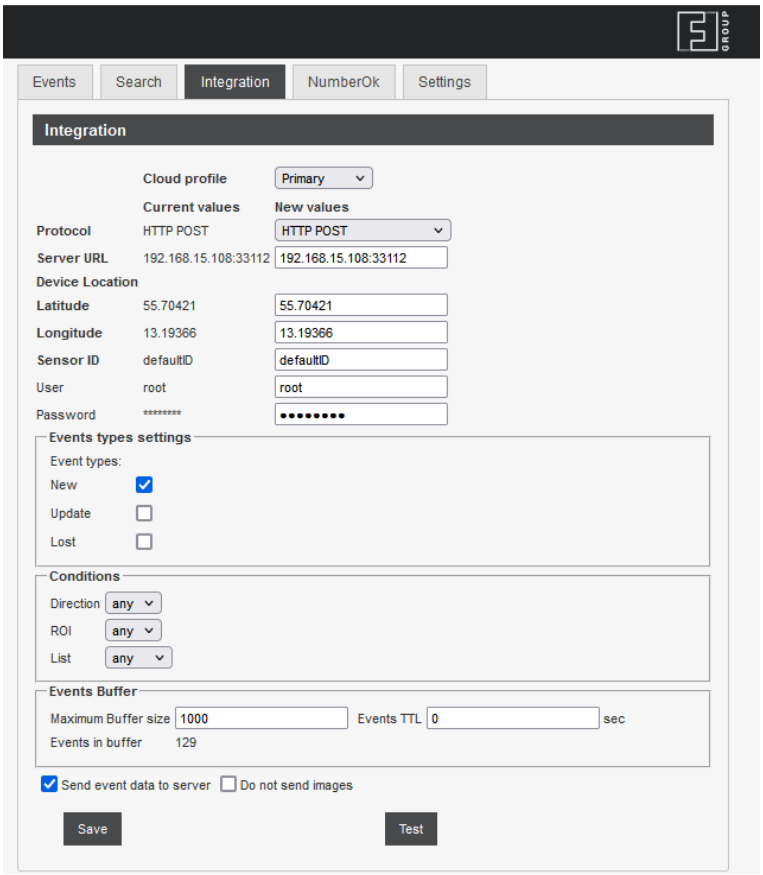


Click **Open**.

4. Navigate to Integration:



5.



Protocol must be set to: HTTP POST.

Server URL needs to be the IP of the NVR and set the port 33112.

Select to send at least new events.

Conditions:

Direction

- To get the correct direction of car movement, point the arrow in the driving direction. The detected direction shows up in the Direction column in Events log.

ROI

- Keep the region of interest (ROI) as small as possible. Never place the ROI to the top image edge.

List

- Add license plates to configured black and white lists as desired.

Check "Send event data to server".

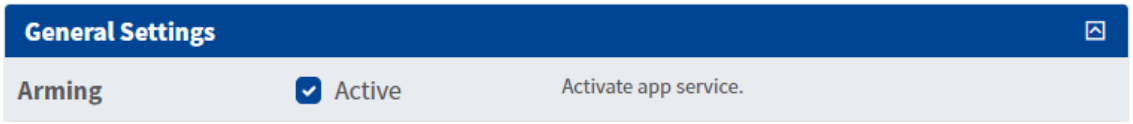
2.2 Mobotix Cameras

Note: The user will need to set up and confirm that LPR is working within the M73 **before** connecting it to CathexisVision. If the user connects the camera to CathexisVision and then sets up the LPR, they will need to disable and re-enable it in CathexisVision to make the LPR function available.

1. Select the **Setup Menu** on the main screen.

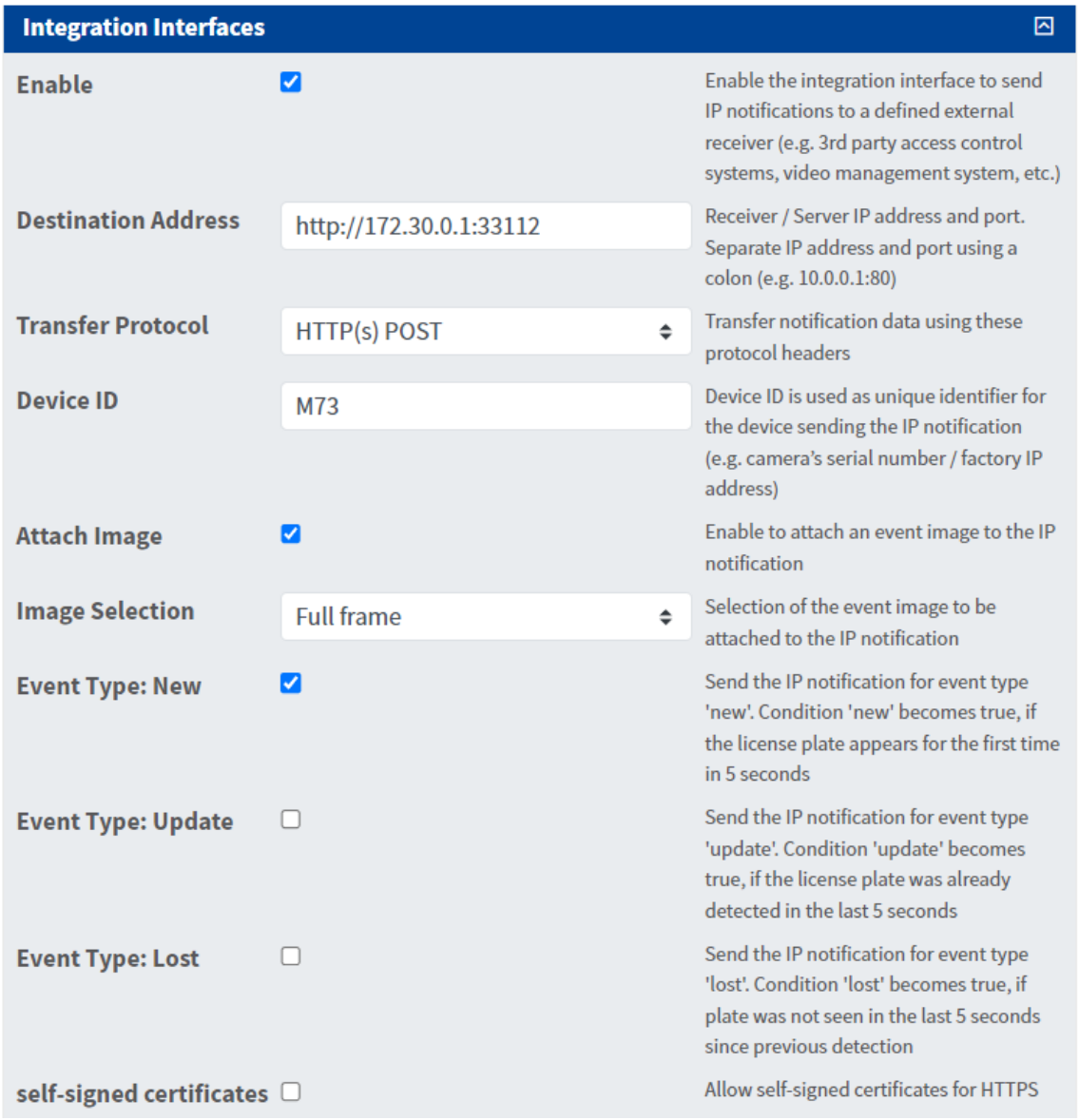
2. Open **Certified App Settings**.

3. Make sure that **Arming** is activated.



4. The App Settings menu will open. Find and select the option below:

5. Navigate to **Integration Interfaces** and set the information as shown below.



Note:

- The **IP address** portion of the destination address must be changed to the IP of the NVR connected to the M73.
- The user can choose the **Device ID.**
- **Event Type: New / Update** can be enabled if desired.

6. To save the settings, press **Set** and then **Close**.

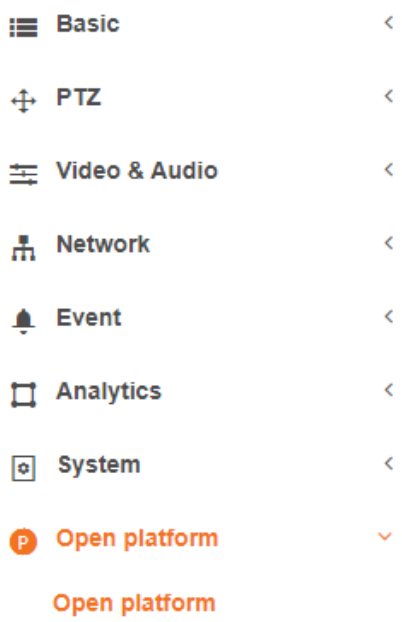
7. The camera will be detected automatically as an LPR camera when added to CathexisVision, if setup is correct.

2.3 Hanwha Wisenet Cameras

Important notes and recommendations

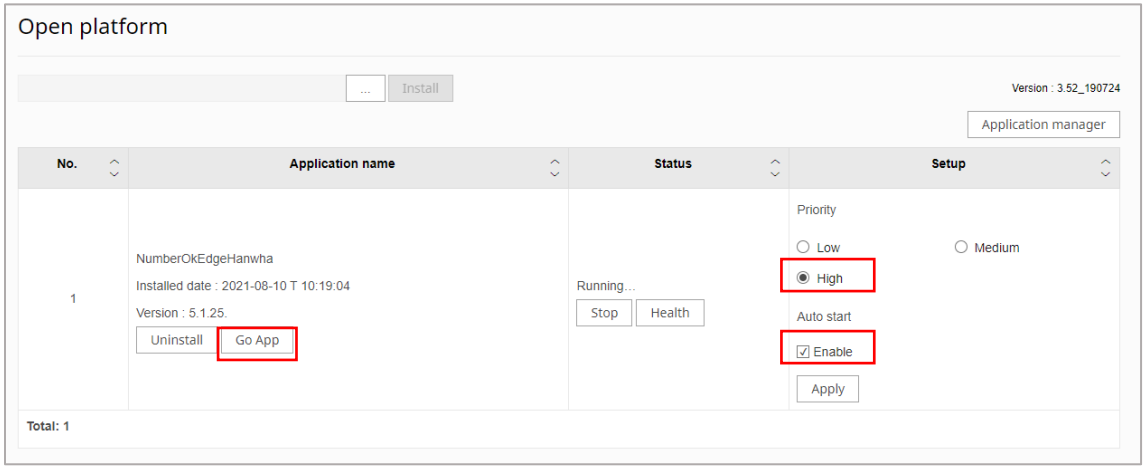
- Wisenet recommends that the operator uses the Firefox web browser.
- Use the latest version of the Wisenet driver.
- For the latest Wisenet firmware updates, it is recommended that CathexisVision 2023.2 onwards is used for the Wisenet LPR integration with CathexisVision.

1. On the Wisenet web interface, navigate to **Setup / Open platform**.



2. Make sure the NumberOkEdgeHanwha (FFGroup LPR App) is installed, licenced, and running.

   Note: Currently, the best combination of camera firmware and app version are 1.40.02 / 5.1.25 respectively.



   Make sure it is set to **high priority** with **auto start** enabled.

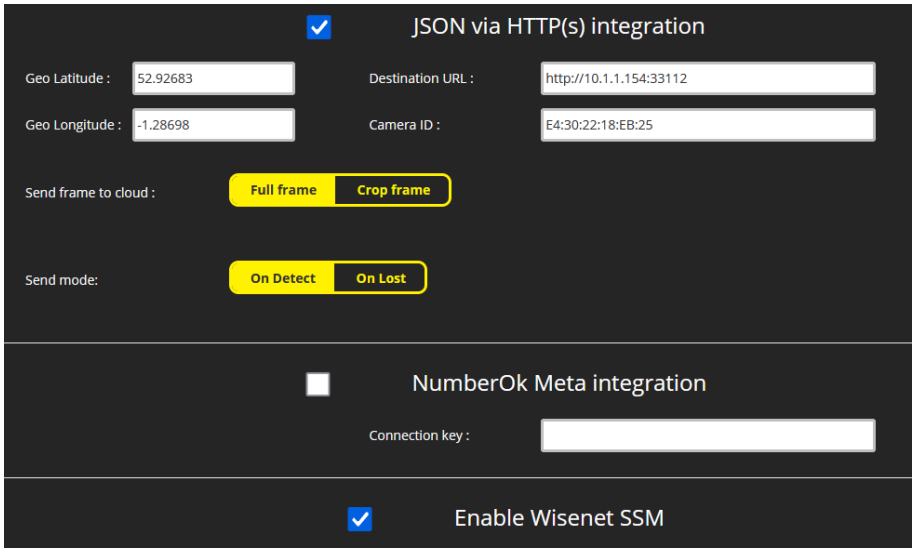
   Click **Go App** to access the FFGroup LPR APP's web interface.

3. On the FFGroup LPR App settings page, enable `JSON via HTTP(s) integration`.

   Enter the **IP and port of CathexisVision NVR**.

   Make sure to tick **Enable Wisenet SSM**.

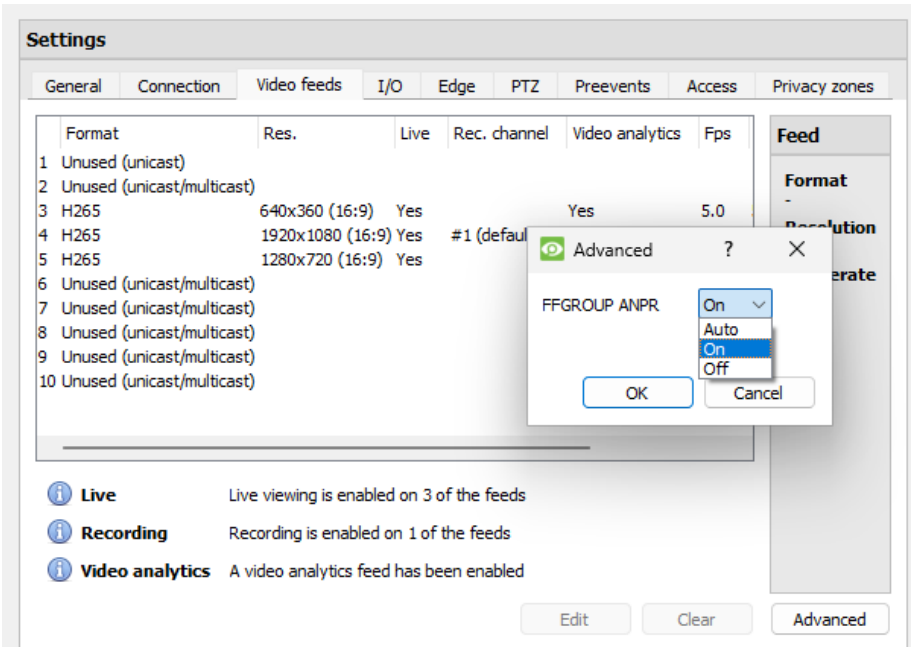
   Use port **33112** for this integration.



Note:

- The **IP address** portion of the **Destination URL** must be changed to the IP of the NVR connected to the Wisenet camera.
- The user can choose the **Device ID.**
- **Geo Latitude**, and **Geo Longitude** need to be filled in, even if it is not used, or the app will give invalid JSON data.

4. In the Advanced settings of the CathexisVision camera setup, make sure to turn the **FFGROUP ANPR setting** to **On**.

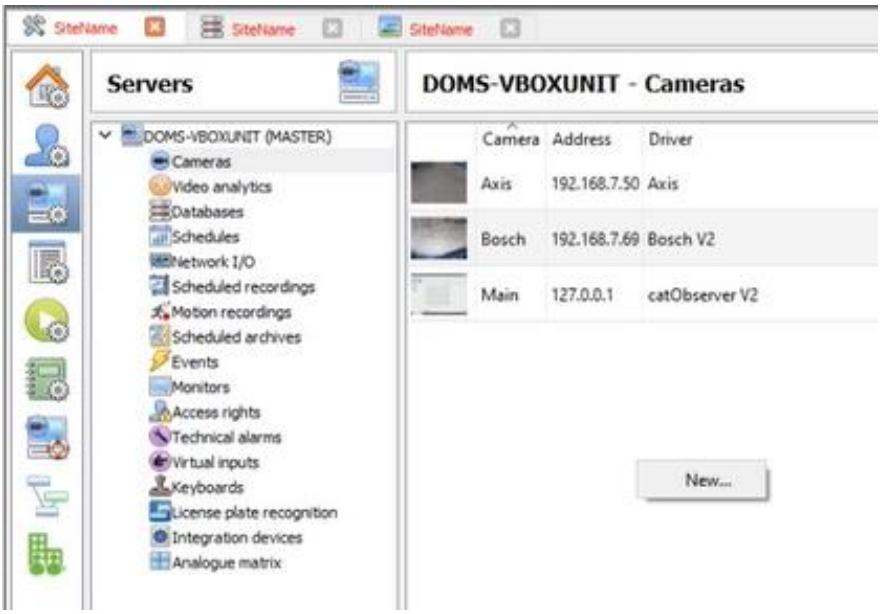


3. Device Addition and Configuration

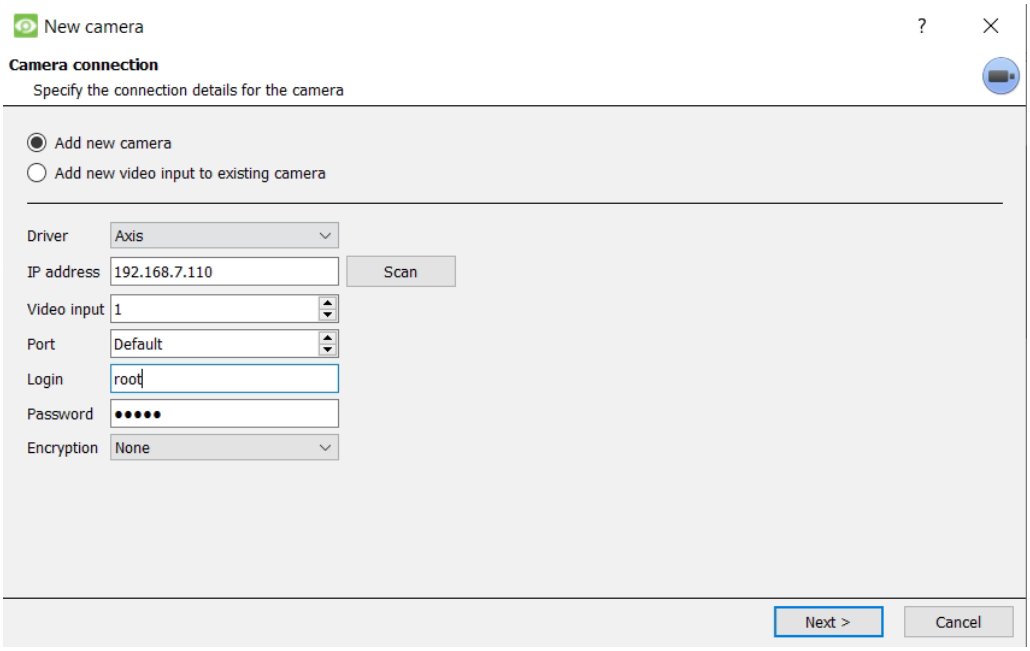
This section will detail the procedure for setting up CathexisVision LPR integration and FF Group App to communicate with each other.

3.1 Add a Camera

Add the camera by selecting **Servers / Cameras / Right-click / New**.

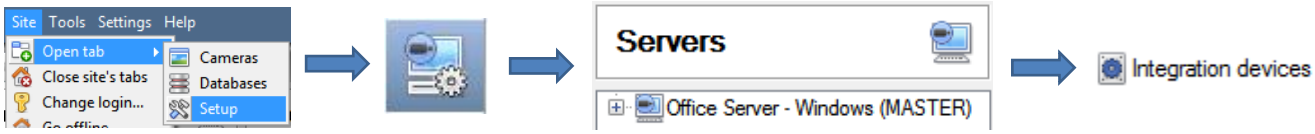


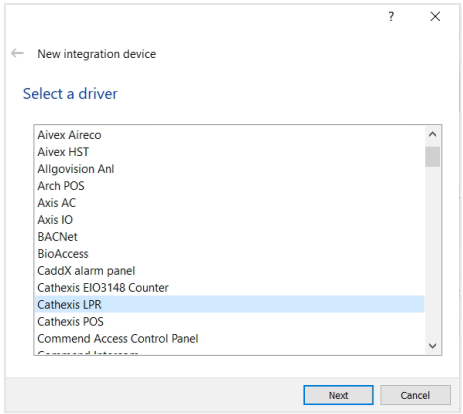
The camera's driver and IP address are shown below:



3.2 Devices Section (Add a New Device in CathexisVision)

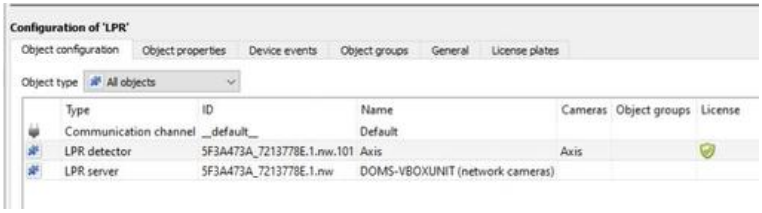
Integrations are added on a server-by-server basis. They are managed in the Integration Devices panel, under the **Setup Tab** of the servers to which they are added. To get to the Integration Panel, follow this path:





Select the **Cathexis LPR** Driver.

There are two sections in the Integration Panel:



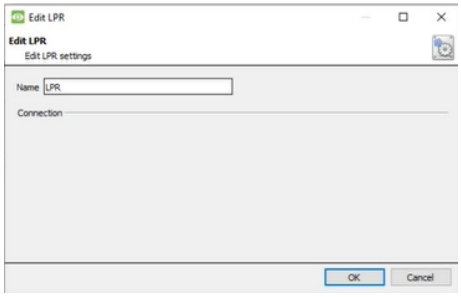
The **Devices** list will list the integration devices that are attached to the server.

The **Configuration** section enables editing/reviewing, the device selected in the **Devices** section.

3.2.1 Device Addition

1. 

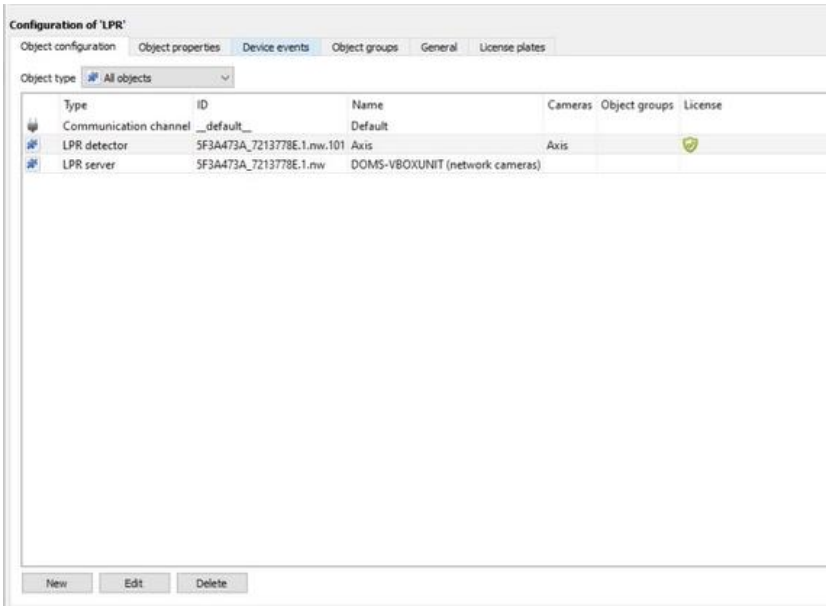
Once in the Integration Panel, click on **New Device** in the Devices section. This will open the addition dialogue.
2. Select **Cathexis LPR** driver from the list.
3. Give the device a descriptive name.



3.3 Configuration Section (Tab)

The configuration section is divided up into a number of tabs. These tabs are: **Object configuration, Object properties, Device Events, Object Groups,** and **General.**

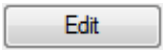
3.3.1 Object Configuration Tab



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

3.3.1.1 Object Configuration Buttons

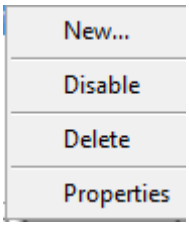
Add a new object by clicking on **New**.



Click on Edit to open up an existing object for edition.

Click on Delete to delete an existing object from the CathexisVision configuration.

3.3.1.2 Object Configuration Right-click Options



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

Disable/Enable allows manually enabling/disabling individual objects.

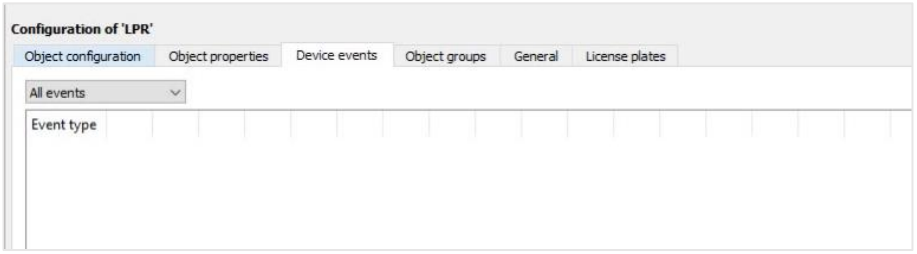
Delete will permanently remove this object from the list.

Properties will open up the object properties. Edit the object from here, specifically, assign cameras to this object, as well as define user access levels for it.

3.3.2 Object Properties Tab

The Object Properties tab is where all object properties may be viewed.

3.3.3 Device Events Tab

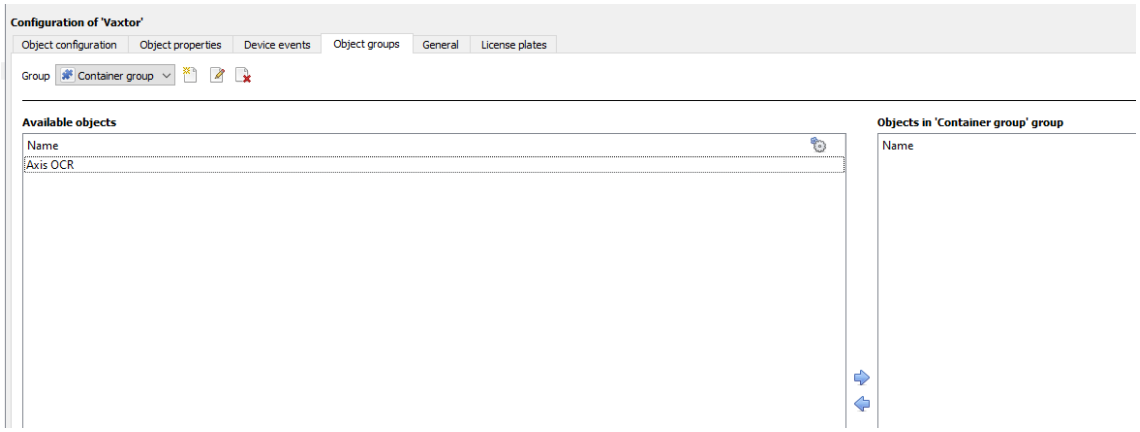


This lists all Events sent from the device.

Installers can check that the integration is functioning, and monitor the Events happening on site.

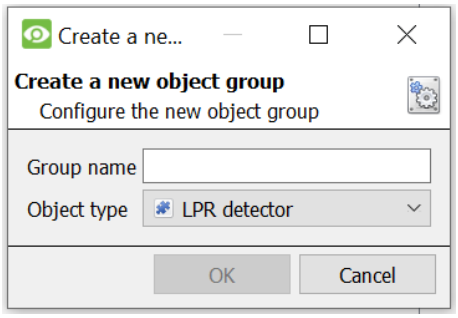
3.3.4 Object Groups Tab

Create groups of the same type of object.



Tip: This is useful when setting up Events, because Events can be triggered by an object group. (For example, a group will trigger if any of the devices in that group are triggered.)

3.3.4.1 Create a Group



Click to create an object group.

Click to edit an object group.

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

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

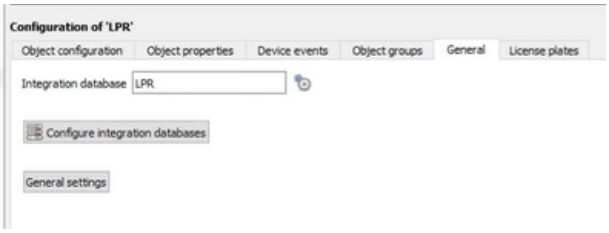
Click on the drop-down menu to select the **Object type** to group.

A list of available objects will appear. Multiple objects may be selected at a time.

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

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

3.3.5 General Tab



The general tab deals with the **Integration database**.

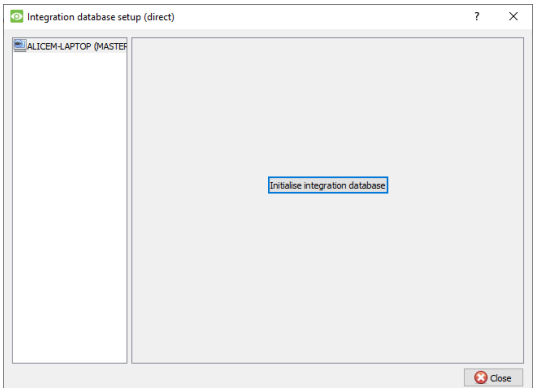
Here, select an existing database, or configure a new database for the integration.

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 CathexisVision system.

3.3.5.1 Configure a New Database

If a database is not yet created, clicking on this button will navigate to the integration database setup.

Initialise the Integration Database



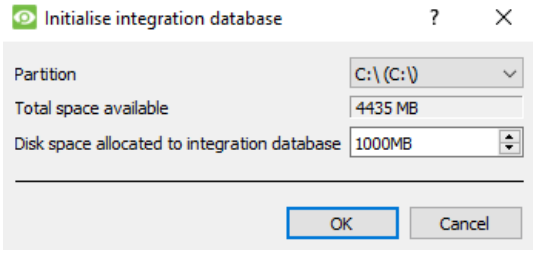
The first time an integration database is added, initialise this feature on the unit.

This will add a broad database, within which all of the integrated device's databases will be added.

From the list on the left, select the unit to which to add the database.

Click on **Initialise integration database**.

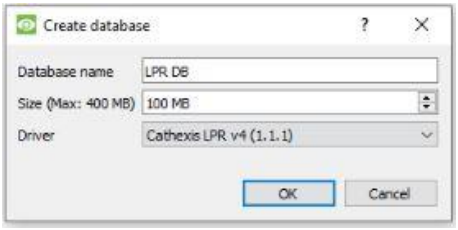
Choose which partition the database will be formed on, and select how much space it will take up.



Add a New Devices Database

After initialisation, add the database for the integration being worked with.

Click on the **New** button, at the bottom of the **Create database** window.



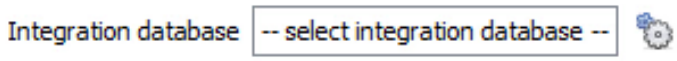
Give the Integration database a descriptive **Database Name**.

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

Choose the device **Driver** that the device will be using. Click on OK to create the database.

3.3.5.2 Select the Integration Database

Note: Be sure to select the **Cathexis LPR v3 (1.1.2).**

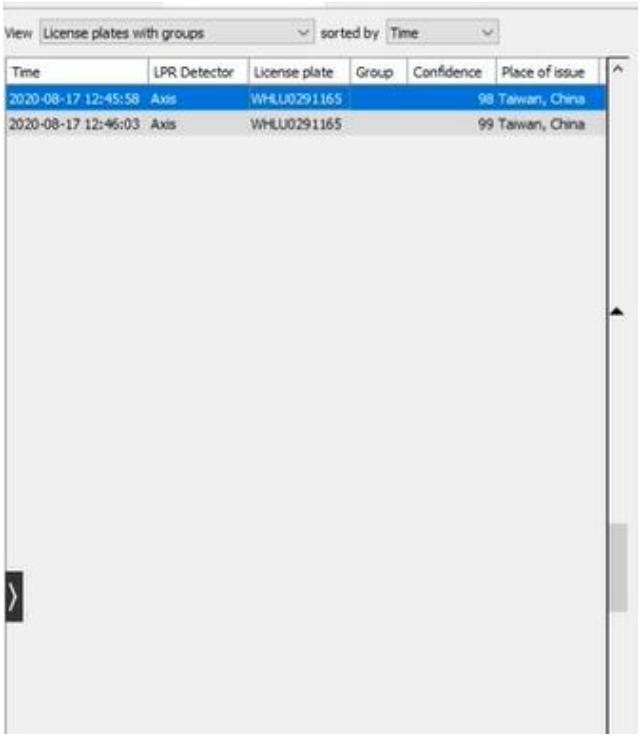


Once a database has been created, the user may select it by clicking on the **gear icon**. Select the database in the dialogue that appears.

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

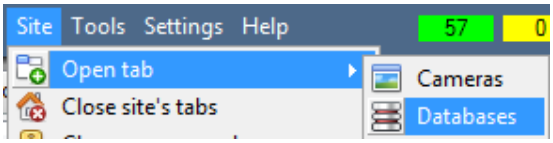
4. Database

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, it is possible to launch this recording, from within the database tab.

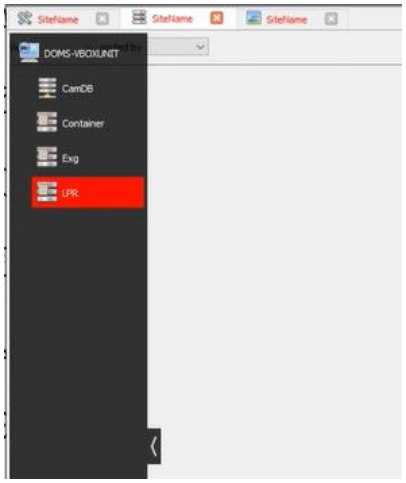


Most integrations will have a different database presentation, and unique filters, due to the different parameters sent to CathexisVision by the integrated device.

4.1 Navigate to the database

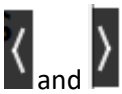


View the information stored in the Integration database, by following the path seen to the left. This navigates to the Database Tab.

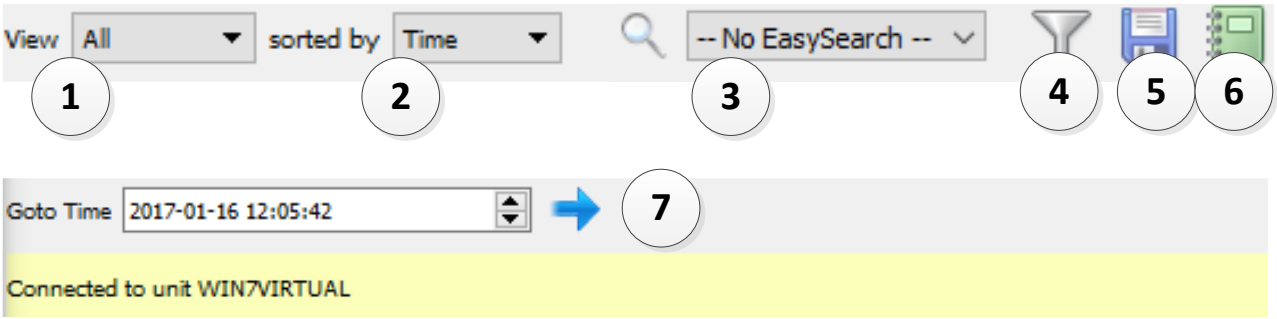


When the database tab opens, select the relevant integration database from the database panel that opens on the left-hand side. The databases are ordered under the NVRs that they are attached to.

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

 and

4.2 Database Interface

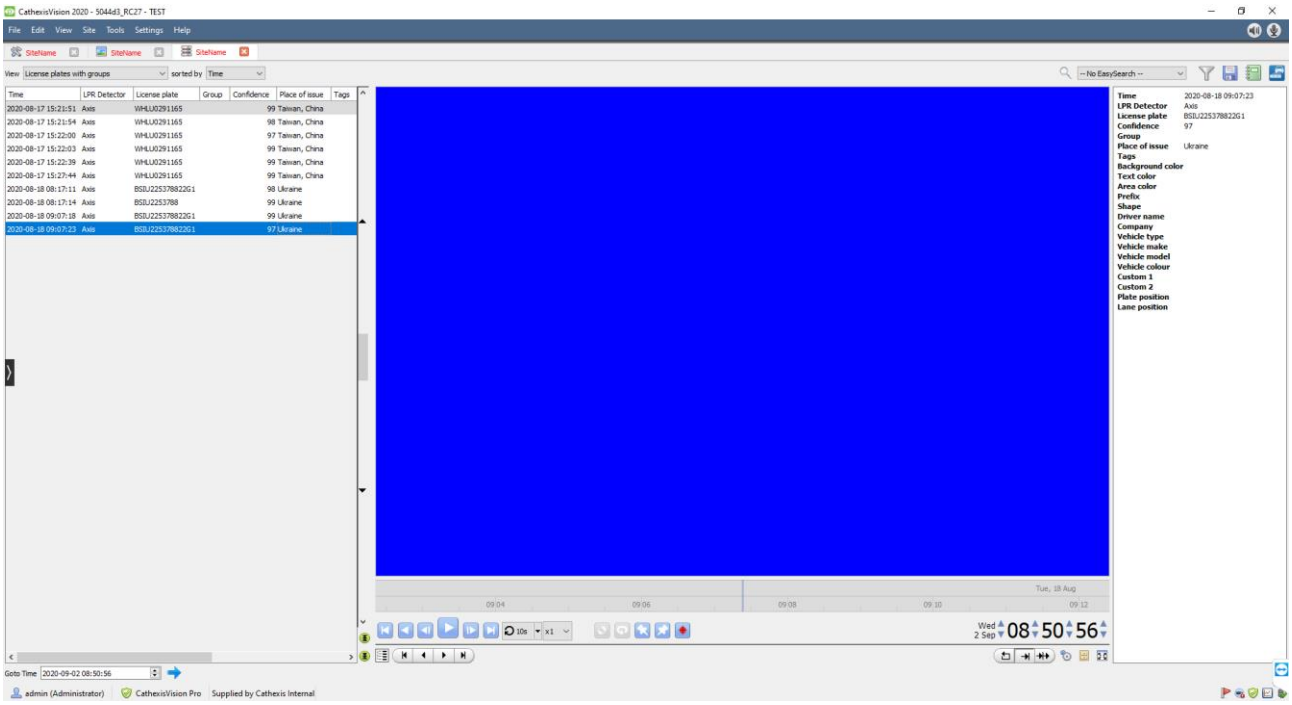


①	**View**	**View** changes the way the database is presented. View: License plates with groups
②	**Sorted By**	Events may only be sorted by Time.
③	**Easy Search**	The easy search option quickly searches the database. The options are License plate, License Plate (Partial Match), Group, LPR Detector.
④	**Filter**	Filter offers a more advanced manner of sorting information in the Integration Database table. Once the filters dialogue is open, these are the options: Enable filters — Check this box to enable filters. Click on this icon to **add** a new filter. The filter icon will change when filters are active. Click on this icon to **delete** an added filter. **Note**: 1. Multiple filters may be run simultaneously. 2. The same parameter may be used more than once. 3. To change a filter, click on the blue hyperlinked text. (For example, click on *Timestamp* to change the filter from Timestamp, to any of the other available options.)
⑤	**Export**	Generate metadatabase reports in PDF or CSV format. See below.
6	**Manage Reports**	Generate scheduled metadatabase reports. See below.
7	**Go to Time**	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, and then click on the icon.

4.2.1 Viewing an Entry's Associated Recording

This integration uses the new video option where the video player is embedded in the database view. This player uses the same timeline features as the CathexisVision cameras tab.

To view an associated recording, simply left-click on a database entry, which has the icon in the Links column. Then click play in the video player.



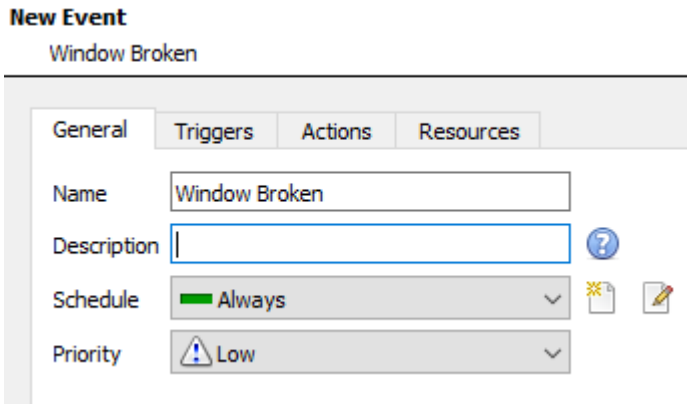
5. Events

A CathexisVision Event has a trigger, which causes an action. Integrated devices may be set to act as triggers, or as actions. This document will detail the Cathexis LPR / FF Group specific aspects of Events. There is a comprehensive guide to CathexisVision Events in the main setup manual.

Most of the data that CathexisVision receives from a device is presented in the **Events interface**. This is done in order to give the user a full range of options. As a result, some of the options presented in the interface may be impractical as event triggers, or actions.

5.1 Event Window

Events in CathexisVision are set up via the Event Window. This has 4 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.



5.2 Creating an Event

To create an event using the Cathexis/Vaxtor device, enter the **Events management area**:

Once in the Events management area, click on **New**. This will open up the New Event window.

6. Conclusion

This app-note was designed to deal with the FF Group LPR integration. For further information about the CathexisVision software, consult the ***CathexisVision Setup Manual*** (http://cathexisvideo.com).

For technical support, email support@cathexisvideo.com