



Galaxy Alarm Panel Integration

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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 Galaxy alarm panel, with CathexisVision's software. Functionally this integration will entail the triggering of standard CathexisVision Events, based on the Group IDs, Group states, Zone IDs, Zone states, and a customised Event IDs.

Note:

1. If you need information regarding the regular operation of a Galaxy device, please consult the relevant Galaxy documentation.
2. 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.**

a. License Requirements

Alarm Panel Integration License (CALM-2000)

This licenses the Galaxy panel, and will allow it to communicate with CathexisVision.

b. Integration Components

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

Device The device is CathexisVision software's interface, which handles all the interaction between CathexisVision and the integrated hardware. When you add an integration to the CathexisVision system, you add a device.

The messages received from the device are called Device Events.

Objects Objects are the individual pieces of hardware that comprise the integration. You may have 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.

In the case of the Galaxy panel the **device** is the panel itself; the objects are the **zones** (various sensor devices), and the **groups** (groupings of zones).

Messages and Object Types

The following device event messages, and objects/object types, will be represented in the CathexisVision integration, after installation and configuration, of the Galaxy hardware. They will be visible in the Site → Setup Tab → Configure Servers → Integration devices.

1. Device Events

- a. Group event
- b. Group state updated
- c. System event
- d. Zone event
- e. Zone state updated

2. Object property

The Galaxy system has two Objects

- a. Zone
- b. Group

Zone, and Group, States

Below are the meanings associated with the different zone, and group, states.

Zone States

State	Meaning
Unknown	Initial state at startup, or when connection is broken.
Ready to be armed	Not triggered, not armed.
Armed	Not triggered, armed.
Alarmed	Triggered and armed.
Bypassed	Disables triggering.
Faulted	Disables triggering.

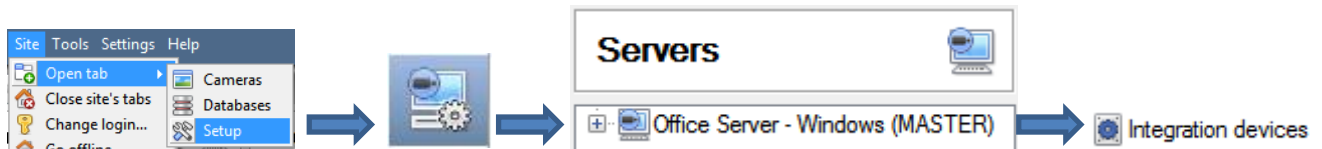
Group States

State	Meaning
Unknown	Initial state at startup, or when connection is broken.
Ready to be armed	Not triggered, not armed.
Armed	Not triggered, armed.
Partially Armed	Not triggered, some zones within the group are ready to be armed.
Alarmed	A zone in the group has triggered and the group was armed at the time.

2 Device Addition and Configuration

a. Introduction


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:



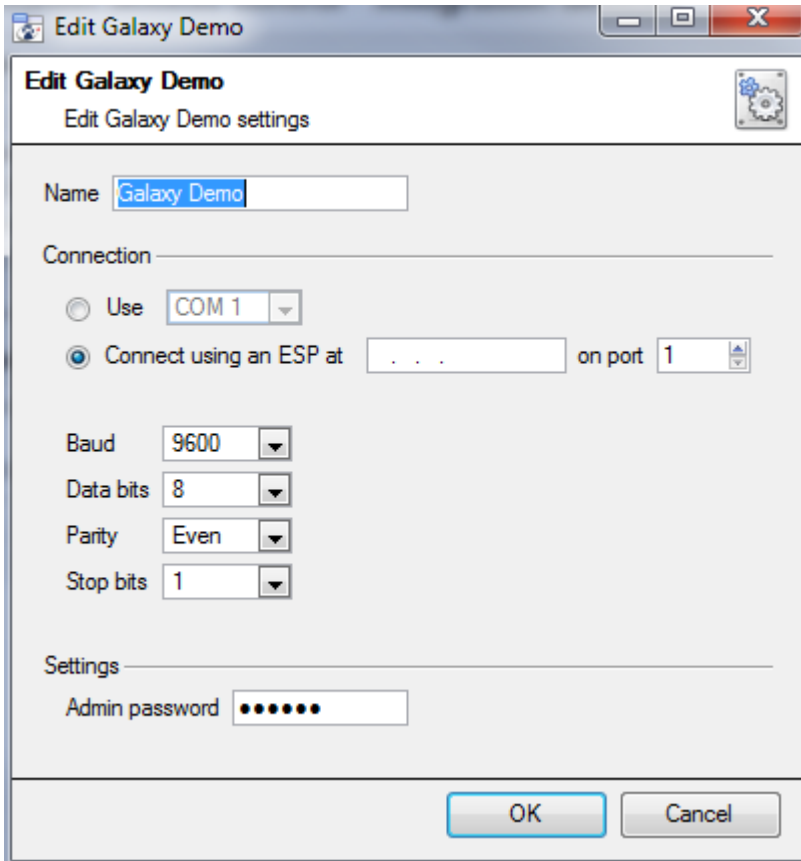
You will notice two sections in the Integration Panel:

1. The **devices** list will list the integration devices that are attached to your integration database.
2. The **Configuration** section enables you to edit/review, the device which you have selected in the **devices** section.

b. Devices Section (Add a New Device)

1. Once in the Integration Panel, in the devices section, click on . This will open the addition window.
2. There are two ways to connect to a Galaxy Alarm Panel. Via their Ethernet module, or via the CathexisVision ESP device. To connect via a serial connection, select the **Galaxy Alarm Panel (Legacy)** driver. To connect via the Galaxy Ethernet Module, use the **Galaxy Alarm Panel** driver.

Connecting Via an ESP



Give your device a descriptive **name**.

The **Admin password** refers to the Galaxy system's *remote authorization code* (level 3.6 or higher), and not a normal user access code. The factory default is 543210.

Note: This integration is not implemented for use over a RS232 connection. For this reason the Galaxy panel may only be connected via an ESP is a Cathexis product that gives devices that use serial connections, access to the network.)

The ESP can take 4 serial connections (represented as 'port' here). So make sure that you have selected the correct port number.

Note (N.B): The ESP and the galaxy unit need to be setup to 9600baud, Even parity, 8 data bits, 1 stop bit to get anything through.

Connecting via the Galaxy Ethernet Module

Setup the Galaxy Panel

In order to connect the Galaxy Device to the CathexisVision software using Ethernet, you will need to use an Ethernet module (Model: E080-04), which is supplied by Honeywell. After connecting the Ethernet module to the Galaxy Alarm Panel, follow these instructions:

1. Setup your desired **Zones** and **Groups**.
2. Login as an engineer/admin: On the control panel's number pad enter 112233 to.
3. Configure the panel with an **IP and Network mask** at option **56 > 4 > 1**.
4. Change the **Ethernet alarm report IP** and **port number** at options **56 > 4 > 02 > 2 > 1** and **2**.
5. Change the **Ethernet SIA control IP** to your desired value, at option **56 > 4 > 08**.
6. Create some **Groups** (option **63**) and **assign some zones to each** as per your requirements, at option **52 > 1 > 10**.

Add the Device in CathexisVision

gui_res ? X

Configure the device

Name

Connection

Type

Name ^	Configuration
Events	Listen for TCP connections on port 10002
SIA	TCP connection to 0.0.0.0:10005

Settings

Admin password

< Back Finish Cancel

Give your device a descriptive **name**.

Select the **Network** type.

Set the **Events** (see step 4, above) and **SIA** (see step 5, above) values. (This is done by double-left-clicking on the each option, which will open up a dialogue.)

Enter in the Galaxy Panel's **Admin password**.

c. Configuration Section (Tabs)

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

Object Configuration Tab

The object configuration tab is the tab where you may view all the individual objects that comprise the integration. The **Galaxy** integration has the following objects: **group** and **zone**.

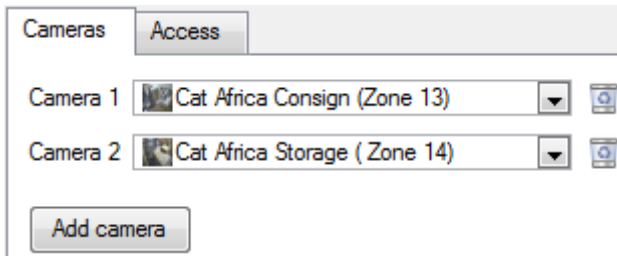
Object Configuration Buttons

- | | |
|--------|---|
| New | You may add a new object by clicking on New. |
| Edit | Will open up an existing object for edition. |
| Delete | Is used to delete an existing object from the CathexisVision configuration. |


Object Configuration Right-click Options


- | | |
|------------|---|
| New... | New will open up the dialogue to add a new object. |
| Disable | Disable/Enable allows you to manually enable/disable individual nodes. |
| Delete | Delete will permanently remove this object from the list. |
| Properties | Properties will open up the object properties. You may edit the object from here. (Specifically you will be able to assign cameras to this object, as well as define user access levels for it.) |

Properties: Cameras



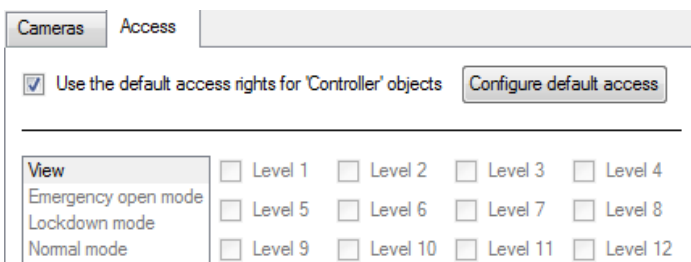
Adding a camera to an object will mean that, whenever there is an event on that object, the recording from that camera will be related to the time and date of the object event, in the Integration database.

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

To delete a camera click on .

Note: If you do not have **continuous recording** setup, on associated cameras, you will run the risk of zones (object) triggering while the cameras are not recording. To only record cameras, when an object triggers, you will need to setup **Events** that trigger a recording, when one of these objects is activated.

Properties: Access

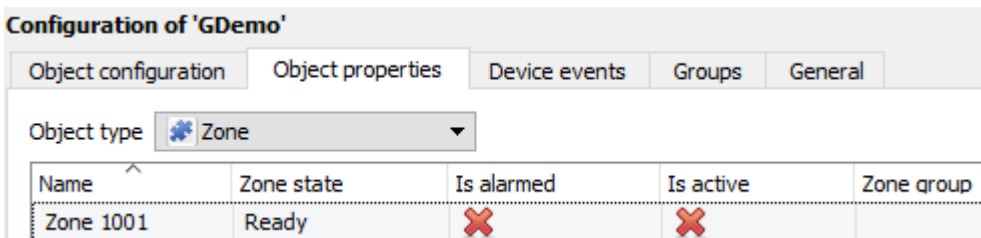




Access allows you to protect sensitive objects, by only allowing certain levels users access to them.

You will see a list of objects, whose access level you may set.

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

Objects Properties Tab



Name	Zone state	Is alarmed	Is active	Zone group
Zone 1001	Ready			

The Object properties tab allows you to view the objects, sorted by type. In the case of the Galaxy device you will have the options of viewing by **group**, or **zone**.

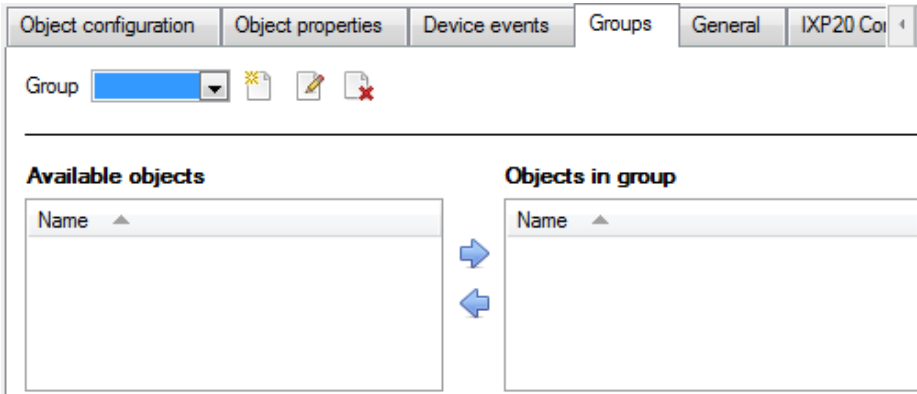
Right-click options.

If the device is connected via the **Galaxy Ethernet Module** right clicking on an object will give you control options over that object.

Device Events Tab

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



Groups Tab

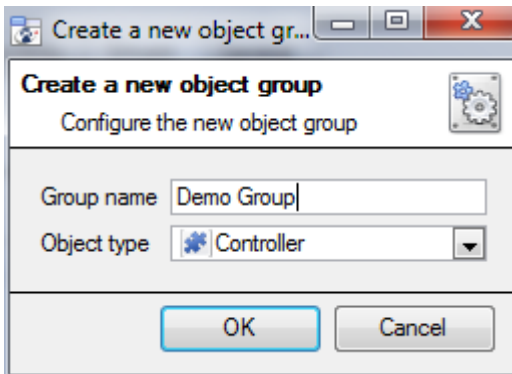


You can create groups of the same type of object.

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 zones/partitions in that group is triggered.)

Create a Group

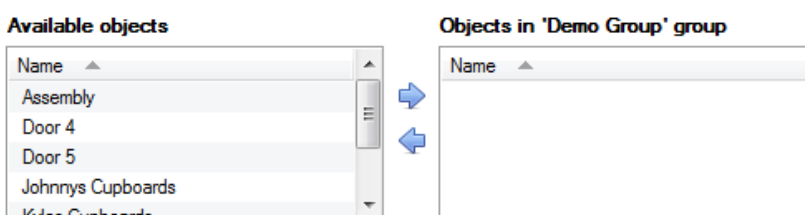
To create/edit a group click on  / . (**Note:** Once a group has been created, you may not edit the object type of the group.)





When creating a group you will select what object type to include in the group. Once the group is created the available objects panel will fill up with all available objects of that type. From this list you will choose which objects you want to use in your Group.

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

Click on the drop-down menu to select the **object type** that you would like to group.





You will then see a list of Available Objects. To add/remove these objects to the group select them (you may select multiple at a time), and click on  / .

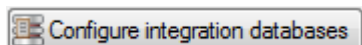
General tab

Currently the general tab deals with the integration database. Here you will be able to select a pre-created database, or you will be able to configure a new database.

Select an Integration database

Integration database  To select a database click on , and select the relevant database. Only databases which relate to the device you are adding should appear.

Configure a new database



If there is no database created yet, clicking on this button will take you 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 CathexisVision Setup Manual.

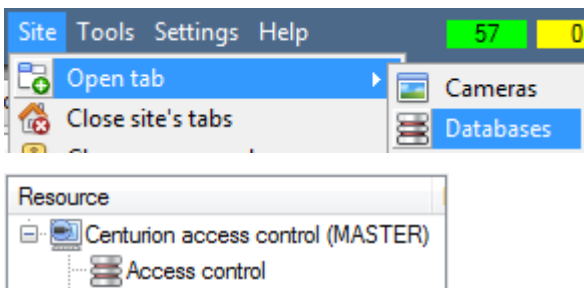
3 Database

a. Introduction

The database tab will allow you 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 you will also be able to launch this recording, from within the database tab.

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

b. Navigate to the Database

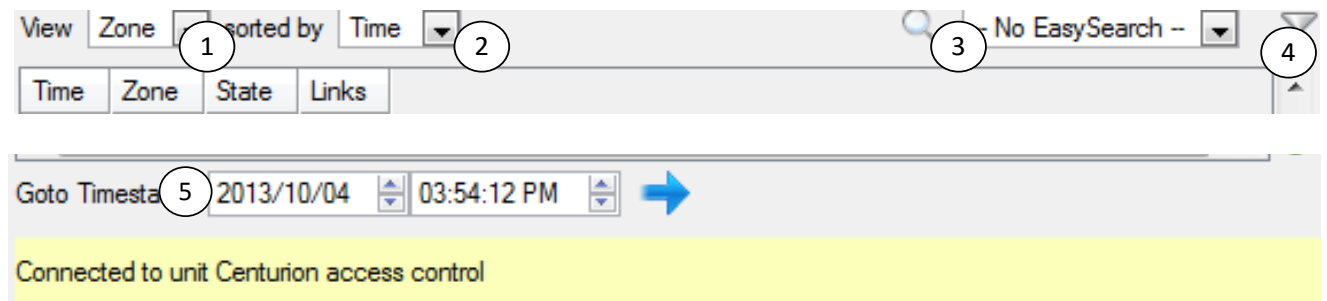



You may view the information stored in the Integration database, by following the path you see to the left.






This will take you to the Database Tab.

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

c. Database Interface



① View	You may change the way that your database is presented. Some integration databases have multiple view options. The Galaxy database only has zone option.
② Sorted By	You may sort the Events based on the following parameters: time, zone, or state.
③ Easy Search	The easy search option allows you to quickly search the database within one of the following options: zone, or state.
④ Filter 	<p>Filter offers a more advanced manner of sorting information in the Integration Database table.</p> <p>You are able to filter based on the following parameters: time, zone and state.</p> <p>Once you have the filters dialogue open you will have the following options:</p> <ol style="list-style-type: none"> To enable filters check this box: <input checked="" type="checkbox"/> Enable filters

	<ol style="list-style-type: none"> 2. To add a new filter click on . The filter icon  will change to  when filters are active. 3. To delete an added filter click on . <p>Note:</p> <ol style="list-style-type: none"> 1. You may run multiple filters simultaneously. And you may even filter using the same parameter more than once. 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.)
<p>⑤ Go to Time</p>	<p>This will allow you to go 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 the click on the  icon.</p>

Viewing an Entry's Associated Recording



If you have attached cameras to device objects in the Integration setup, and have set these cameras 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 you may review and archive video content.



will give you the view to the left.



will break down the image into 4 sequential frame viewers.

4 Events

a. Introduction


A CathexisVision event has a trigger, which causes an action. You may set integrated devices to act at triggers, or as actions. This document will detail the Galaxy 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.

Events

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



1. Once in Events management click on . This will open up the New Event window.
2. Once in this window, select the Triggers tab and click on the hyper link titled, [standard triggers](#).
 - a. From the menu that drops down, left-click the Galaxy device that you want to trigger the event with.

While/When and Any/All

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

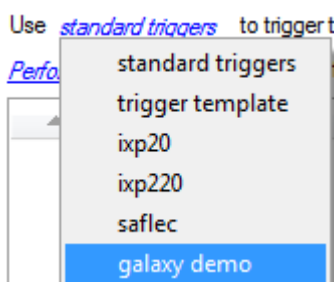
Trigger using [Door 3](#)
[Perform actions while](#) [any](#) of the properties meet the following criteria

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

b. Triggers

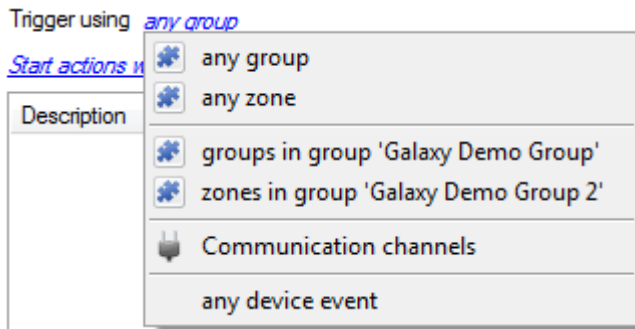
A trigger is the input that tells the event to start. The trigger causes the subsequent action (which the user will also define).

Set your device as the trigger



If you are creating a new event, the trigger type will default to: Use [standard triggers](#). To define which device you want to trigger the event, click on the hyperlink after “use”. To set it as the Galaxy device, click on the hyperlink, and select the relevant device name from the dropdown menu.


Trigger Types



Any group will trigger using any of the zones in a chosen group


Any zone will trigger if anything happens in a specific zone
groups/zones in group... If you have created an object group, it will appear in this drop-down list, and may be selected as a trigger.

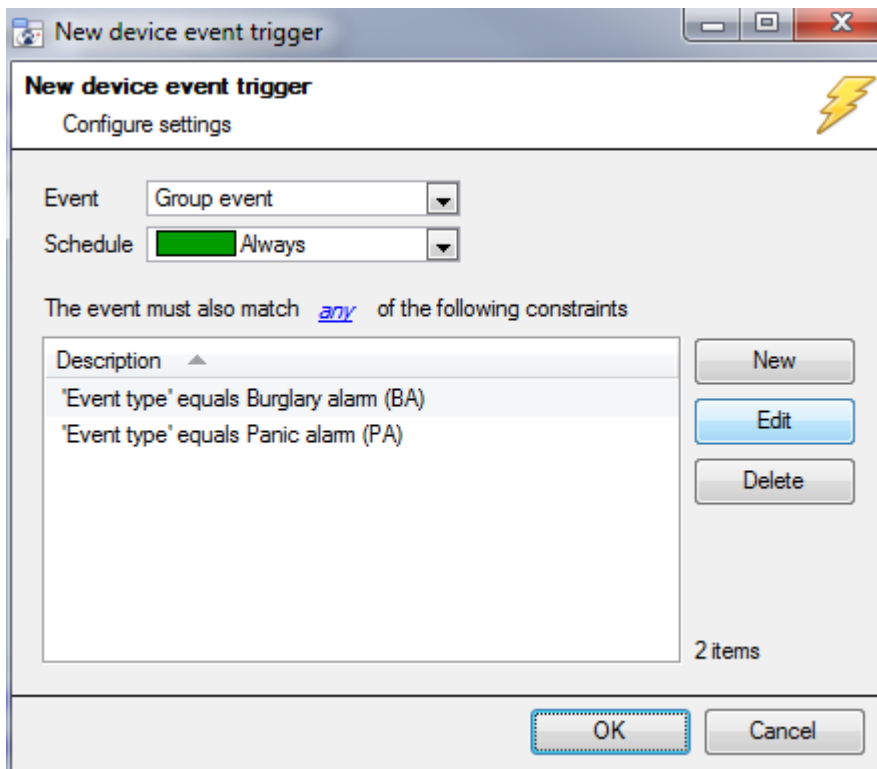
Any device event will trigger when any trigger occurs on the Galaxy device.

Note for group triggers: If you want this event to be databased under the name of a specific object, and not the name of the triggering group, you will need to 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 will database the text "Door Name" along with the name of the *door object* that triggered the event:

Description

Device Events

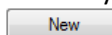
After selecting a master trigger type, you will need to add a trigger to the event. Click on  in the Triggers tab. This will bring up the dialogue box you see below:



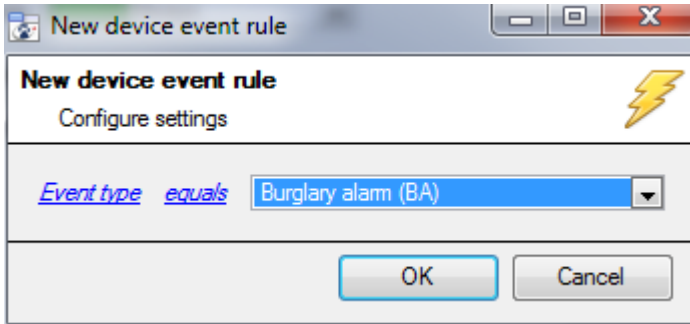
For example within the [any device event](#) option you may choose what type of device Event will be your trigger. Choose from the drop-down menu. Galaxy offers Group, Group State Updated, System, Zone, and Zone State Updated events.

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

Note: You may set multiple constraints, choosing if [any](#), or [all](#) constraints need to be fulfilled to set off a trigger. Here there are two Events, either of which will trigger the event.

Note: If you set no constraints, every device event will trigger this. Once you set constraints only the constraints chosen will trigger the event. Once you have selected the type of device event that will be the trigger, you may add a new **device event rule**. To do this, click on .

Any Device Event



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 show you the rules options.

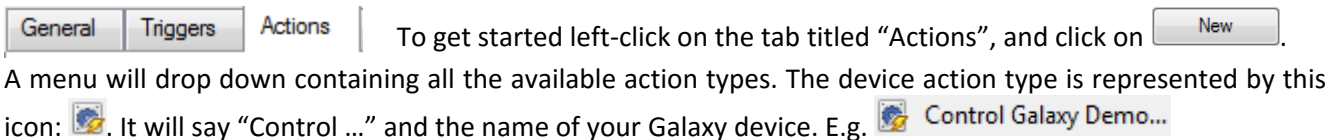
Note: When all available options are known to CathexisVision you will see a drop-down menu. When these variables are not pre-defined you will need to fill them in yourself. The information pulled through to the events is information sent to CathexisVision from the Galaxy device, see the Galaxy settings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

c. Actions

Once you have defined the triggers that are going to initiate your event, you will need to define some Actions. One of the available actions will be to *control* a Galaxy device.

Note: you will only be able to control the device when you have connected to the panel via the **Galaxy Ethernet Module**; ESP based connections do not afford control of the device by CathexisVision.

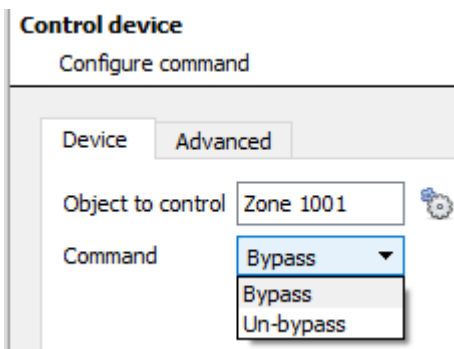
Open Actions Tab and Select the Galaxy Device




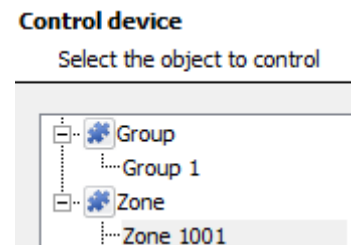
Control device

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.

Device



To select an **Object to control** click on the  icon. This will give you a selection of all the Objects available on the Galaxy device.



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

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

Advanced

Device Advanced

Perform action at the start of the event

Repeat action every 10sec

Don't run action again until 10sec have passed

Schedule Every day

You may 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.

Schedule is a standard Cathexis schedule, which you may apply to the actions.

5 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