JVA/Stafix Perimeter Control Integration App-note

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While Cathexis has made every effort to ensure the accuracy of this document, there is no guarantee of accuracy, neither explicit nor implied. Specifications are subject to change without notice.

1. Introduction

This document will detail the integration of the JVA/Stafix Perimeter Patrol software, with the CathexisVision software. CathexisVision communicates with the JVA Perimeter Patrol software which in turn controls electric fence energizers. This information may be used to trigger CathexisVision events.

Note:

1. For information regarding the regular operation of a JVA/Stafix device, please consult the relevant manufacturer's documentation.
2. Please consult the software/hardware manufacturers for information on physical hardware requirements.
3. There is a General Integration section in the main ***CathexisVision Setup Manual***. It contains information on creating an integration database, as well as a general introduction to the Integration Panel. **Read over this section.**

1.2 Requirements

1.2.1 General Requirements

- CathexisVision 2018.3 and later.
- JVA Perimeter Patrol software, Version 5.2.7.
- Windows operating system. Not supported on Linux.
- WinPCap software, Version 4.1.2.
- Microsoft SSCERuntime software (32/64-bit depending on OS).
- Net Framework version 4.5 or later (must be installed/upgraded before creating the integration).

Note: Sector objects are only supported in CathexisVision 2018.4 and later.

1.2.2 License Requirements

License	Name	Description
CJVA-1001	JVA Object license.	This license is the "base" license to integrate with a perimeter system. It is applied to the server to which the perimeter device is connected. It will allow for the connection of a single JVA/Stafix device.
CJVA-2000	JVA Device license.	These licenses apply to zones, in a perimeter system. The **CJVA-2000** will license a single zone, and may be added on a zone-by-zone basis.
CJVA-3000	JVA Bundle license (includes device and unlimited zone/object licenses).	This license includes the **CJVA-2000** JVA/Stafix device license, and also provides support for unlimited **CJVA-1001** object licenses.

Note: In this integration, individual devices will require a license for each device.

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.

1.3 Integration Components and Features

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. They are different types of objects.

1.4 Features and Abilities

- The CathexisVision JVA integration communicates via TCP with the JVA Perimeter Patrol software which controls and monitors electric fence energizers, allowing for the generation of CathexisVision system events based on information received from the JVA device.
- All events on the JVA Perimeter Patrol software generate a device event in CathexisVision.
- The JVA Perimeter Patrol software maintains a log of all events taking place on the system. The full log is sent to CathexisVision every time a new event is added to the JVA software log.
- The device can be controlled as a result of a CathexisVision system event.
- Zone and sector object events can be used to trigger a CathexisVision system event.
- Zone and sector objects support overlays indicating zone name, sector name (if applicable), state and alarm state.

1.4.1 Device Objects

- Device objects populate automatically as soon as communication between the CathexisVision unit and the JVA Perimeter Patrol software is established.
- Objects may be linked to cameras to associate device events with video footage.

Object type		Feature
General		• This integration has Perimeter patrol, Zone, and Sector objects. • Events on the device can be used to trigger CathexisVision system events. • Perimeter patrol and Zone objects can be commanded as an action of a CathexisVision system event. • Zone and Sector objects support camera overlays.
Perimeter patrol	**Object properties**	Following Perimeter Patrol object properties are indicated in CathexisVision: • Name of Perimeter Patrol object. • HLI Connection (connection status between CathexisVision and JVA Perimeter Patrol Software): • Error. • Connected. • Authenticated. • Connected. • Unauthenticated. • Number of Zones. • Database Status (indicates status of JVA Perimeter Patrol software). • Comms ok (indicates communication status between JVA Perimeter Patrol software and JVA hardware). • Database ok (status of JVA Perimeter Patrol software). • Unmuted alarms (indicates if there are any unmuted alarms in JVA Perimeter Patrol software).
	Command	• Alarm all – high power. • Alarm all – low power. • Disarm all. **Note**: Commanding Perimeter patrol object issues commands to all associated zone objects.
Zone	**General object features**	• Zone (demarcated by physical energizer) can be sub-divided into total of 50 sectors.

	Overlays	• Zone object supports overlays:
		  ○ Zone name.
		  ○ State.
		  ○ Alarm state.

	States	• Alarmed (only 1 sector per zone can be alarmed), • Armed. • Disarmed. • Unlicensed. • Unknown (NVR loses communication with JVA).
	Object properties	• Name of zone object. • Host energizer type (the type of hardware which this object represents).

		• IP address. • Inputs (number of inputs on the device). • Outputs (number of outputs on the device). • Alarmed position. • Alarmed sector. • State (states are a combination of the properties below, 'arm' state is displayed here if none of the other properties are true). • Arm state (displays whether the zone is armed). • Fence alarm. • Tamper. • Ground alarm. • Low battery. • Bad battery. • Fault. • AC Fail.
	Commands	• Alarm – high power. • Alarm – low power. • Disarm. **Note**: Commanding zone object issues commands only to the selected zone object (and associated sectors, see below*).

Sector	**General object features**	• Zone objects can be sub-divided into a total of 50 sectors.
		• Sector objects inherit state and command from parent zone object.
		  ○ Sector messages received from JVA software to CathexisVision.
		  ○ Metadatabase entries.
		  ○ Map notifications and states.

	Overlays	• Sector object support overlays, including:
		  ○ Parent zone name
		  ○ State and alarm state inherited from parent zone object

	States	• Alarmed (only 1 sector per zone can be alarmed) • Armed. • Disarmed. • Unlicensed. • Unknown (NVR loses communication with JVA).
	Object properties	• Name/internal ID of sector object. • Parent zone. • Number out of total zone sectors. • Sector state (tied to zone state).
	Commands	N/A

1.4.2 Device Events

Event Element	Features/Abilities
General	• Every message generated in the JVA Perimeter Patrol software will generate a device event in CathexisVision. • Open messages are shown again in CathexisVision when they are updated in JVA Perimeter Patrol software.
Device Event Types	The following device event messages are received from the JVA Perimeter Patrol software and displayed in the CathexisVision device events tab and integration meta-database: • Zone log. • Non-Zone log. • HLI Communication. • Sector. • Client notification. **Note**: Each event type has a list of possible event descriptions. For example, Zone Log events may be further described as **Fence Alarm**, **Disarm**, **Under Voltage**, **Arm Low Power**, etc.
CathexisVision Event Actions	Events triggered on the JVA Perimeter Patrol system are reflected in CathexisVision, and can be used to create CathexisVision system events which may control one of the device objects as an action of the system event. Both Zone and Perimeter Patrol objects may be controlled as a result of a CathexisVision system event: **Control Perimeter Patrol object:** • Alarm all – high power. • Alarm all – low power. • Disarm all. **Note**: Commanding Perimeter patrol object issues commands to all associated zone objects (and associated sectors). **Control Zone object:** • Alarm all – high power. • Alarm all – low power. • Disarm all. **Note**: Commanding Zone object issues command to just the selected zone object and its associated sectors.

1.4.3 Metadatabase

A unique metadatabase is created on the CathexisVision server for this integration. It is fully searchable with configurable filters based on device event information (as above) and time stamping. The filtered event/s and the associated video will then be available for review in a new window from which an archive can be created and exported.

Database Element	Features/Abilities
General	• All device events are sent to the integration metadatabase. • Database entries include the footage from cameras linked to device objects. • Multiple cameras may be linked to multiple objects. • Device event metadata is displayed where applicable. • Databased device events may be viewed in the embedded video player, which includes the usual CathexisVision video review tools.
View Options	• Event.
Sort Options	• Time.
Easy Search	• Weighbridge.
Filter	• Start Time. • End Time. • Line Item
Export	Database entries may be exported in CSV and PDF format.

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. Windows Installation Steps

To run this integration, perform the following installations.

1. Run .**Net Framework 4.5**
    - Control Panel / Programs and Features / Turn Windows Features on and Off / **.Net Framework**.
2. Reboot the PC.
3. Install and run **WinPCap 4.1.3** (or later).
4. Install and run **Microsoft SSCERuntime** (either 32 or 64-bit depending on the system).
5. Install and run **JVA Perimeter Patrol Software** (see section below).

3. Configure the JVA Perimeter Patrol Software

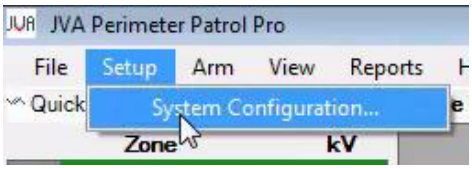
The JVA Perimeter Patrol software needs to be configured to send information to the CathexisVision server.

3.1 Install JVA Perimeter Patrol Software

Please consult section 3 of the JVA Perimeter Patrol Configuration Manual for installation instructions.

3.2 JVA System Configuration

Once installed, open the JVA Perimeter Patrol software and log in using supplied details. Then open System Configuration window:



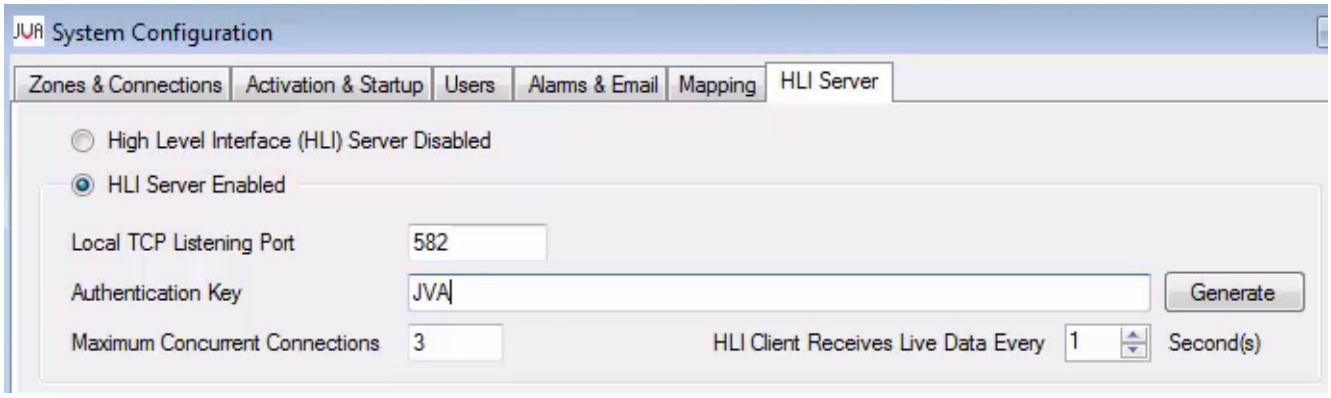
Setup menu / System Configuration

In the system configuration window, select the HLI Server tab.

3.3 HLI Server Tab

In the HLI (High level interface) tab, configure the HLI server settings as below:

1. Select **HLI Server Enabled**.
2. Set a TCP Listening Port (take note of this number as it will be required when configuring the device in CathexisVision).
3. Set an Authentication Key. This can either be created manually by entering text into the field, or automatically by clicking Generate. Take note of this key.
4. Set max number of simultaneous connections to the server.
5. Configure the frequency (in seconds) at which the server will send out information.

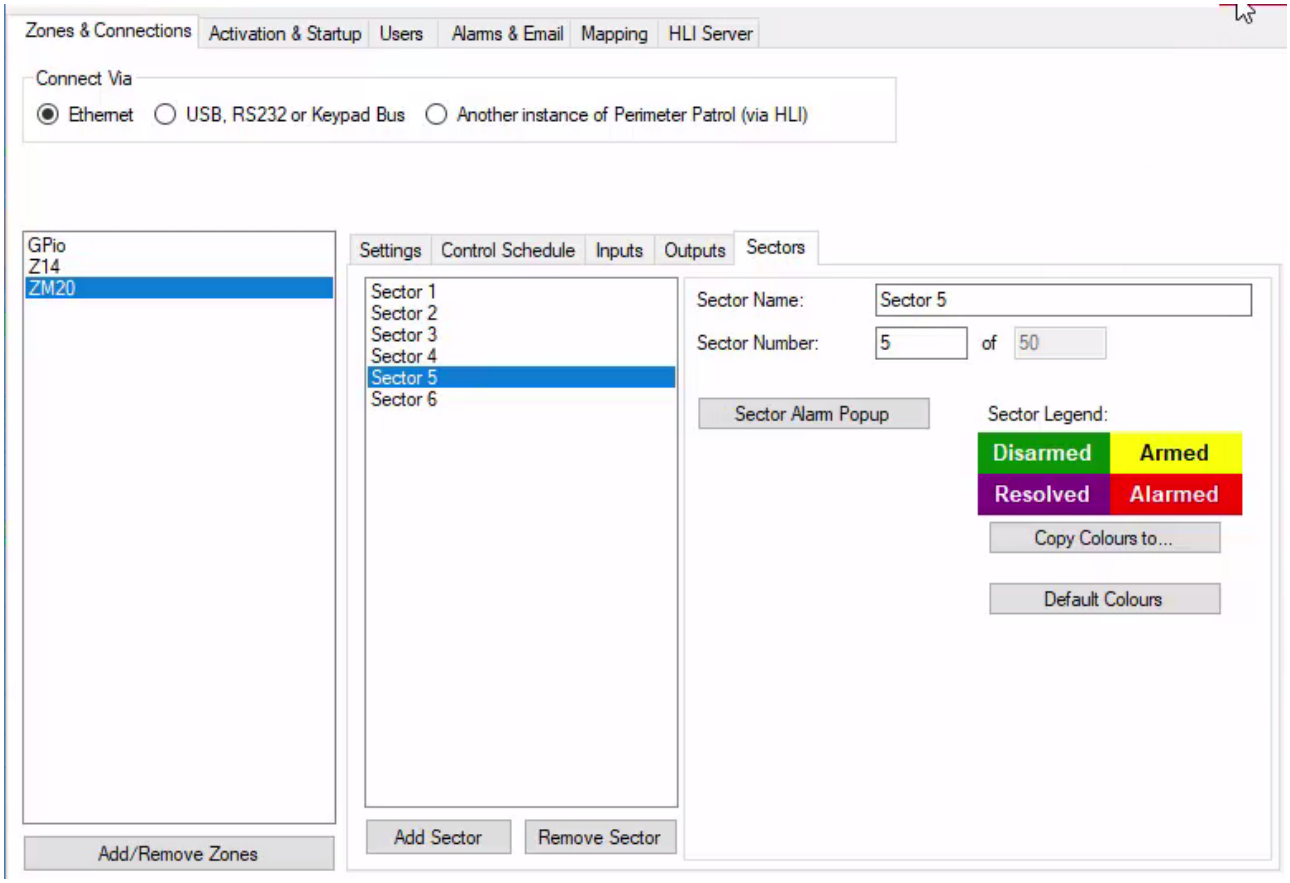


Once complete, click **Save and Close** at the bottom right of the window. The JVA Perimeter Patrol software will need to be restarted for changes to take effect.

3.4 Sector Configuration

Each zone may have up to 50 configurable sectors. Sector states are determined by the state of the parent zone.

Open System Configuration (as in 3.2) and select the **Zones and Connections** tab, and within that section, select the **Sectors** tab.



From the list on the left, select the relevant zone object. From the sectors panel, click **Add Sector** to add a sector to the selected zone. Click **Remove Sector** to delete.

Ensure that the software is open and running during the addition, configuration, and operation of the device in CathexisVision.

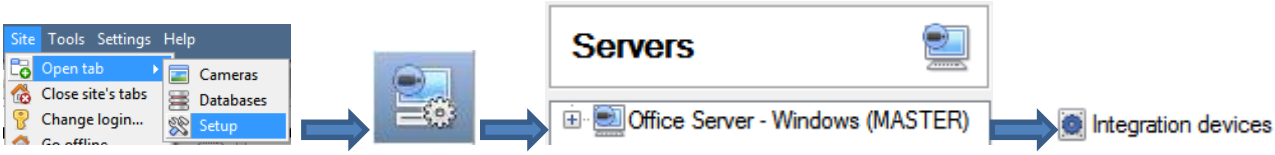
4. Add the Device in CathexisVision

This section will detail the addition of the JVA Perimeter Patrol integration device in CathexisVision.

Note: The JVA Perimeter Patrol Software must be open and running to add and operate the integration in CathexisVision.

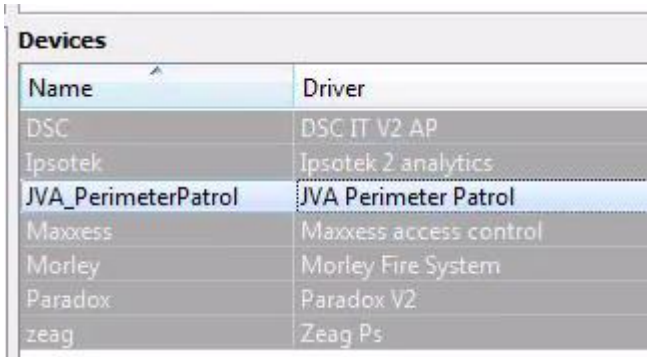
4.1 Integrations Panel

CathexisVision integrations 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:

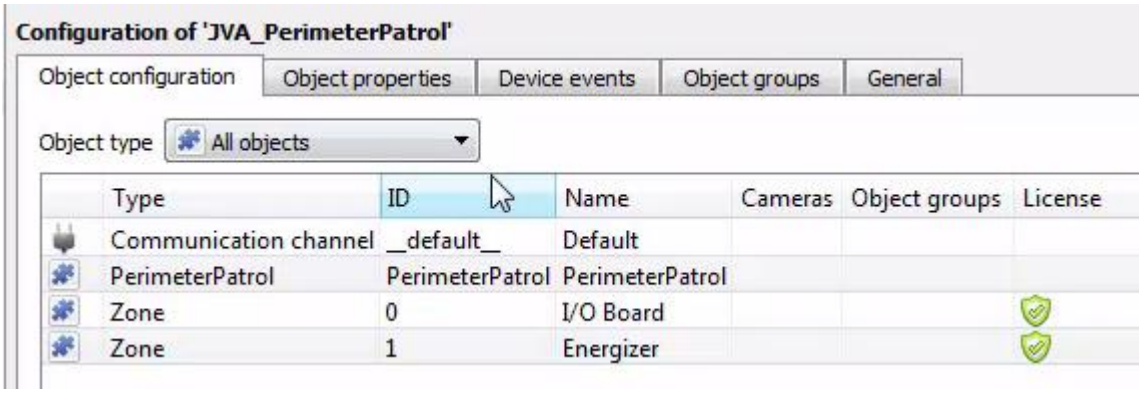


There are two sections in the Integration Panel:

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

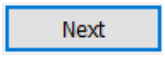


2. The **Configuration** section enables the user to edit or review the device selected in the **Devices** section.

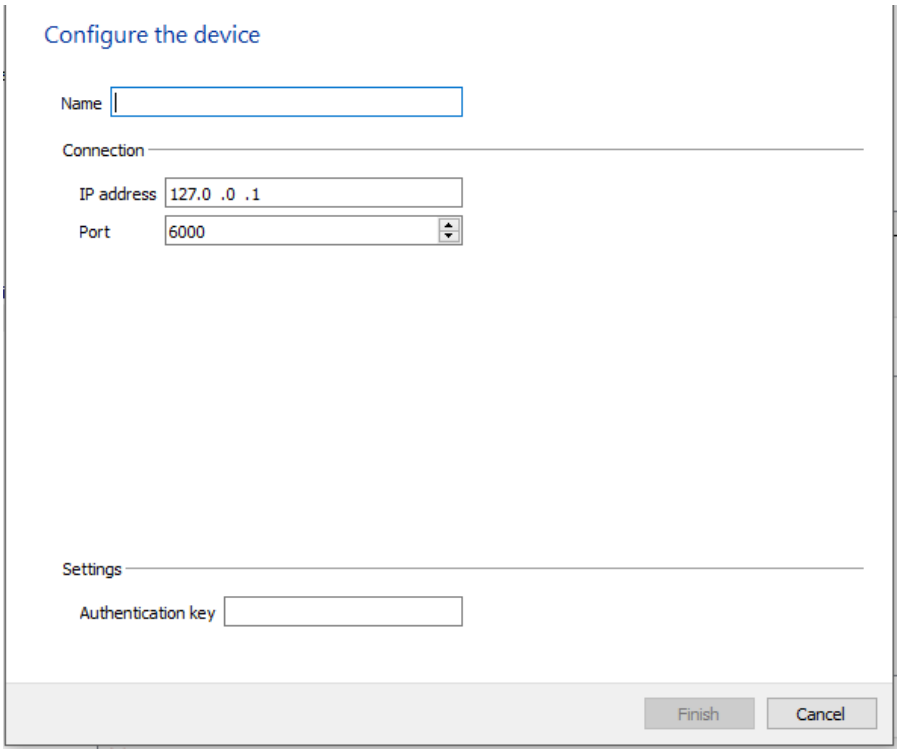


4.2 Device Addition

Once in the Integration Panel, click on **New device**, in the Devices section. This will open the addition dialogue.



Select the **JVA Perimeter Patrol** driver from the list and click on **Next**.



Give the device a **Name**.

Enter the IP Address of the unit on which the JVA Perimeter Patrol software is installed and running.

Enter the **Port number** configured in the JVA Perimeter Patrol Software.

Enter the **Authentication key** configured in the JVA Perimeter Patrol software.

Click **Finish** when done.

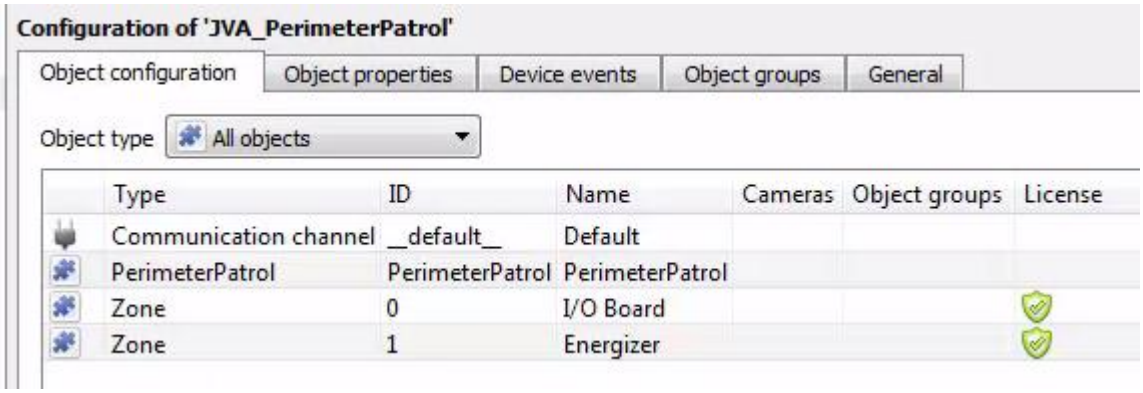
Once configured, the JVA Perimeter Patrol Integration device will be listed under the 'Devices' Section and its associated objects will automatically populate in the 'Configuration' Section. See below.

5. Configure the Device in CathexisVision

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

5.1 Object Configuration Tab

The object configuration tab is the tab in which the individual objects that comprise the integration can be viewed. Objects will populate once communication is made with relevant hardware and/or software.



Select the Object type drop-down to view all objects that comprise the integration. Select one of the object types from the menu to view only objects of that type in the list area.

Note:

1. See the Integration Components section, above, for more information on the object types.
2. Sector object information only available in CathexisVision 2018.4 and later.

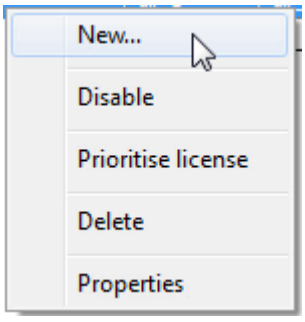
5.1.1 Object Configuration Buttons

Add a new object by clicking on New.

Click Edit to change an existing object.

Click Delete to remove an existing object from the CathexisVision configuration.

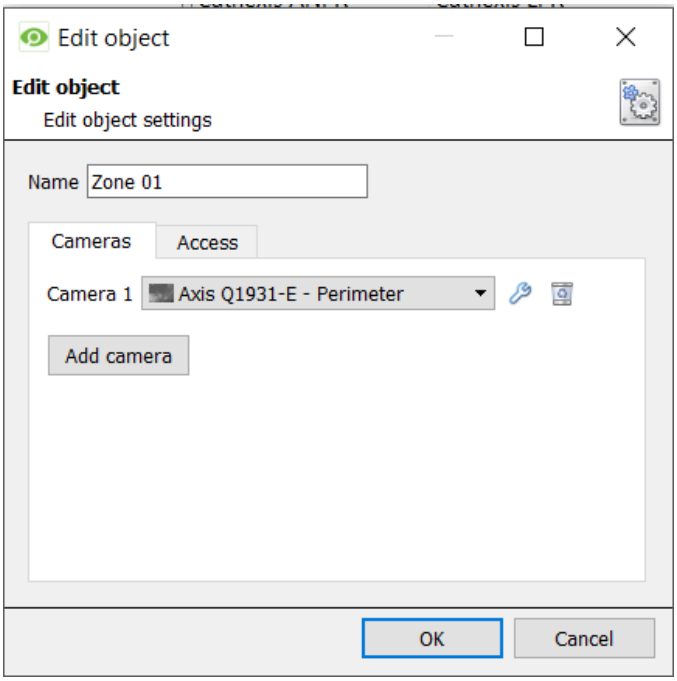
5.1.2 Object Configuration Right-click Options

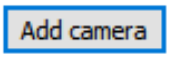


New will open up the dialogue to add a new object.
Disable/Enable will manually enable/disable individual objects.
Prioritise license will give a specific object license preference, in case there are more objects/zones than licenses.
Delete will permanently remove this object from the list.
Properties will open up the object properties. Objects may be edited from here. (Specifically, cameras will be assigned to this object, as well as user access levels assigned.)

5.1.2.1 Properties: Cameras

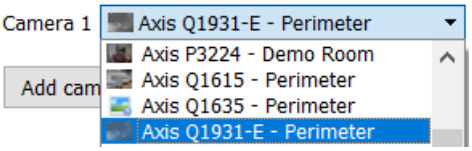
Adding a camera to an object will mean that, whenever there is an event on that object, the recording from that camera will be related to the time and date of the object event, in the Integration database.





Click the Add camera button.

From the drop-down menu that appears, click the desired camera.



To delete a camera, click on the trash icon.

To configure overlays for this object, click the settings icon.

See 5.1.3 below for instructions on configuring overlays.

Note: Only Zone and sector objects support overlays.

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

5.1.2.2 Properties: Access

Access protects sensitive objects by ensuring that only certain user access levels can access them.

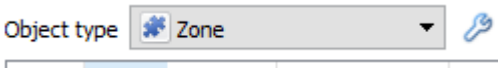
Under **View,** set the access levels.

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

5.1.3 Configure Overlays

Overlays are supported for Zone and Sector objects. Overlays may be configured globally for **all zones/sectors**, or they may be configured for a single zone/sector. See below for how to open the overlay configuration window for global or specific overlay configuration. Thereafter, the overlay configuration window looks the same for both options.

5.1.3.1 Configure Global Overlays

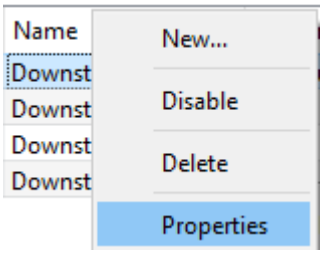


Select the zone or sector object from the Object type drop-down menu.

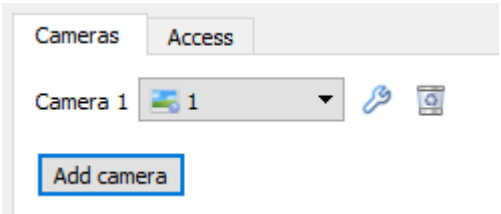
Click the **Default Settings icon**.

Select the Overlays tab.

5.1.3.2 Configure Overlays for Single Object



Right-click object and select **Properties** to edit the object.



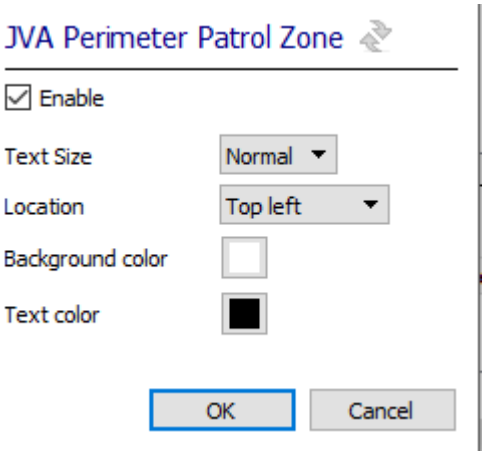
Add a camera to the object.

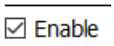
Click the settings icon that appears next to the camera name.

Note: This option only appears for zone objects.

5.1.3.3 Overlay Configuration Window

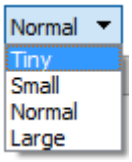
Note: This window looks the same for both global and specific object overlay configurations.



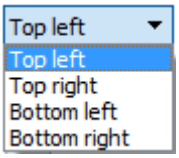


Check the **Enable** box to see overlays.

Select the **Text Size** of the overlay:



Select the **Location** of the overlay:



Choose the **Background and Text** of the overlay.

Clicking on the block of colour will open a colour chart.

5.2 Objects Properties Tab

The Object properties tab displays the object properties, sorted by object type. In the case of the JVA device, the object types available are **Zone** and **Perimeter Patrol.**

Select the object type from the dropdown menu.

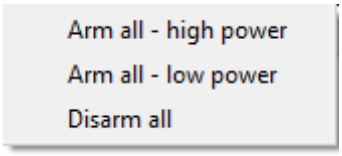
Note: Object states (such as whether the object is in alarm or not) are reflected in the Object Properties tab, however object and device events (like specific alarm events) are reflected in the Device Events tab. For full list of object states, see 1.1.

5.2.1 Control Object

Both the zone and Perimeter Patrol objects can be controlled. **Right-click** on the object to see available commands.

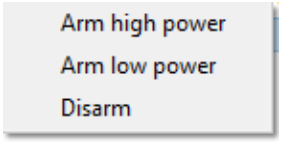
5.2.1.1 Perimeter Patrol Object Commands

Commanding the Perimeter Patrol object will issue the same command to all zone objects, which in turn will issue the same command to all the zone sectors. The following commands are available:

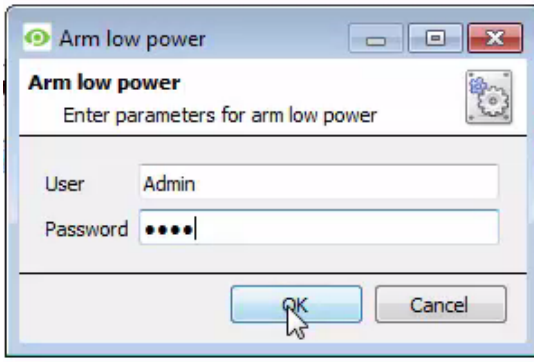


5.2.1.2 Zone Object Commands

Issuing a command to a zone will issue the same command to the associated sectors. Sector objects cannot be directly controlled. The following commands are available:



5.2.2.3 JVA Login Details Required

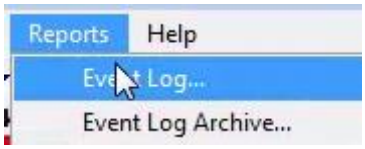


Note that when issuing commands to objects, the user will have to enter the login details used for JVA Perimeter Patrol software.

These are **not the same** as the authentication details entered when adding the integration device in CathexisVision.

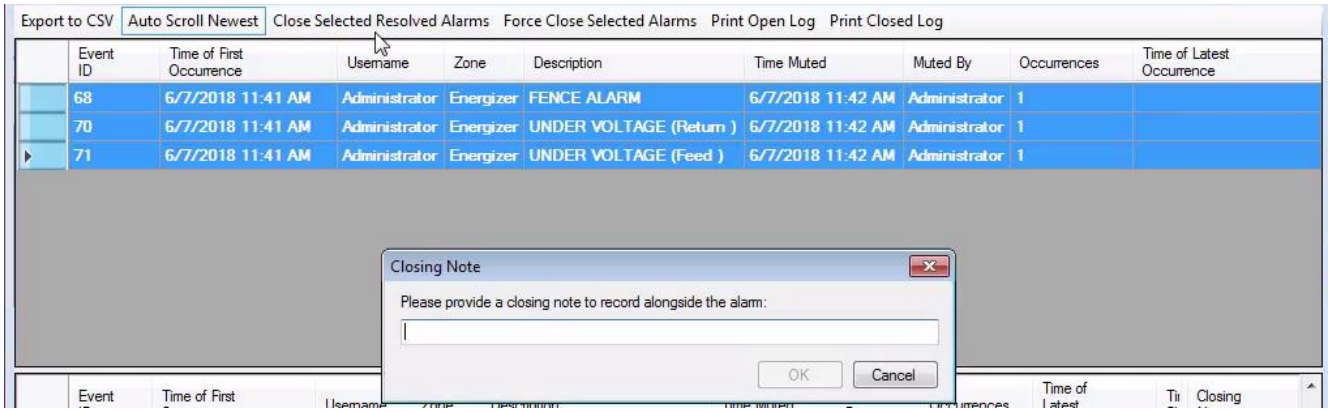
5.2.2 Clear Alarm State in JVA Software

When disarming an object, the object will remain in an alarm state until the alarm is cleared in the JVA Perimeter Patrol software.



Open the JVA Perimeter Patrol software, navigate to **Reports menu** / **Event log**.

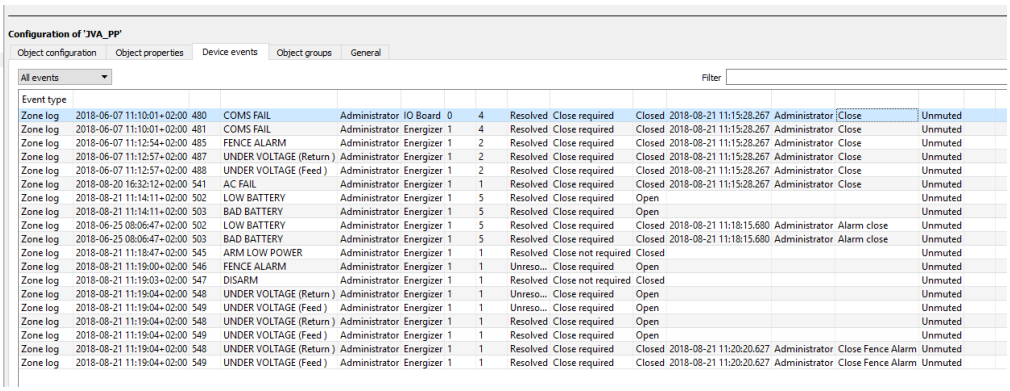
In the window that opens, select the relevant event/s from the log, and then click the **Close Selected Resolved Alarms** button. A closing comment on the alarm will be required to complete. Click **OK** when done.



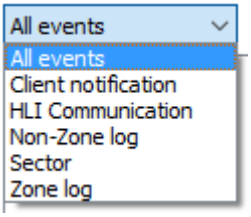
The alarm state will now change to **Disarm** in the CathexisVision software.

5.3 Device Events Tab

This will list all events sent from this device. It is an excellent way for installers to see that the integration is functioning, and to monitor the events happening on site.

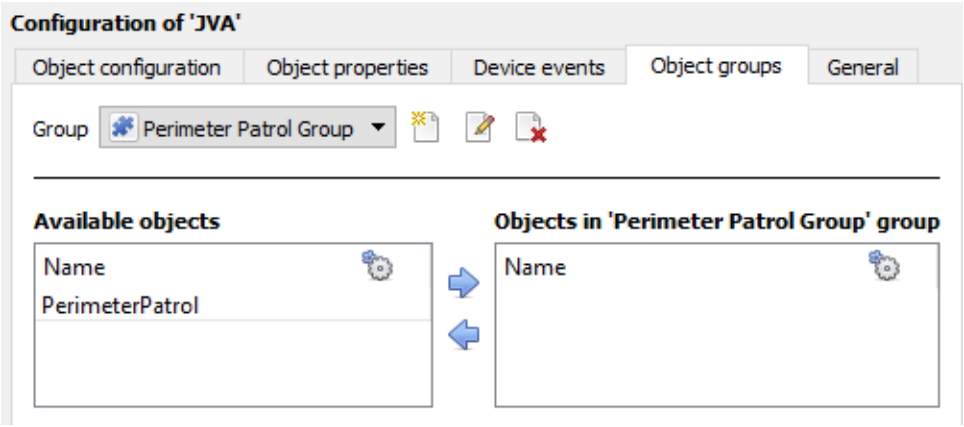


Filter the device events by selecting the drop-down menu and choosing an event type:



Note: When navigating away from this window, the device events for that session will disappear but will still be accessible in the integration metadata base. Please see **Database Section** for more information on navigating to and interacting with the database.

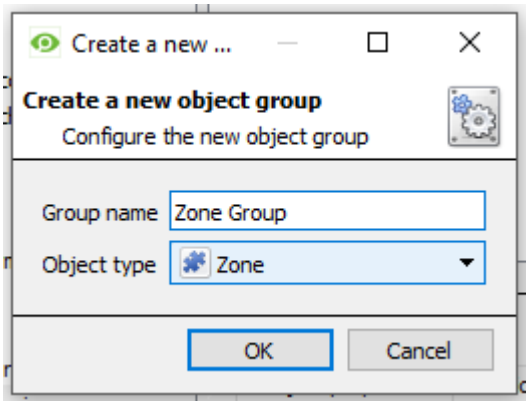
5.4 Groups Tab



Groups of the same type of object can be created.

This is very useful when setting up Events, because events can be triggered by an object group. (E.G. a group will trigger, if any of the devices in that group are triggered.)

5.4.1 Create a Group



To create/edit a group click on / .

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

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

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

A list of Available Objects will appear. To add/remove, select the object/s (multiple may be selected), and click on / .

5.5 General Tab

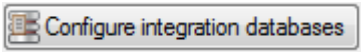
Currently the general tab deals with the integration database. Select a pre-created database, or configure a new database.

5.5.1 Select an Integration Database

If an integration specific database has already been created, select it by clicking the settings icon.

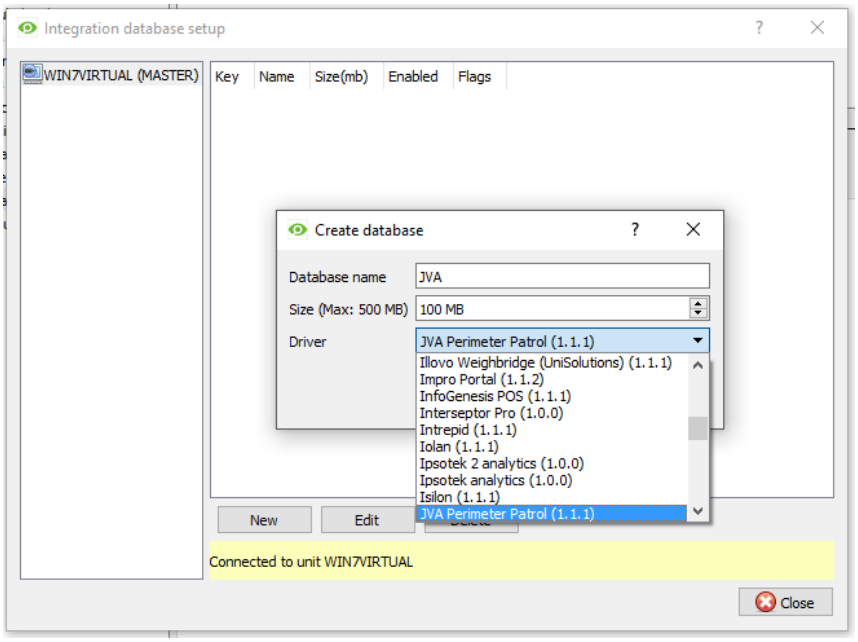
Only databases relevant to the integration being added should appear. If a database has not been created, see below.

5.5.2 Configure a New Database



If there is no database created yet, clicking on the **Configure integration databases** button will open the integration database setup.

Click **New** to create a database.



Give the database a **Name**.

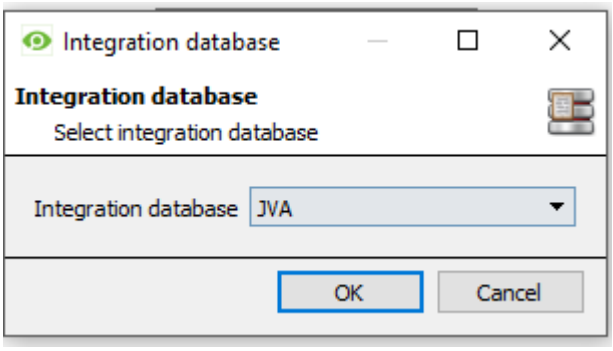
Select the **Size** of the database. The max is 1000MB.

Select the JVA Perimeter Patrol driver.

Note: Metadatabase driver version 2.2.2 which supports sector information is only supported in CathexisVision 2018.4 and later.

Click **OK** when done.

Select the newly created database by clicking the settings icon.



Select the database from the drop-down menu:

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

6. Cameras Tab

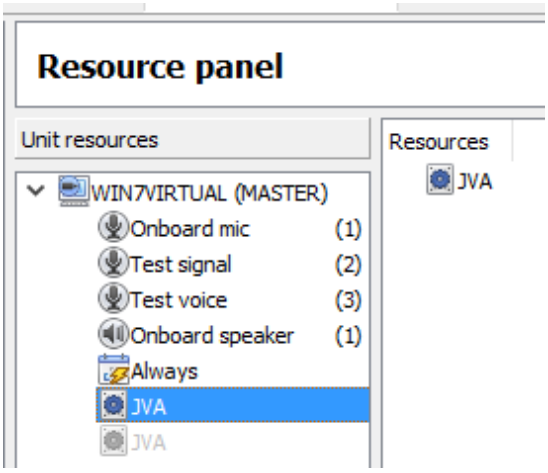
6.1 Control Device from Resources Panel

It is possible to command some of the JVA device objects from the Resources Panel in the Cameras Tab. These commands are much the same as can be achieved from the Object Properties Tab of the Integration Devices panel of the Setup section.

To command the JVA device from within the Cameras tab, the device must be added as a resource in the Resources section of the Setup tab.

6.1.1 Add the Device as a Resource

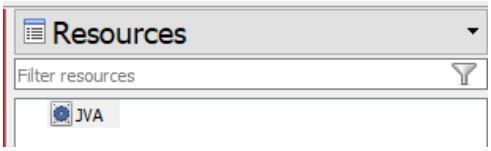
Setup tab / Resources Panel



1. Navigate to the **Resource Panel** by following **Site / Open Tab / Setup / Resource Panel.**

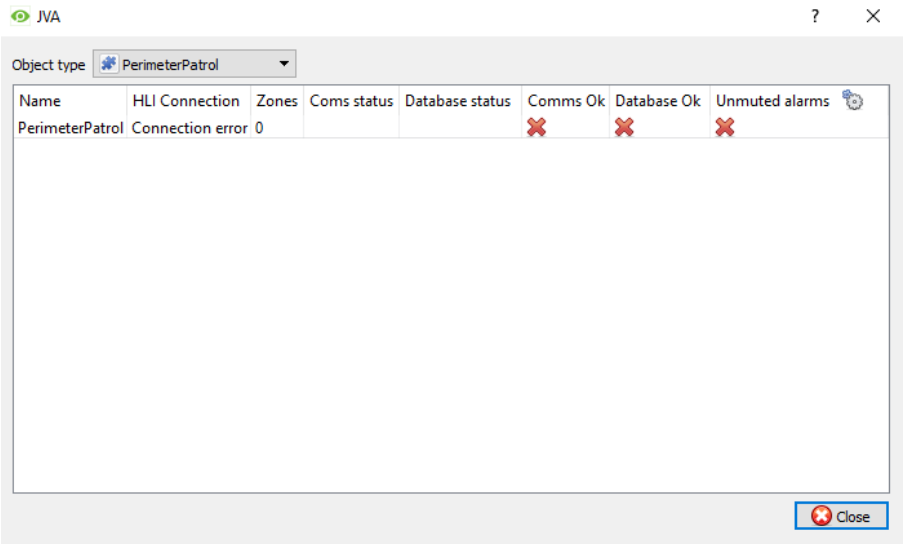
2. Drag the JVA device from the **Unit Resources** list into the **Resources** list, on the right.

After doing this, the device should appear in the Resources panel in the Cameras tab:



6.1.2 Control Device

Double-click on the device in the Resources panel of the Cameras tab to bring up the window below. Here the states of some of the device objects can be viewed and controlled.



Select the object type from the drop-down menu, then right-click the object for possible commands.

Consult section 4.b for command options.

6.2 Camera Tab Overlay Setup

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

Note: Cameras must have already been added to the relevant objects.

6.2.1 Video Feed Options Panel

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

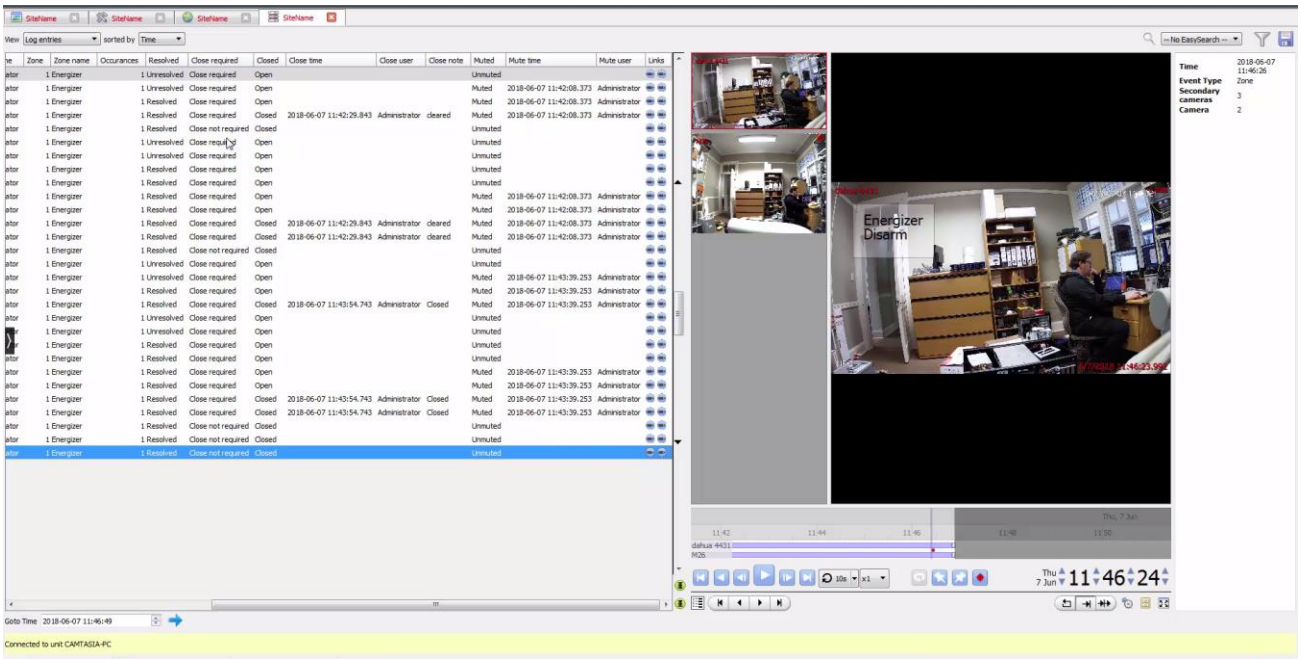
Once popped out, the Video feed options panel will present a number of options specific to the settings configured for that video feed.

6.2.2 Select the Overlay

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

Select the desired overlay and it will appear over the video feed, as above.

7. Database

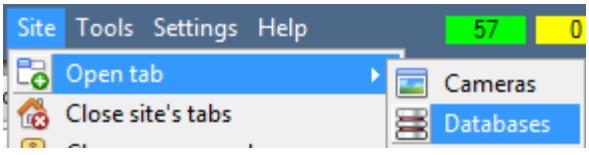


The database tab will allow the user to navigate the records in each individual database. In the database tab, each database is presented as a table. It has built in filters, and the ability to navigate by timestamp. If a database record has an associated recording, the user will also be able to launch this recording, from within the database tab.

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

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

7.1 Navigate to the Database



To view the information stored in the Integration database, follow the path to the left.

This will open the Database Tab.

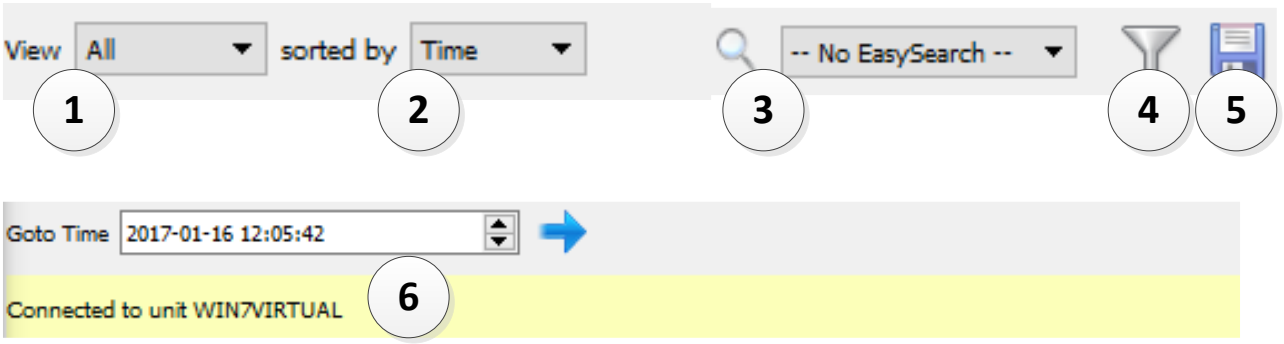
Once in the databases tab, select the relevant integration database. The databases are ordered under the NVRs that they are attached to.

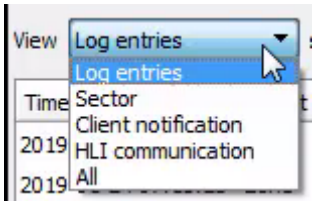
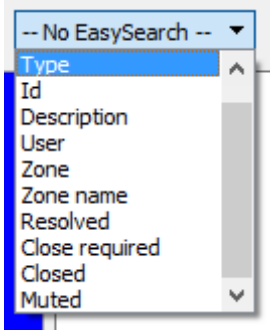
Hover over the arrow on the left-side of the camera image to bring up the database panel on the left.

Select the name of the relevant database.

Note: Sector information only available in metadatabase driver version JVA 2.2.2. which is supported from CathexisVision 2018.4 and later.

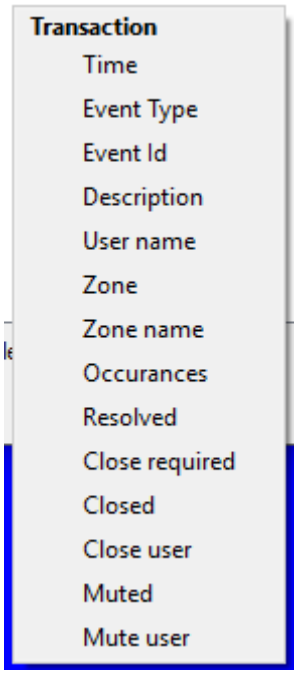
7.2 Database Interface



① View	The way the database is presented may be changed. Some integration databases have multiple view options. The **JVA** database allows viewing by: 
② **Sorted By**	Events may be further sorted based on the following parameters: **Time.**
③ **Easy Search**	The easy search option allows for a quick search of the database within one of the following options: 
④ **Filter**	Filter offers a more advanced manner of sorting information in the Integration Database table. Once the filters dialogue is open, the following options are available: 1. To **enable** filters, check this box: Enable filters 2. To **add** a new filter, click on . The filter icon will change to when filters are active.

3. To **delete** an added filter, click on .

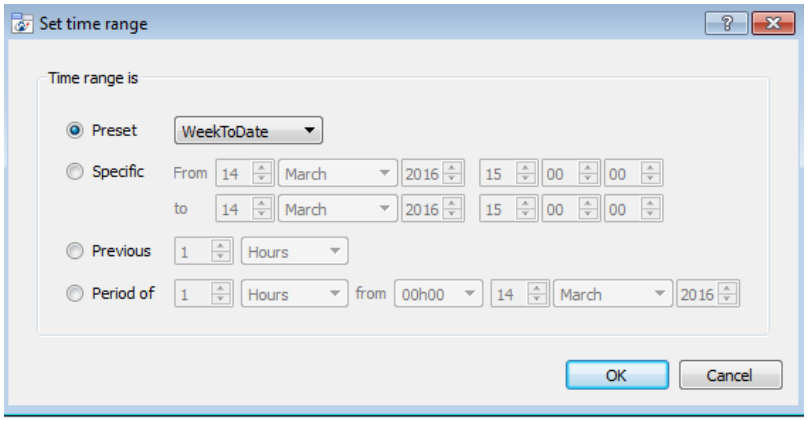
Filter options:



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:



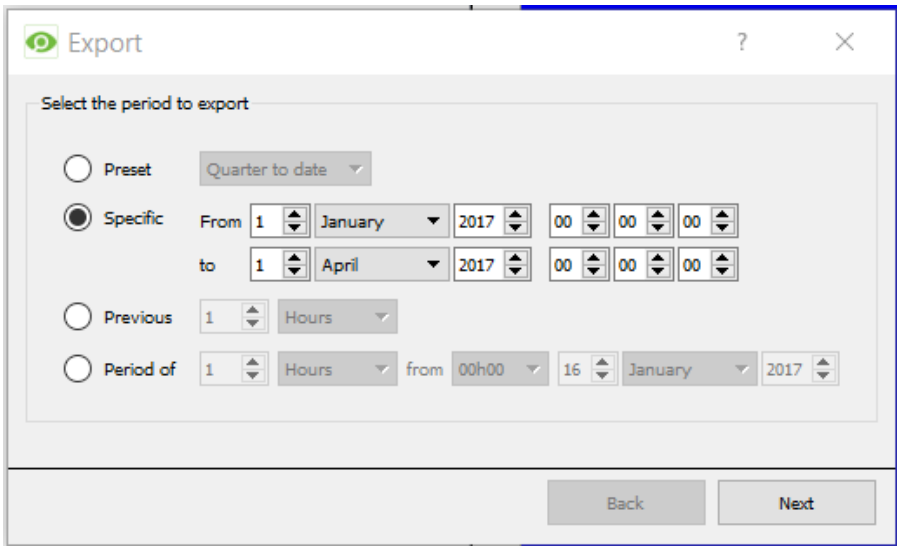
Note:

1. Multiple filters may be run simultaneously. Filters with the same parameters may be run more than once.
2. To change a filter, click on the blue hyperlinked text.

⑤ **Export**	Generate meta-database reports in PDF or CSV format. See below.
6 **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.

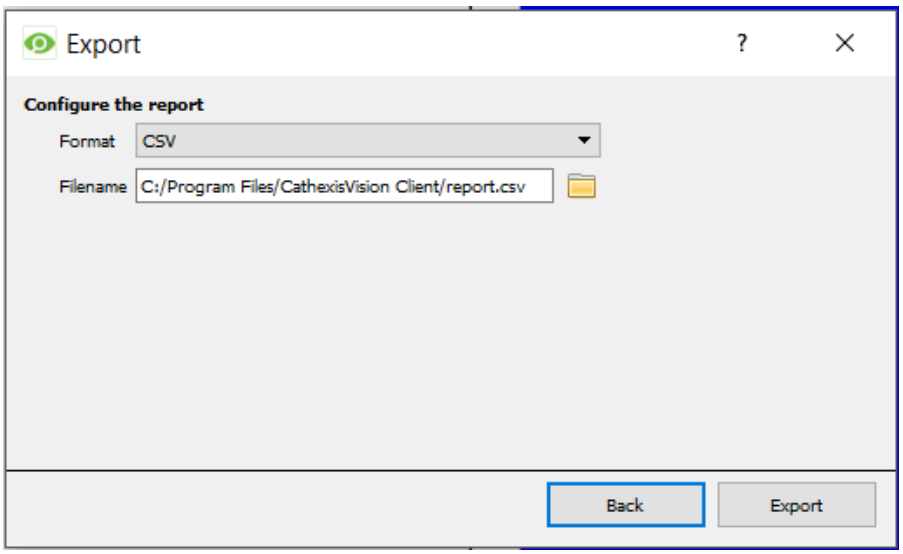
7.2.1 Generate Meta-Database Reports

Click the save icon to open the Export window.



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

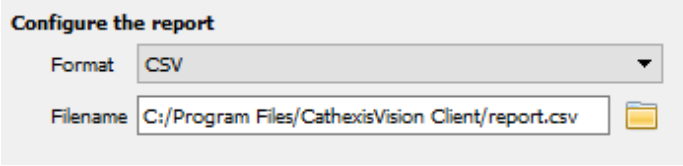
Click **Next**.



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

See below for the two options.

7.2.1.1 Export CSV

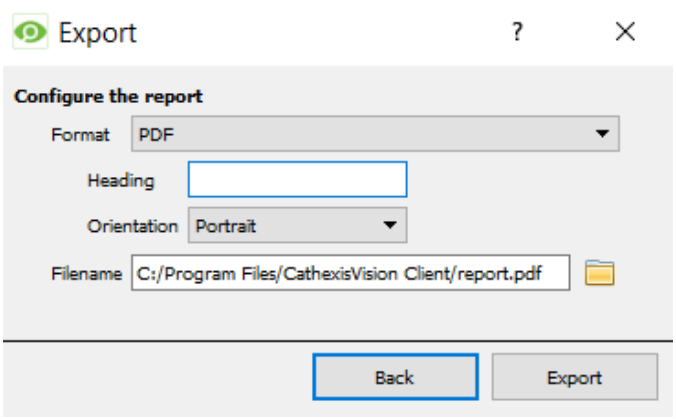


Select CSV **Format**.

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

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

7.2.1.2 Export PDF



Select PDF **Format**.

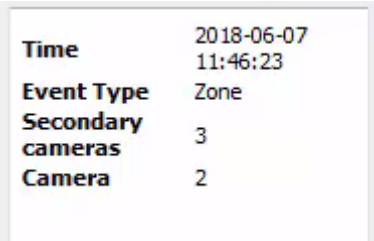
Give the PDF a **Heading**.

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 icon to choose a new save folder and filename.

7.2.2 Metadata



On the right-hand side of the database, meta-data about the event entry is displayed.

7.2.3 Viewing an Entry's Associated Recording

To view an associated recording, left-click on a database entry which has the camera icon in the **Links** column.

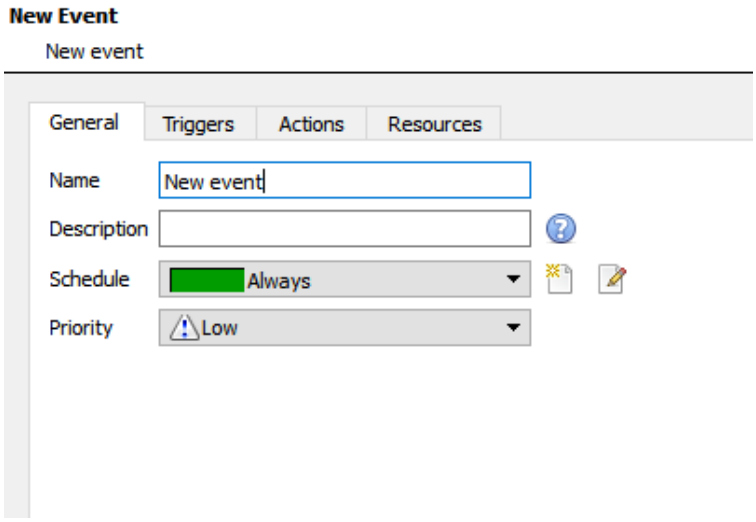
Then click **play** in the video player.

8. Events

A CathexisVision Event has a trigger, which causes an action. Integrated devices can be set to act at triggers, or as actions. This document will detail the JVA specific aspects of Events. There is a comprehensive guide to CathexisVision Events in the main setup manual. For more information, please consult it.

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* for being used as an event trigger, or action.

8.1 Event Window



Events in CathexisVision are setup via the Event Window. This has 4 tabs:

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

8.2 Creating an Event

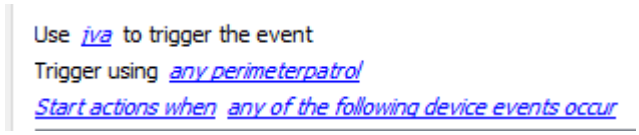
To create an event using the JVA device, enter the Events management area:

Once in Events management click on New.

This will open up the New Event window.

8.2.1 While/When and Any/All

When triggering on an object the user will have the option to trigger **while/when** a trigger is active. The user will also be able to select multiple triggers, and define whether **all/any** of the triggers need to be active to start an event.

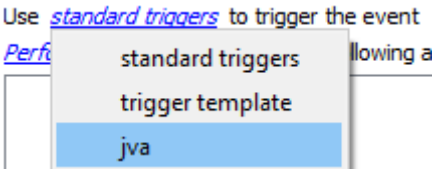


As usual, to change these settings click on the related, blue, hyperlinks.

8.3 Triggers

A trigger is the user defined input that tells the event to start. The trigger causes the subsequent action (which the user will also define).

8.3.1 Set the Device as the Trigger



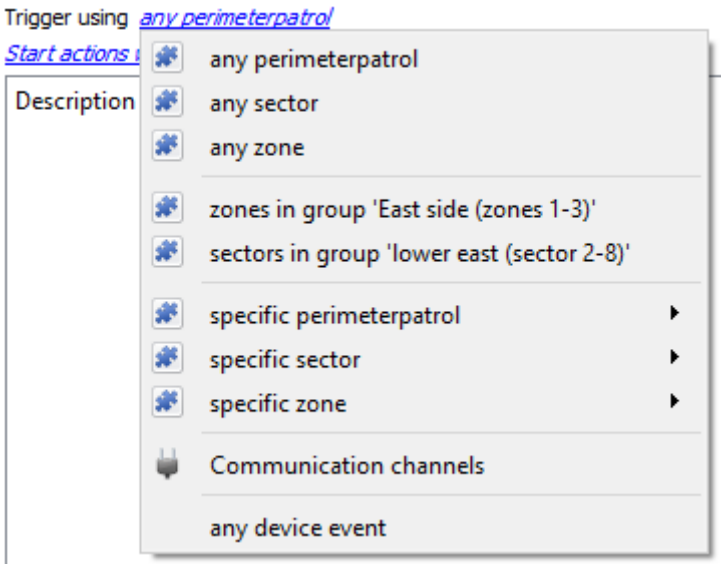
If creating a new event, the trigger type will default to: Use standard triggers .

To define which device will trigger the event, **click** on the **hyperlink** after “use”.

To set it as the JVA device, click on the hyperlink, and **select** the relevant **device name** from the drop-down menu.

8.3.2 Trigger Types (Trigger Using)

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



Any … will trigger when on an event from *any* of these objects.

Note: Perimeter Patrol objects cannot be used as a trigger.

Specific … will only trigger on an event from a specific object.

Specific group... If an object group has been set up it will appear in this list.

Communication channels will trigger only on the Communication channels.

Any device event will trigger on any event that occurs on the device. Within the "any device event" setup the user may set "device event rules" which will constrain which device events will trigger the event.

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

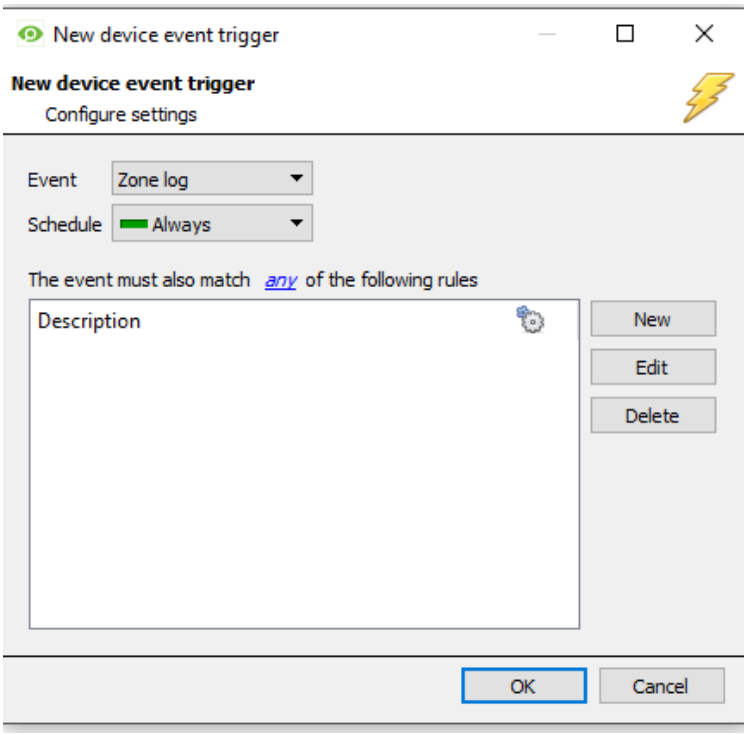
Click on the question mark icon to see a list of available descriptions.

8.3.3 Define the Trigger

After selecting a master trigger type, add a trigger to the event.

New Click on the New icon in the Triggers tab.

This will bring up the dialogue box below, for the various trigger types:

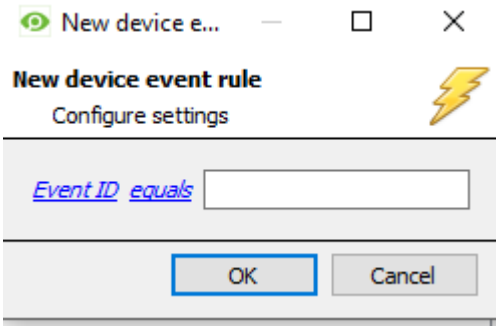


For example, within the *any device event* option, choose what type of device Event will be the trigger. Choose an event type from the drop-down menu.

Note: Multiple constraints (**Device Event Triggers**) may be set. If a constraint is not defined, every single device event will trigger this event.

To add/edit/delete a **Trigger** (a constraint) use the **New, Edit,** and **Delete** buttons on the right-hand side.

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



To change the constraint, click on the first hyperlink, this will bring up the full list of available rules.

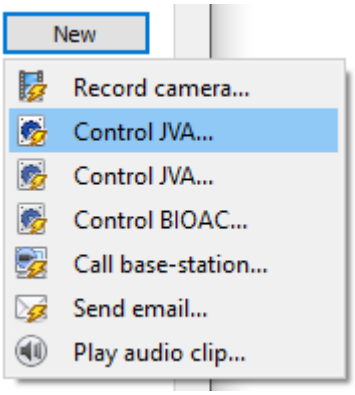
To modify the way this rule will be treated click on the second hyperlink (*equals* in the example) to display the rules options.

Note: When all available options are known to CathexisVision a drop-down menu will be available. When these variables are not pre-defined they will need to be filled in manually. The information pulled through to the events is information sent to CathexisVision from the JVA device, see the JVA settings for the strings needed here.

8.4 Actions

Once the triggers that are going to initiate the event have been defined, to define some Actions in the **Actions tab** of the **New Event** window.

To set an action for an event trigger, click the New button.



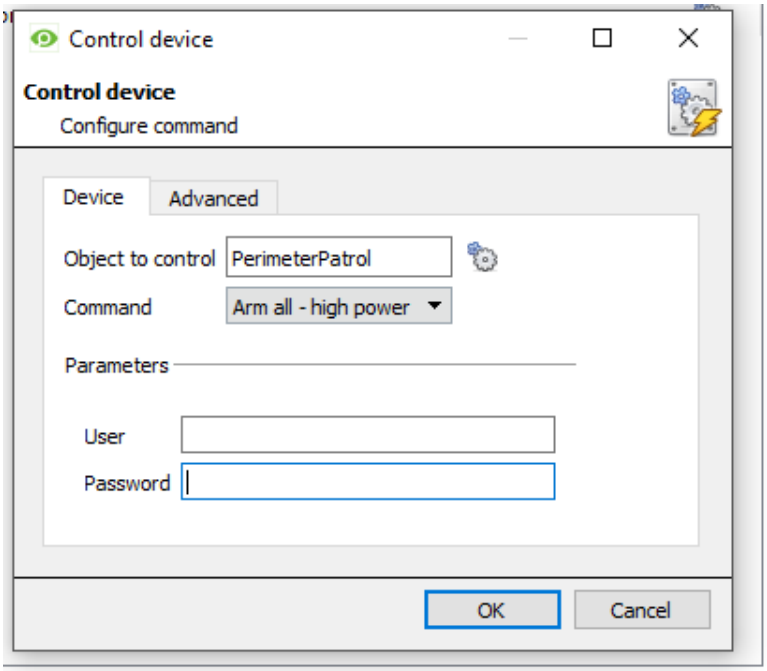
Select an action from the available options.

One of the available actions will be to *control* the JVA device by selecting **Control JVA**….

8.4.1 Control device

This will bring up the **control device** dialogue. Under the **device** tab the user defines how the device will be controlled; under the **advanced** tab, the scheduling of the action is defined.

8.4.1.1 Device Tab



Select an Object to control by clicking on the settings icons.

This will display a selection of all the Objects available on the JVA device.

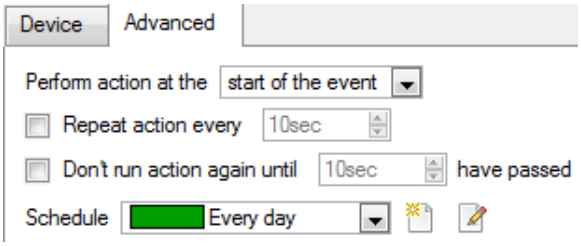
The **Command** drop-down will change to present the commands available to that Object.

In the demonstration on the left, the PerimeterPatrol object has been selected as the **object to control**. Thus, when this event is triggered, the action will be to command the PerimeterPatrol object to Arm all (associated zones) – high power.

Note that to issue commands, the user must enter the details used to login to the JVA Perimeter Patrol software.

Note: Only global action can be taken here, and global actions may only apply to **controllers**. For example, **communication channels** cannot be controlled as part of an event action. If one of these objects is selected, there will be no options in the *Command* menu.

Advanced



Choose whether to **perform action 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.

Schedule is a standard CathexisVision schedule, which can be applied to the actions.

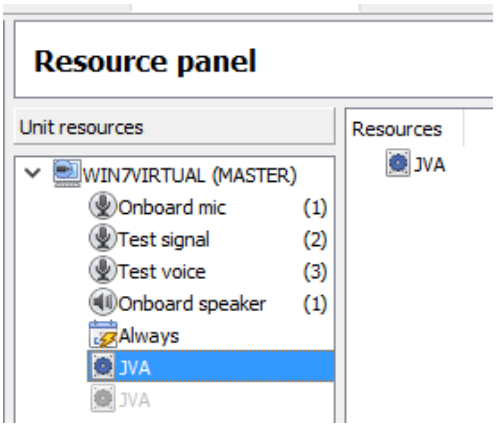
9. Map

It is possible to add the JVA device to a site map, which will allow for a number of action options when objects are triggered. These options include the animation of triggered zones and connecting to site cameras when zones are triggered, etc.

Note: This section will only deal with the specifics of the JVA device. For more information on using the CathexisVision Map Editor and Map Tab, please consult the dedicated and detailed **Map Editor Operation Manual**.

9.1 Add the Device as a Resource

If it has not already been done (see section 6. Cameras Tab), the device must be added as a resource to be added to the map.

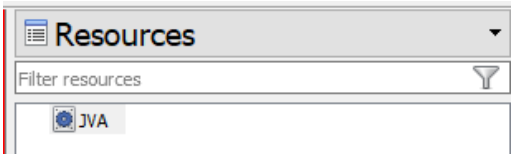


1. Navigate to the **Resource Panel** by following **Site / Open Tab / Setup / Resource Panel.**

Click the Resource Panel icon to open the menu.

2. Drag the JVA device from the **Unit Resources** list into the **Resources** list, on the right.

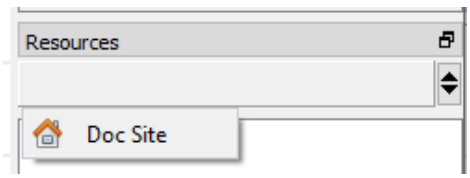
After doing this, the device should appear in the Resources panel in the Cameras tab:



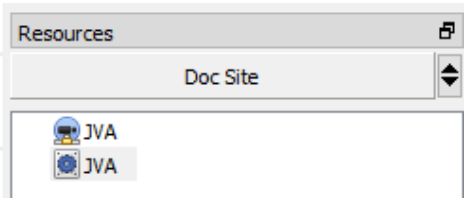
9.2 Add the Device to the Map

Once the JVA device has been added as a **Resource**, it will be available to drag onto the map area from the **Site Resources** list.

9.2.1 Connect to Site

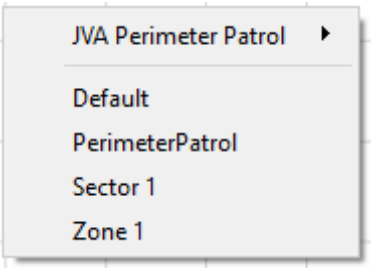


At the bottom right-hand of the Map Editor screen, click the drop-down menu to select the site to connect to.



Once connected to site, all the resources available will populate in the panel below.

9.2.2 Adding Device Objects

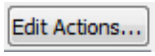


Drag the JVA device from the Site Resources list onto the map area. All of the JVA device objects will appear in a list. Select an object.

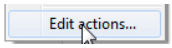
Note: To add multiple objects, repeatedly drag-and-drop the device onto the map area and select the desired objects individually.

Note: Perimeter Patrol objects do not support Map functionality. Only Zone and sector objects function on maps.

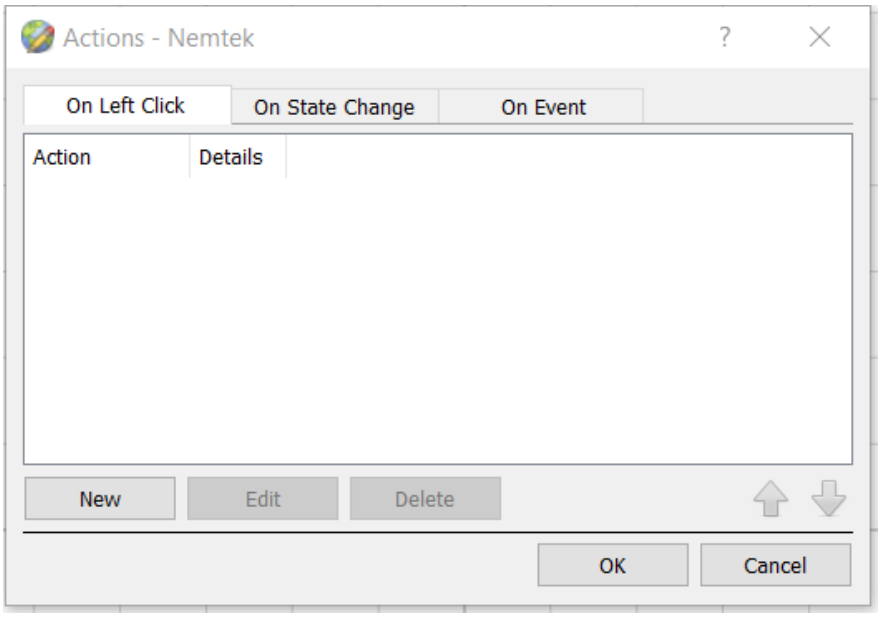
9.3 Adding Device Actions



To add actions to the device objects, either select the object on the map and click.



Or, right-click the map object and select.



Actions may be set for **Left/Right-Clicks**, **State Changes** and **Events**. See descriptions below.

Once configured, the list of actions will populate the white space in the relevant tabs.

To create a new action, select New.

9.3.1 Map Object Device Action Tabs

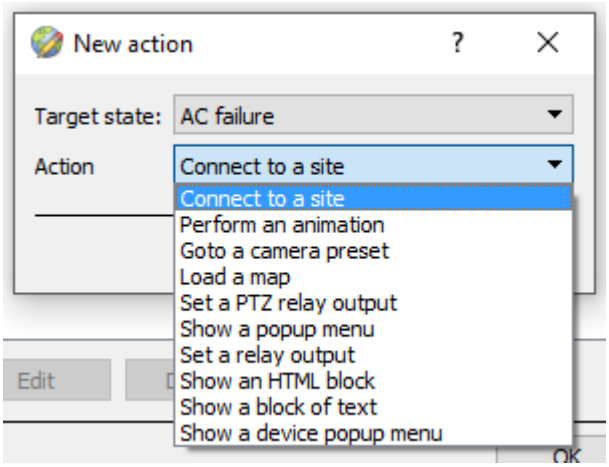
Map actions may be set to trigger on **Left-Clicks**, **State Changes** and **Events.** The table below illustrates the triggers that may be used to generate a map action.

Tab	Map Action Trigger Detail
On Left Click	Left-clicking on the object in the map will trigger an associated map action. See below for actions.
On State Change	When the state of the selected object changes, the map action will occur. State change options will differ according to selected object.
On Event	When a device object event occurs, the associated map action will be triggered. Event types change depending on the selected object.

9.3.1.1 Action Options

Click New in the relevant tab of the action window.

Note: Multiple actions may be added to the map objects.



Action options are the same for all tabs, except for the event tab, which has the added option to **Show a Device Event Notification**.

Click **OK** in the Action window once all required actions have been set for the various map objects.

Once finished, save the map.

Note: The map **must not be saved** in the default folder or Work folder of the installation directory. Instead, create a new directory when saving.

9.4 Map Tab

The saved map needs to be uploaded to CathexisVision. Once the map is open, all objects added to the map area in the Map Editor will be visible on the map, and all actions set will be available.

10. Conclusion

This app-note was designed to deal specifically with this integration. For further information about the CathexisVision software please consult the main manual (http://cathexisvideo.com/).

For support please contact support@cat.co.za.