



TDSi EXgarde Access Control Integration App-note

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1. Introduction

This document will detail the integration of the TDSi EXgarde Access Control Device, with CathesisVision software. Functionally, this integration will entail the triggering of standard CathesisVision Events, based on the triggers from the EXgarde Access Control panel.

1.1 Requirements

1.1.1 Software

- CathesisVision 2020.3 and later
- Win 10-64bit and later, Win Server 2008 R2 and later.
- Minimum 4 GB of RAM required.

Note:

1. For information regarding the regular operation of an EXgarde device, please consult the relevant EXgarde documentation.
2. There is a General Integration section in the main CathesisVision manual. It contains information on creating an integration database, as well as a general introduction to the Integration Panel. Read over this section.
3. The EXgarde Software Version is 4.5.2

1.1.2 CathesisVision GUI control of EXgarde objects

- Controlled Access
- Lock
- Lock by schedule
- Release
- Unlock
- Unlock by schedule

1.1.3 License requirements

The EXgarde license requirements are the following:

CEXG-1001	EXgarde Access Control Door License
CEXG-2000	EXgarde Access Control Door License
CEXG-3000	EXgarde Access Control Door License

Note: in this integration, a single license will cover multiple linked devices.

A NOTE ON CAMERA CHANNELS

The CathesisVision software packages have **limits on camera channels**. A multi-head 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.

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 object.

USEFUL LINKS

To view **tutorial videos** on CathesisVision setup, visit <https://cathesisvideo.com/resources/videos>

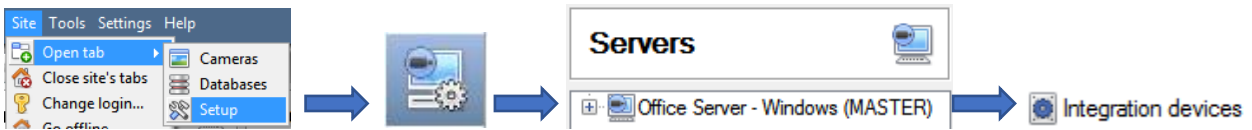
Find answers to Cathesis **Frequently Asked Questions**: <https://cathesis.crisp.help/en/?1557129162258>

2. Device Addition and Configuration

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

2.1 Add a New Device in CathesisVision

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:

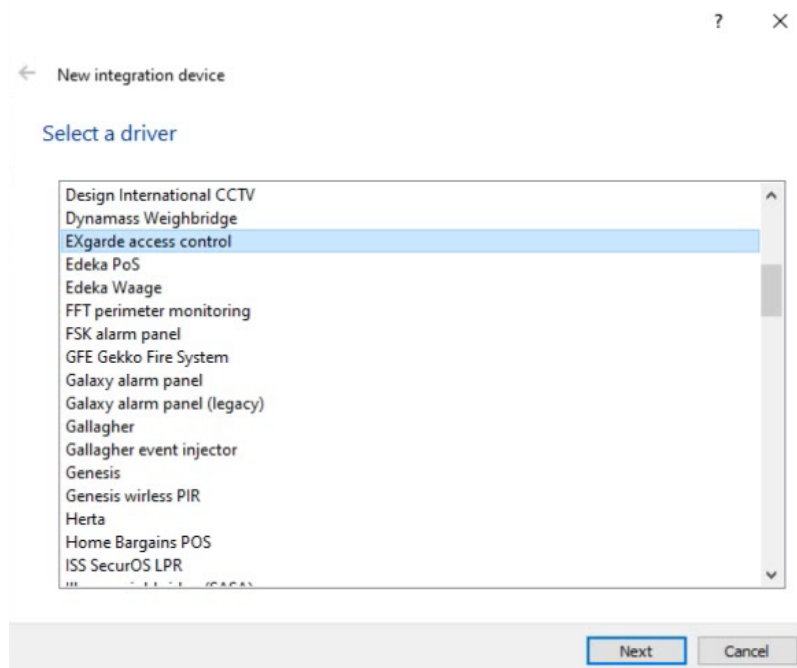


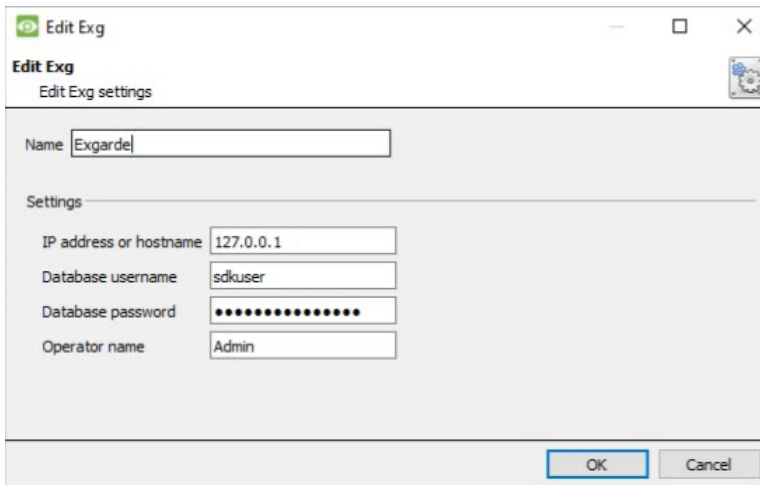
There are two sections in the Integration Panel:

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

2.1.1 Device Addition

1. Once in the Integration Panel, in the devices section, click on New device. This will open the addition window.
2. Select **EXgarde device** from the list.





Give the device a descriptive **name**.

Type the **IP Address** of the computer the EXgarde software is running on.

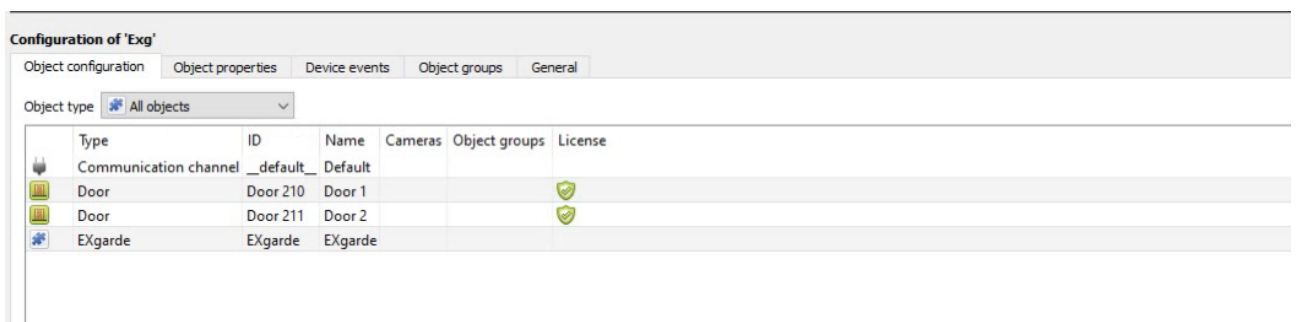
The database username, database password, and operator name are set to default.

2.2 Configuration Section (Tabs)

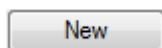
The configuration section is divided up into a number of tabs. These tabs are: **Object configuration, Object properties, Device events, Groups, and General.**

2.2.1 Object Configuration Tab

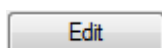
The object configuration tab is the tab where all the individual objects that comprise the integration may be viewed.



2.2.1.1 Object Configuration Buttons



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



Click on **Edit** to open up an existing object for editing.

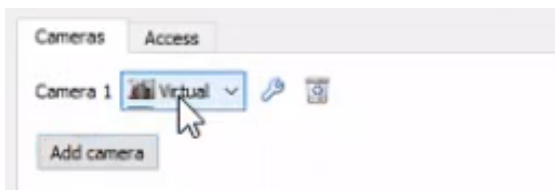


Click on **Delete** to delete an existing object from the CathesisVision configuration.


2.2.1.2 Object Configuration Right-click Options


New...	New will open up the dialogue to add a new object.
Disable	Disable/Enable allows manually enabling/disabling individual nodes.
Delete	Delete will permanently remove this object from the list.
Properties	Properties will open up the object properties. The object may be edited from here. Specifically, assign cameras to this object.

Properties: Cameras



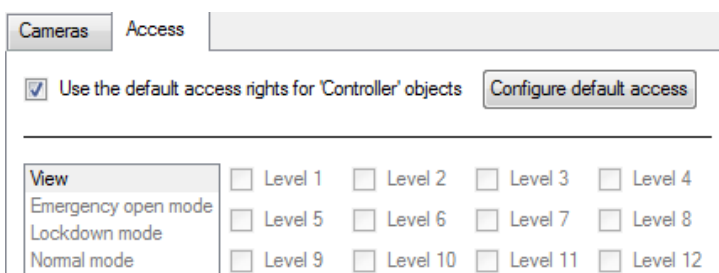
Adding a camera to an object will mean that whenever there is an event on that object, the recording from that camera will be related to the time and date of the object event, in the Integration database.

To add a camera, click . Select the relevant camera from the drop-down menu.

 To delete a camera, click this icon.

Note: If *continuous recording* is not set up on associated cameras, there is the risk of zone (object) 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 allows protecting sensitive objects, by only allowing certain user levels access to them.

There will be a list of objects, whose access level may be set.

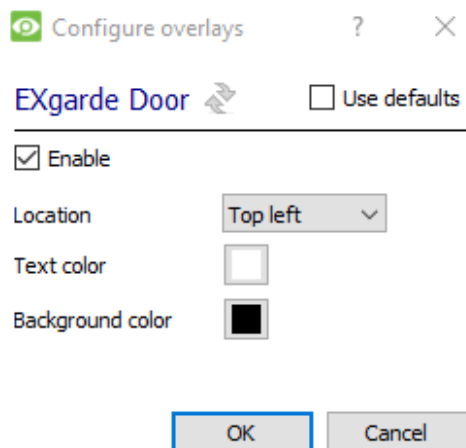
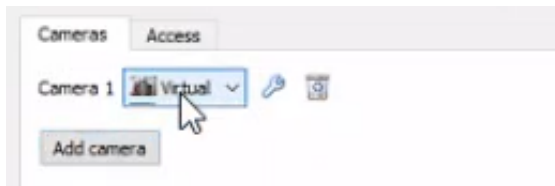
Note: If *Use default access rights* is checked, make sure that those default rights have been correctly defined. Click on **Configure default access** to do this.

Properties: Overlays

Global overlays may be configured for Door or any of the other options except for “All objects”.

To configure overlays for an **object**, double-click or right-click and select **Properties**.

Add a camera to the object.  Then click the **settings icon** that appears next to the camera name.



Use Defaults: This option is only available when editing individual overlays. Check this box to use the global configurations. Uncheck to edit overlays for the specific object.

Enable: This option is available in global and individual overlay configuration. In both cases, check the box to enable overlay configuration.

Select **Text Size** options from the drop-down menu.

Define the **Location** of the overlay panel.


Define the **Background Colour** of the overlay stream: Set the panel appearance to default; remove the border or remove the panel entirely (so that only the overlay text appears). Adjust the opacity as required.

Choose **Text Colour**.

To set a custom panel colour, uncheck **Use Default background colour**.

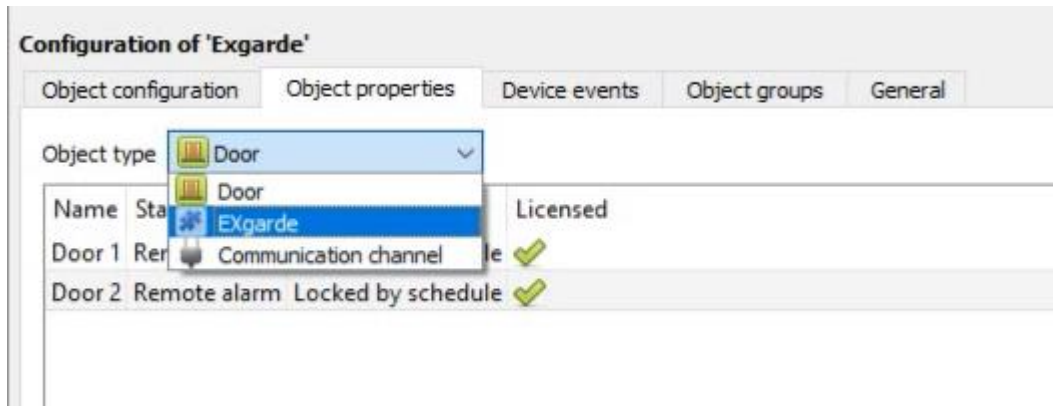


Click this box to bring up a colour chart.

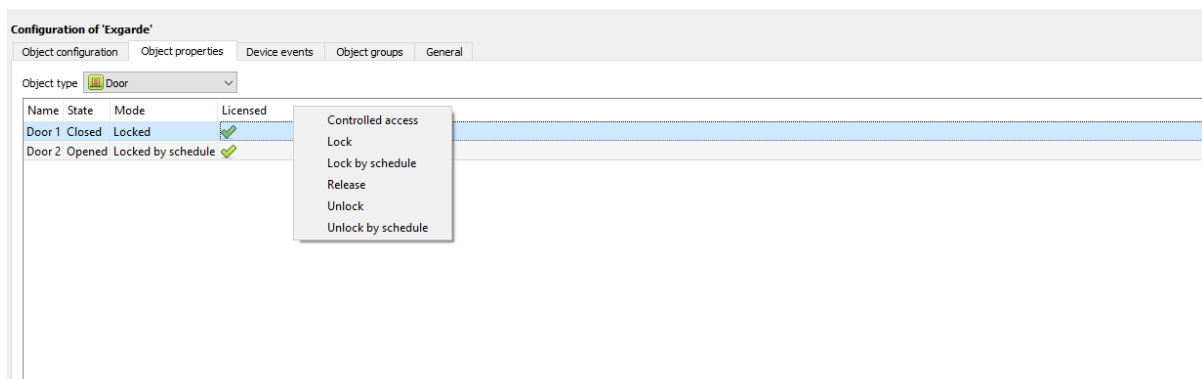
Click  to reset values.

2.2.2 Object Properties Tab

The Object properties tab allows viewing objects, sorted by type. In the case of the EXgarde device, there is the option of viewing by **Door**, **EXgarde**, and **Communication channel**.

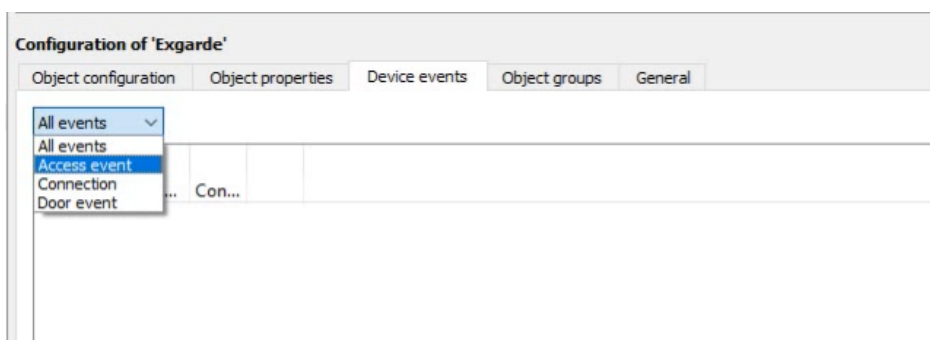


2.2.2.1 Object Control Menu



Control of the individual object can be selected by right-clicking the mouse over the object for which control is required. This will show a menu of the commands applicable for the select object. Select the command to apply it.

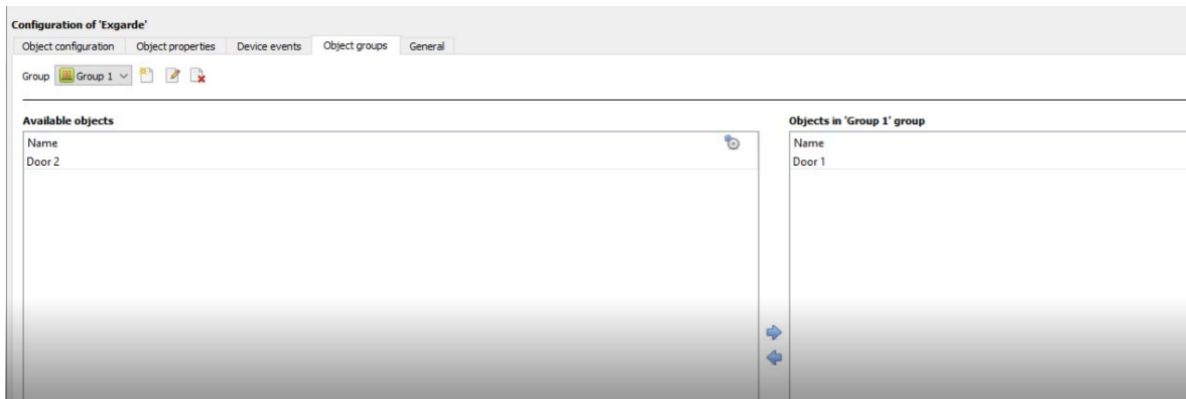
2.2.3 Device Events Tab



This will list real-time events happening on this device.

It is a useful way for installers to see that the integration is functioning, and to monitor the live events happening on site.

2.2.4 Object Groups Tab




Groups of the same type of object can be created.

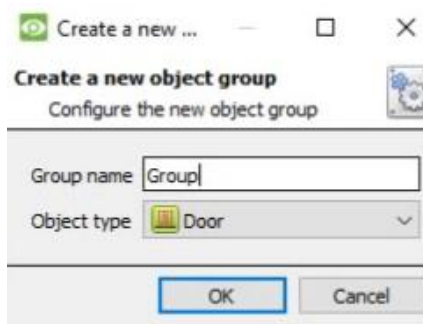
Tip: This is useful when setting up Events, because events can be triggered by an object group. (For example, a group will trigger if any of the zones/partitions in that group is triggered.)

2.2.4.1 Create a group

 To create a group, click on this icon.

 To edit a group, click on this icon.

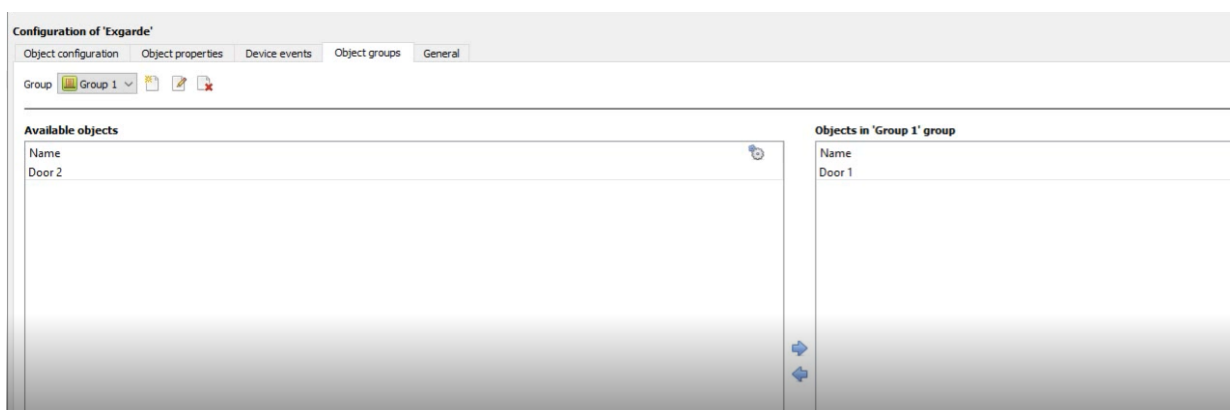
Note: once a group has been created, the object type of the group may not be edited.





When creating a group, select the 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.

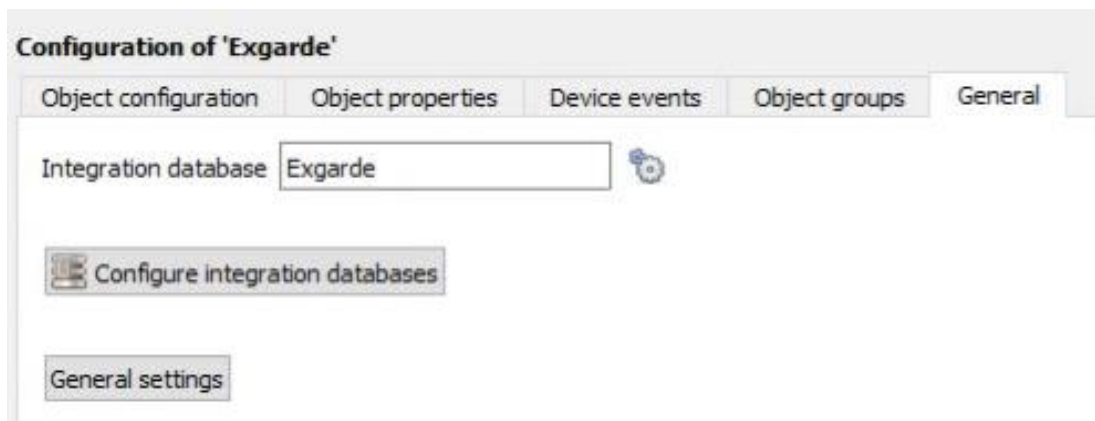


There will then be a list of Available Objects. Multiple objects may be selected at a time.

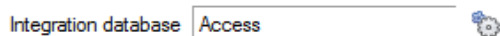
-  To add these objects to the group, select them and click on this arrow.
-  To remove these objects from the group, select them and click on this arrow.


2.2.5 General Tab

The general tab deals with the integration database. Here, select a pre-created database, or configure a new database.

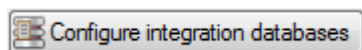


2.2.5.1 Select an Integration database



 To select a database, click on the **gear icon**. Select the relevant database. Only databases which relate to the device being added should appear.

2.2.5.2 Configure a new database



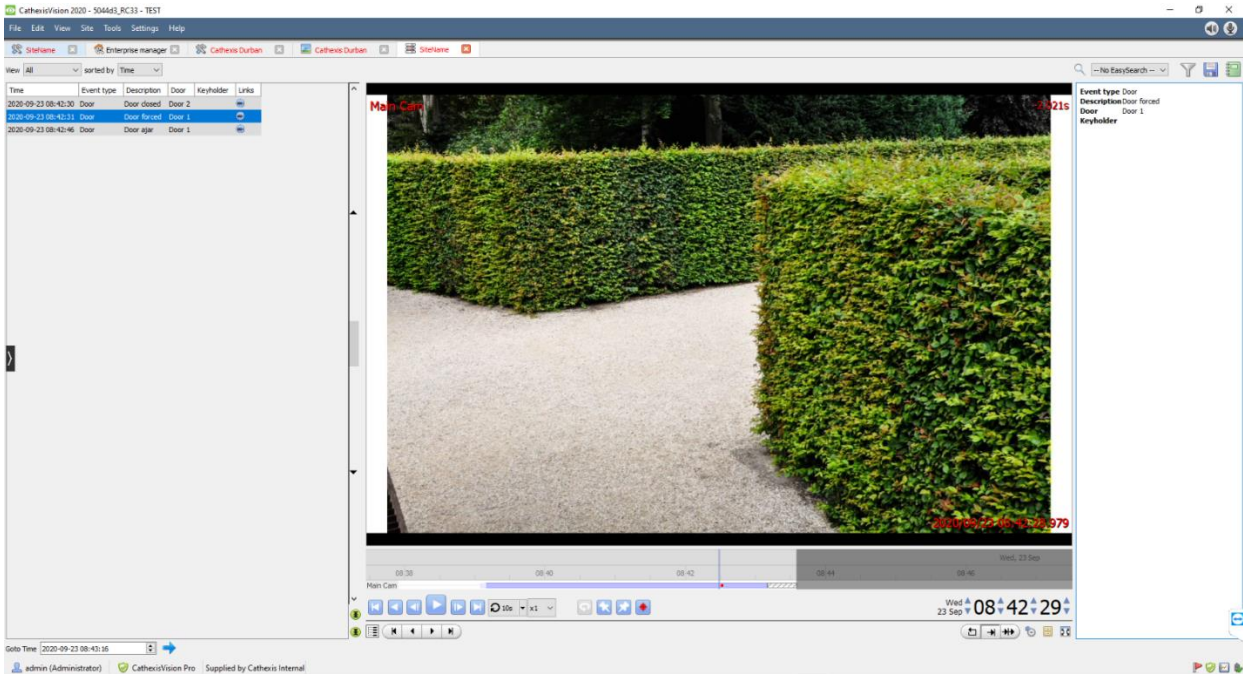
If there is no database created yet, clicking on this button will navigate to the integration database setup.



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

3. Camera Tab Overlay Setup

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

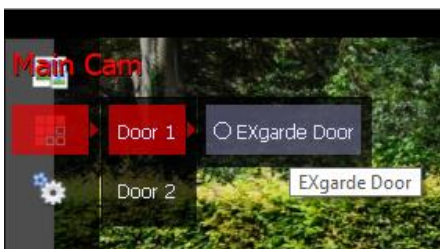


Note: Cameras must have already been added to objects, and overlays must have already been configured.

3.1 Video Feed Options Panel



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.



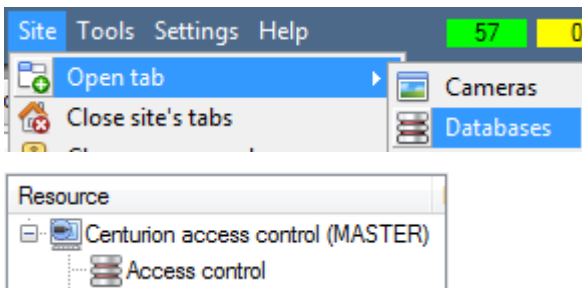
Click on this icon to bring up the overlay options for this video feed. Select the overlay and it will appear over the video feed.

4. Database

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

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

4.1 Navigate to the database



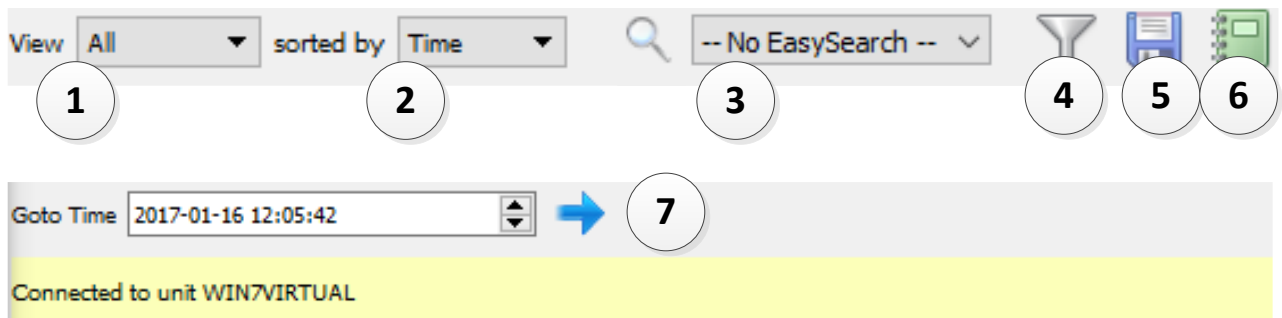
View information stored in the Integration database, by following the path seen to the left. This will navigate to the Database Tab.

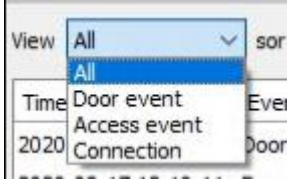
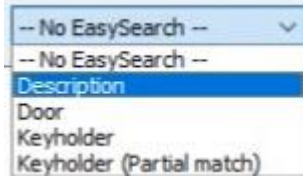





Once in the databases tab, select the relevant integration database. The databases are ordered under the NVRs that they are attached to. Below, is an image of an EXgarde Access Control database:

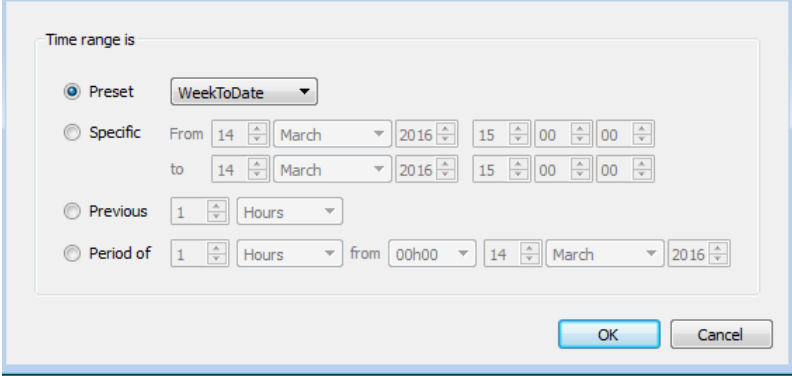

2020-08-17 13:15:14	Door	Egress off	Door 1
2020-08-17 13:19:11	Door	Egress on	Door 1
2020-08-17 13:19:11	Door	Egress off	Door 1
2020-08-17 13:19:30	Door	Egress on	Door 2
2020-08-17 13:19:30	Door	Egress off	Door 2
2020-08-17 13:19:31	Door	Egress on	Door 1
2020-08-17 13:19:31	Door	Egress off	Door 1
2020-08-17 15:08:31	Door	Door forced	Door 1
2020-08-17 15:08:32	Door	Door closed	Door 1
2020-08-17 15:09:27	Door	Door forced	Door 2
2020-08-17 15:09:27	Door	Door forced	Door 1
2020-08-17 15:09:33	Door	Door closed	Door 1
2020-08-17 15:09:33	Door	Door closed	Door 2
2020-08-17 15:09:35	Door	Door forced	Door 1
2020-08-17 15:09:36	Door	Door closed	Door 1
2020-08-17 15:09:36	Door	Door forced	Door 1
2020-08-17 15:09:37	Door	Door closed	Door 1
2020-08-17 15:09:38	Door	Door forced	Door 1
2020-08-17 15:09:39	Door	Door closed	Door 1
2020-08-17 15:09:43	Door	Door forced	Door 1
2020-08-17 15:09:43	Door	Door closed	Door 1
2020-08-17 15:09:44	Door	Door forced	Door 1
2020-08-17 15:09:44	Door	Door closed	Door 1
2020-08-17 15:09:45	Door	Door forced	Door 1
2020-08-17 15:09:46	Door	Door closed	Door 1
2020-08-17 15:09:46	Door	Door forced	Door 2
2020-08-17 15:09:47	Door	Door closed	Door 2
2020-08-17 15:10:17	Door	Door forced	Door 1
2020-08-17 15:10:19	Door	Door closed	Door 1
2020-08-17 15:19:31	Door	Door opened	Door 2
2020-08-17 15:19:32	Door	Door opened	Door 1
2020-08-17 15:19:33	Door	Door closed	Door 1
2020-08-17 15:19:33	Door	Door closed	Door 2



4.2 Database interface



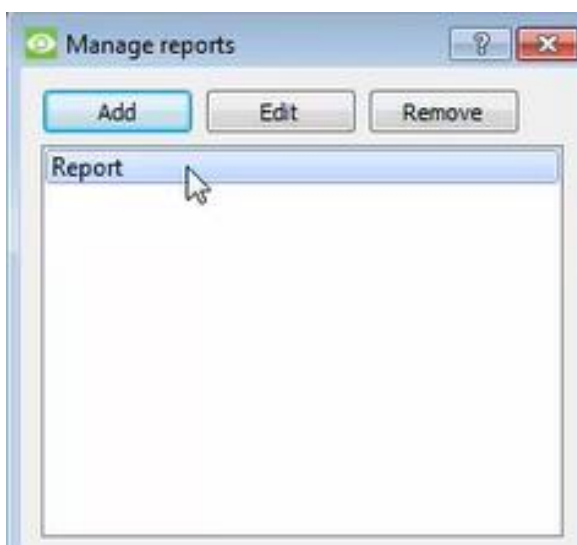
<p>① View</p>	<p>Change the way that the database is presented. Some integration databases have multiple view options. The EXgarde database has the following view options:</p> 
<p>② Sorted By</p>	<p>Sort the Events based on the following parameters: Time.</p>
<p>③ Easy Search</p>	<p>The easy search option allows quickly searching 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 options are available:</p> <p><input checked="" type="checkbox"/> Enable filters Check this box to enable filters.</p> <p> Click on this icon to add a new filter.</p> <p>The filter icon will change when filters are active.  → </p> <p> Click on this icon to delete an added filter.</p> <p>A Time range, within which the search will be conducted, may also be set.</p> <p>To set a Time range, click on the blue hyperlinked text which specifies time (for example, in the Week to date).</p>

	<p>This will bring up the following dialogue box, where the time range can be defined:</p>  <p>Note:</p> <ol style="list-style-type: none"> Multiple filters may be run simultaneously. Filters with the same parameters may be run more than once. To change a filter, click on the blue hyperlinked text.
<p>⑤ Export</p>	<p>Generate metadatabase 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, and then click on the  icon.</p>

4.2.1 Manage Reports



Click this icon to open the scheduled report window.



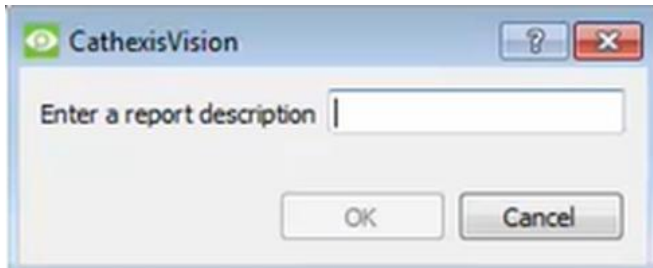
All created reports will be listed here.

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.

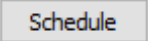
4.2.2 New Scheduled Report

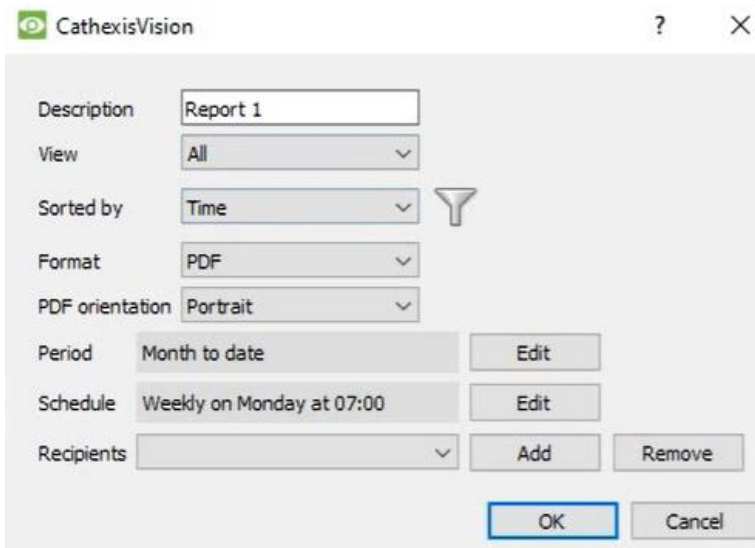
Click **Add** and give the report a description:



Click **OK** when done.

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

Add/remove recipients to whom reports will be sent.

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

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

4.2.3 Generate 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.

4.2.3.1 Export CSV

Select CSV **Format**.

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

4.2.3.2 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 to choose a new save folder and filename.

4.2.4 Metadata


Event type	Door
Description	Door forced
Door	Door 1
Keyholder	

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

4.2.5 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.

To view a databased event's recording, double click it. A floating replay window will appear, from which video content may be archived and reviewed.

Alternatively, left-click on a database entry which has the  icon in the **Links** column. Then click **play** in the video player.

5. Events

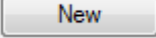
A CathexisVision event has a trigger, which causes an action. Set integrated devices to act as triggers, or as actions. This document will detail the EXgarde specific aspects of Events. There is a comprehensive guide to CathexisVision Events in the main setup manual.

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

5.1 Creating an Event

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



1. Once in Events management area, click on . This will open up the New Event window.
2. Once in this window, select the Triggers tab and click on the hyperlink titled, [standard triggers](#).
 - a. From the drop-down menu, left-click the EXgarde device with which to trigger the event.

5.2.1 While/When and Any/All

When triggering on a door, there is the option to trigger **while/when** a trigger is active. Also select multiple triggers, and define whether **all/any** of the triggers need to be active to set-off an event.

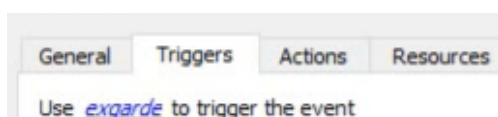
Use [exgarde](#) to trigger the event
 Trigger using [any exgarde](#)

To change these settings, click on the blue hyperlinks.

5.2 Triggers

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

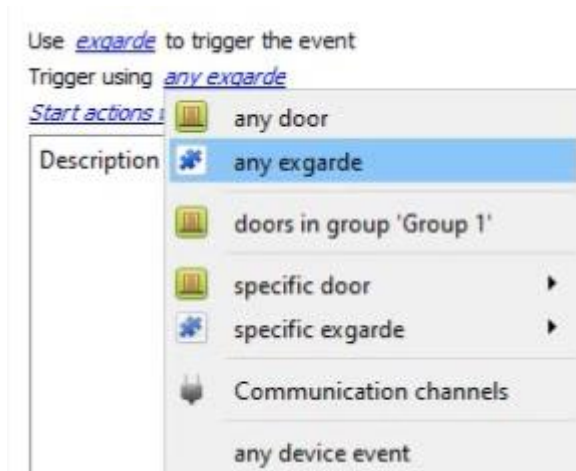
5.2.1 Set the device as the trigger



When 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 EXgarde device, click on the hyperlink, and select the relevant device name from the dropdown menu.

5.2.2 Trigger Types (Trigger Using)

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



Any EXgarde will trigger if anything happens on any of the EXgarde objects.

Specific door... will trigger on the specific door chosen.

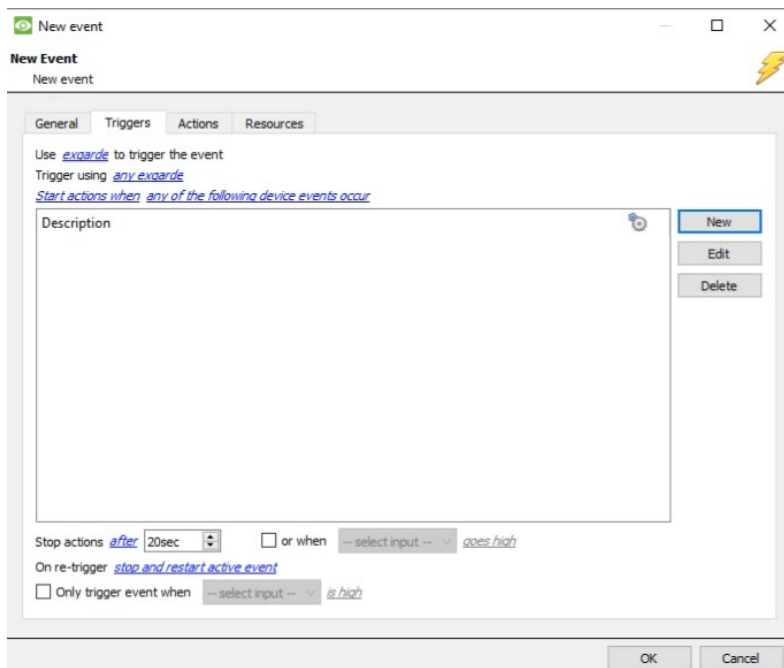
Any device event will trigger, initially, when any event occurs on the device. Within the “any device event” setup, “device event rules” may be set, which will constrain the events that prompt triggers.

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 to see a list of available descriptions.

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.

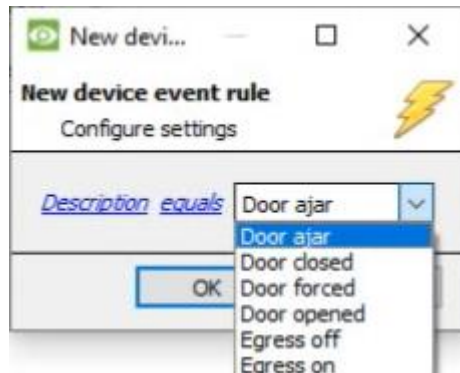
5.2.2.1 Any Device Event



For example, within the [any device event](#) option, choose the type of device Event that will be the trigger. Choose from the drop-down menu.

Note: Set multiple constraints, and choose if **any**, or **all** constraints need to be fulfilled to set off a trigger. If a constraint is not defined, every single device event will send off a trigger.

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



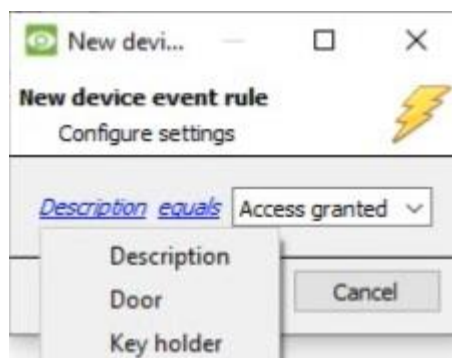
To change the constraint, click on the first hyperlink. This will bring up the full list of available rules.

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

Note: When all available options are known to CathesisVision, a drop-down menu will appear. When these variables are not pre-defined, fill them in. The information pulled through to the events is information sent to CathesisVision from access.it software.

5.2.2.2 Any Object/Group

Triggers that are not of the **Any Device Event** type, have a slightly different setup window. In these instances, constraints need not be set, since they are being added one at a time. This option is better if a few triggers have been selected to use.



Since only one type of object is being used to trigger the event in this instance, the dialogue will appear as previously.

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

5.3 Actions

Once the triggers that are going to initiate the event are defined, define some Actions. One of the available actions will be to **control** a EXgarde device. **Schedule** is a standard Cathesis schedule, which may be applied to the actions.

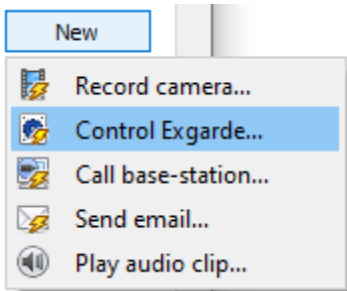
5.3.1 Open Actions Tab and Select the EXgarde Device



To get started, left-click on the tab titled "Actions", and click [New](#).

A menu will drop down containing all the available action types. The device action type is represented by this icon:

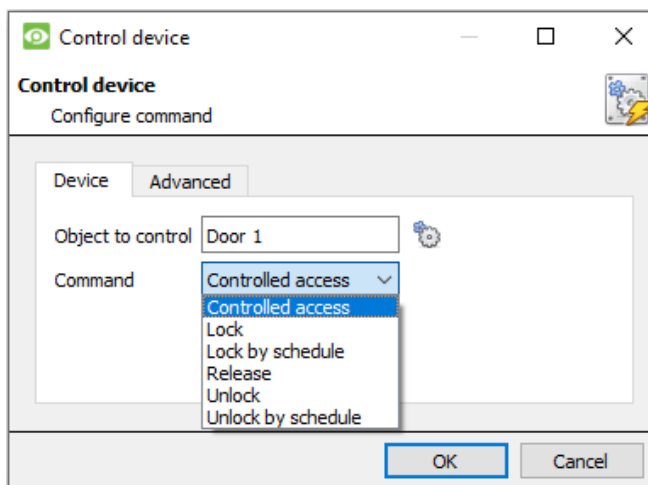
It will state “Control ...” and the name of the Action device. For example:



5.3.2 Control Device

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

5.3.2.1 Device

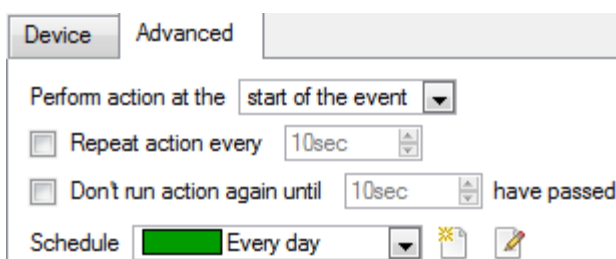


To select an **Object**, click on the icon. This provides a selection of all the Objects available on the EXgarde device.

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

Note: Only take a global action here, and global actions may only apply to **controllers**. For example, **communication channels** or **door nodes** may not be controlled as part of an event action. If selecting one of these objects, there will be no options in the *Command* menu.

5.3.2.2 Advanced



Choose 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.

6. Map

It is possible to add the EXgarde Access Control 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 EXgarde device. For more information on using the CathesisVision Map Editor and Map Tab, please consult the [Map Editor Manual](#).

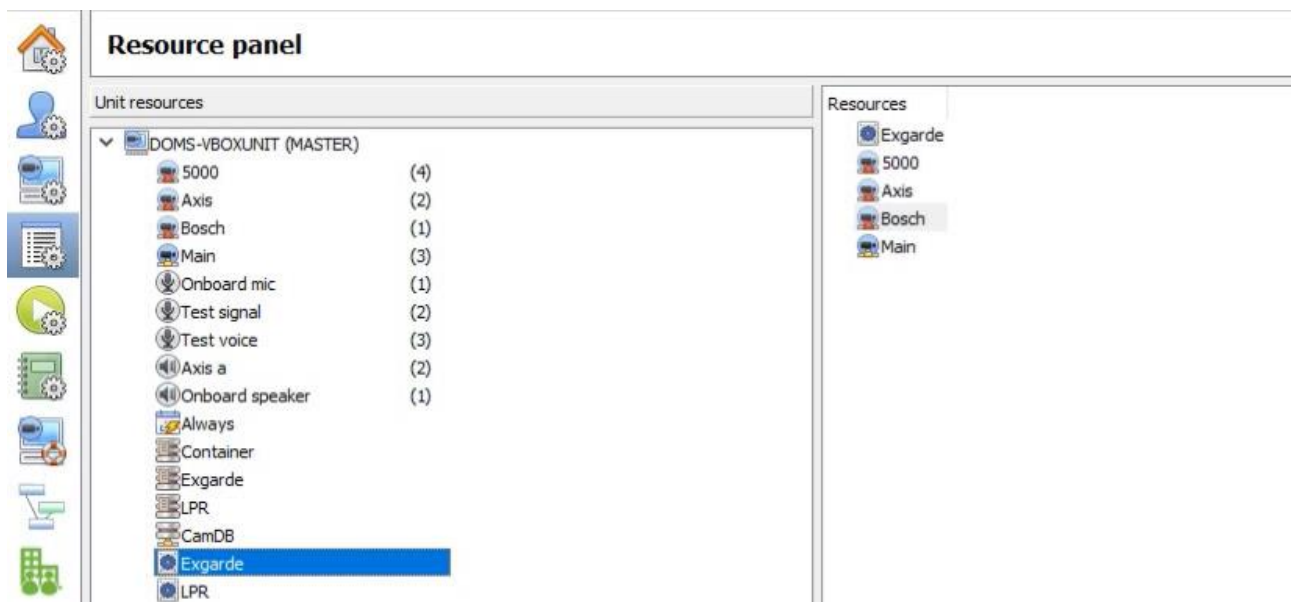
6.1 Add the Device as a Resource

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

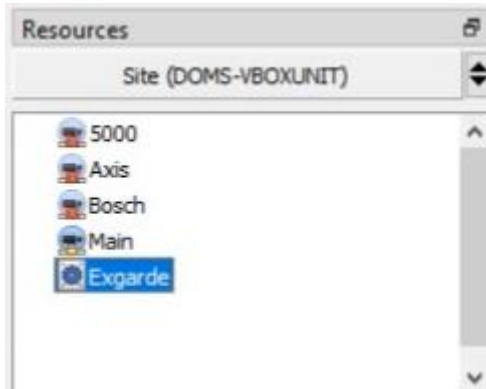
1. Navigate to the **Resource Panel** by following **Site / Open Tab / Setup / Resource Panel**.
2. Drag the device from the **Unit Resources** list into the **Resources** list, on the right.

6.2 Add the Device in Map Editor

Once the EXgarde 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.



6.2.1 Adding Device Objects



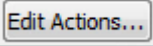
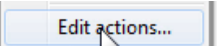
Drag the device from the Site Resources list onto the map area.

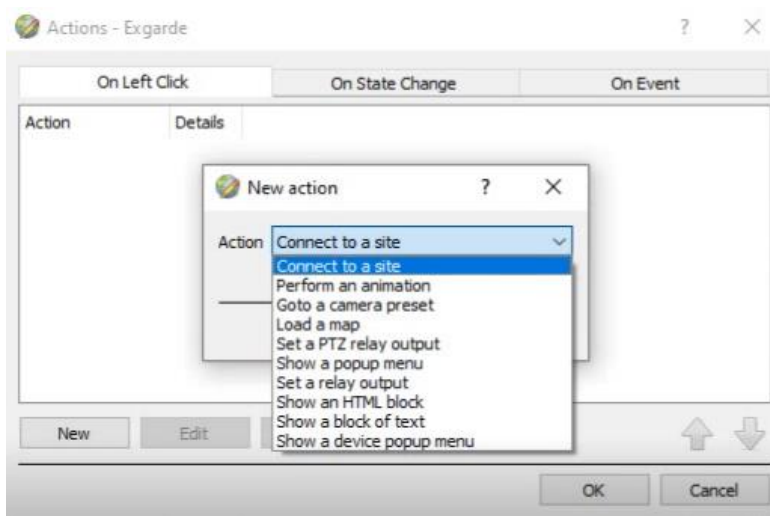
Select one of the associated objects.

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


6.2.2 Adding Device Actions

To add actions to the device objects, either

- select the object on the map and click 
- right-click the map object and select 



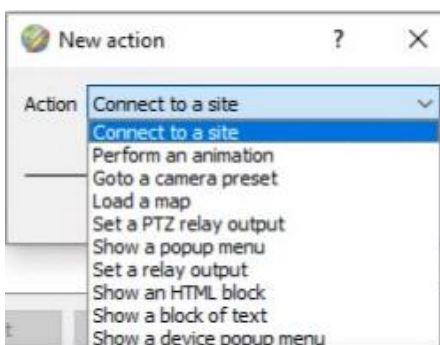
Actions may be set for **Left-Clicks, On State Change and Events**.

Click  in the relevant tab of the action window.

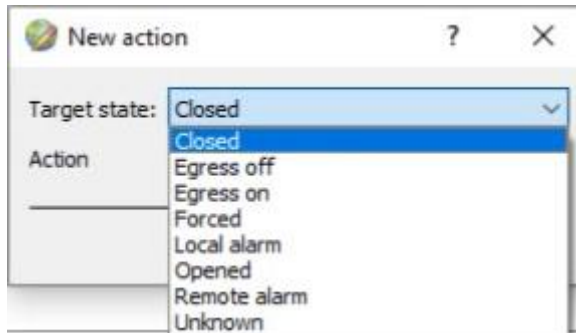
Once set, the list of actions will be displayed here.

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

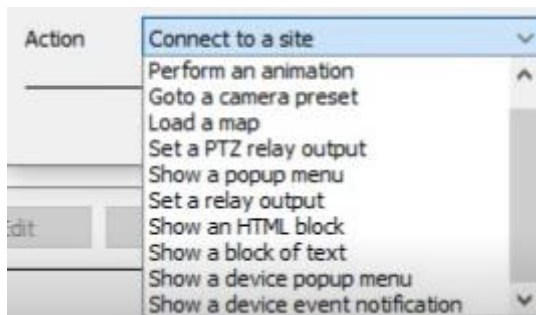
6.2.2.1 On Left Click



6.2.2.2 On State Change



6.2.2.3 On Event



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

Once finished, save the map.

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

6.3 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.

7. Conclusion

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

For support, email support@cat.co.za