



Nemtek Electric Fence Integration App-Note

19 September 2022

Contents

1. Introductions	4
1.1 Requirements	4
1.1.1 General Requirements.....	4
1.1.2 License requirements	4
1.2 Integration Components	5
1.3 Integration Hardware	5
1.4 Features and Abilities	5
1.4.1 Device Objects	5
1.4.2 Device Events.....	6
1.4.3 Metadatabase.....	7
1.4.4 Maps	8
2. Device Addition	9
2.1 The Integration Devices Panel	9
2.2 Add a New Device.....	9
3. Configuration Section	11
3.1 Object Configuration Tab	11
3.1.1 Object Configuration Buttons.....	11
3.1.2 Object Configuration Right-Click Options.....	12
3.1.3 Edit Object	12
3.1.4 Configure Overlays	13
3.2 Objects Properties Tab	14
3.2.1 Controlling Commands (Right-Click Options)	14
3.3 Device Events Tab.....	15
3.4 Object Groups Tab.....	15
3.4.1 Create a Group	15
3.4.2 Add or Remove Objects.....	16
3.5 General Tab	16
3.5.1 Configure a New Database	17
3.5.2 Select the Nemtek Electric Fence Integration Database	19
4. Cameras Tab	20
4.1 Navigate to the Cameras Tab	20
4.2 Control Device from Resources Panel	20
4.2.1 Add the Device as a Resource.....	20
4.2.2 Control Device	21

4.3 Camera Tab Overlay Setup	22
4.3.1 Video Feed Options Panel	22
4.3.2 Select the Overlay.....	22
5. Database	23
5.1 Navigate to the Database	24
5.2 Database Interface	24
5.2.1 Viewing an Entry’s Associated Recording.....	25
5.2.2 Device Event Metadata	26
6. CathexisVision System Events	27
6.1 Event Window	27
6.2 Creating an Event.....	28
6.3 Triggers Tab	28
6.3.1 Set the Device as the Trigger	28
6.3.2 Trigger Types (Trigger Using).....	28
6.3.3 While/When and Any/All.....	29
6.3.4 Define the Trigger (“Device Event” Option)	30
6.3.5 Define the Trigger (“Properties Meeting Criteria” Option).....	31
5.5 Actions Tab	31
5.5.1 Adding an Action	31
7. Maps	33
7.1 Add the Nemtek Device as a Resource.....	33
7.1.1 Add the Device in the Resource Panel.....	33
7.2 Add the Device in Map Editor.....	33
7.2.1 Connect to Site	34
7.2.2 Adding Device Objects.....	34
7.3 Adding Device Actions	34
7.3.1 Action: On Left Click Tab.....	35
7.3.2 Action: On State Change Tab.....	35
7.3.3 Action: On Event Tab	35
7.4 Save Map	36
7.5 Map Tab.....	36
8. Conclusion	37

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. Introductions

This document details the integration of the Nemtek Electric Fence device, with CathesisVision software. CathesisVision receives information from the integrated device which monitors the site perimeter for incidents of tampering. This information may be used to trigger CathesisVision events.

Note:

- For information regarding the regular operation of a Nemtek device, please consult the relevant manufacturer’s documentation.
- There is a General Integration section in the main *CathesisVision Setup Manual*. It contains information about creating an integration database, as well as a general introduction to the Integration Panel. **Read this section.**

1.1 Requirements

1.1.1 General Requirements

- CathesisVision 2016.4, 2017.2, and 2018.2 and later.

1.1.2 License requirements

License No	License Name	Description
CNEF-1001	Nemtek Electric Fence Object license	These licenses apply to the energizers or I/O cards in an electric fence control system. The CNEF-1001 will license a single energizer, or I/O card
CNEF-2000	Nemtek Electric Fence Device license	This license is the “base” license to integrate with electric fence system. It is applied to the server to which the fence is connected. It will allow for the connection of a single fence system.
CNEF-3000	Nemtek Electric Fence Bundle license	This license includes the CNEF-2000 electric fence device license, and also provides support for unlimited CNEF-1001 object licenses.

Note: In this integration, a single CNEF-2000 device license will cover multiple linked devices per site. Individual site devices will require a license for each device.

A NOTE ON CAMERA CHANNELS




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

1.2 Integration Components

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

- Device** The device is CathesisVision software’s interface, which handles all the interaction between CathesisVision and the integrated hardware. When an integration is added to the CathesisVision 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.

1.3 Integration Hardware

Hardware	Objects	Object License	Messages	Metadatabase	Overlay
	FG7	No	N/A	N/A	N/A
	Energizer	CNEF-1001	Yes	Yes	No
	Zone x2	Checks if Energizer is licensed	Yes	Yes	Yes
	Input x8	Checks if Energizer is licensed	Yes	Yes	Yes
	IOCard	CNEF-1001	Yes	Yes	No
	Input x6	Checks if I/O Card is licensed	Yes	Yes	Yes
	Output x5	Checks if I/O Card is licensed	Yes	Yes	Yes

1.4 Features and Abilities

- CathesisVision receives event messages from the Nemtek device.
- **Energizer, Input, Output** and **Zone** event messages can be used to trigger a CathesisVision system event.

1.4.1 Device Objects

Device objects populate automatically once communication is established. As the panel supports many expansion modules, the objects displayed in CathesisVision will vary depending on the objects that are configured on the panel.

Object Type	Abilities
General	<ul style="list-style-type: none"> • Objects are automatically created as soon as communication between the CathesisVision unit and device is established. • Objects may be linked to cameras to associate device events with video footage.
Object Types	<ul style="list-style-type: none"> • Energizer. • FG7. • IOCard. • Input. • Output. • Zone. • Communication Channel objects. <p>Selecting any of these object types will populate the configuration section with the object type properties.</p>
Overlays	<ul style="list-style-type: none"> • Zone. • Input. • Output.
Commands	<ul style="list-style-type: none"> • Energizer. • Output. • Zone . <p>These objects can be commanded as an action of a CathesisVision system event.</p>

1.4.2 Device Events

Event Element	Features/Abilities
General	<ul style="list-style-type: none"> • Events triggered on the device are sent to CathesisVision. • These device event messages can be used to trigger system events.
Device Event Types	<ul style="list-style-type: none"> • Energizer • Output • Input • Zone
CathesisVision System Events	<ul style="list-style-type: none"> • Events generated by the device are reflected in CathesisVision and can be used to create CathesisVision system events. • Some objects may be controlled as a result of a CathesisVision system event: <ul style="list-style-type: none"> • Output: <ul style="list-style-type: none"> ○ Set. • Zone:

	<ul style="list-style-type: none"> ○ Low voltage. ○ On. ● Energizer: <ul style="list-style-type: none"> ○ Clear alarms.
--	--

1.4.3 Metadatabase

A unique metadatabase is created on the CathesisVision 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	<ul style="list-style-type: none"> ● All device events are databased. ● 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 CathesisVision video review tools.
View Options	<ul style="list-style-type: none"> ● All. ● Energizer. ● Zone. ● Input. ● Output.
Sort Options	<ul style="list-style-type: none"> ● Time.
Easy Search	<ul style="list-style-type: none"> ● Object ID. ● Object Name. ● Notification.
Filter	<ul style="list-style-type: none"> ● Time. ● Event type. ● Object ID. ● Object Name. ● Notification.
Export	Database entries may be exported in CSV and PDF format.

1.4.4 Maps

The CathexisVision GUI provides for configurable site maps that feature multi-layered, hierarchical, interactive interfaces providing representation and control of a site and its resources.

Map Element	Features/Abilities
General	Device objects can be embedded in a site map, which offers multiple action options when messages are received from the device, the device triggers an event, and/or the user manually initiates a map action.
Map Action Triggers	<ul style="list-style-type: none"> • All device objects may be set to trigger a map action if the user left-clicks on map. • Some device objects may be set to trigger a map action if a state change message is received from the device. • All device objects may be set to perform a map action if <i>any</i> event occurs on the device. • Device objects, which can be configured to trigger CathexisVision events, may also be set to perform a map action when specific CathexisVision events are triggered.
Map Actions Options	When triggered (see above), objects may perform the following map actions (where applicable): <ul style="list-style-type: none"> • Connect to a site. • Perform an animation. • Go to a camera preset. • Load a map. • Set a PTZ relay output. • Show a popup menu. • Set a relay output. • Show an HTML block. • Show a block of text. • Show a device popup menu.

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>

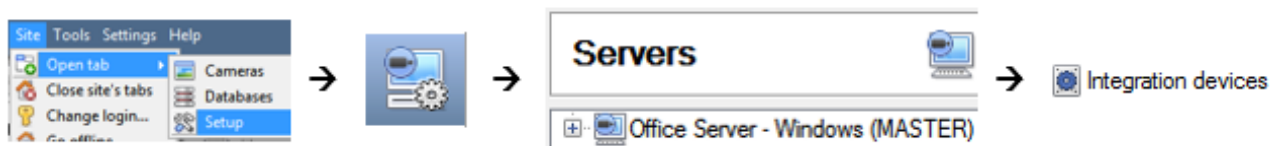
2. Device Addition

This section will detail the procedure for setting up the two systems to communicate effectively with each other.

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.

2.1 The Integration Devices Panel

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



There are two sections in the Integration Panel:

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

Devices

Name	Driver	
Access Control AP Lite	Impro IXP20 / APLITE access control	New device
Cathexis ANPR	Cathexis LPR	Edit device
Demo Caddx	CaddX alarm panel	Delete device
Edeka Scale	Edeka Waage	
Nemtek Electric Fence	Nemtek Electric Fence	

5 items

Configuration of 'Nemtek Electric Fence'

Object configuration
Object properties
Device events
Object groups
General

Object type: All objects

	Type	ID	Name	Cameras	Object groups	License
	Communication channel	__default__	Default			

2.2 Add a New Device

1. In the Integration Panel, navigate to the **Devices section**.
2. Click on the **New device** button on the right-hand side. This will open the addition dialogue.
3. Select the **Nemtek Electric Fence Driver** from the list, and click Next.

Configure the device

Name

Connection _____

IP address

Port

Name the device.

Enter the **IP Address** of the device.

Enter the **Port number**. Leave this as default unless a different port number has been configured.

2.3 Select the Device

The newly added device will show in the Devices section.

Click on the device name to select it.

3. Configuration Section

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

3.1 Object Configuration Tab

The object configuration tab is the tab in which the individual objects that comprise the integration can be viewed. The Nemtek Electric Fence system as the following object types: **Energizer**, **FG7**, **IO Card**, **Input**, **Output**, **Zone**, and **Communication Channel**.

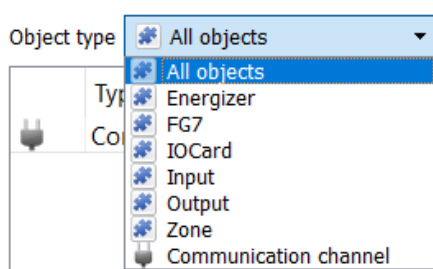
Objects will only be created when the corresponding hardware is present.

Configuration of 'Nemtek'

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

Object type: All objects

Type	ID	Name	Cameras	Object groups	License
Energizer	Energizer 01	Energizer 01			
Energizer	Energizer 02	Energizer 02			
FG7	FG7	FG7			
Input	IOCard 33 Input 1	IOCard 33 Input 1			
Input	IOCard 33 Input 2	IOCard 33 Input 2			
Input	IOCard 33 Input 3	IOCard 33 Input 3			
Input	IOCard 33 Input 4	IOCard 33 Input 4			
Input	IOCard 33 Input 5	IOCard 33 Input 5			
Input	IOCard 33 Input 6	IOCard 33 Input 6			
Input	IOCard 34 Input 1	IOCard 34 Input 1			



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.

3.1.1 Object Configuration Buttons

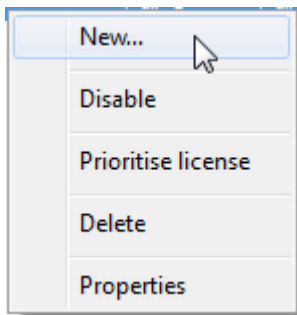


Click **New** to add a new object.

Click **Edit** to change an existing object.

Click **Delete** to remove an existing object from the CathesisVision configuration.

3.1.2 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 license preference, in case there are more devices 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.

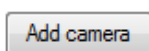
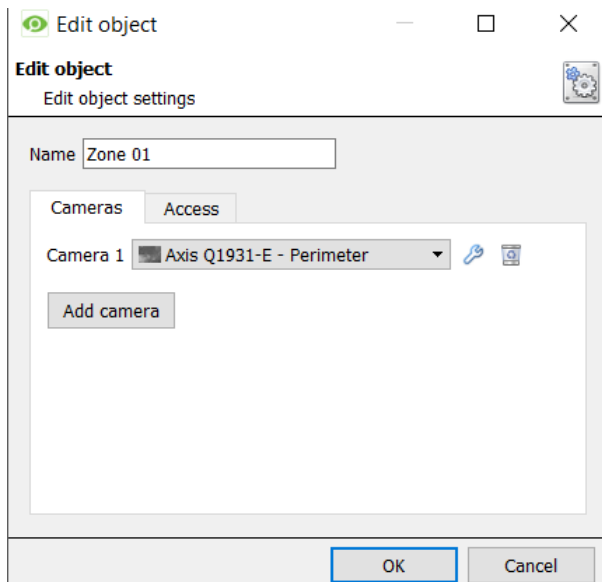
3.1.3 Edit Object

Use the Object configuration tab to make changes. Open the object editing window by selecting an object from the list, and clicking the **Edit button**, or **right-click Properties**.

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

3.1.3.1 Properties: Camera

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.



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



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



To **configure** overlays for this object, click the spanner icon.

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

3.1.3.2 Properties: Access



Access 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.

3.1.4 Configure Overlays

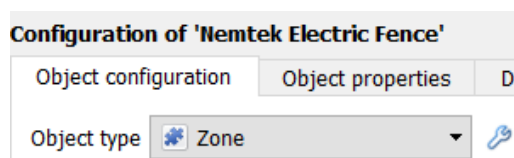
- Overlays may be configured individually, or globally. If individual, then the overlay settings are applied only to the selected object. If global, then the overlay settings are applied to all objects of the selected type.
- The path to follow for opening the configuration window for global or individual overlays is different, however the overlay configuration window is the same.
- See below for navigating to the overlay configuration window for individual/global overlays.

Note: Overlays can only be configured for **Input**, **Output** and **Zone** objects.

3.1.4.1 Configure Individual Overlays

1. Right-click the individual object and open the Properties window.
2. Add a camera to the object.
3.  Click the Edit Overlays icon.

3.1.4.2 Configure Global Overlays

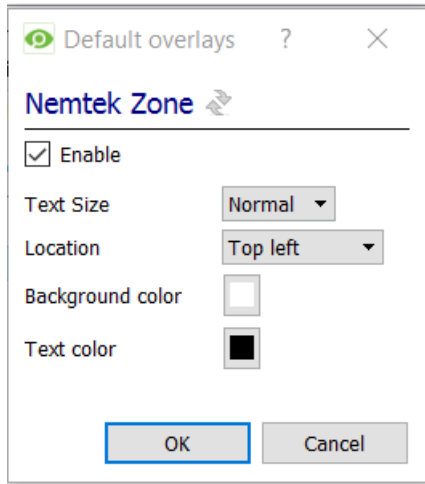


Select the object type from the Object type drop-down menu in the Object Configuration tab.


1.  Click the Default Settings icon .

Note: Only the Zone, Input and Output object types can support overlays. Only these objects will display the settings (spanner) icon when selected.

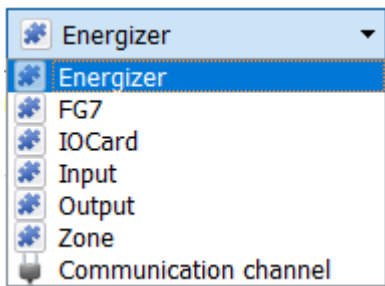
3.1.4.2 Overlay Configuration Window



- **Enable:** Check the box to enable overlay configuration.
- Define the **Text size** by selecting from the drop-down menu.
- Define the **Location** of the overlay by selecting from the drop-down menu.
- Define the **Background Colour** of the overlay stream.
- Choose **Text Colour**.

 Click the colour boxes to bring up a colour chart.

3.2 Objects Properties Tab



The Object properties tab allows objects to be viewed by type. In the case of the Nemtek device, objects can be viewed by the following types: **Energizer, FG7, IOCard, Input, Output, Zone** and **Communication channel**.

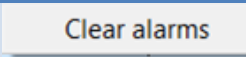
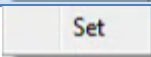
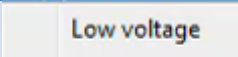
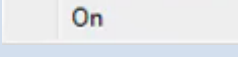
Selecting any of these objects types will populate the configuration section with the object type properties.

3.2.1 Controlling Commands (Right-Click Options)

Select the object from the drop-down menu in the **Object properties** tab.

Right-click an item on the list.

Choose the command which appears.

Object	Right-Click Command	Description
Energizer		Clear alarms from the Energizer object.
Output		Set/Clear the state of the Output.
Zone		Set the Zone object to Low/High voltage.
		Set the Zone state to on/Off.

3.3 Device Events Tab

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

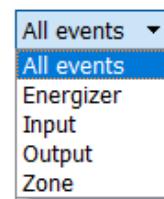
Configuration of 'Nemtek'

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

All events ▾

Event type				
Output	2016-11-09 11:24:14.396	IOCard 33 Output 5	IOCard 33 Output 5	Clear
Output	2016-11-09 11:24:14.396	IOCard 33 Output 4	IOCard 33 Output 4	Clear
Output	2016-11-09 11:24:14.396	IOCard 33 Output 3	IOCard 33 Output 3	Clear
Output	2016-11-09 11:24:14.396	IOCard 33 Output 2	IOCard 33 Output 2	Clear
Output	2016-11-09 11:24:14.396	IOCard 33 Output 1	IOCard 33 Output 1	Clear
Input	2016-11-09 11:24:14.395	IOCard 33 Input 6	IOCard 33 Input 6	Open
Input	2016-11-09 11:24:14.395	IOCard 33 Input 5	IOCard 33 Input 5	Open
Input	2016-11-09 11:24:14.395	IOCard 33 Input 4	IOCard 33 Input 4	Open
Input	2016-11-09 11:24:14.395	IOCard 33 Input 3	IOCard 33 Input 3	Open
Input	2016-11-09 11:24:14.395	IOCard 33 Input 2	IOCard 33 Input 2	Open
Input	2016-11-09 11:24:14.395	IOCard 33 Input 1	IOCard 33 Input 1	Open
Zone	2016-11-09 11:23:43.518	Energizer 02 Zone 2	Energizer 02 Zone 2	High voltage
Zone	2016-11-09 11:23:43.518	Energizer 02 Zone 2	Energizer 02 Zone 2	Fence condition 7
Zone	2016-11-09 11:23:43.518	Energizer 02 Zone 2	Energizer 02 Zone 2	Check fence cleared
Zone	2016-11-09 11:23:43.518	Energizer 02 Zone 2	Energizer 02 Zone 2	Alarm cleared
Zone	2016-11-09 11:23:43.518	Energizer 02 Zone 2	Energizer 02 Zone 2	Interference cleared

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







3.4 Object Groups Tab

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


Configuration of 'Nemtek Electric Fence'

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

Group ▾   

Available objects 

Name


Objects in group 

Name

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

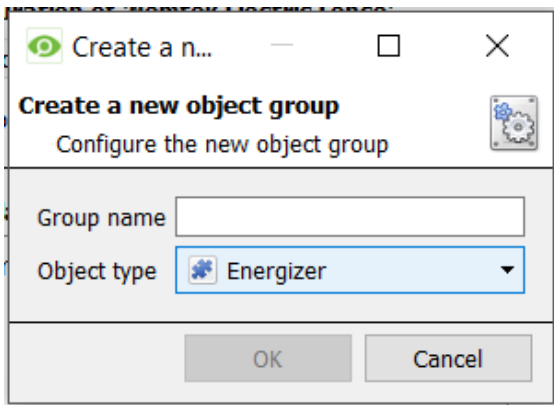
3.4.1 Create a Group

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

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

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

A new dialogue box will pop up.



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

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



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

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

3.4.2 Add or Remove Objects

After creating a group, a list of all the available objects for that group will be displayed in the Available objects panel, on the left-hand side.

Objects can then be chosen from this list, and added to the group.

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

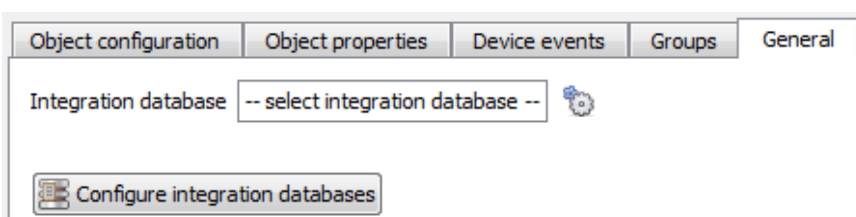
Note: Multiple objects may be selected at a time.

3.5 General Tab

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

From the General tab, the user must:

- *Select* an existing database, or
- Configure a *new* database for Nemtek, and then select it.



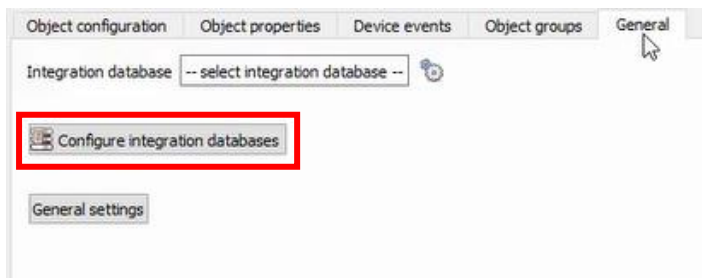
Note: Each integrated device needs to be attached to an integration database. Without setting up/adding a database here, the integration will not function properly within the CathesisVision system.

3.5.1 Configure a New Database

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

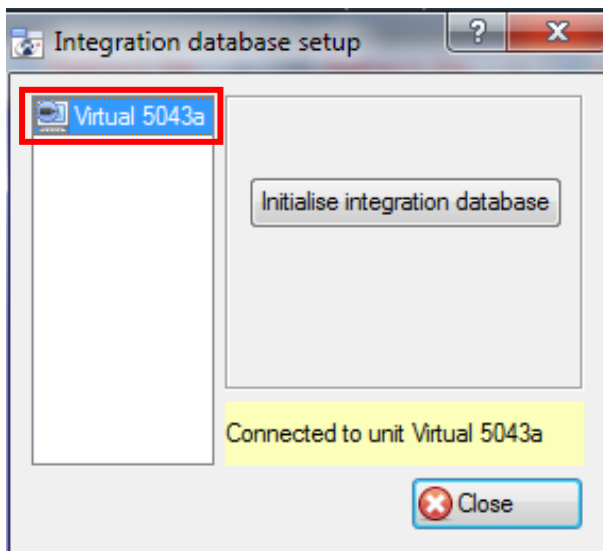
3.5.1.1 Initialise the Integration Database

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



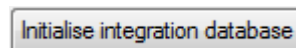
Click the **Configure integration databases button** from the General tab.

This opens the Integration database setup window.



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

Then, click **Initialise integration database**.



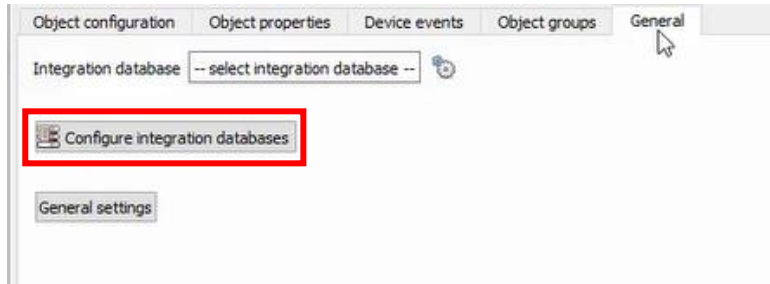
Choose the **partition** on which the database will be created.

Select **disk space** allocation.

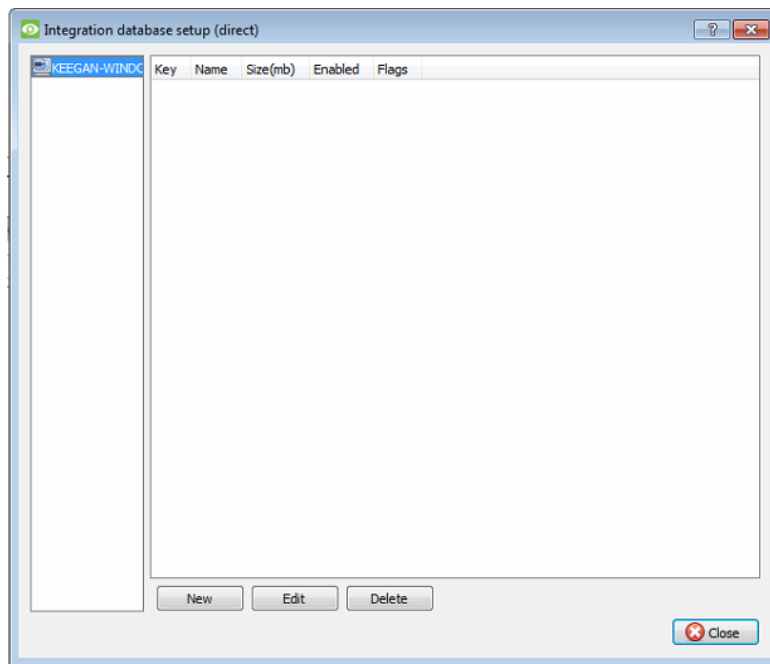
Click **OK**.

3.5.1.2 Add a New Devices Database

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



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

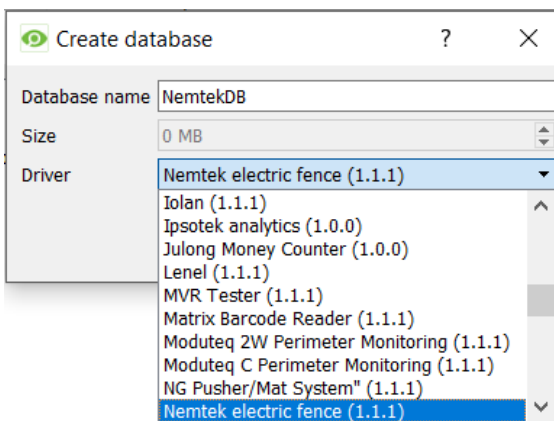


This opens the integration database setup window.



Click the **New** button.

A dialogue will appear for creating the integration database.

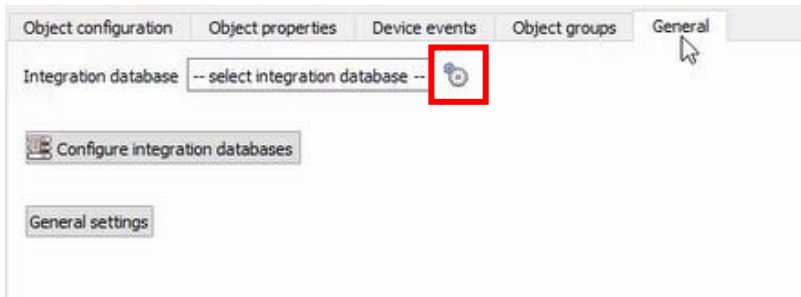


- Give the Integration database a descriptive **Database Name**.
- Allocate a **Size** to the new device database. The max is 500MB.
- Choose the **Nemtek Electric Fence Driver**.
- Click **OK** to create the database.


Once created, close the **Integration Database Setup** window.

3.5.2 Select the Nemtek Electric Fence Integration Database

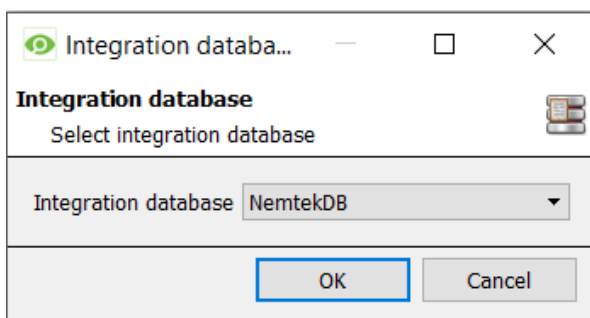
Once a Nemtek database has been created, it must be selected.



Return to the General tab.

 Then, click the **settings icon**.

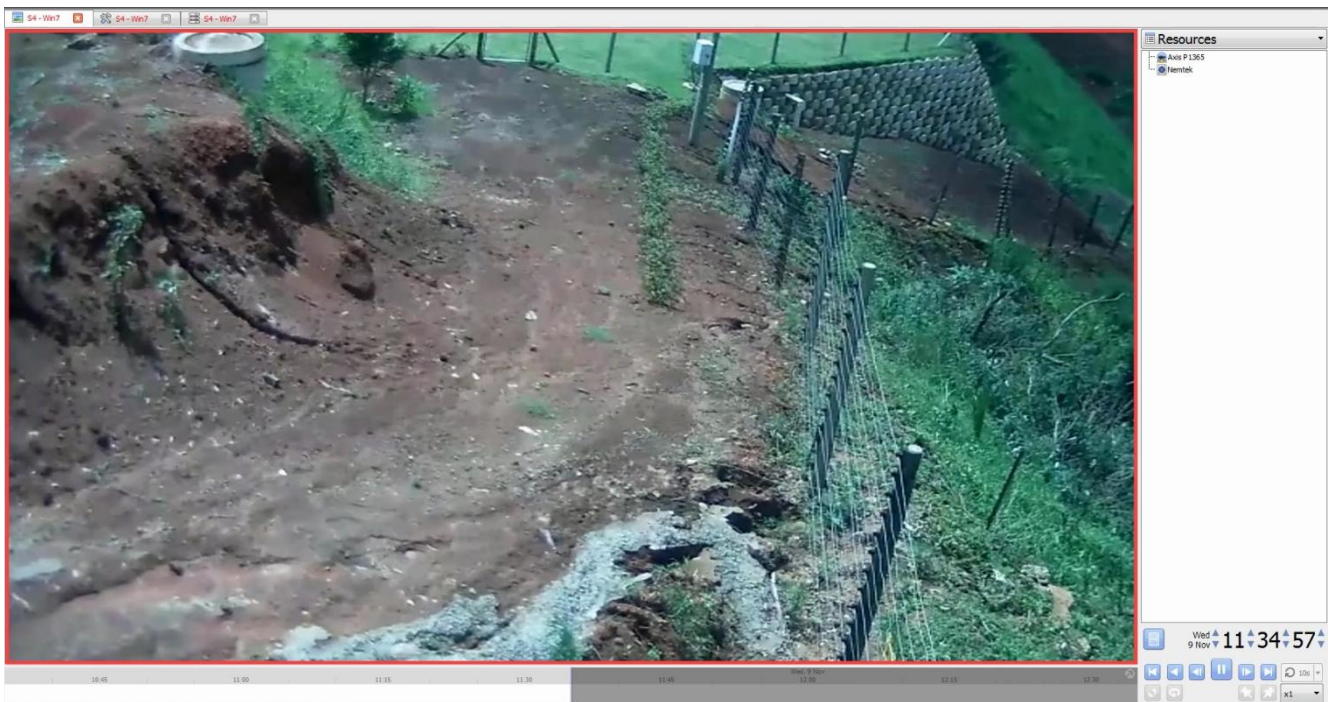
A dialogue will appear. Only databases which relate to the device being added should appear.



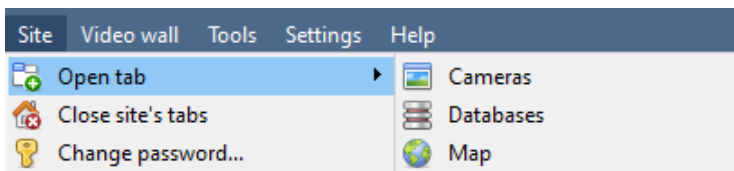
Select the Nemtek database from the drop-down menu.

Then click OK.

4. Cameras Tab



4.1 Navigate to the Cameras Tab



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

Site / Open tab / Cameras

4.2 Control Device from Resources Panel

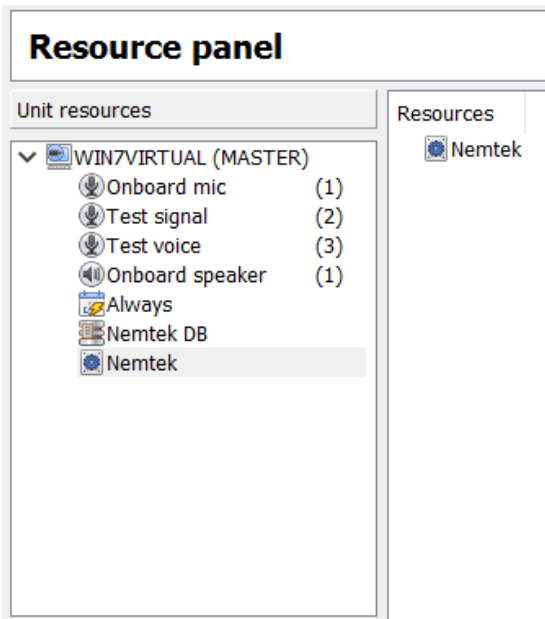
It is possible to command some of the Nemtek device objects from the Resources Panel in the Cameras Tab. These commands are much the same as can be achieved from the Object Properties Tab of the Integration Devices panel of the Setup section.

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

4.2.1 Add the Device as a Resource

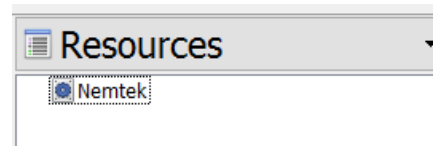


Setup tab / Resources Panel



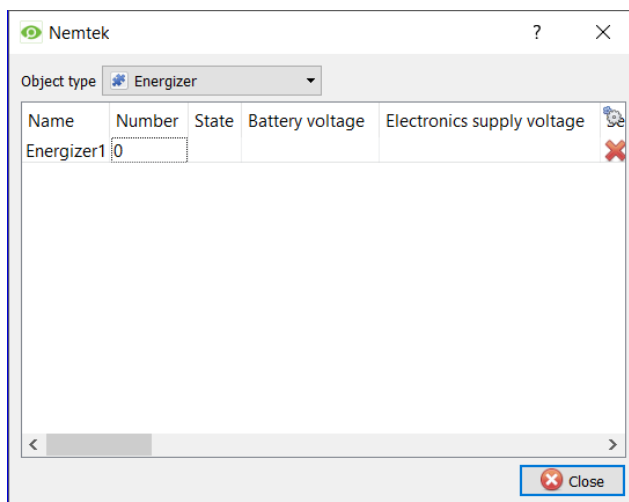
1. Navigate to the **Resource Panel** by following **Site / Open Tab / Setup / Resource Panel**.
2. Drag the Nemtek device from the **Unit Resources** list into the **Resources** list, on the right.

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



4.2.2 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.

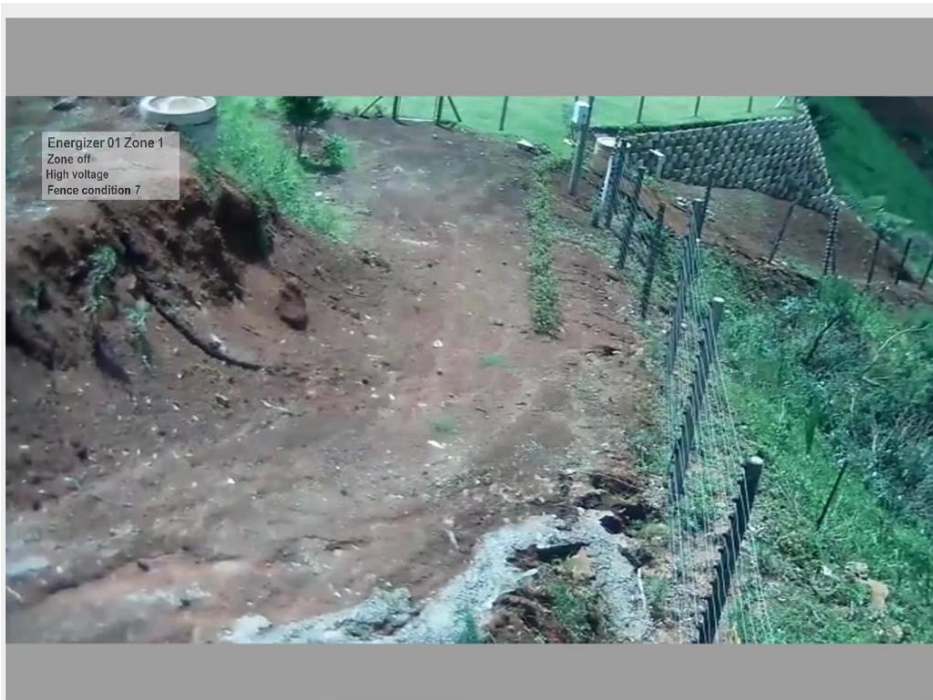
See the table below for the right-click options.

4.2.2.1 Right-Click Options

Object	Right-click Command	Description
Energizer		Clear alarms from the Energizer object.
Output		Set/Clear the state of the Output.
Zone		Set the Zone object to Low/High voltage.
		Set the Zone state to on/Off.

4.3 Camera Tab Overlay Setup

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



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

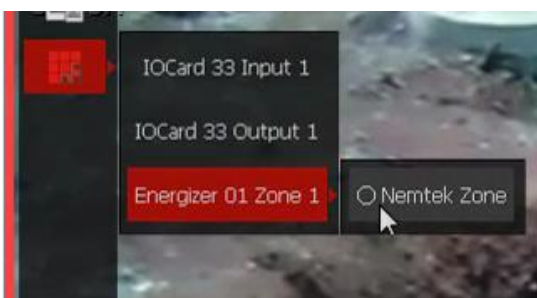
4.3.1 Video Feed Options Panel



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

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

4.3.2 Select the Overlay



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

Select the device.

The overlay will appear over the video feed.

5. Database

The databases tab will allow the user to navigate 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 the user will also be able to launch this recording, from within the databases tab.

The screenshot shows the Cathexis database interface. On the left is a table of events, and on the right is a video player showing a recording of a fence area.

Time	Event Type	Object ID	Object Name	Notification	Links
2016-11-09 11:36:02	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Zone on	
2016-11-09 11:36:02	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Zone on	
2016-11-09 11:36:02	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Fence condition 4	
2016-11-09 11:36:10	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Low voltage	
2016-11-09 11:36:15	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Zone off	
2016-11-09 11:36:15	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Zone off	
2016-11-09 11:36:15	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Fence condition 7	
2016-11-09 11:37:17	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	High voltage	
2016-11-09 11:37:23	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Low voltage	
2016-11-09 11:37:26	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	High voltage	
2016-11-09 11:41:16	Output	IOCard 33 Output 1	IOCard 33 Output 1	Set	
2016-11-09 11:41:28	Output	IOCard 33 Output 1	IOCard 33 Output 1	Clear	
2016-11-09 11:43:33	Input	IOCard 33 Input 1	IOCard 33 Input 1	Closed	
2016-11-09 11:43:34	Input	IOCard 33 Input 1	IOCard 33 Input 1	Open	
2016-11-09 11:43:47	Input	IOCard 33 Input 1	IOCard 33 Input 1	Closed	
2016-11-09 11:43:48	Input	IOCard 33 Input 1	IOCard 33 Input 1	Open	
2016-11-09 11:44:28	Input	IOCard 33 Input 1	IOCard 33 Input 1	Closed	
2016-11-09 11:44:29	Input	IOCard 33 Input 1	IOCard 33 Input 1	Open	
2016-11-09 11:44:32	Input	IOCard 33 Input 1	IOCard 33 Input 1	Closed	
2016-11-09 11:44:33	Input	IOCard 33 Input 1	IOCard 33 Input 1	Open	
2016-11-09 11:44:40	Output	IOCard 33 Output 1	IOCard 33 Output 1	Set	
2016-11-09 11:44:44	Output	IOCard 33 Output 1	IOCard 33 Output 1	Clear	

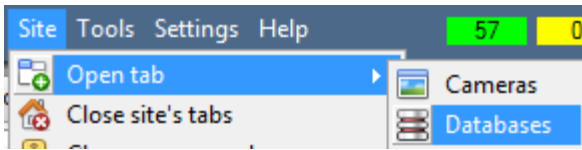
The video player shows a recording of a fence area with a timestamp of 11:37:26. The video title is "Energizer 01 Zone 1 Zone off High voltage Fence condition 7".

View **All** sorted by **Time**

Time	Event Type	Object ID	Object Name	Notification	Links
2016-11-09 11:36:02	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Zone on	
2016-11-09 11:36:02	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Zone on	
2016-11-09 11:36:02	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Fence condition 4	
2016-11-09 11:36:10	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Low voltage	
2016-11-09 11:36:15	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Zone off	
2016-11-09 11:36:15	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Zone off	
2016-11-09 11:36:15	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Fence condition 7	
2016-11-09 11:37:17	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	High voltage	
2016-11-09 11:37:23	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	Low voltage	
2016-11-09 11:37:26	Zone	Energizer 01 Zone 1	Energizer 01 Zone 1	High voltage	
2016-11-09 11:41:16	Output	IOCard 33 Output 1	IOCard 33 Output 1	Set	
2016-11-09 11:41:28	Output	IOCard 33 Output 1	IOCard 33 Output 1	Clear	
2016-11-09 11:43:33	Input	IOCard 33 Input 1	IOCard 33 Input 1	Closed	
2016-11-09 11:43:34	Input	IOCard 33 Input 1	IOCard 33 Input 1	Open	
2016-11-09 11:43:47	Input	IOCard 33 Input 1	IOCard 33 Input 1	Closed	
2016-11-09 11:43:48	Input	IOCard 33 Input 1	IOCard 33 Input 1	Open	
2016-11-09 11:44:28	Input	IOCard 33 Input 1	IOCard 33 Input 1	Closed	
2016-11-09 11:44:29	Input	IOCard 33 Input 1	IOCard 33 Input 1	Open	
2016-11-09 11:44:32	Input	IOCard 33 Input 1	IOCard 33 Input 1	Closed	
2016-11-09 11:44:33	Input	IOCard 33 Input 1	IOCard 33 Input 1	Open	
2016-11-09 11:44:40	Output	IOCard 33 Output 1	IOCard 33 Output 1	Set	
2016-11-09 11:44:44	Output	IOCard 33 Output 1	IOCard 33 Output 1	Clear	

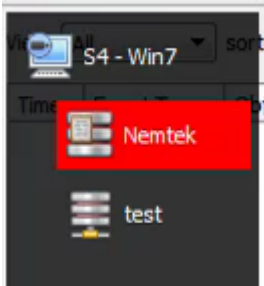
Most integrations will have a different database presentation, and unique filters, due to the different parameters sent to CathexisVision by the integrated device.

5.1 Navigate to the Database



The information stored in the Integration database may be viewed by following this path.

Site / Open tab / Databases

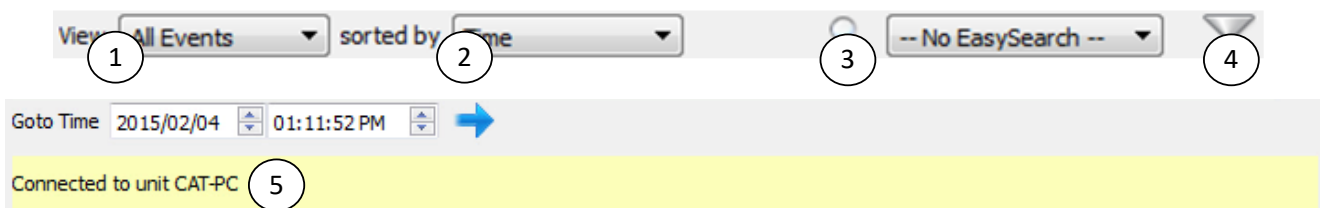


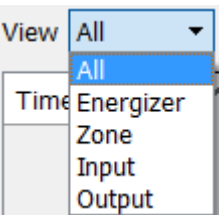
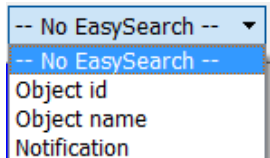

From 2016.2 onwards, when the database tab opens, the relevant integration database must be selected from the database panel that opens on the left hand side.





The databases are ordered under the NVRs that they are attached to. To open and close this list click on the arrow in the centre of the list:




5.2 Database Interface



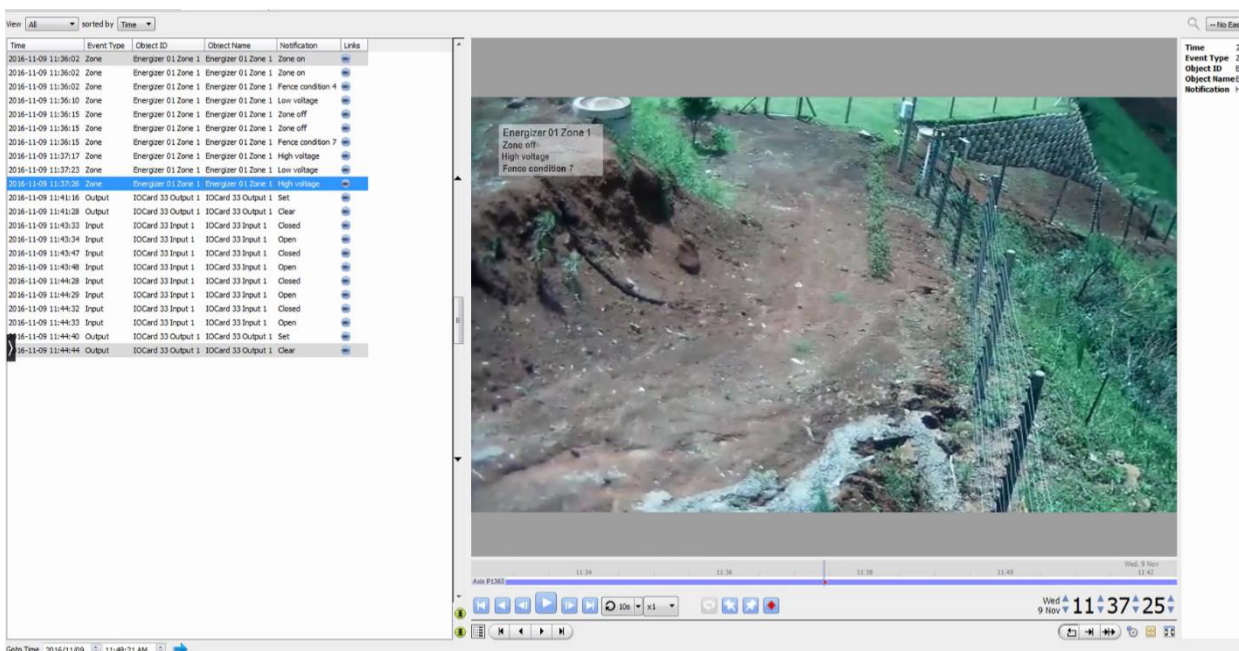
<p>① View</p>	<p>The user may change the way that the database is presented. Some integration databases have multiple view options. The Nemtek database has:</p> 
<p>② Sorted By</p>	<p>Events can only be sorted by the Time parameter.</p>
<p>③ Easy Search</p>	<p>The easy search option lets the user quickly search the database within one of the following options:</p> 
<p>④ Filter</p>	<p>Filter offers a more advanced manner of sorting information in the Integration Database table.</p> <p>Once the filters dialogue is open, the following filter options are available:</p> <ol style="list-style-type: none"> To enable filters check this box: <input checked="" type="checkbox"/> Enable filters To add a new filter click on .

	<p>3. To delete an added filter click on .</p> <p>It is possible to filter the same parameters more than once.</p> <p>To change a filter click on the blue hyperlinked text. (For example, click on Timestamp to change the filter from Timestamp, to any of the other available options.)</p> <p>The filter options in this integration are:</p> <div style="border: 1px solid gray; padding: 5px; width: fit-content;"> <p>Transaction</p> <p>Time</p> <p>Event Type</p> <p>Object ID</p> <p>Object Name</p> <p>Notification</p> </div> <p>Note:</p> <ol style="list-style-type: none"> Multiple filters may be run simultaneously. The filter icon  will change to  when filters are active.
<p>⑤</p> <p>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>

5.2.1 Viewing an Entry's Associated Recording

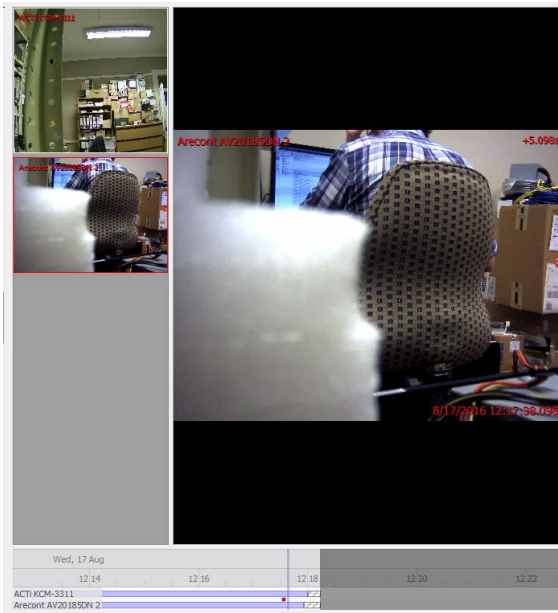
 To view an associated recording, simply left-click on a database entry which has the camera icon in the **Links** column.

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



The screenshot displays the software interface. On the left, there is a table with the following columns: Time, Event Type, Object ID, Object Name, Notification, and Links. The table contains several entries, with the last one highlighted in blue. On the right, there is a video player showing a recording of a fence area. A tooltip overlay is visible on the video, displaying the following text: Energizer 01 Zone 1, Zone off, High voltage, Fence condition 7. The video player includes a timeline and playback controls.

5.2.1.1 Reviewing Multiple Cameras

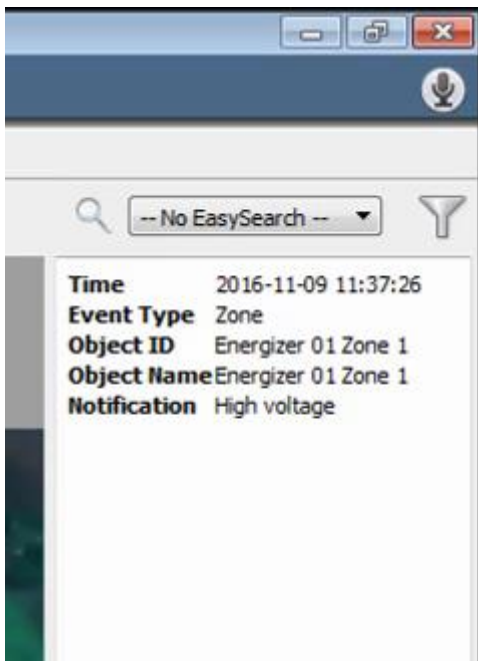


If multiple cameras were added to the recorded object during the integration setup, these are displayed on the left of the video player screen as thumbnails.

Select a camera thumbnail to review it.

5.2.2 Device Event Metadata

When a database entry is selected, its event information will be displayed on the right of the video player:



6. CathesisVision System Events

A CathesisVision 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 Nemtek specific aspects of Events. There is a comprehensive guide to CathesisVision Events in the main setup manual. For more information, please consult it.

Most of the data that CathesisVision 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.

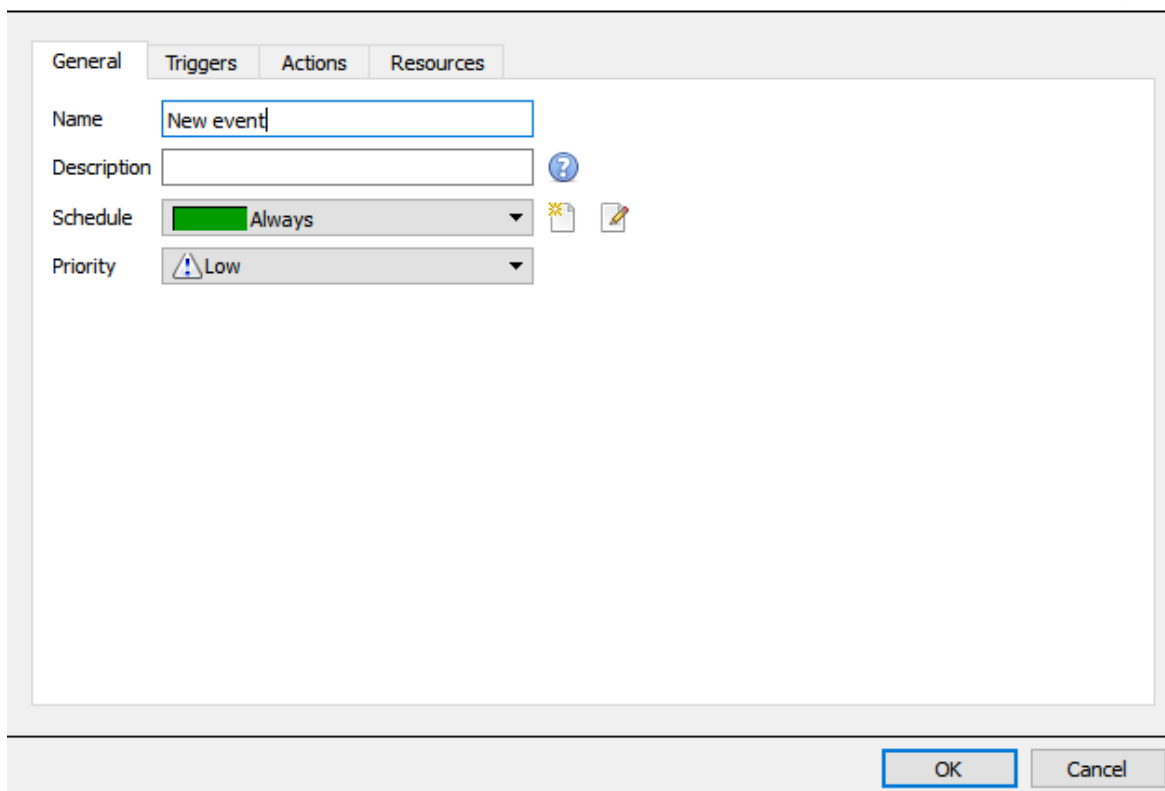
6.1 Event Window

Events in CathesisVision are setup 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 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

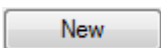



The screenshot shows a 'New Event' dialog box with the following fields and options:

- General Tab:**
 - Name:** Text input field containing 'New event'.
 - Description:** Text input field, empty, with a help icon (?) to its right.
 - Schedule:** Dropdown menu with 'Always' selected, a green bar to the left, and refresh and edit icons to the right.
 - Priority:** Dropdown menu with 'Low' selected, a warning icon to the left.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

6.2 Creating an Event

To create an event using the Nemtek device, enter the Events management area by following the sequence: **Open Tab / Setup / Servers / Master Server / Events**. This is shown below.



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**.

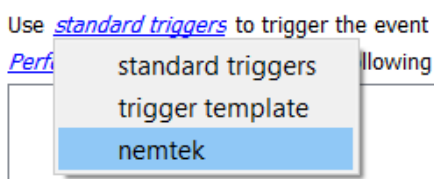
The new event window has four tabs which can be used to set up the event: General, Triggers, Actions, and Resources.

6.3 Triggers Tab

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).

6.3.1 Set the Device as the Trigger

For a new event, the trigger type will default to “standard triggers”. The user will need to change this to the Nemtek device.



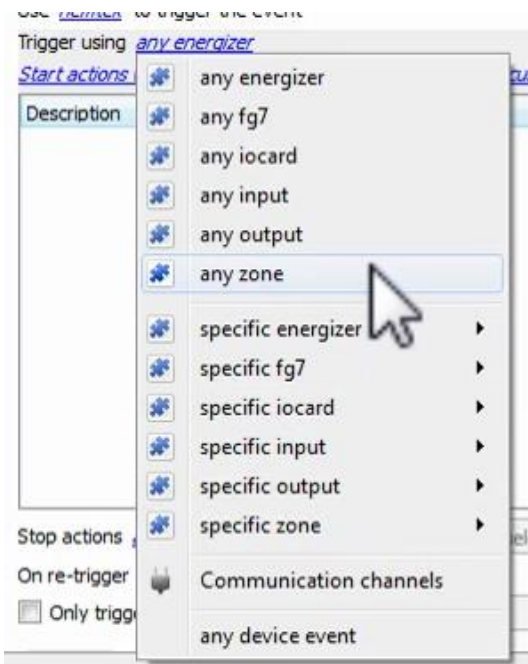
To change the event trigger, **click on “standard triggers”** (the hyperlink after the word “Use”).

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

To set Nemtek as the trigger, **select the name** from the drop-down menu.

6.3.2 Trigger Types (Trigger Using)

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



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

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

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

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

MENU OPTION	DESCRIPTION OF TRIGGER TYPE
Any ...	will trigger when on an event from <i>any</i> of these objects.
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.

6.3.3 While/When and Any/All

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

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.

Use [nemtek](#) to trigger the event
 Trigger using [any energizer](#)

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

[Start actions when any of the following device events occur](#)

6.3.4 Define the Trigger (“Device Event” Option)

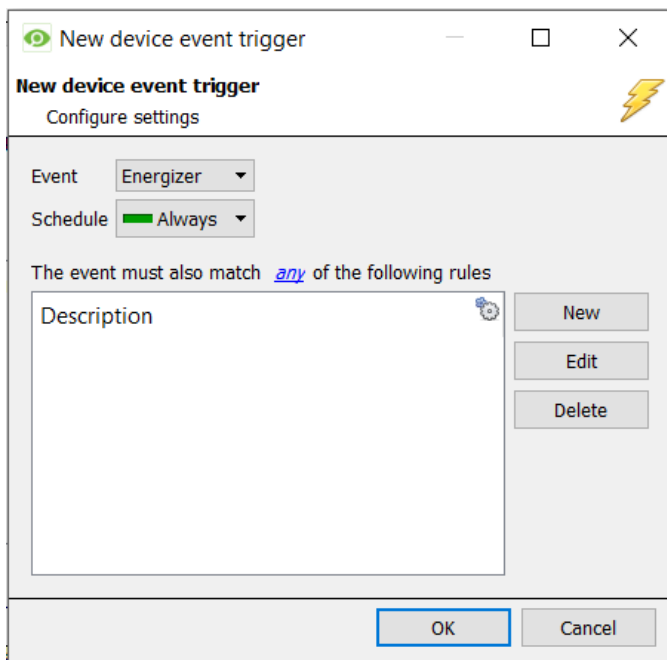
After selecting a master trigger type, add a trigger to the event.



Click on **New** in the Triggers tab. This will bring up another dialogue box.

6.3.4.1 New Device Event Trigger

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



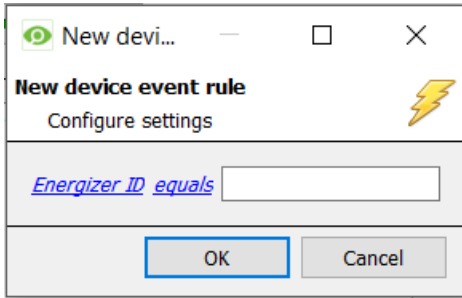
- Select the **type of Event** where applicable.
- Choose a **schedule**.
- Choose whether [any](#), or [all](#) constraints need to be fulfilled to set off a trigger.
- Use the **new/edit/delete** buttons on the right-hand side to add a device event rule (a constraint). Follow the instructions below.

6.3.4.2 New Device Event Rule

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



To configure a New device event rule, **click on New** in the New device event trigger window.



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**. This will display the constraint's options.

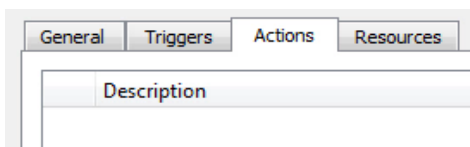
Note: When all available options are known to CathesisVision a drop-down menu will be available. When these variables are not pre-defined they will need to be filled in manually. The information pulled through to the events is information sent to CathesisVision from the Nemtek device. See the Nemtek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

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

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

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

5.5 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.

5.5.1 Adding an Action

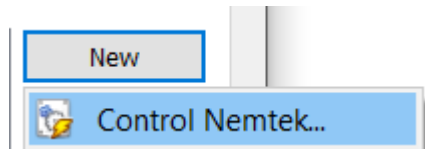


To add an action, click New in the Actions tab.

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

5.5.1.1 Actions: Control Device

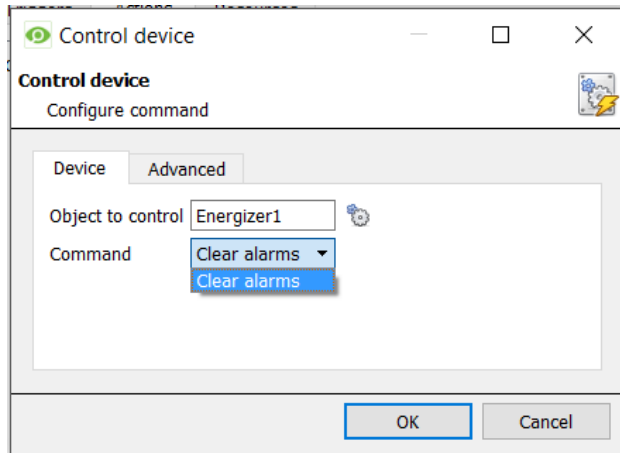
One of the available actions will be to *control* the Nemtek device.




Click a Control Nemtek 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: Device Tab



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

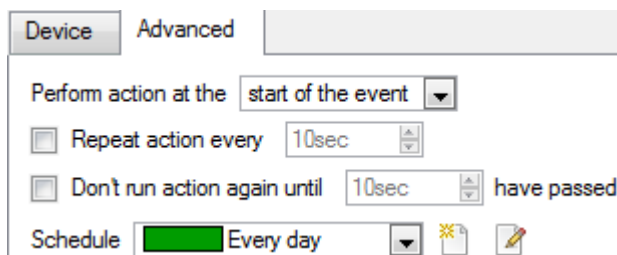
This will display a selection of all the Objects available on the Nemtek device.

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

In the example on the left, the Energizer1 has been selected as the **object to control**. Thus, when this event is triggered, the action **will clear the alarms on the Energizer1 object**.

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.

Configure Command Window: Advanced Tab



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 CathesisVision schedule, which can be applied to the actions.

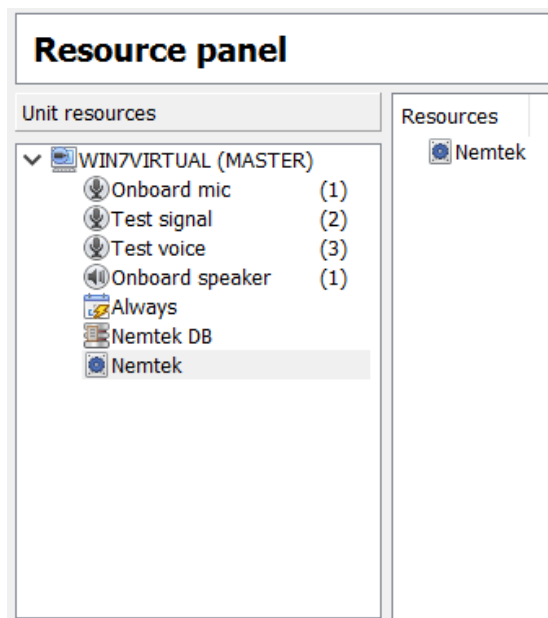
7. Maps

It is possible to add the Nemtek 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 Nemtek device. For more information on using the CathesisVision Map Editor and Map Tab, please consult the dedicated and detailed **Map Editor Operation Manual**.

7.1 Add the Nemtek Device as a Resource

To configure the map, the Nemtek device must be added as a resource to be added to the map.



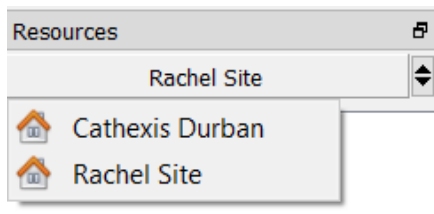
7.1.1 Add the Device in the Resource Panel

1. Navigate to the **Resource Panel** by following **Site / Open Tab / Setup / Resource Panel**.
2. Drag the Nemtek device from the **Unit Resources** list into the **Resources** list, on the right.

7.2 Add the Device in Map Editor

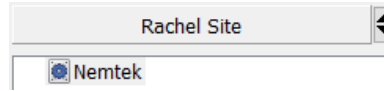
Once the Nemtek device has been added as a **Resource**, it will be available to drag onto the map area from the **Site Resources** list.

7.2.1 Connect to Site

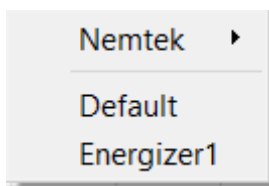


At the bottom right-hand of the Map Editor screen, click the drop-down menu to select the site to connect to.

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



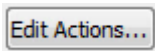
7.2.2 Adding Device Objects



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

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

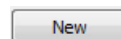
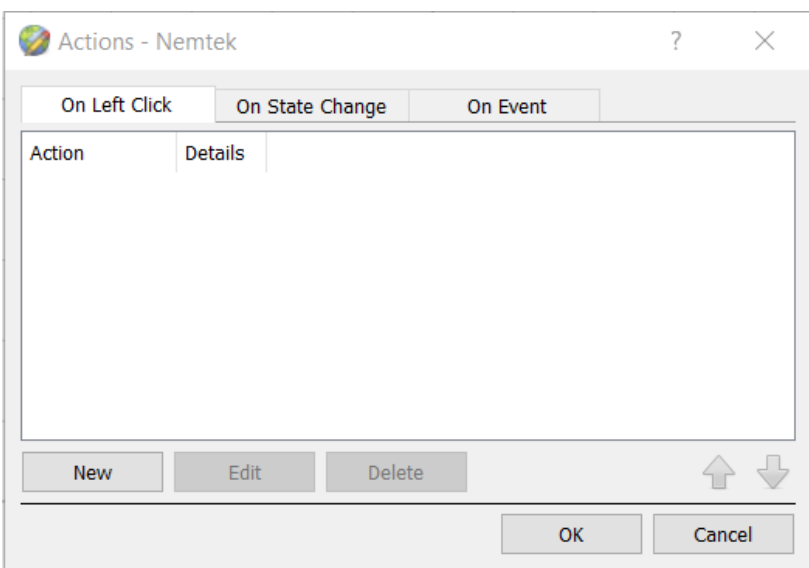
7.3 Adding Device Actions



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

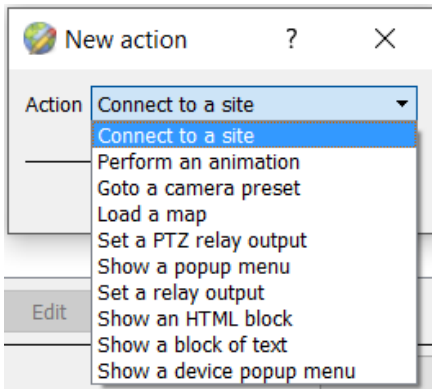
Actions may be set for **Left/Right-Clicks**, **State Changes** and **Events**.

The action triggers will differ according to the object selected, as well whether the action is being set for a Click, State Change or Event.



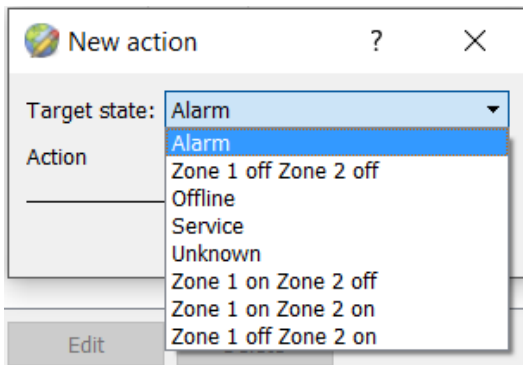
To create a new action, select New.

7.3.1 Action: On Left Click Tab



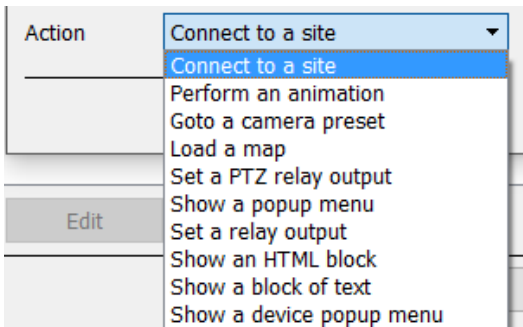
Select a map action to be triggered when this device object is left-clicked on the map.

7.3.2 Action: On State Change Tab



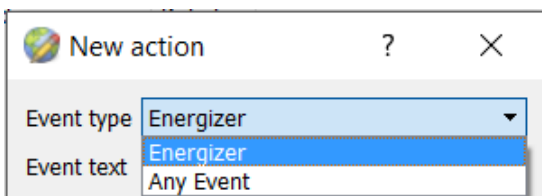
Select the target state of the device object which will trigger the map action.

Note: State Change action is available/unavailable depending on the device object.



Select the map action which will be triggered when the device object changes to the target state.

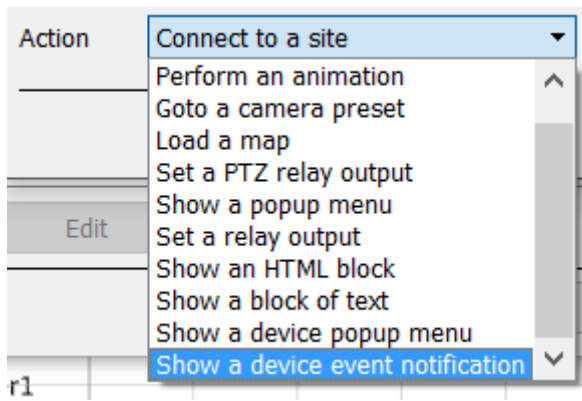
7.3.3 Action: On Event Tab



Select the event type of the device object which will trigger the map action.



Enter Event text which will appear on the map when the selected event triggers this map action.



Select the map action which will be triggered by the device object event.

Note: Event actions include the extra option to **Show a device event notification**.

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

7.4 Save Map

Once finished, save the map.

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

7.5 Map Tab

The saved map needs to 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.

8. Conclusion

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

For support please contact support@cat.co.za