# OTIS Escalator Integration Document

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

# 1 Introduction

This document will detail the integration of the OTIS Escalator, with the CathexisVision software. Functionally this integration will entail the triggering of standard CathexisVision Events, based on the triggers from the OTIS device.

## a. General Requirements

- CathexisVision 2016.3 and later.

## b. Escalator Version Requirements

All OTIS Escalators with GECS controller systems are compatible with the BA interface board.

**Note**:

1. The OTIS Escalator communicates with the CathexisVision software through a set of 4 outputs. Therefore, an EIO3148 is required. Please consult the CathexisVision EIO3148 manual for more information on the setup and operation of this device.
2. For information regarding the regular operation of an OTIS device, please consult the relevant OTIS documentation.
3. There is a General Integration section in the main CathexisVision manual. It has vital information about creating an integration database, as well as a general introduction to the Integration Panel. **Read over this section**.

## c. License requirements

The OTIS Escalator integration license requirements are as follows:

| License Name | License Description |
|---|---|
| **COES-2000** | OTIS Device License |
| **COES-1001** | OTIS Single Escalator License |
| **COES-3000** | OTIS Escalator Bundle - includes device license and unlimited escalators. |

## d. Integration Components

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

**Device** The device is the CathexisVision software interface, which handles all the interaction between CathexisVision and the integrated hardware. When an integration is added to the CathexisVision system, it is a device. 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

# 2 Device Addition and Configuration

## a. Introduction

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

## b. CathexisVision Specific OTIS Escalator Setup (Set up the OTIS device)

The EIO3148 needs to be setup. Set the EIO device to match the following conditions:

**Pinout**

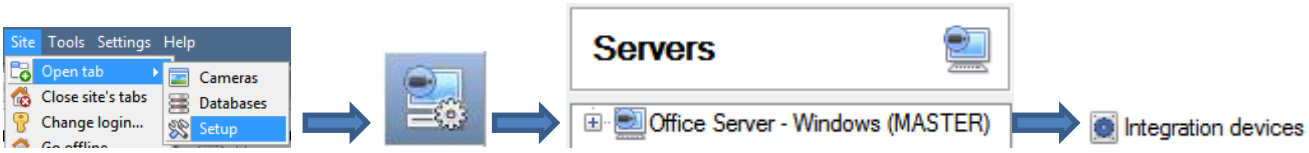
**When using one EIO**

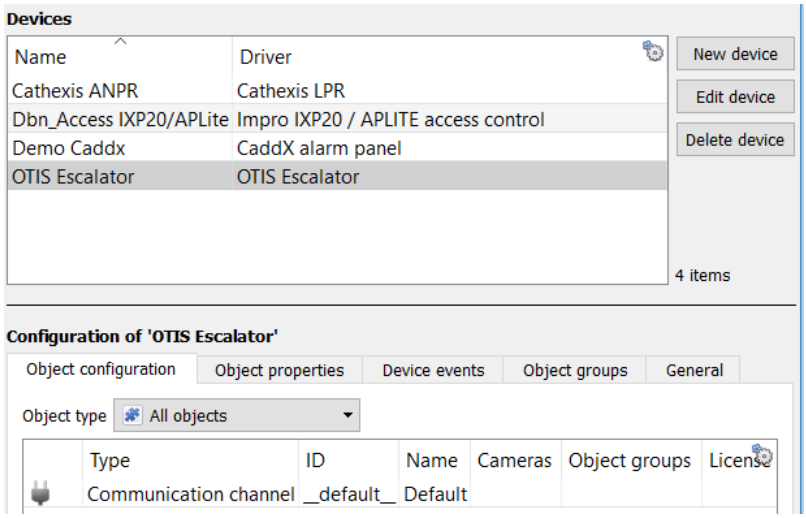
| Output on device | Input on EIO | Description |
|---|---|---|
| P4:1 P4:2 | 1 | DOWN |
| P4:3 P4:4 | 2 | UP |
| P4:8 P4:9 | 3 | NAV |
| P4:11 P4:12 | 4 | PKS |

## c. Devices Section (Add a New Device in CathexisVision)

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

*The Integrations Panel*



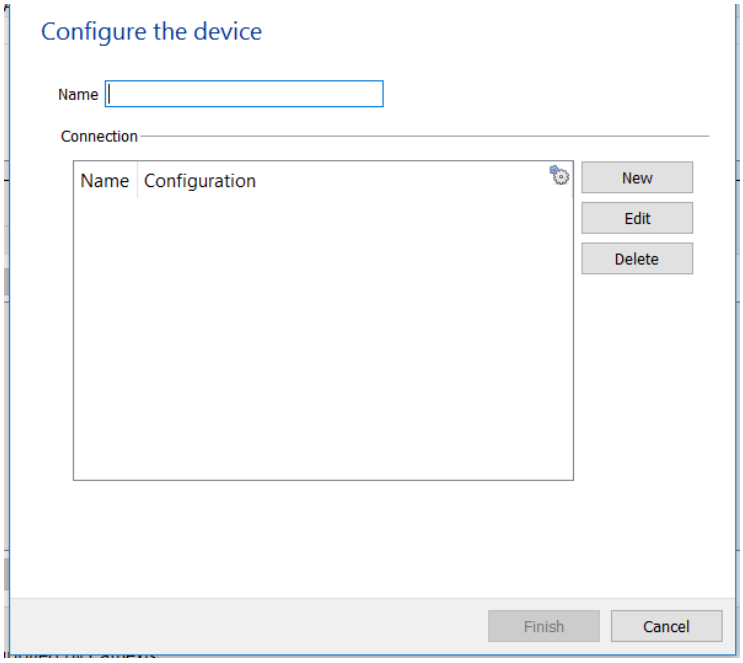

There two sections in the Integration Panel:

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

The **Configuration** section enables the user to edit/review, the device which was selected in the **Devices** section.

- ***Device Addition***

1. Once in the Integration Panel, in the Devices section, click on New device. This will open the addition window.
2. Select the **OTIS Escalator** driver from the list.




Give the device a descriptive **name.**

**Add**, **Edit** or **Delete** channels from the device by using the buttons on the right side of the configuration window.

See below **for Adding a Channel.**

### Adding a Channel

Click New to add a channel.

Give the channel a **Name**.

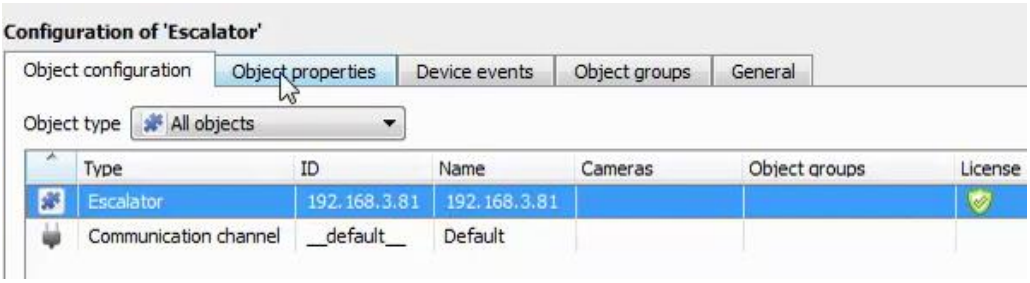
Enter the **IP address** of the EIO device.

Leave the **Port** number as default as it is not being used.

## d. Configuration Section (Tabs)

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

### *Object Configuration Tab*




The object configuration tab is the tab where the user may view all the individual objects that comprise the integration.

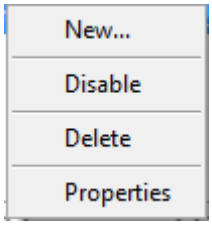
- ***Object Configuration Buttons***

Add a new object by clicking on New.

Will open up an existing object for edition.

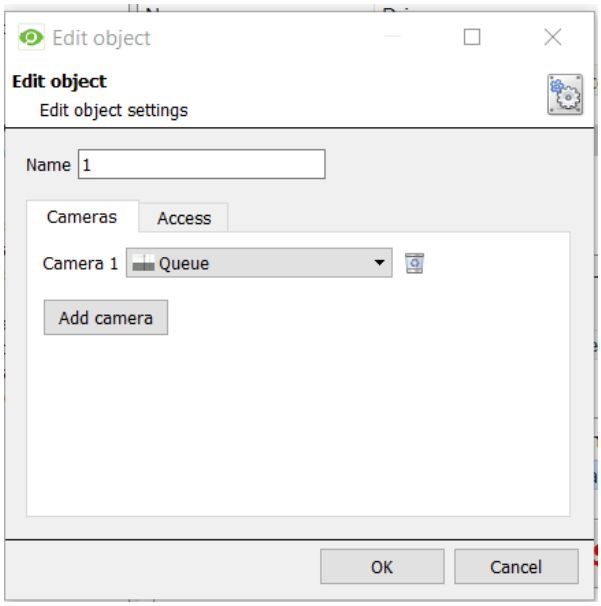
Is used to delete an existing object from the CathexisVision configuration.

- ***Object Configuration Right-click Options***




**New** will open up the dialogue to add a new object.
**Disable/Enable** allows the user manually enable/disable individual objects.
**Delete** will permanently remove this object from the list.
**Properties** will open up the object properties. The user may edit the object from here. (Specifically, cameras may be assigned to this object, as well as user access levels defined for it.)

## Properties: Cameras




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

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

To delete a camera click on .

**Note**: Multiple cameras may be associated with individual objects.

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

### Properties: Access

**Access** will protect sensitive objects, by only allowing certain user levels access to them.

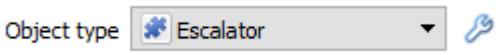
Under **View** the user will be able to set the access levels.

**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.

- ***Configure Overlays***

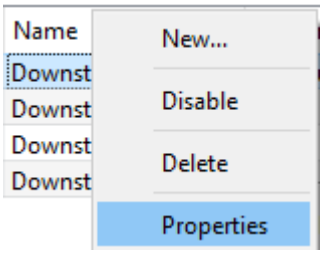
Overlays are connected to Escalator objects. Overlays may be configured globally for **all Escalators**, or they may be configured for a single Escalator. See below for how to open the overlay configuration window for global or specific overlay configuration. Thereafter, the overlay configuration window looks the same for both options.

#### 1. Configure Global Overlays

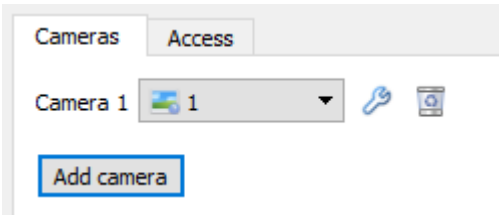



Select the Escalator object from the Object type drop-down menu and click the Overlay Settings icon .

#### 2. Configure Overlays for Single Object




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

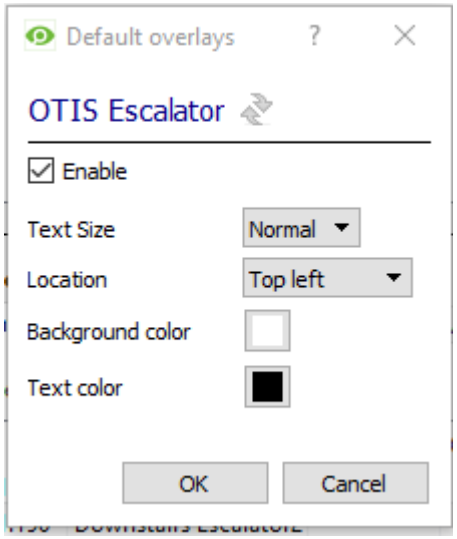



Add a camera to the Escalator object, and then click the settings icon that appears next to the camera name.

**Note**: This option only appears for Escalator objects.

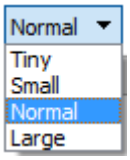
### Overlay Configuration Window

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

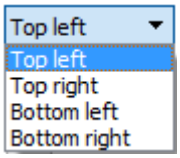



Check ☑ Enable to **Enable** overlays.

Select the **Text Size:**



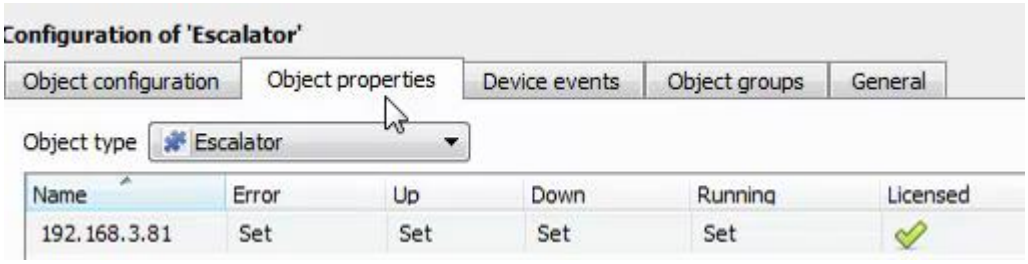

Select the **Location** of the overlay:




Choose the **Background colour** of the overlay. Clicking will open a colour chart.

Choose the **Text Color** of the overlay text. Clicking the will open a color chart.

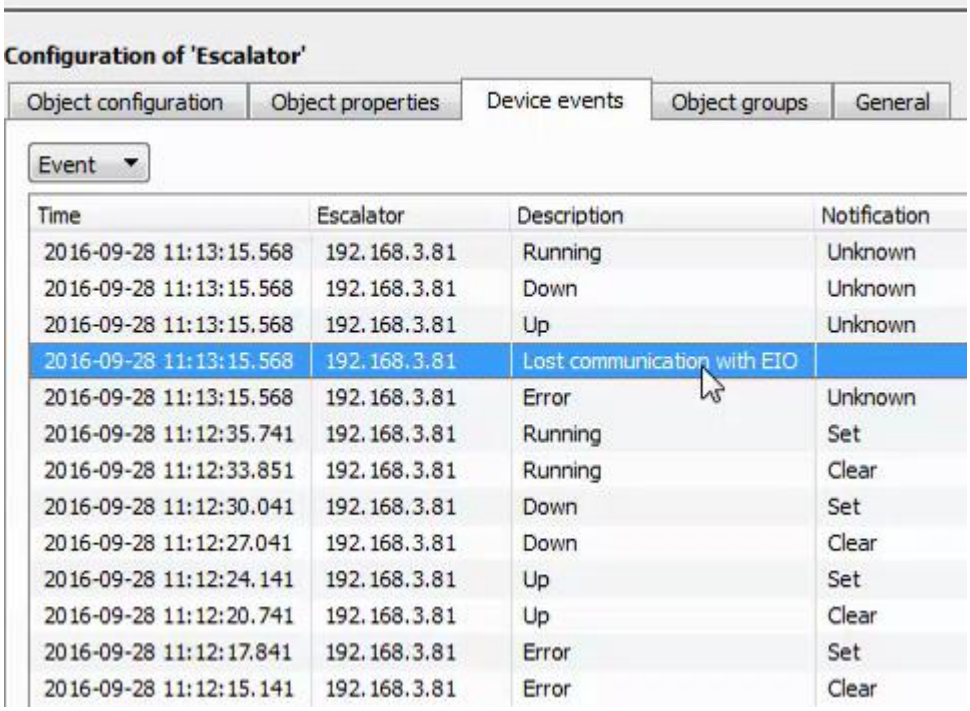
## *Objects Properties Tab*




The Object properties tab allows the user to view the object properties, sorted by object type.
In the case of the OTIS Escalator device the options are to view by **Escalator,** or **Communication Channel.**

**Note**:
Once the device has been added, the **Escalator** and **Communication Channel** objects will populate automatically.

## *Device Events Tab*



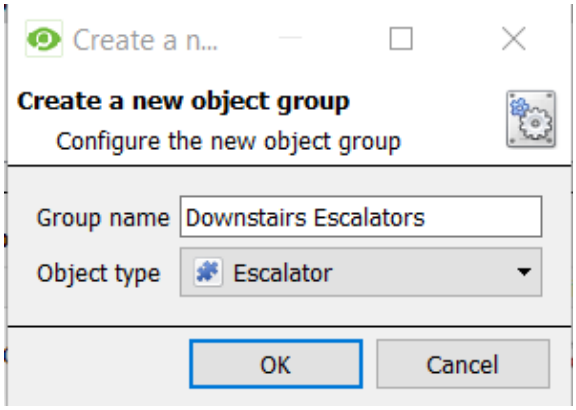

This will list all events sent from this device. It is an excellent way for installers to see that the integration is functioning, and to monitor the events happening on site.

## *Object Groups Tab*

In this tab, groups of the same type of object can be created.

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

- ***Create a Group***



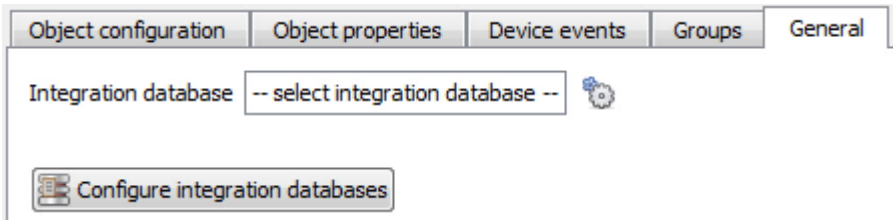

To create/edit a group click on / . (**Note**: Once a group has been created, the object type of the group may not be edited.)

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

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

A list of Available Objects will appear. To add/remove these objects to the group select them (multiple may be selected at a time), and click on / .

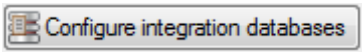
## *General tab*




Currently the general tab deals with the **Integration database and other general settings**. Here, either select an existing database, or configure a new database for the integration.

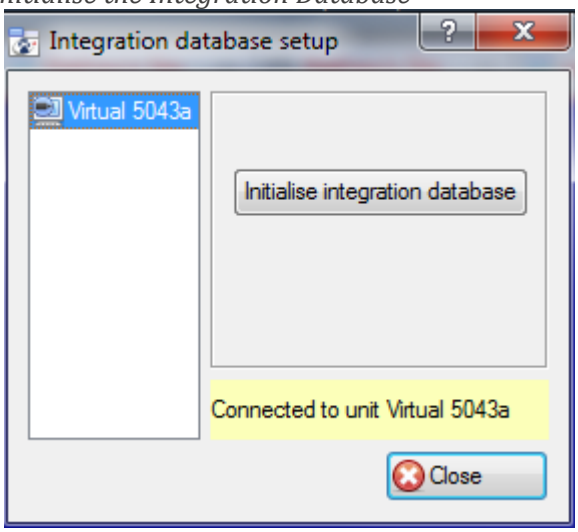
**Important Note**: Each integrated device needs to be attached to an Integration database. Without setting up/adding a database here the integration will not function properly within the CathexisVision system.

- ***Configure a new database***

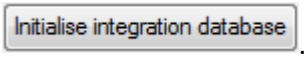



If there is no database created yet, clicking on this button will open the integration database setup.

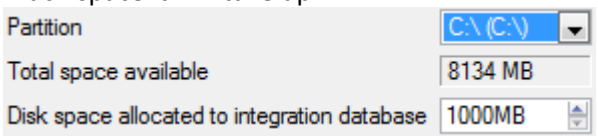
*Initialise the Integration Database*




The first time an integration database is added, the database will have to be initialised. This will add a broad database; within which all integrated databases will be added.

Select the unit the database should be added to, from the list on the left, and click 

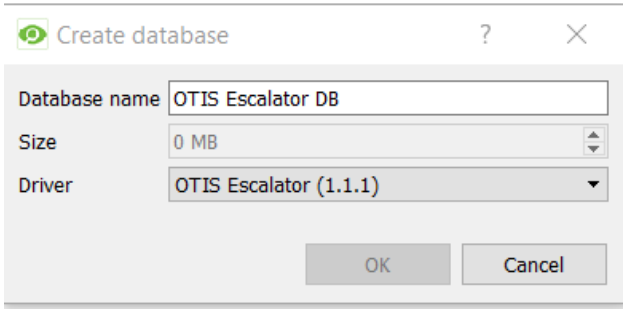
. Choose which partition the database will be formed on, and select how much space it will take up.




### Add a New Devices Database

After initialisation, add the database for the integration that is being added. Click on the

button, at the bottom of the Create database window.

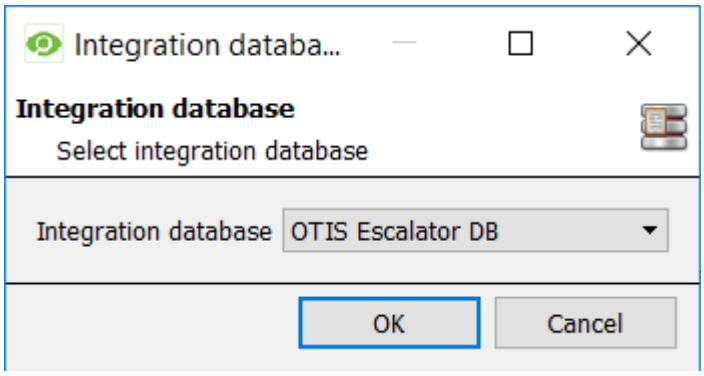



Give the Integration database a descriptive **Database Name**.

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

Choose the device **Driver** that the device will be using, and click on OK to create the database.

- ***Select the Integration database***




Integration database -- select integration database --

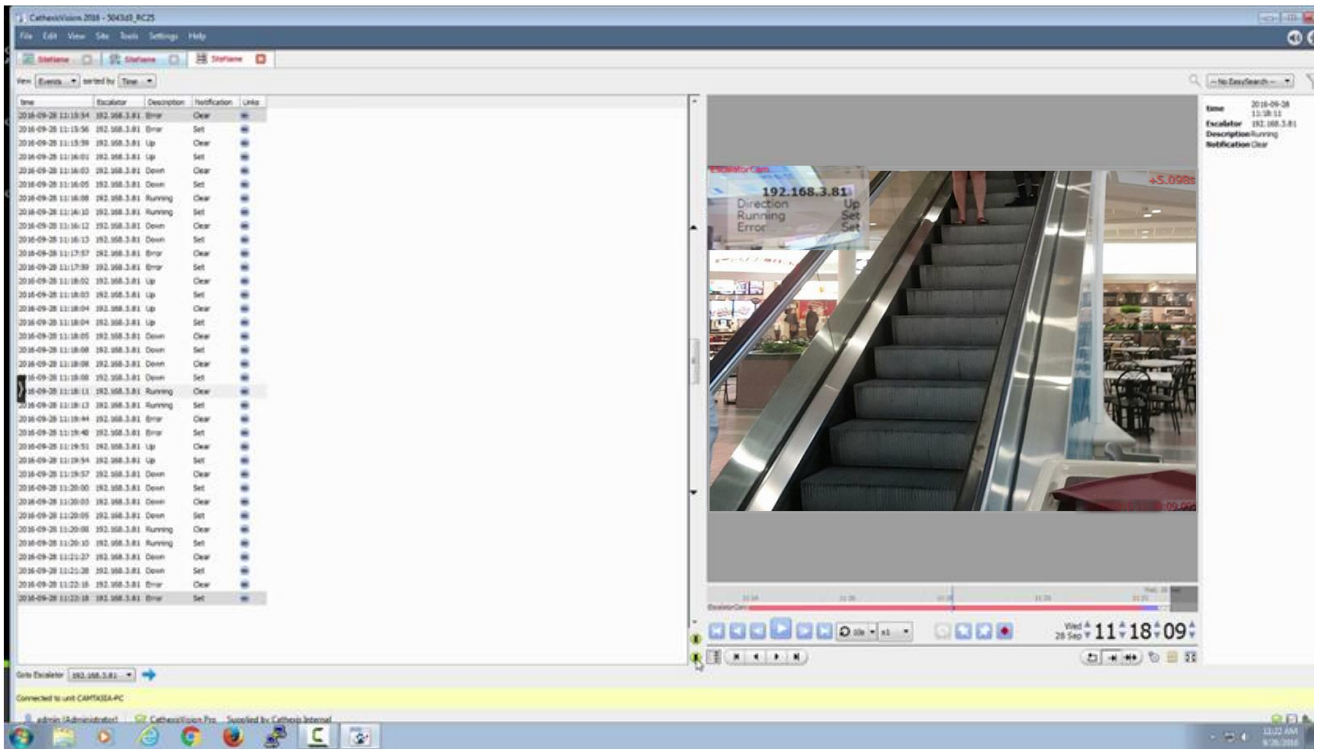
Once a database has been created the user may select it by clicking on the icon, and selecting it in the dialogue that appears. Only databases which relate to the device being added should appear.

# 3 Database

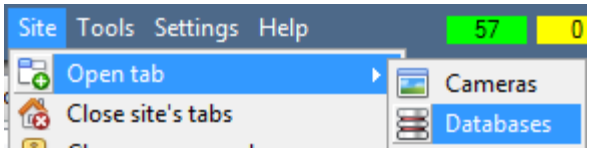
## a. Introduction

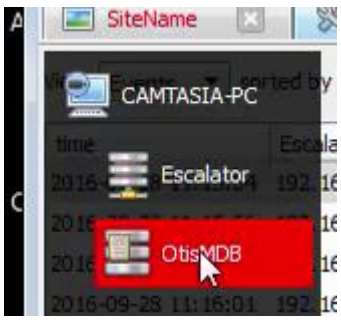
The database tab will allow the user to navigate the databased entries, for each individual database. In the database tab each database is presented as a table. It has built in filters, and the ability to navigate by timestamp. If a database entry has an associated recording, it may be launched and watched from within the database tab.

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



## b. Navigate to the Database



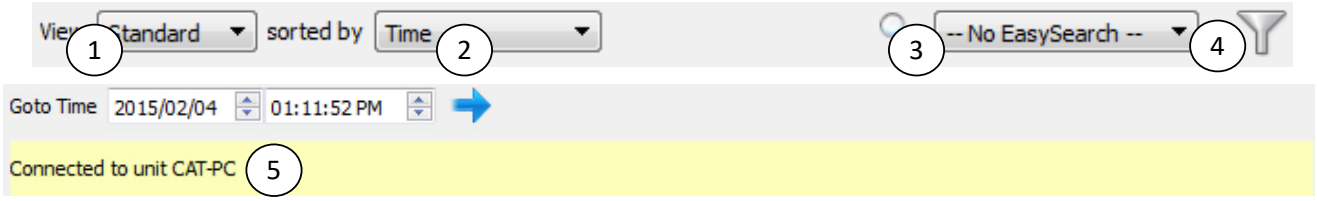




To view the information stored in the Integration database, follow the path to the left.

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

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

## c. Database Interface



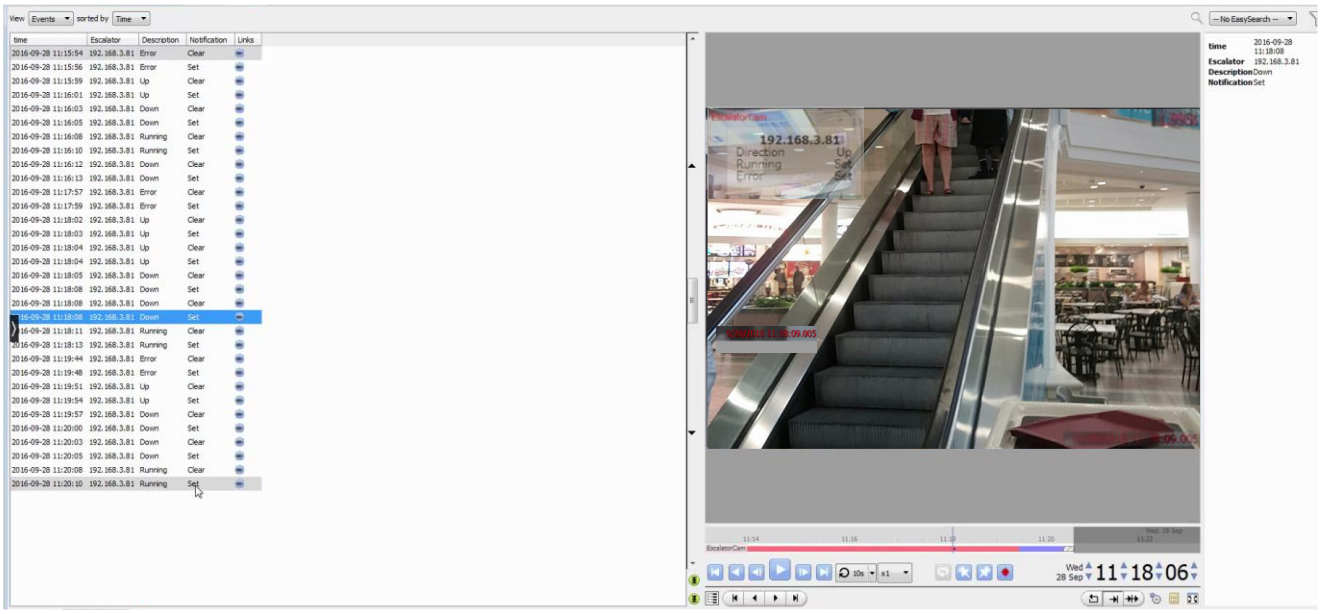

| | |
|---|---|
| ① **View** | Change the way that the database is presented. Some integration databases have multiple view options. The OTIS database has **Events** options. |
| ② **Sorted By** | Sort Events based on the following parameters: **Time**. |
| ③ **Easy Search** | The easy search option allows the user to quickly search the database within one of the following options: **Escalator, Description, Notification.** |
| ④ **Filter** | Filter offers a more advanced manner of sorting information in the Integration Database table.<br><br>Once filters dialogue is open, the following options are presented:<br>1. To **enable** filters check this box: Enable filters<br>2. To **add** a new filter click on .<br>The filter icon will change to when filters are active.<br>3. To **delete** an added filter click on .<br><br>The OTIS Escalator panel has the following filter options: **time, Escalator, Description, Notification.**<br><br>**Note**:<br>1. Multiple filters may be run simultaneously, and may be filtered using the same perameters more than once.<br>2. To change a filter click on the blue hyperlinked text. (For example, click on *Timestamp* to change the filter from Timestamp, to any of the other available options.) |
| ⑤ Go to Time | This navigates to a specific point in time, down to the second. To navigate to a timestamp set the time using the time and date boxes, and then click on the icon. |

## *Viewing an Entry's Associated Recording*

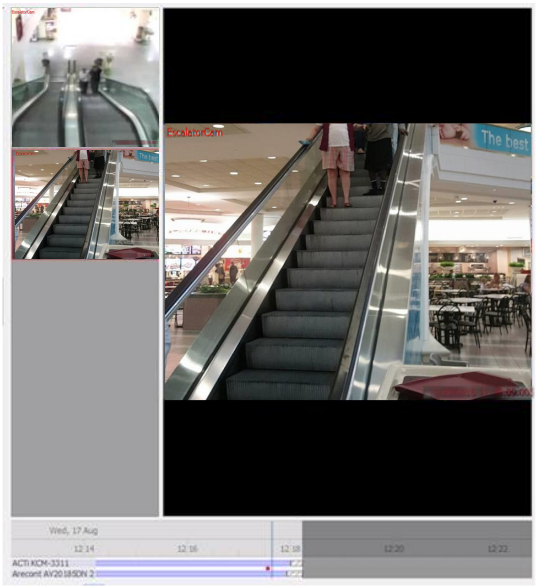
If cameras have been attached to device objects in the Integration setup and if there are available recordings for those cameras, then each Integration database entry will have a corresponding recording.

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

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



- ***Reviewing Multiple Cameras***

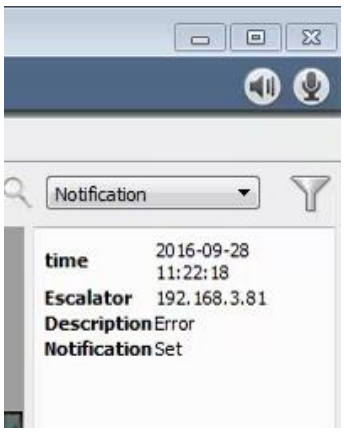


If multiple cameras were added to the recorded object during the integration setup, these are displayed on the left of the video player screen as thumbnails.

Select a camera thumbnail to review it.

- ***Device Event Metadata***

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


Notification
time
2016-09-28
11:22:18
Escalator
192.168.3.81
Description
Error
Notification
Set

# 4 Events

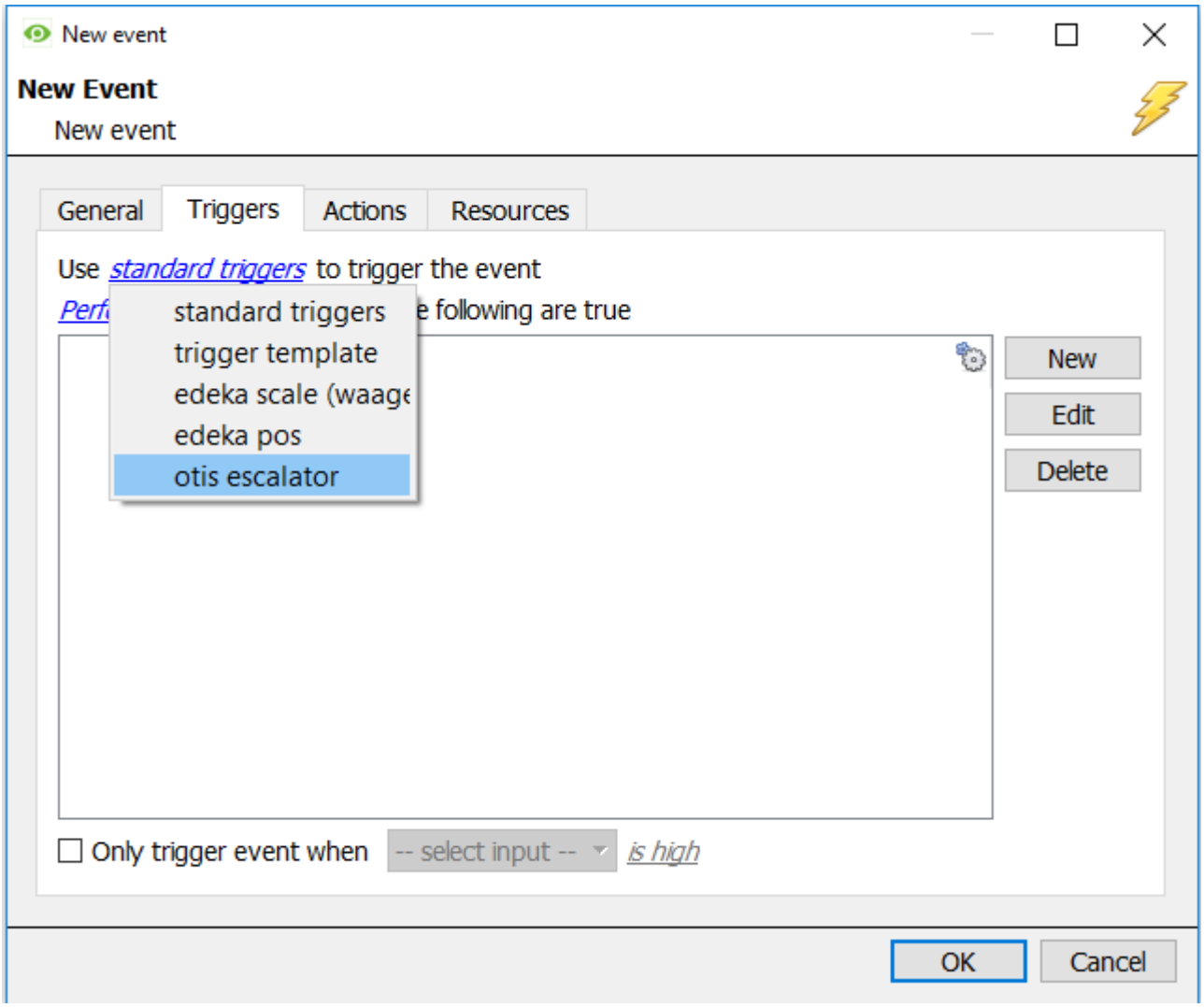
## a. Introduction

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

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

### *Event Window*

Events in CathexisVision are setup via the Event Window. This has 4 tabs. In the **General Tab** an event is given a name, description, schedule and priority. In the **Triggers Tab** the trigger/s for the event is defined. In the **Actions Tab** the action/s which the event takes is defined. In the **Resources Tab** the various site resources which can be used as part of an event are defined.



## b. Creating an Event

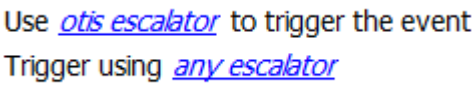
To create an event using the OTIS device, enter the Events management area:

Once in Events management click on

. This will open up the New Event window.

- ***While/When and Any/All***

When triggering on an object the options are to trigger **while/when** a trigger is active, selecting multiple triggers, and defining whether **all/any** of the triggers need to be active to start an event.

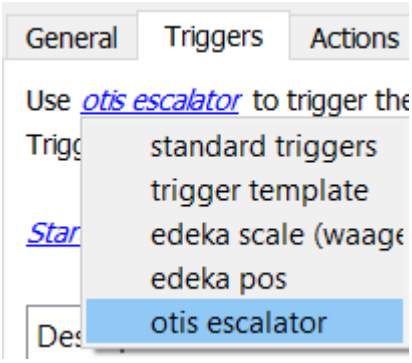



As usual, to change these settings click on the related, blue, hyperlinks.

## c. Triggers

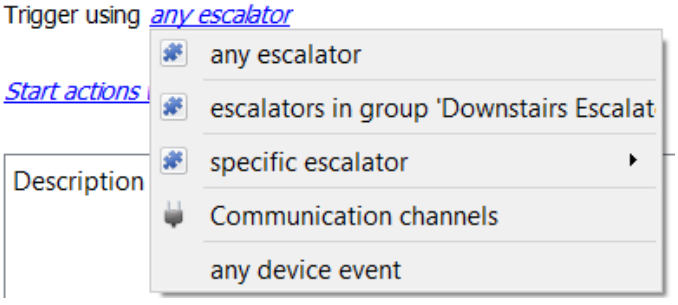
A trigger is the user defined input that tells the event to start. The trigger causes the subsequent action (which the user will also define).

### *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". To set it as the OTIS device, click on the hyperlink, and select the relevant device name from the dropdown menu.

### *Trigger Types (Trigger Using)*




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

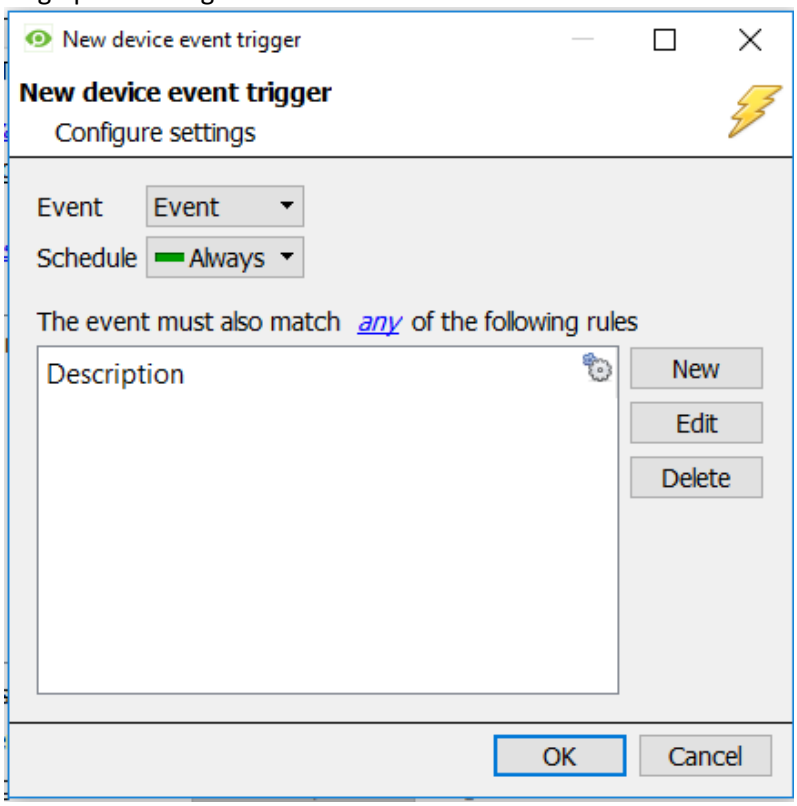
**Any escalator** will trigger when any of these objects sends the selected trigger.
**Escalators in group...** If an object group has been created, it will appear here and will trigger if any of the objects in the group sends the selected trigger.

**Specific escalator** will trigger only if a specific object sends the selected trigger.
**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**: To database the event 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 to see a list of available descriptions. Here is an example which send the triggering object's name to the database, for the event: Description $obj_name

## *Device Event Triggers*

After selecting a master trigger type, add a trigger to the event. Click on New in the Triggers tab. This will bring up the dialogue box below:




Select the **Event** type. The OTIS Escalator device only has Event.

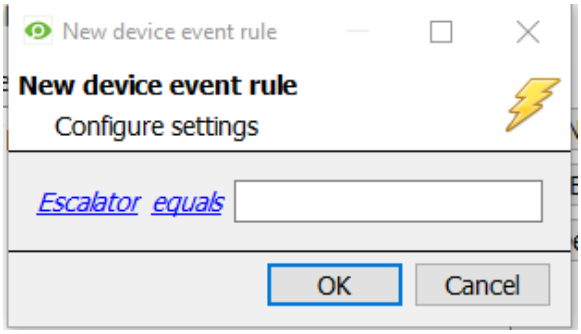
Define the **Schedule**.

Click on the blue hyperlink to define whether the ***any*** or ***all*** of the configured device event rules should trigger an event.

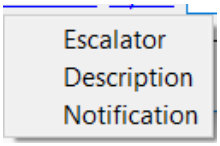
Next, add rules to the device event trigger.

- ***Add Rules to Device Event Triggers***

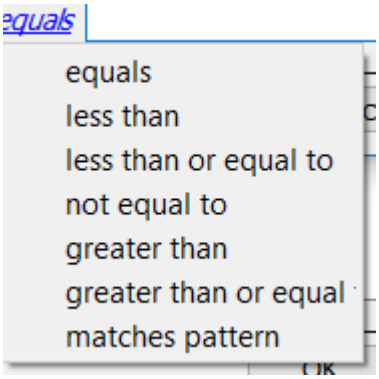
If no constraints are set, every device event will trigger this. Once constraints are set, only the constraints chosen will trigger the event. Once the type of device event that will be the trigger is selected, add a new **device event rule.** To do this, click on New in the **New Device Event Trigger** window.




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

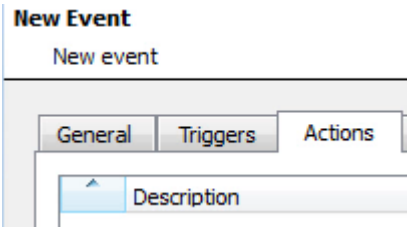



To modify the way this rule will be treated click on the second hyperlink:



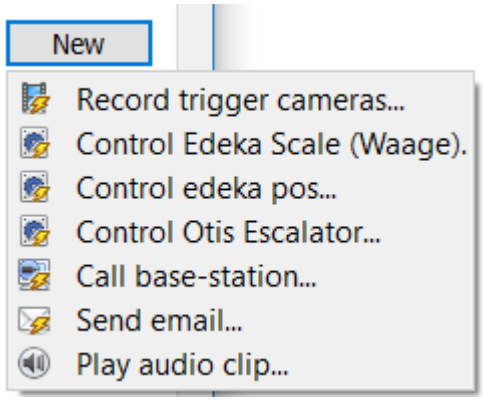

**Note**: When all available options are known to CathexisVision, they will be visible in a drop-down menu. When these variables are not pre-defined, they will need to be filled in manually. The information pulled through to the events is information sent to CathexisVision from the OTIS Escalator device. See the relevant OTIS manual for more information.

## d. Actions




Once there are defined the triggers that are going to initiate the event, it is possible to define Actions which will take place when the event is triggered. With many integrations there will be the option to control the integrated device, as one of the actions. **However, this is not an option for the OTIS Escalator device**.

### *New Action*




To create a new Event Action click on

.

**Note**: The OTIS Escalator **cannot** be controlled as an action.

# 5 Map

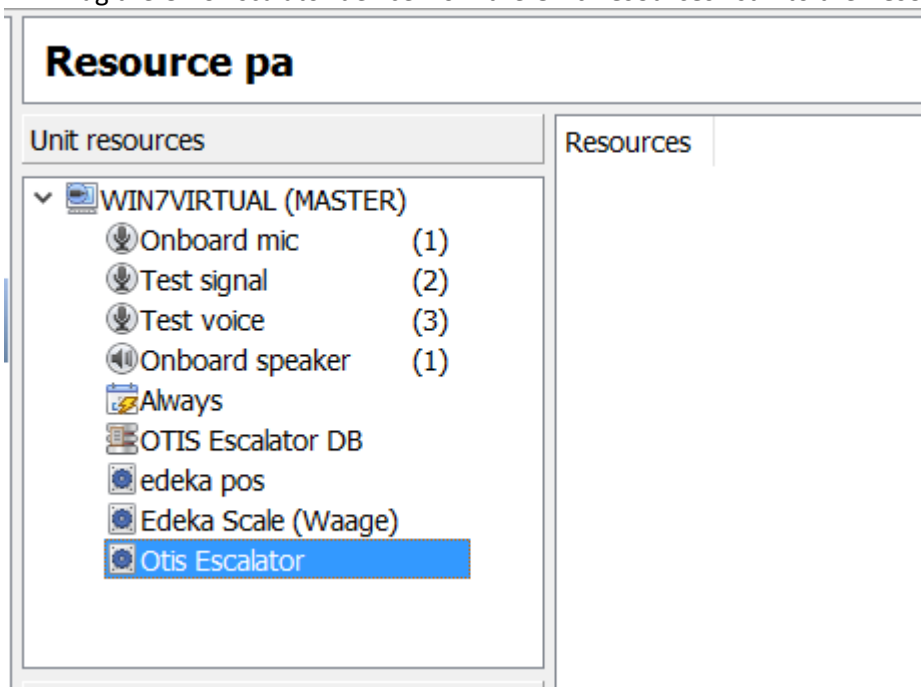
It is possible to add the OTIS Escalator device to a site map, which will allow for a number of action options when objects are triggered. These options include the animation of triggered zones and connecting to site cameras when zones are triggered, etc.

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

## a. Add the Device as a Resource

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

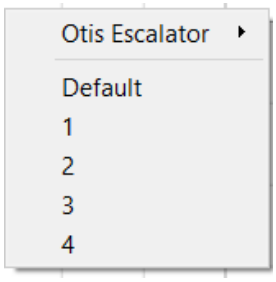
1. Navigate to the **Resource Panel** by following **Site → Open Tab → Setup → Resource Panel.**
2. Drag the OTIS Escalator device from the **Unit Resources** list into the **Resources** list, on the right.




## b. Add the Device in Map Editor

Once the OTIS Escalator device has been added as a **Resource**, it will be available to drag onto the map area from the **Site Resources** list in the Map Editor software.

### *Adding Device Objects*

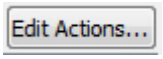


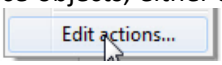

Drag the Escalator device from the Site Resources list onto the map area.

Select one of the associated objects.

**Note**: To add multiple objects, repeatedly drag-and-drop the Escalator device resource from the Site Resources list onto the map area to bring up this option.

- ***Adding Device Actions***

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

or right-click the map object and select 

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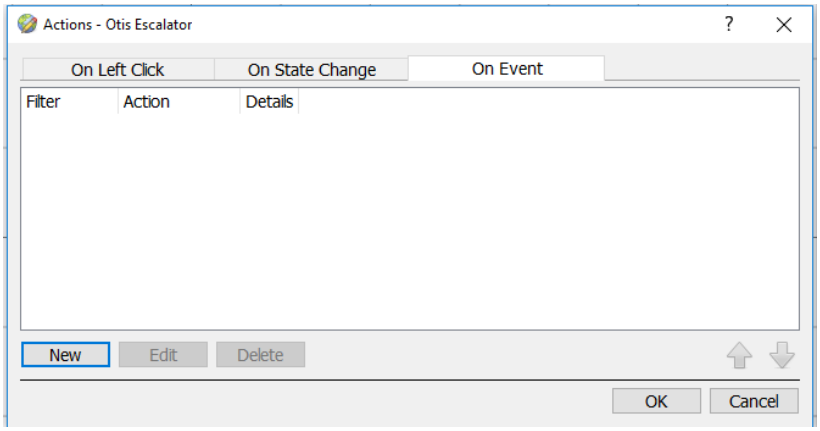



Actions may be set for **Left-Clicks** and **Events**. Click

in the relevant tab of the action window.

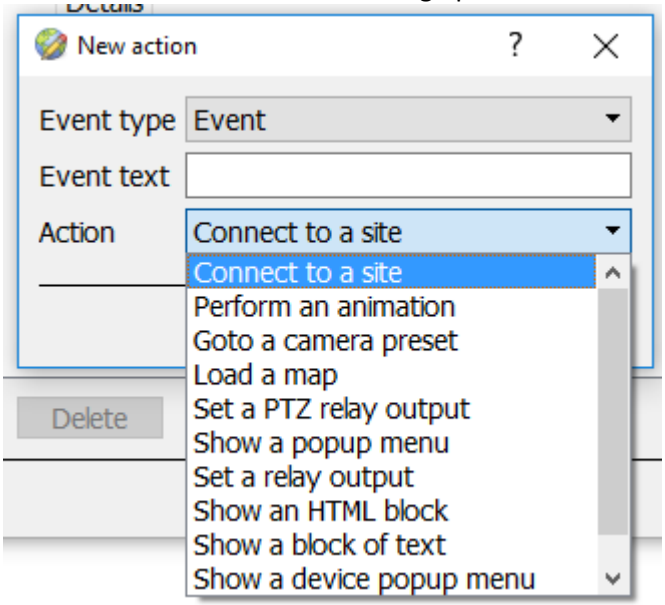
Once set, the list of actions will be displayed here.

**Note**:

1. Multiple actions may be added to the map objects.
2. Actions cannot be set for State Change.

### Event Action options

If an action is set for an Event/Any Event, the action will be triggered by any events that have been setup for this device. See Section 4 for setting up Events.




Select the **Event type** that will trigger this map action.
**Note**: Event/Any Event are the same.

**Event text**: Type text that will appear on the map when an event triggers.

**Action**: Select the map action that will be taken when an event is triggered.

**Note**:
For more information on defining the various actions, please consult the Map Editor Setup Manual.

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

Once finished, save the map.

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

## c. Map Tab

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

# 6 Conclusion

Please remember that this appnote was designed to deal specifically with this integration. For further information about the CathexisVision software please consult the main manual (http://cathexisvideo.com/).

For support please contact support@cat.co.za