



AVS Alarm Panel Integration

App-note

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1. Introduction

This document details the integration and configuration of the AVS Alarm Panel with CathexisVision.

This integration entails the triggering of standard CathexisVision events, based on triggers from the AVS Electronics Alarm Panel.

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.**

Note:

1. For information regarding the regular operation of a AVS Alarm Panel and the Xwin software setup, please consult the relevant AVS Alarm Panel manufacturer’s documentation.
2. The IP address, socket port, and user code/number in CathexisVision must be the same as those configured in the AVS Alarm Panel Xwin software. See [2.1 Cathexis AVS Alarm Panel Specific Setup](#) for more details on this.

1.1 Requirements

1.1.1 General Requirements

- CathexisVision 2023.1 and later.
- Windows 10: 64-bit and later; Windows Server 2016 and later.
- Ubuntu 16.04/20.04 LTS
- Minimum of 4GB of RAM required.

1.1.2 Licensing Requirements

The Cathexis AVS Alarm Panel integration license requirements are as follows:

License No.	Name	License Description
CAVS-2000	AVS Electronics alarm panel	This license is the “base” license to integrate with the alarm panel system. It is applied to the server to which the AVS Alarm Panel is connected. This licence will allow for the connection of a single integration device

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

1.2 AVS Alarm Panel Requirements

Note: Cathexis makes a best attempt to ensure that the equipment and license requirements of third-party equipment are adequately specified. However, it is possible that the requirements of third-party equipment may change over time, including the interface hardware/firmware and licensing. The user is advised to clarify the latest requirements directly with the third-party equipment supplier.

This integration was tested on:

Hardware name	AVS XTREAM 32 EVO
Hardware model number	XTREAM32 EN0
Additional hardware required	EWEB PLUS module (Ethernet)
Firmware as tested	V1.2 t0
Third-party software name	Xwin
Third-party software version	1.1.0.4

1.3 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. They are different types of objects.

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.

2. Device Addition and Configuration

This section will detail the procedure for adding the the AVS Alarm Panel device to CathexisVision.

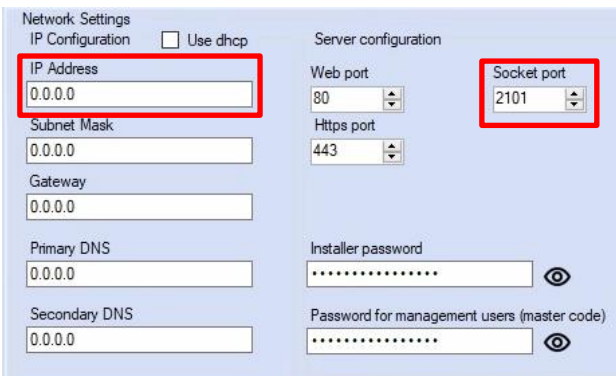
2.1 Cathexis AVS Alarm Panel Specific Setup

The AVS XTREAM 32 EVO Alarm Panel requires manual configuration, as does the EWEB PLUS module (Ethernet). Please contact the relevant manufacturer for this information.

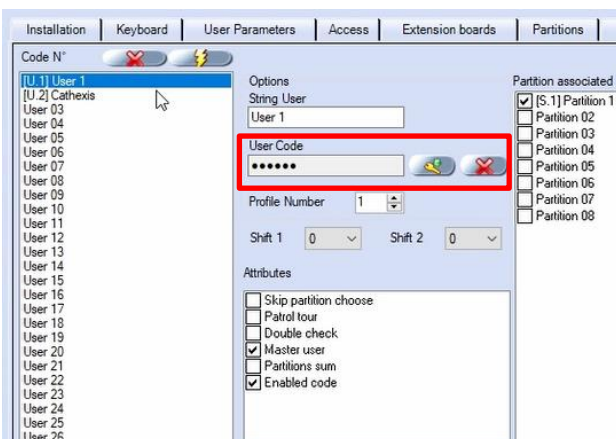
Below is information on how to find the IP address, socket port, and user code/number in the AVS software to ensure that it matches the configuration on CathexisVision.



Navigate to the Show/Modify tab of the AVS customer entry found in the Xwin **Control Panel Manager**



The **IP address** and **socket port number** are found in the **XWEB/EWEB** tab.



The **user code** (user number in CathexisVision) is found in the **Codes** tab.

2.2 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:

2.2.1 The Integration Panel



There are two sections in the Integration Panel:

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

AVS XTREAM 32 V.EN0 Test NVR - Integration devices

Devices

Name	Driver
1 AVS XTREAM 32 V.EN0	AVS Alarm
2 AVS Quido	Quido I/O

Configuration of '1 AVS XTREAM 32 V.EN0'

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

Object type: All objects

Type	ID	Name	Cameras	Object groups
Communication channel	CommsChannel__default_	Default		
Partition	Partition.01	Partition01	Front Building	
System	System.System	System		
Zone	Zone.01	Zone01	Front Building	

2.2.2 Device Addition

New device

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

← New integration device

Select a driver

- A5 POS
- ACT access control
- AVS Alarm**
- Agent VI
- Aivex Aireco
- Aivex HST
- Allgovision Anl
- Arch POS
- Axis AC
- Axis IO
- BACNet
- BioAccess
- C-Cure victor Web Service
- CaddX alarm panel
- Cathesis EIO3148 Counter
- Cathesis LPR
- Cathesis POS

Next Cancel

2. Select the **AVS Alarm** driver from the list.

← New integration device

Configure the device

Name

Connection

IP address

Port

Settings

User number

Finish Cancel

3. Give the device a descriptive **name**.
4. Set the **IP address**, **Port** and **user number/code** to match those set in the **Xwin** software.

Once the AVS Alarm Panel device has been added and configured, select it in the Devices list. All AVS Alarm Panel objects will then automatically populate the **Configuration Section**.

3. Configuration Section (Tabs)

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

3.1 Object Configuration Tab

In the Object configuration tab, all the individual objects that comprise the integration may be viewed.

The AVS Alarm Panel device has four object types: **Communication channel**, **Partition**, **System**, and **Zone**. For each object type, cameras can be added, and overlays enabled.



All AVS objects (for **Communication channel**, **Partition**, **System**, and **Zone**) are automatically populated when communication to the AVS Server is established. It is not necessary to add new devices/readers manually.

3.1.1 Object Configuration Buttons

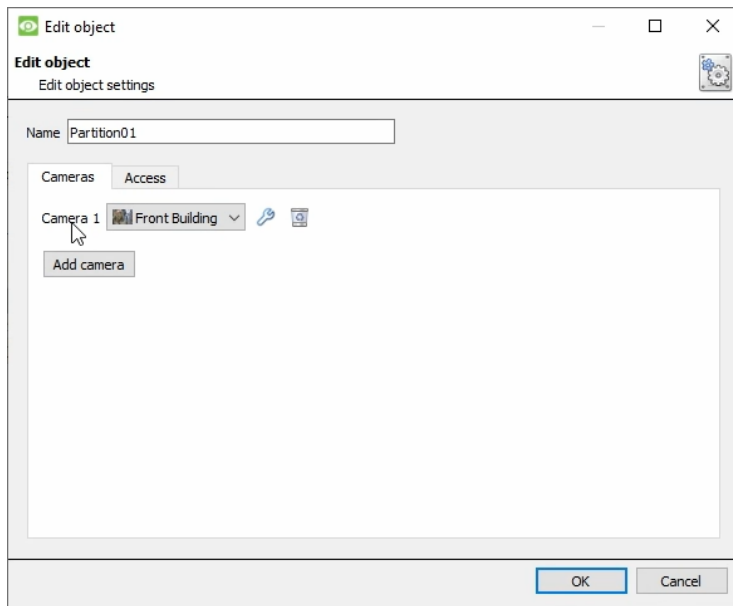
	Click New to add a new object.
	Click Edit to change an existing object.
	Click Delete to remove an existing object from the CathexisVision configuration.

3.1.2 Object Configuration Right-click Options

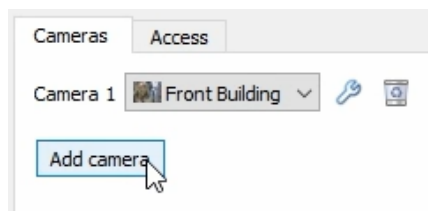
	New allows a new object to be added.
	Disable/Enable allows individual objects to be enabled or disabled.
	Delete will permanently remove this object from the list.
	Properties will open up the object properties. The object may be edited from here. (Specifically, this is where cameras and user access levels are assigned.)

Alternatively, to edit an object, double-click it. This will open the **Edit object** window:

3.1.3 Edit Object



3.1.3.1 Cameras Tab



Adding a camera to an object means 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. Recording must be configured in the camera setup to view the event at a later stage.

 To add a camera, click on **Add Camera**. Select the relevant camera from the drop-down menu.

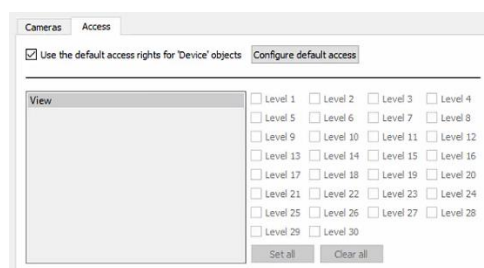


To delete a camera, click on the deletion icon.



Click on the spanner icon to configure a camera's overlays.

3.1.3.2 Access Tab



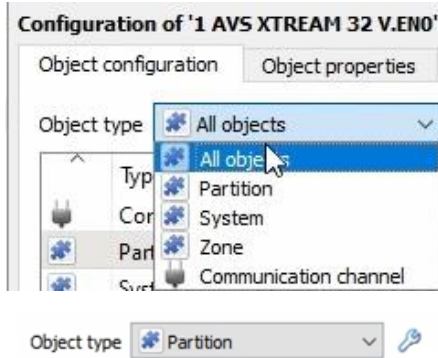
Access allows sensitive objects to be protected by only allowing certain levels users access to them.

A list of objects for which access levels may be set, is visible.

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.

3.1.3.3 Configure Overlays

There are three possible default overlays in the AVS Alarm Panel integration: Partition, System, and Zone.

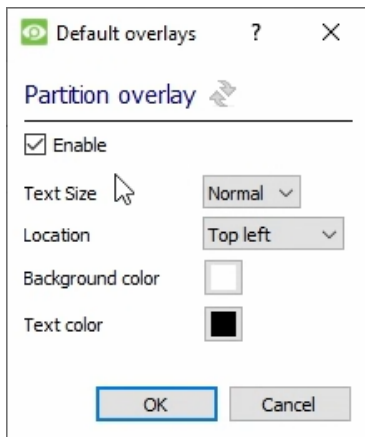


To open the **Default overlays** window:

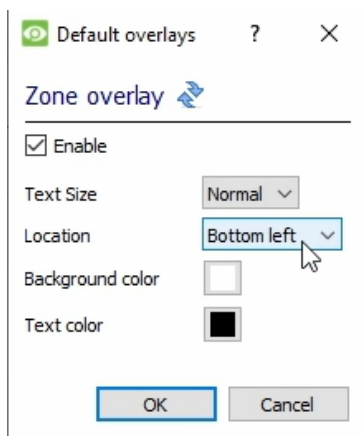
Select the desired **Object type** from the drop down.



Click on the spanner icon.



Configure the overlays as desired.



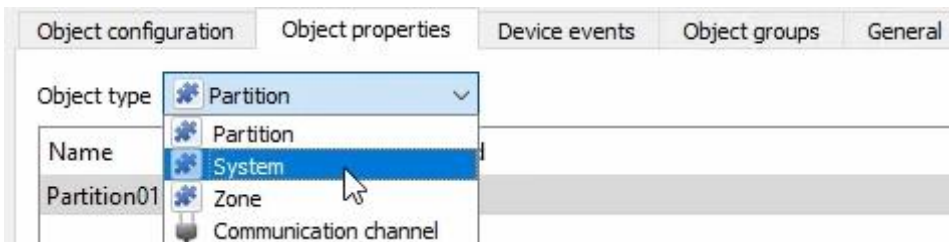
With multiple overlays, select a *different location* for each overlay to avoid overlap on the stream.



In this image the **Partition** and **Zone** overlays can be seen in the top and bottom left corner as configured.

3.2 Objects Properties Tab

The Object Properties tab is where all object properties may be viewed. Objects are sorted by type. The types of objects for this integration are **Partition**, **System**, **Zone**, and **Communication channel**.

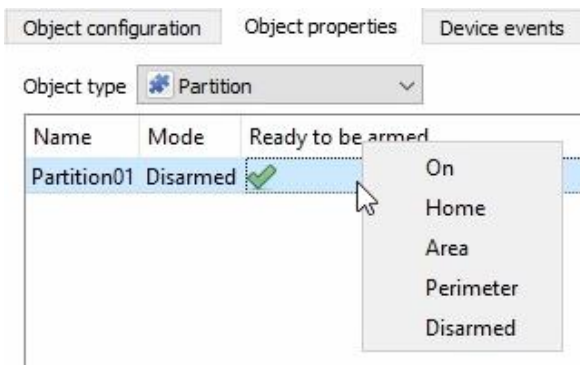


Partition

Partition properties include:

Name, Mode, and Ready to be armed.

The following drop-down menu command options are available for each partition: **On, Home, Area, Perimeter, and Disarmed.**



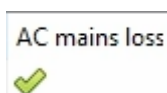
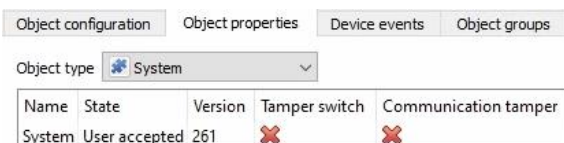
System

There will only be system displayed.

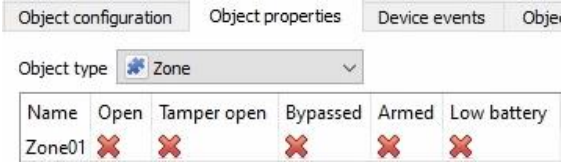
System properties include:

Name, State (user connection), Tamper switch, Communication tamper, AC mains loss, Low battery Voltage, Battery missing, Fire alarm and RF interference.

When a change of state occurs, the red cross will change to a green tick.



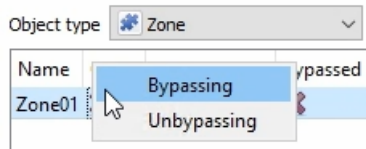
Zone



This shows the object properties belonging to the Zone object type.

Zone properties include:

Name, Open, Tamper open, Bypassed, Armed, Low battery, Detector fault, Anti-masking alarm, and Alarm detection

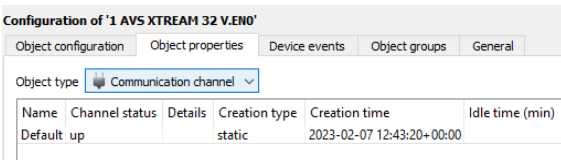


The following drop-down menu command options are available for each Zone:

Bypassing and Unbypassing.

This allows a specific zone to be bypassed on unbypassed.

Communication Channel



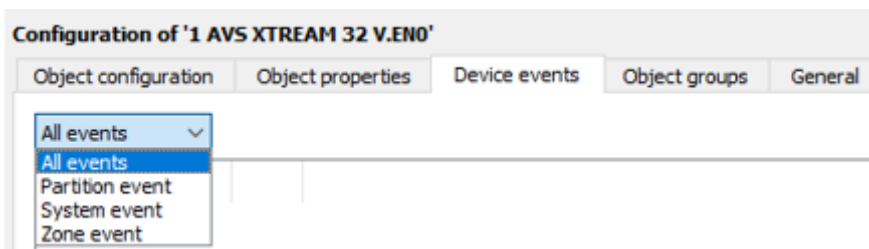
This shows if the connection is up or down.

Communication channel properties include:

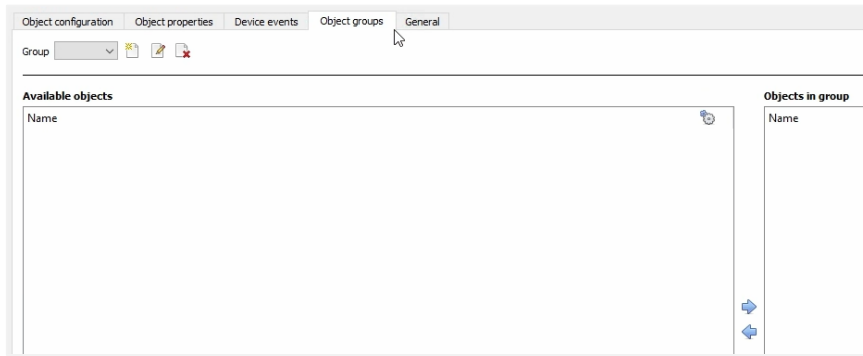
Name, Channel status, Details, Creation type, Creating time and Idle time (mins).

3.3 Device Events Tab

This will list real-time events happening on this device. This helps installers to see that the integration is functioning, and to monitor the live events happening on site. The Device Events for this integration are **Partition, System, and Zone**.






3.4 Object Groups Tab



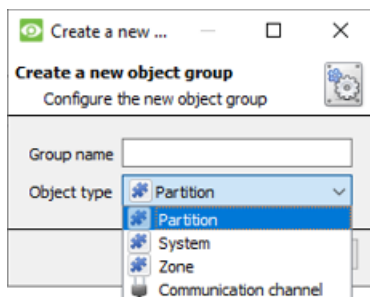
Groups of the same type of object may be created.

This is useful when setting up events, as events can be *triggered* by an object group.

3.4.1 Create a Group

-  To create a group, click on this icon.
-  To edit a group, click on this icon.
-  To delete a group, click on this icon.

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

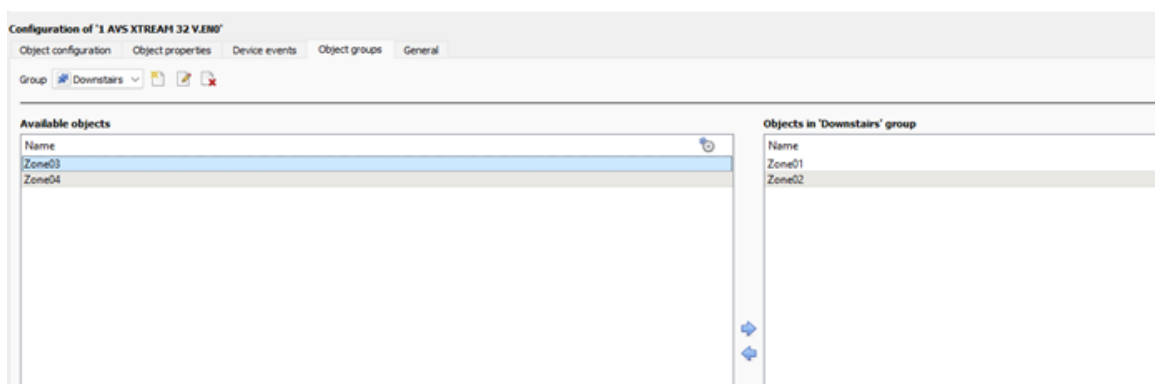


When creating a group, select what object type to include in the group. Once the group is created the available objects panel will fill up with all available objects of that type.



From this list, choose which objects to use in the Group.

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

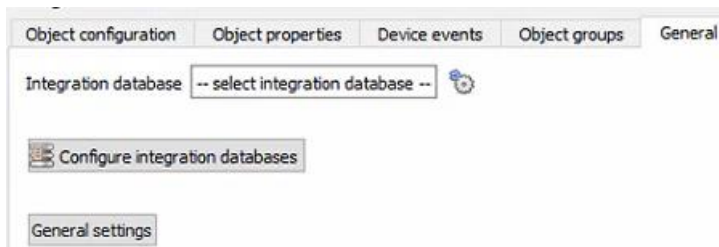
Click on the drop-down menu to select the **object type** to group.



A list of available objects will be displayed. It is possible to select multiple objects at a time.

-  To add these objects to the group, select them and click on the arrow.
-  To remove these objects from the group, select them and click on the arrow.

3.5 General Tab



The general tab deals with the integration database. The user can 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.

3.5.1 Select an Integration Database

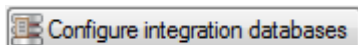


 To select a database, click on the settings icon, and select the relevant database.

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

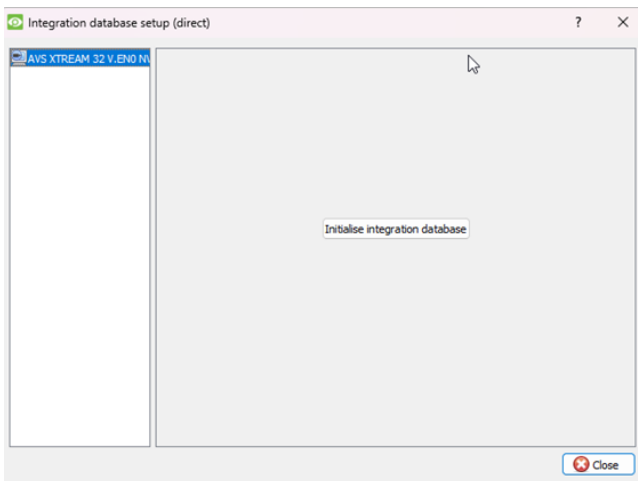
3.5.2 Configure a New Database

The first time an integration database is added, the general integration database will need to be **initialised**. Thereafter, a database for a specific integration can be **created**.



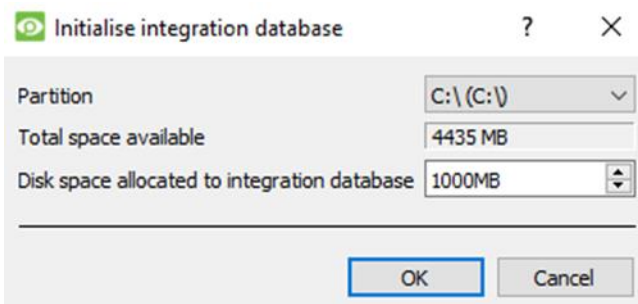
To create a new database, click the Configure integration databases button from the General tab. This opens the integration database setup.

3.5.2.1 Initialise the Integration Database



Select the unit the database will be added to from the list on the left.

Click **Initialise integration database**.

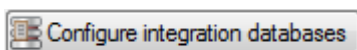


Choose the partition on which the database will be created.

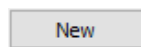
Select disk space allocation.

3.5.2.2 Add a New Device Database

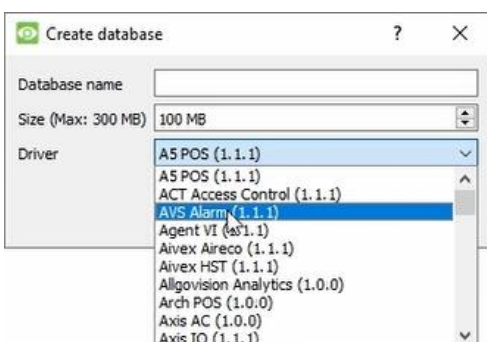
After initialisation, the database can be added to the integration.



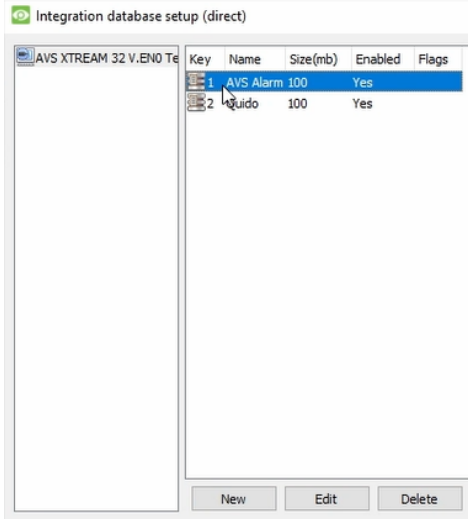
To create a new database, click the **Configure integration databases** button from the General tab.



Click the **New** button at the bottom of the **Integration database setup** window.



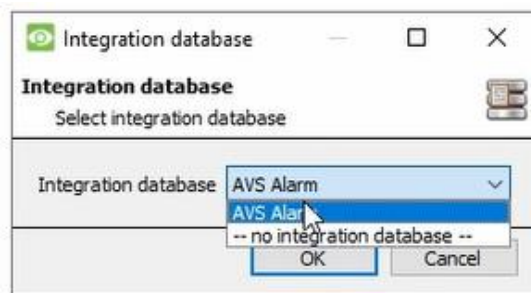
- Give the Integration database a descriptive **Database Name**.
- Allocate a **Size** to the new device database.
- Select the device **Driver (AVS Alarm)** from the drop-down list.
- Click **OK** to create the database.



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

3.5.1.3 Select the AVS Alarm Pane Integration Database

Integration database -- select integration database --  From the General tab, **click** the gear icon .



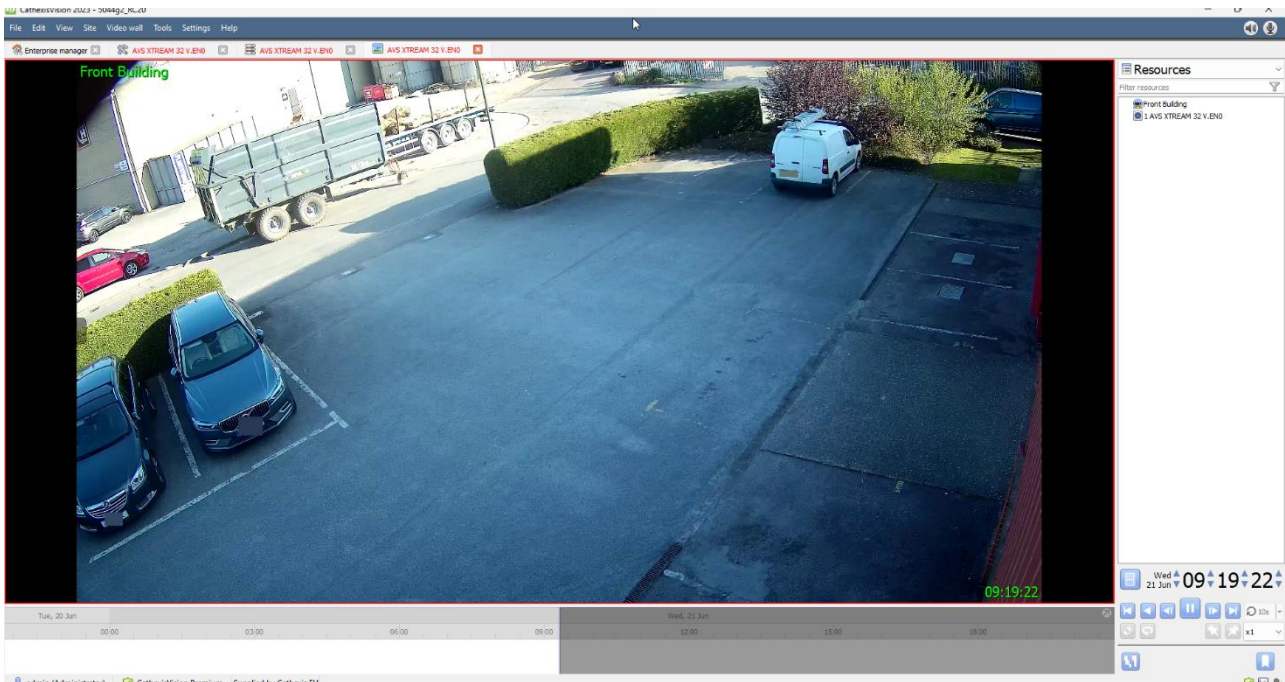
In the dialogue that appears, select the database.

Only databases relevant to the integration being added should appear.

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

4. Camera Tab Overlay Setup

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



Note: cameras must already have been added to objects, and overlays must have already been configured.

4.1 Enable the Overlay



To bring up the overlay, click the arrow to the left of the screen. This pops 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 on this icon will bring up the overlay options for this video feed. Select the overlay.



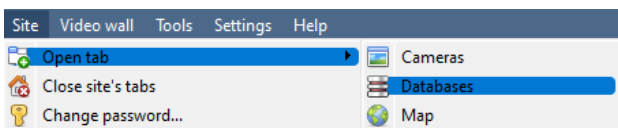
When an event has been triggered on the object, the overlay will appear.

5. Database

The Databases tab allows the user to navigate to the databased entries, for each individual database. In the Databases 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 CathexisVision by the integrated device.

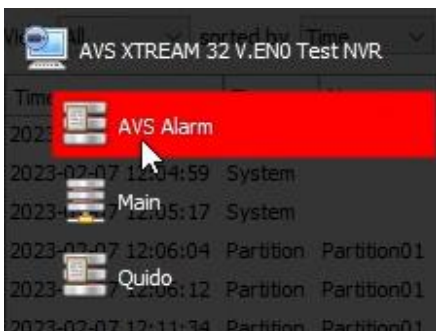
5.1 Navigate to the Database



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

Site / Open tab / Databases

This will open the Database Tab.




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



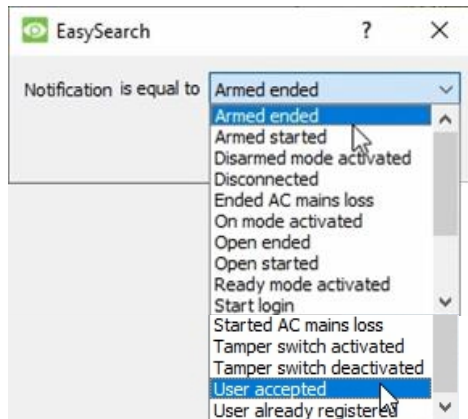
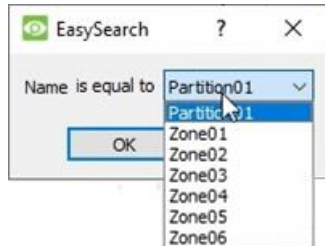
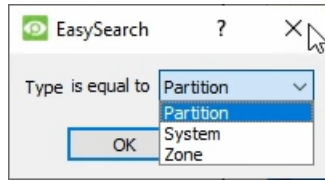
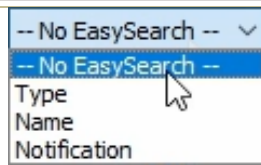
Hover over the arrow on the left-side of the camera image to bring up the database panel on the left as required.

5.2 Database Interface



<p>① View</p>	<p>The way the database is presented may be changed. The AVS Alarm Panel database allows the user to view All.</p> 
<p>② Sorted By</p>	<p>Events may be further sorted based on the following parameters: Time.</p>

③ Easy Search



The easy search option allows for a quick search of the database within one of the following options: **Type, name, and Notification.**

The options for **Type** are:

Partition, System and Zone.

The options for **Name** are:

Partition, Zone Name.

The options for **Notification** are:

Armed ended, Armed started, Disarmed mode activated, Disconnected, Ended AC mains loss, On mode activated, Open ended, Open started, Ready mode activated, Start login, Started AC mains loss, Tamper switch activated, Tamper switch deactivated, User accepted, User already registered.

④ Filter

Filter offers a more advanced way to sort information in the Integration Database table.

Once the filters dialogue is open, the following options are available:

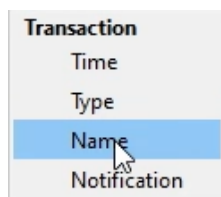
Enable filters To enable filters, check this box.

To add a new filter, click on this icon.

The filter icon will change to when filters are active.

To delete an added filter, click on this icon.

Filter options:

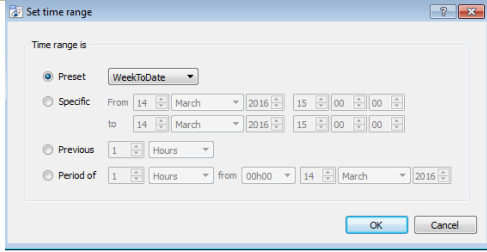



[in the Week to date](#)

Filter options in the **AVS Alarm Panel** integration are:

Time, Type, Name, and Notification.

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 (for example **in the Week to date**).

		<p>This will bring up a dialogue box, where the time range can be defined.</p>
<p>5 Export</p>	<p>Generate meta-database 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.</p> <p> Then click on the arrow icon.</p>	

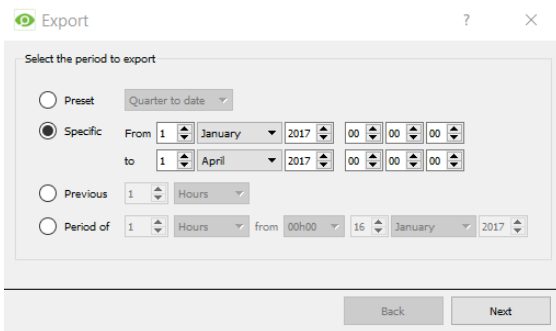
Note:

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.

5.2.1 Generate and Export Metadatabase Reports

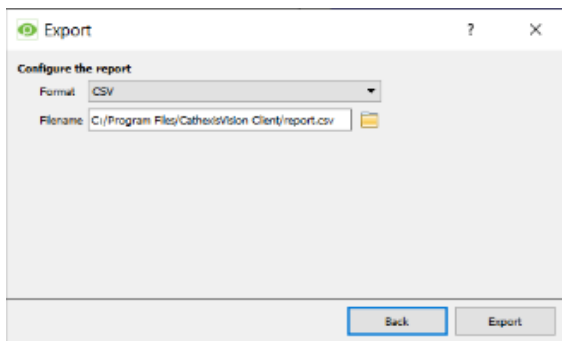


Click this icon to open the Export window.



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

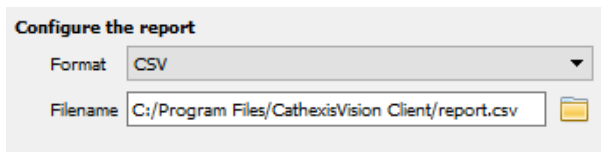
Click **Next**.



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


See below for the two options.

5.2.1.1 Export CSV

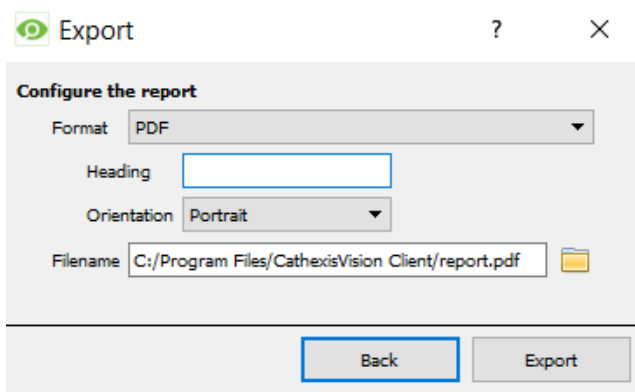


Select CSV **Format**.

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.


5.2.1.2 Export PDF



Select PDF **Format**.

Give the PDF a **Heading**.

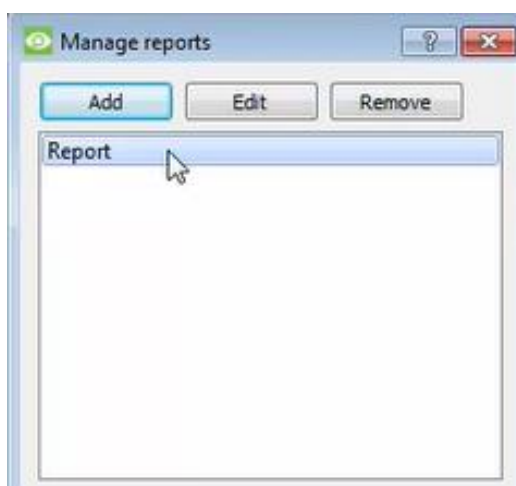
Select either Landscape or Portrait **Orientation** of the PDF.

Edit the **Filename** by either entering it straight into text field (replacing **report.csv**), or click the folder icon to choose a new save folder and filename. 

5.2.2 Scheduled Metadatabase Reports



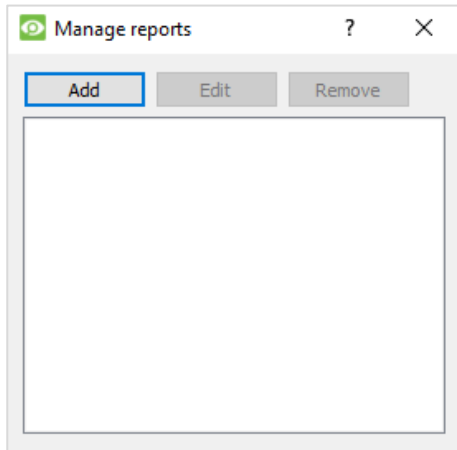
Click the report icon to open the scheduled report window.



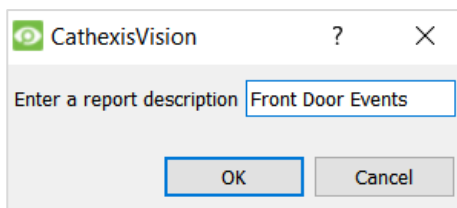
All created reports will be listed here.

- First, click **Add** to create a report.
- Then **edit** to define the reporting schedule. See below for more detail.
- To create, edit, or delete a report, select the entry and click on the corresponding button.

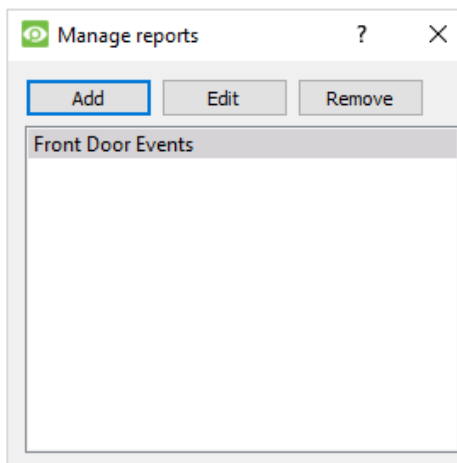
5.2.2.1 New Scheduled Report



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



- Give the report a description.
- Click **OK** when done.

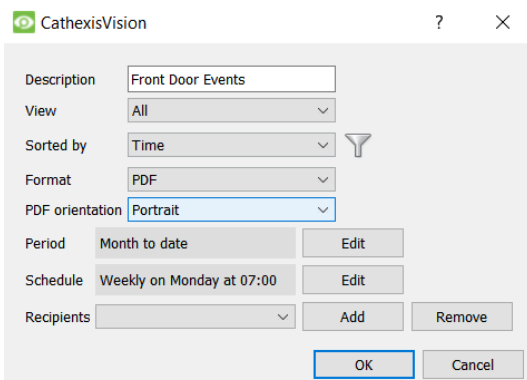


- The item will appear in a list.

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

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 **Viewing** options.

Select the **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

Add

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

Remove recipient

Remove

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

5.2.3 Metadata

Time	2023-02-07 12:56:35
Type	Partition
Name	Partition01
Notification	On mode activated

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

5.2.4 Viewing an Entry's Associated Recording

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.

The screenshot shows a software interface with a table of events on the left and a video player on the right. The table has columns for Time, Type, Name, Notification, and Links. The video player shows a recording of a parking lot with a white van and a blue car. The video player interface includes a search bar, a filter icon, and a play button. The video player also displays metadata for the selected event, including Time, Type, Name, and Notification.

Time	Type	Name	Notification	Links
2023-02-07 12:12:48	Zone	Zone06	Armed ended	
2023-02-07 12:12:51	System		Tamper switch deactivated	
2023-02-07 12:12:59	Partition	Partition01	Ready mode activated	
2023-02-07 12:13:45	System		Disconnected	
2023-02-07 12:13:50	System		Start login	
2023-02-07 12:13:51	System		User accepted	
2023-02-07 12:33:40	System		Disconnected	
2023-02-07 12:43:47	System		Disconnected	
2023-02-07 12:43:52	System		Start login	
2023-02-07 12:44:27	System		User accepted	
2023-02-07 12:45:21	Zone	Zone01	Open started	
2023-02-07 12:45:50	Zone	Zone01	Open ended	
2023-02-07 12:45:52	Partition	Partition01	Ready mode activated	
2023-02-07 12:46:14	Zone	Zone01	Open started	
2023-02-07 12:46:34	Zone	Zone01	Open ended	
2023-02-07 12:46:43	Partition	Partition01	Ready mode activated	
2023-02-07 12:47:24	System		Started AC mains loss	
2023-02-07 12:47:43	System		Tamper switch activated	
2023-02-07 12:47:53	System		Ended AC mains loss	
2023-02-07 12:49:32	System		User accepted	
2023-02-07 12:49:41	Zone	Zone01	Open ended	
2023-02-07 12:49:42	Partition	Partition01	Ready mode activated	
2023-02-07 12:49:50	Zone	Zone01	Open started	
2023-02-07 12:54:15	System		User already registered	
2023-02-07 12:54:33	System		Disconnected	
2023-02-07 12:54:38	System		Start login	
2023-02-07 12:54:39	System		User accepted	
2023-02-07 12:56:35	Partition	Partition01	On mode activated	
2023-02-07 12:56:41	Partition	Partition01	Disarmed mode activated	



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

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

6. Events

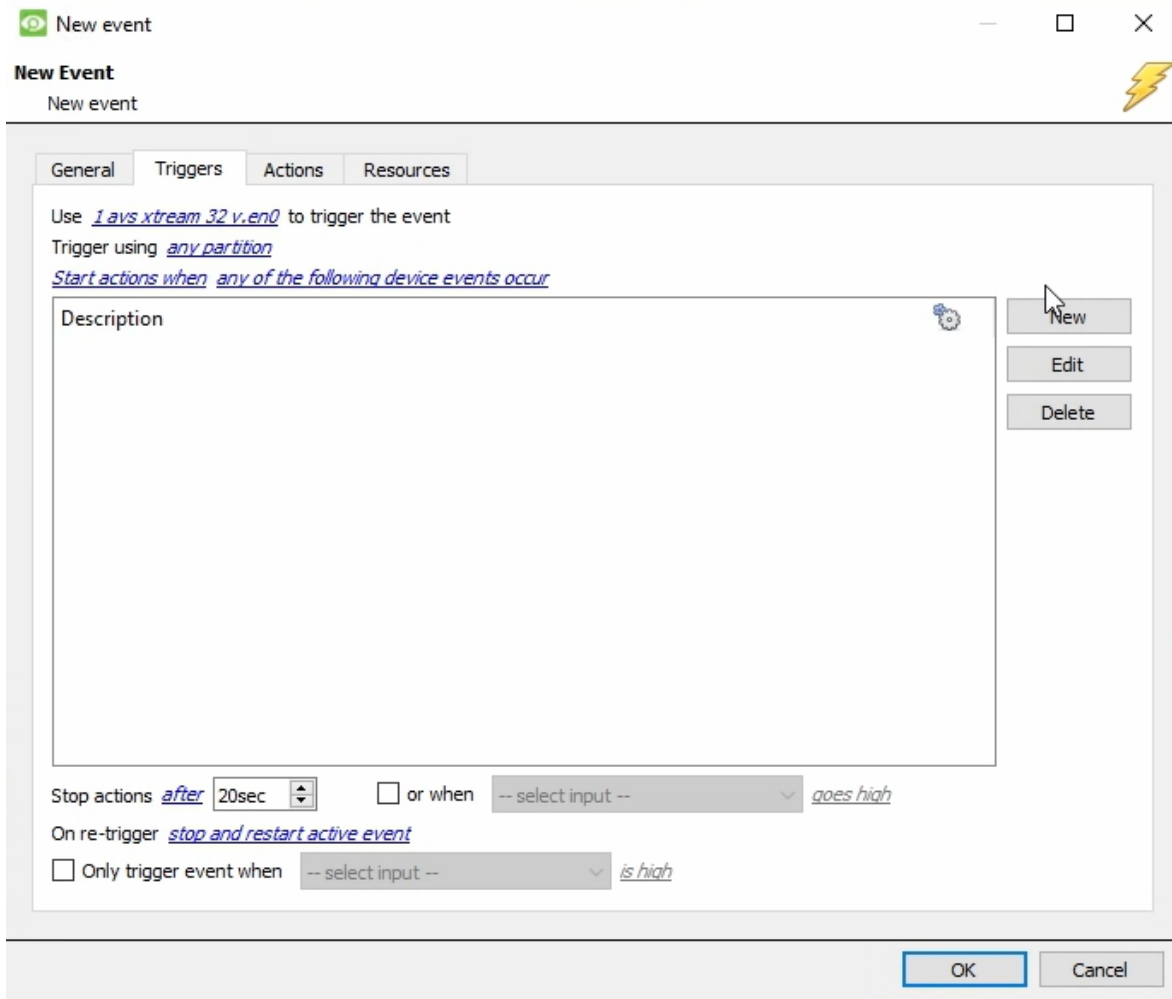
A CathexisVision event has a trigger, which causes an action. Set integrated devices to act as triggers, or as actions. This document will detail the AVS Alarm Panel specific aspects of events. There is a comprehensive guide to CathexisVision events in the *CathexisVision Setup Manual*.

Most of the data that CathexisVision receives from a device is presented in the Events interface.

6.1 Event Window

Events in CathexisVision 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.



New event

New Event

New event

General Triggers Actions Resources

Use 1 avs xtream 32 v.en0 to trigger the event
 Trigger using any partition
 Start actions when any of the following device events occur

Description

Stop actions after 20sec or when -- select input -- goes high

On re-trigger stop and restart active event

Only trigger event when -- select input -- is high

OK Cancel

6.2 Creating an Event

To create an event using the AVS Alarm Panel device, navigate to Events by following the sequence: **Site Menu / Open Tab / Setup / Servers / Master Server / Events**. This is shown below.



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

Servers		AVS XTREAM 32 V.EN0 Test NVR - Events			
Event ID	Name	Description	Triggers	Actions	
3	All Cameras VMD		Trigger template (0 trig	Record trigger cameras	
7	Tamper switch activated		1 AVS XTREAM 32 V.EN0	Record trigger cameras	
8	Communication Tamper		1 AVS XTREAM 32 V.EN0	Record trigger cameras	
9	AC Mains Loss		1 AVS XTREAM 32 V.EN0	Record trigger cameras	
10	Low Battery		1 AVS XTREAM 32 V.EN0	Record trigger cameras	
11	Battery Missing		1 AVS XTREAM 32 V.EN0	Record trigger cameras	
12	Fire Alarm		1 AVS XTREAM 32 V.EN0	Record trigger cameras	
13	RF Interference		1 AVS XTREAM 32 V.EN0	Record trigger cameras	
14	User Error	Sobji state	1 AVS XTREAM 32 V.EN0	Record trigger cameras	



Once in Events management area, click the **New** icon at the bottom of the screen. This will open up the **New Event window**. Alternatively, right-click and select **New**.

6.3 General Tab

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

Alarm Trigger

New Event
Alarm Trigger

General | **Triggers** | Actions | Resources

Name:

Description:

Schedule:

Priority:

Give the event a descriptive **Name**. E.g. *Alarm Trigger*

Modify the Description if relevant.



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

Select a **Priority**.

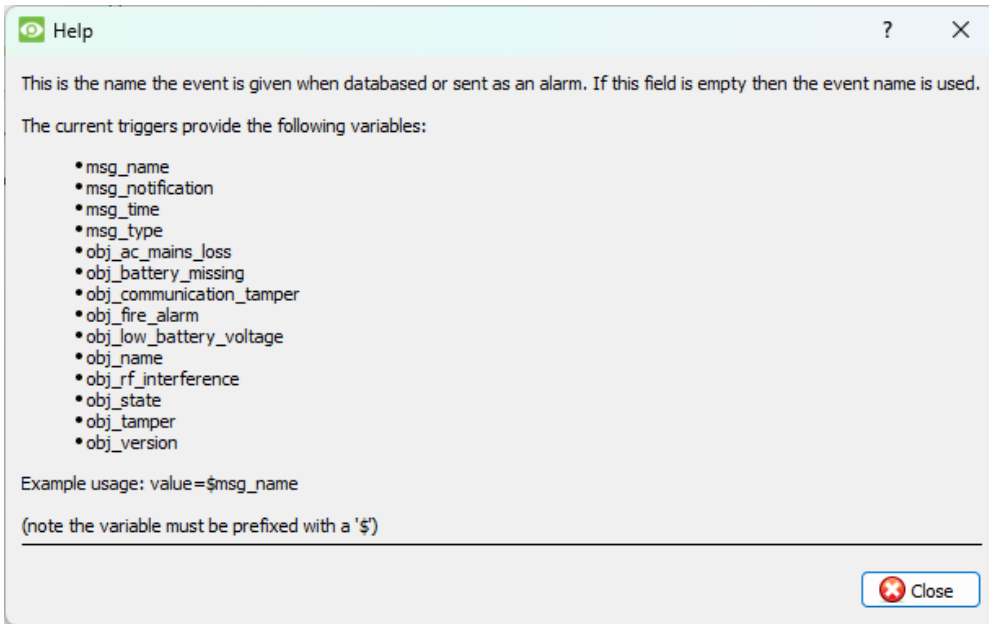
Note for group triggers: For an event to be databased under the name of a specific object, and not the name of the triggering group, modify the Description field in the **General tab** of the Event setup.



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

Note: The variables provided change depending on what trigger is used (see section [6.4 Triggers Tab](#) for more on triggers).

For example, if the New Event named ‘Alarm Trigger’ in the image above was set with ‘any partition’ as its trigger, then the following items will appear when the question mark icon is clicked:



Description ?

If the variable shown to the left is selected in the description, the text “Alarm Trigger” will be databased, along with the state of the *partition object* that triggered the event.

6.4 Triggers Tab

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

6.4.1 Set the Device as the Trigger



If creating a new event, the trigger type will default to:

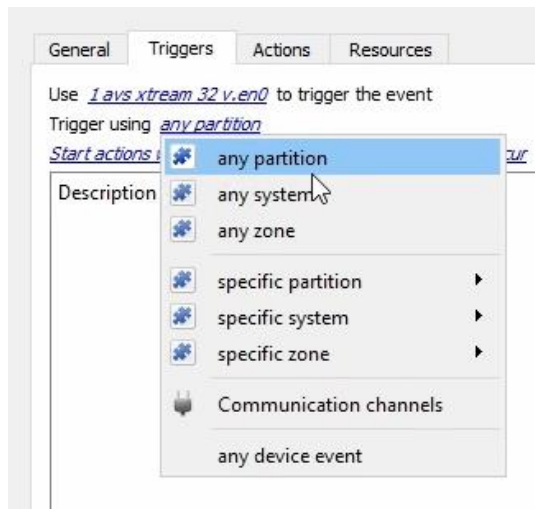
Use [standard triggers](#).

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

Select the relevant device name (AVS Electronics) from the drop-down menu.

6.4.2 Trigger Types

It is useful to think of the “Trigger using” option as the **master trigger type**.



Any partition/system/zone will trigger when any of these objects sends the selected trigger.

Specific partition/system/zone will trigger an event from the specific object selected.

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, set “device event rules”, which will constrain which device events will trigger the event.

Note for group triggers: For this 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 in the **General Tab** to see a list of available descriptions.

6.4.3 While/When and Any/All

When triggering on an object, there is 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.

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.

Start actions when any of the following device events occur
any of the properties meet the following criteria


Perform actions while any of the properties meet the following criteria
all of the properties meet the following criteria

Trigger using any zone
Start actions when any of the properties meet the following criteria

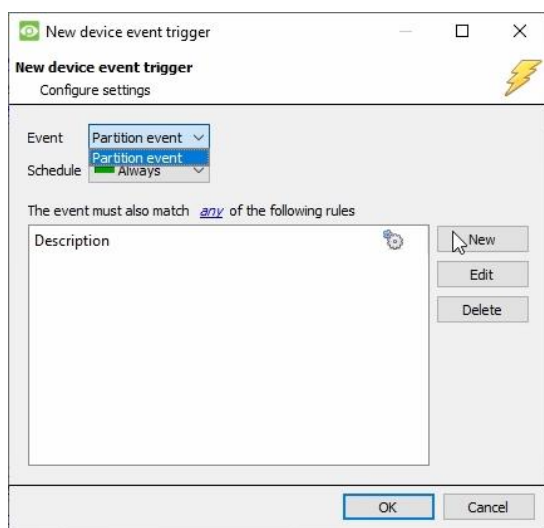
To change these settings, click on the **blue hyperlinks**.

6.4.4 Define the Trigger (Any Device Event)

After selecting a master trigger type, it is necessary to add a trigger to the event. The following example is based on a user having selected “Trigger using **Any device event**”.

 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




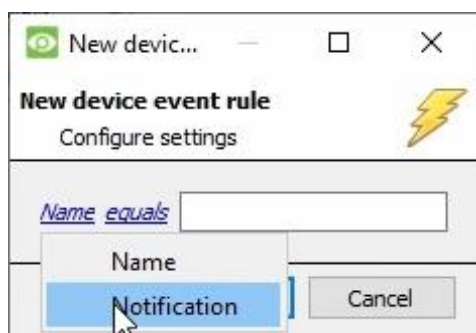
- Choose the *type of device Event* that will be the **trigger**. Choose an *event type* from the drop-down menu.
- Choose a schedule.
- Choose whether “any”, or “all” constraints need to be fulfilled to set off a trigger.
- To add/edit/delete a Trigger (a constraint) use the **New**, **Edit**, and **Delete** buttons on the right-hand side.

Note: The Event options available will depend on what trigger you have selected. i.e., if you have set it to Trigger using [any partition](#) the event type options will only show **Partition event**.

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

New Device Event Rule

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



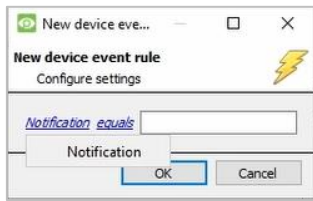
To change the constraint, click on the first hyperlink. This will bring up the full list of available rules.

In the AVS Alarm Panel you can choose the following constraints:

Name and Notification

To modify the way this rule will be treated, click on the second hyperlink (which is [equals](#) in the example). This will display the rules options.

Note: When all available options are known to CathexisVision, a drop-down menu will appear. When these variables are not pre-defined, fill them in.



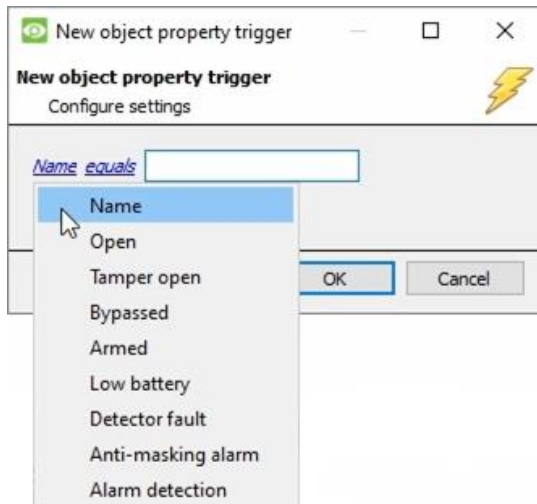
Some event types require a **written description** where there is no drop-down menu. Fill in the description in the field.

Note: Descriptions must be named **exactly** as they appear in the **Databases table**. Descriptions are **case sensitive**.

6.4.5 New Object Property Trigger

If the user has defined the trigger according to properties meeting criteria (see section [5.4.3 While/When and Any/All](#)), the **New object property trigger** dialogue box will open when **New** is clicked. In these instances, further constraints do not need to be set, since they are being added one at a time. This option is better if a few triggers have been selected to use.

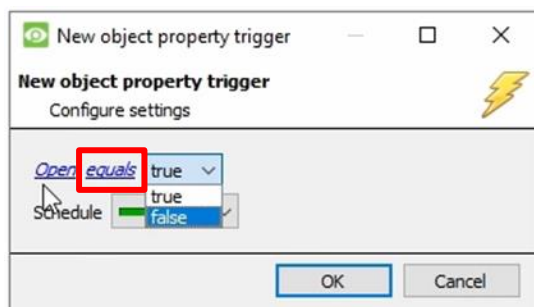
Note: This is also true for groups, since a group may only be made up of one object type.



Configure the settings on the event type that has been selected.

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

In this integration the available constraints are: **Name, Open, Tamper open, Bypassed, Armed, Low battery, Detector fault, Anti-masking alarm and Alarm detection.**



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

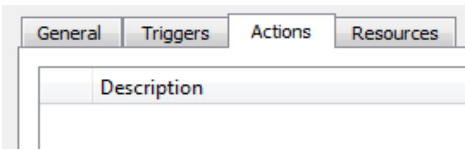
Note: When all available options are known to CathexisVision, there will be a drop-down menu as seen to the left.

6.4.6 Event Example

Use [1 avs xtream 32 v.en0](#) to trigger the event
 Trigger using [any partition](#)
 Start actions when [any of the following device events occur](#)

In this example, an event is configured which will trigger when any partition changes state.

6.5 Actions Tab



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

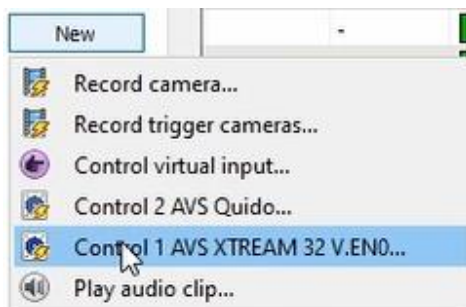
Select the **Actions tab** from the **New event** window.

One of the available actions will be to *control* a AVS device.

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**. The icons represent the device **action type**.

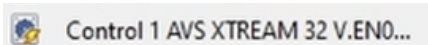
Select an option.



This icon represents an action to control. It will state **“Control ...”** and the name of the Action device e.g.

Control 1 AVS XTREAM 32 V.END...

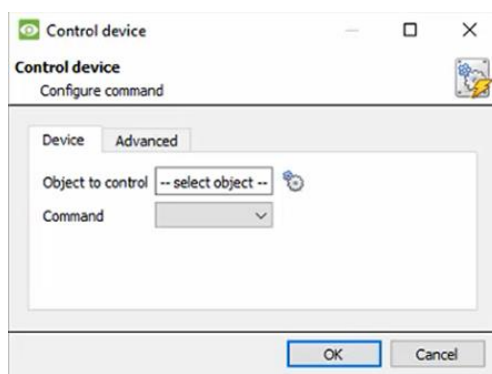
6.5.1.1 Control Device



Click a Control device option to bring up the **control device** dialogue.

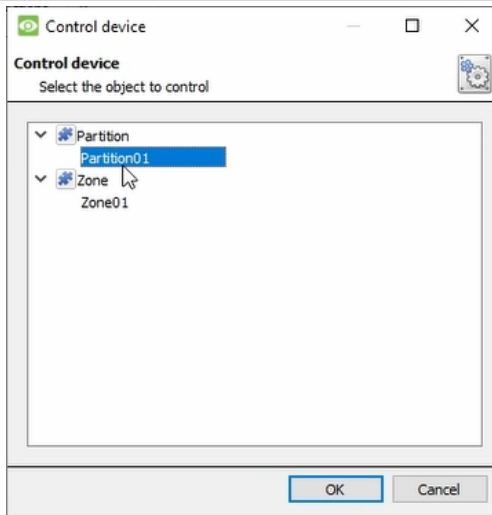
Under the **Device** tab, the user defines how the device will be controlled. Under the **Advanced** tab, the scheduling of the action is defined.

Configure Command Window



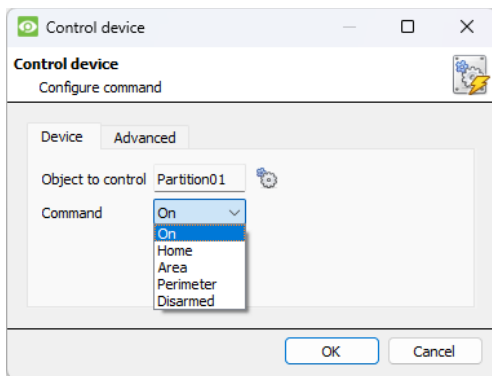
To select an **Object**, click on the settings icon.

This provides a selection of all the Objects available on the AVS Alarm Panel device.



Under the object type parent group, select the individual objects to control.

Click OK.



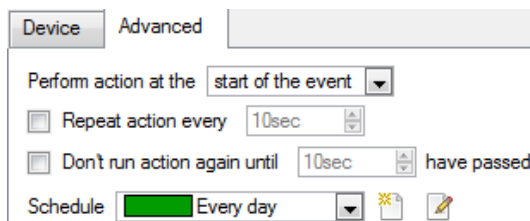
The **command** drop-down will change to represent the commands available to that Object.

Choose a command with which to control the selected object.

In this example the commands for **On, Home, Area, Perimeter and Disarmed** can be selected.

Click OK.

Advanced

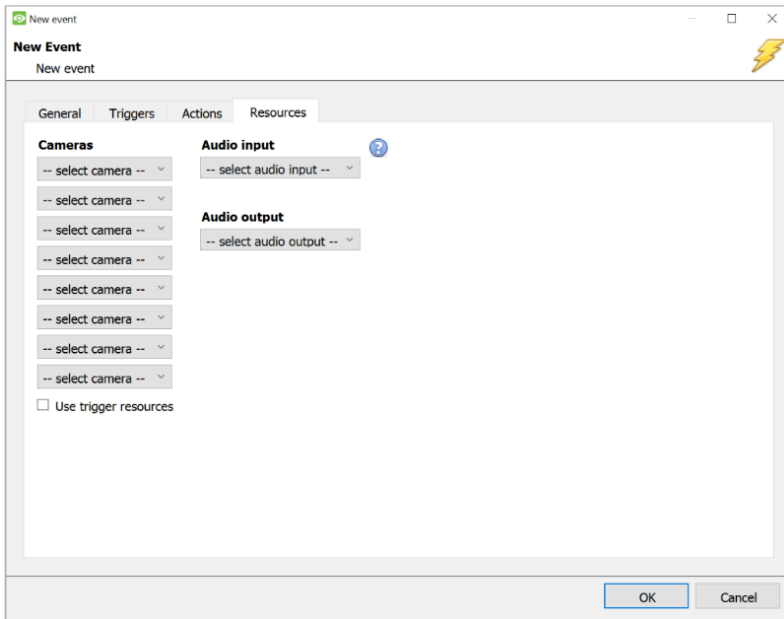


Choose to **perform action**: either **at the start** of the event, or once the event triggers have subsided.

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.

Schedule is a standard Cathexis 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. Maps

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

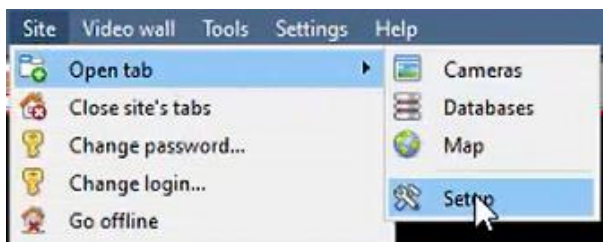
Note:

- This section will only deal with the specifics of the AVS Electronics Alarm Panel . For more information on using the CathexisVision Map Editor and Map Tab, please consult the dedicated and detailed **Map Editor Operation Manual**.
- The CathexisVision Map Editor is only available on **Windows** operating systems.

7.1 Add the AVS Alarm Panel Device as a Resource

To configure the map, the AVS Alarm Panel Device must be added as a resource to be added to the map.

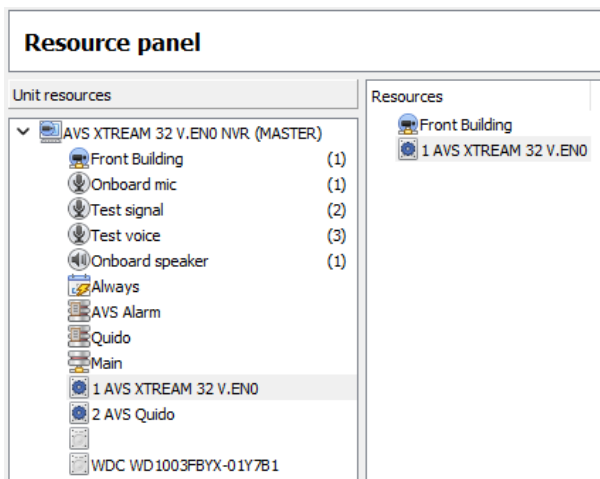
7.1.1 Add the Device in the Resource Panel



Navigate to the **Resource Panel** by following:
Site / Open Tab / Setup / Configure resource Panel



Click the **Configure Resources** icon.

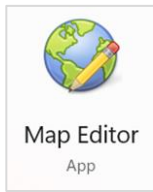


In the site's Resource panel, a list of resources will be displayed.

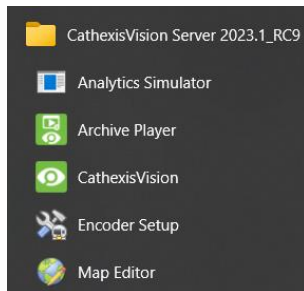
Select the **AVS Electronics** integration device. Drag and drop it under **Resources** on the right.

The AVS Electronics integration device will now be listed as a Resource in the Map Editor.

7.2 Configure Map Editor

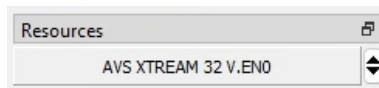


Open the **CathexisVision Map Editor** software.



Follow this filepath:

Start / All Programs or Apps / CathexisVision / Map Editor

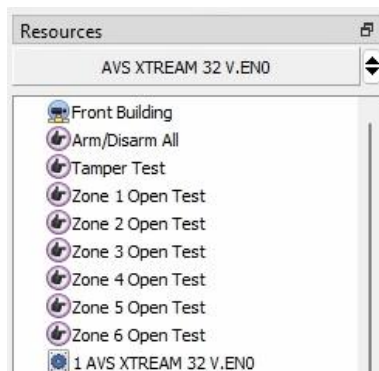


In the **Resources** panel on the bottom right, **select** the AVS Alarm Panel Site.

The AVS Alarm Panel integration device will then be listed as a resource underneath.

7.2.1 Add the Device in Map Editor

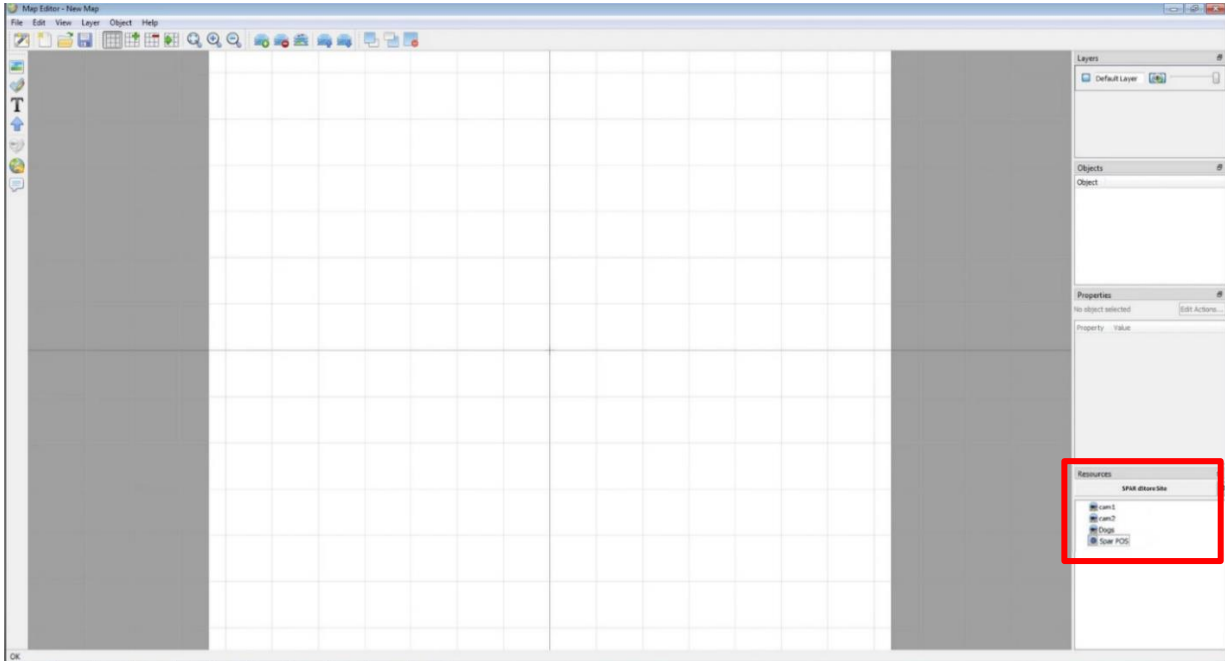
Once the AVS Electronics device has been added as a **Resource** in CathexisVision, it will be available to select in the **Resources** panel in the bottom-right corner of the Map Editor.



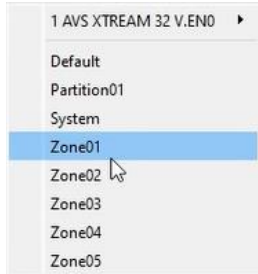
- Select the site from the dropdown menu.
- Once the site is selected, the device as well as **Site Resources** which have been enabled in CathexisVision will appear in the list.

7.2.2 Add Device Objects in Map Editor

The Map editor will appear as below, with the selected site and device appearing in the bottom right.



Drag the AVS Alarm Panel device from the Site Resources list onto the map area.



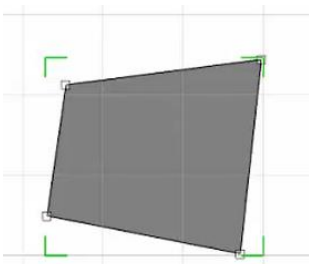
Right click and select one of the associated objects.

Note: To add multiple objects, repeatedly drag-and-drop the AVS Alarm Panel device onto the map area to bring up this option.

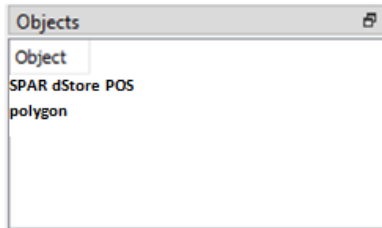
7.2.3 Add a Polygon



On the options bar on the left, click the **Add polygon** icon.



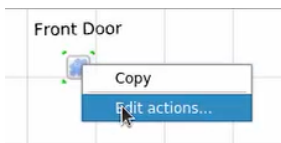
Draw a polygon on the map interface.



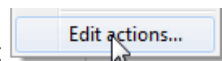
The polygon will now be listed under **Objects** on the right.

7.2.4 Adding and Editing Device Actions

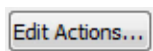
To add or edit actions to the device objects, either:



Right-click the map object and select



Or

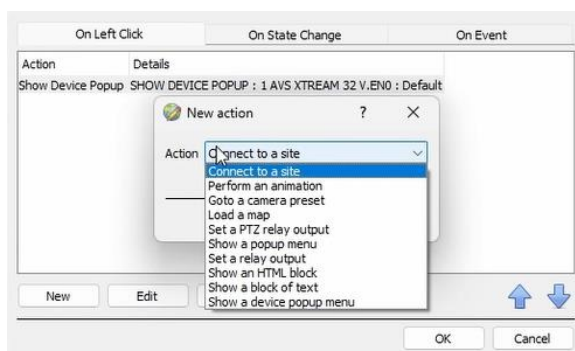


Select the object on the map and click **Edit Actions** (in the Properties panel on the right)

This will open the **Actions window**. For CathexisVision integrations, Actions may be set for **Left/Right-Clicks, State Changes** and **Events**. In the AVS Alarm Panel Integration, Actions may be set for **Left Clicks, State Changes** and **Events**.

7.2.4.1 On Left Click

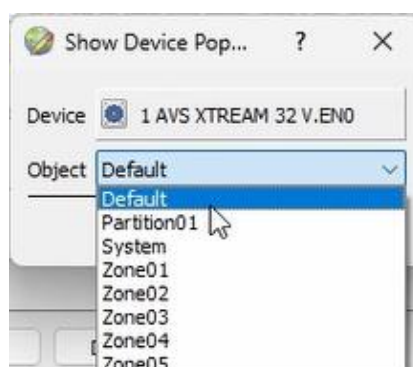
The Action options for Communication channel (Default), Partition, System and Zone are all the same.



In the **On Left Click** tab, select **New**.

This will bring up the **New action** window.

Select the desired Action.



This will bring up the **Show Device Popup**.

Select the object you wish to link the Action to.

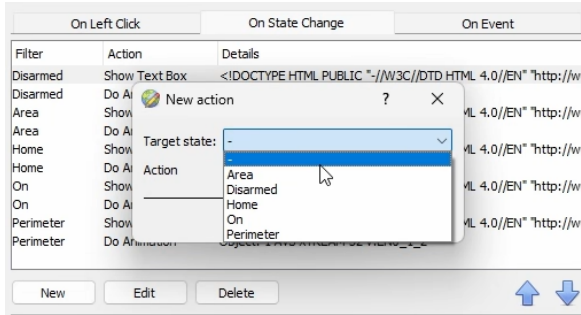


Click OK

7.2.4.2 On State Change

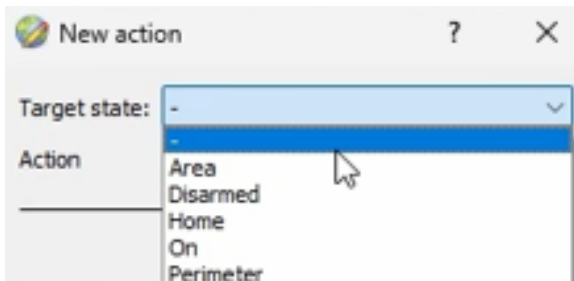
In the AVS Alarm Panel Integration there are no options available for the Communication channel object type. Action options for the Partition, System, and Zone object types differ slightly.

Partition



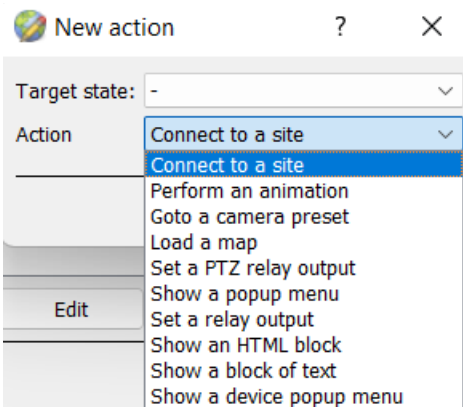
In the **On State Change** tab, select **New**.

This will bring up the **New action** window.

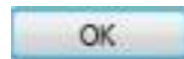


The five target state options in **Partition** are **Area, Disarmed, Home, On, and Perimeter**.

Select the **Target state** you wish to set an action for.

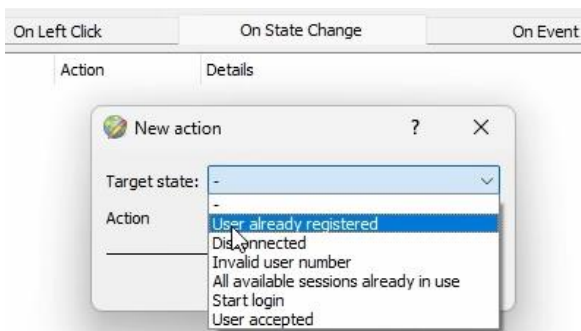


Select an **Action**.



Click OK

System



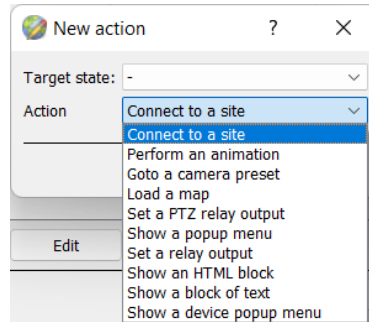
In the **On State Change** tab, select **New**.

This will bring up the **New action** window.



The six target state options in **System** are **User already registered, Disconnected, Invalid user number, All available sessions already in use, Start login and User accepted.**

Select the **Target state** you wish to set an action for.



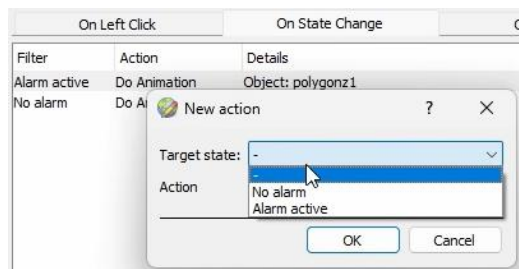
Select an **Action**.



Click OK

Note The object properties shown in the Object Properties Tab (see Section [3.2 Objects Properties Tab](#)) are missing from this list. To set an action for these follow the steps for a system object in [7.2.4.2 On Event](#).

Zone



In the **On State Change** tab, select **New**.

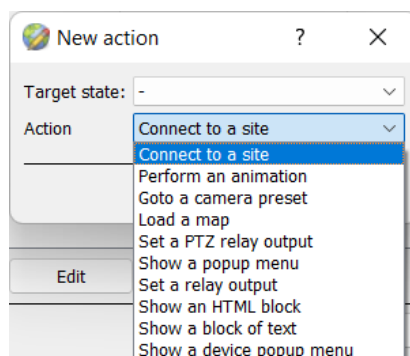
This will bring up the **New action** window.



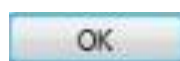
The two target state options in **Zone** are **No alarm, and Alarm active.**

Select the **Target state** you wish to set an action for.

Note: Alarm active indicated that the alarm has been set off.



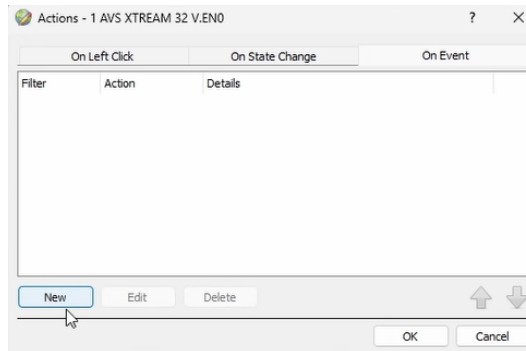
Select an **Action**.



Click OK

7.2.4.2 On Event

In the AVS Alarm Panel Integration the Action options for the Communication channel, Partition, System and Zone object types are essentially the same.

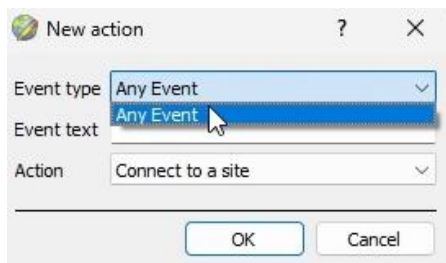


For all Object types:

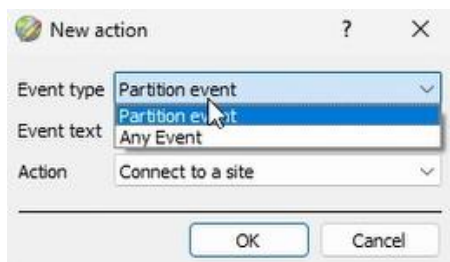
In the **On Event** tab, select **New**.

This will bring up the **New action** window.

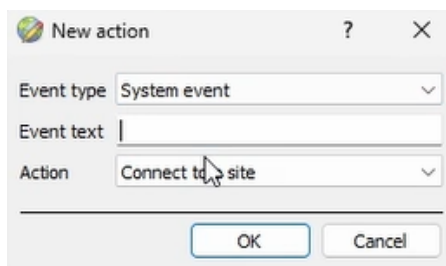
The Event type for each Object type will vary as shown below.



For the Communication channel Object type, the Event type option is **Any Event**.

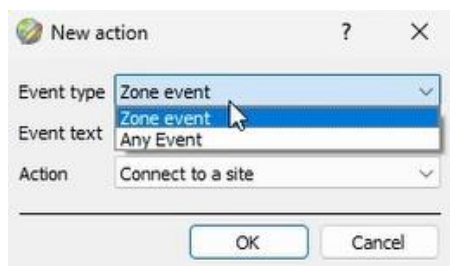


For the Partition Object type, the Event type options are **Partition Event** and **Any Event**.



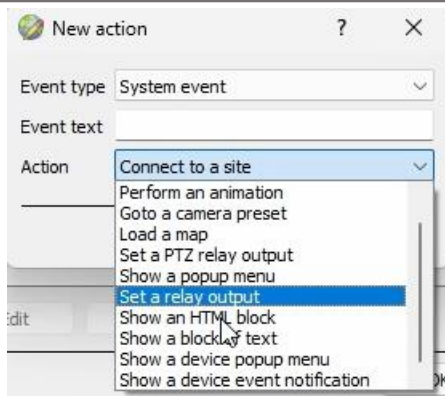
For the System Object type, the Event type options are **System Event** and **Any Event**.

Note: To set an action for the object properties shown in the Object Properties Tab, set the Event Type to **System event** and enter the object properties name as the Event Text.



For the Zone Object type, the Event type options are **Zone Event** and **Any Event**.

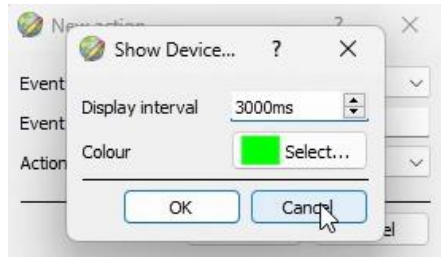
Note: To find event text options for the Object type specific events (**Partition Event**, **System Event**, or **Zone Event**) look under the **notification** column in the Integration Database when filtered for the relevant Object type.



Once the Event type and text have been set, select an **Action**.



Click OK

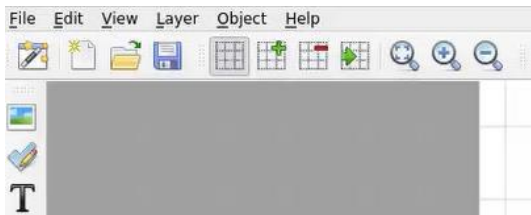


Note: Some actions such as *Show a device event notification* will require a further step of setup.

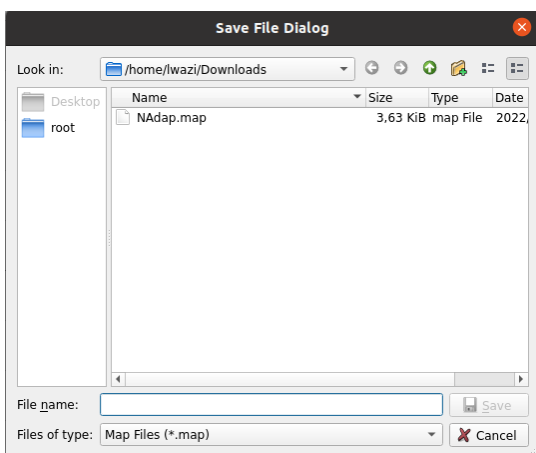
Setup as desired.

Note: Multiple actions may be added to the map objects. Once finished, save the map.

7.3 Save Map



In map editor click the **Save** icon.

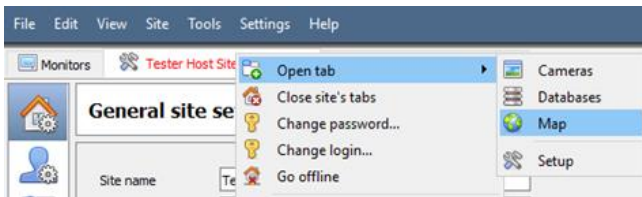


Give the map a name. Click **Save**.

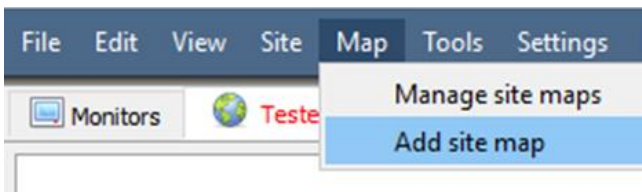
Note: NB - The map **must not be saved** in the Work folder of the installation directory.

7.4 Load Map to CathesisVision

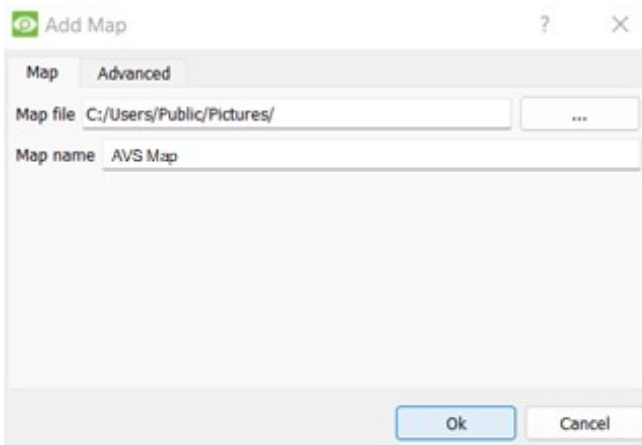
Now the completed and saved map can be uploaded to CathesisVision. Once the map is open, all objects added to the map area in the Map Editor will be visible on the map, and all actions set will be available.



In CathesisVision, go to: **Site / Open tab / Map**



Then, in the Map tab, go to: **Map / Add site map**



The **Add Map** window will open.

Click the icon to retrieve the **Map file** from its location.

Give the map a **descriptive** name.

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.

8. Conclusion

Note: this app-note was designed to deal with this integration specifically. For further information about the CathesisVision software, please consult the **CathesisVision Setup Manual** (<http://cathesisvideo.com/>).

For support, please contact support@cathesisvideo.com

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>