Axis A1001 Access Controller Integration

Contents[1]

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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 Axis A1001 Access Control (A1001) device, with CathexisVision's software. Functionally this integration will entail the triggering of standard CathexisVision Events, based on the triggers from the A1001 device.

Requirements

- CathexisVision 2016 Service Pack 1 and later.
- Windows 7 - 64bit and later, Windows Server 2008 R2 and later.

Notes:
1. If you need information regarding the regular operation of an A1001 device, please consult the relevant A1001 documentation.
2. When using a serial port connection CathexisVision is unable to detect the A1001 device if the Controller or Communications channel has lost connection.

a. License requirements

The Cathexis A1001 integration license requirements are as follows:

License Name	License Description
CACC-2000	Device license.
CACC-1001	Single door license.
CACC-1008	8 door license.
CACC-3000	Bundle with device license and unlimited doors

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 objects.

A1001 Integration Features

The A1001 access control system consists of Axis network door controllers and connected equipment such as doors and readers. The CathexisVision driver monitors door and reader events and properties.

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 A1001 Setup (Set up the A1001 device)

There are no specific A1001 steps required to get the A1001 integration functioning.

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
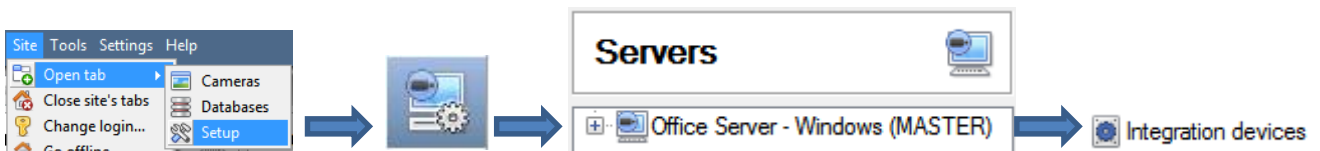
You will notice two sections in the Integration Panel:

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

The **Configuration** section enables you to edit/review, the device which you have selected in the **Devices** section.
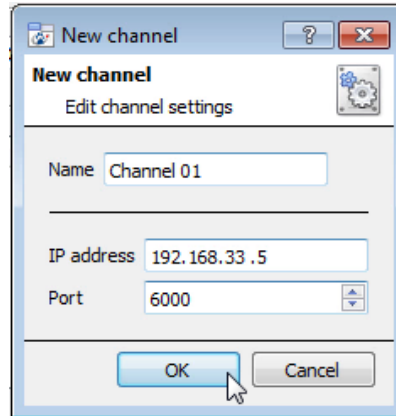
- *Device Addition*

    1. Once in the Integration Panel, click on [New device] ., in the Devices section. This will open the addition dialogue.
    2. Select **Axis AC** driver from the list.
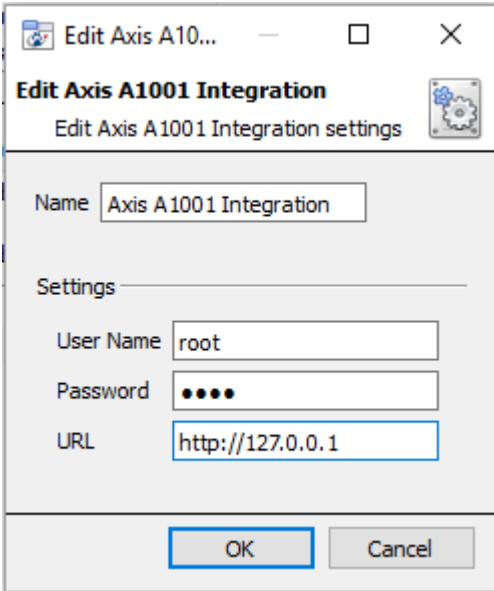
Give your device a descriptive **name.**

Tills are added to the device one at a time. To do this click on *New* to add a new channel. Give the channel a **name**, and enter in the **IP address** and **port number.**

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.**
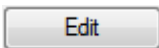
Object Configuration Tab
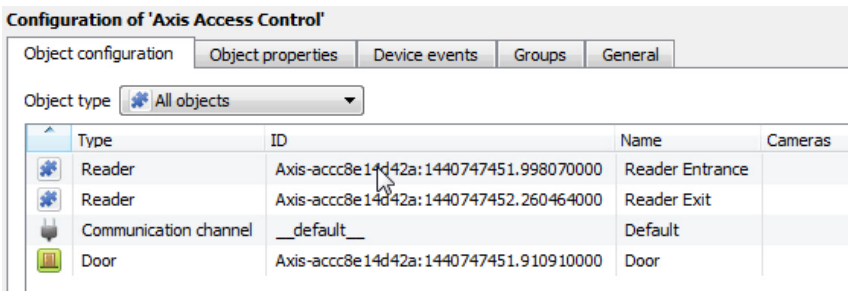
The object configuration tab is the tab where you may view all the individual objects that comprise the integration. The A1001 device has **Reader** and **Door** object types.

- *Object Configuration Buttons*
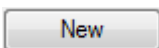
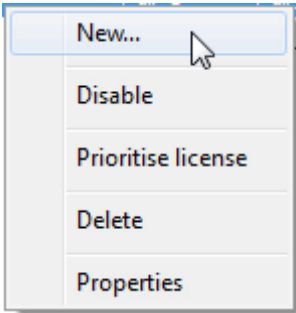[New] You may add a new object by clicking on New.

[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 will open up the dialogue to add a new object.

Disable/Enable allows you to manually enable/disable individual objects.

Prioritise license will give a specific A1001 door license preference, in case there are more tills than licenses.

Delete will permanently remove this object from the list.

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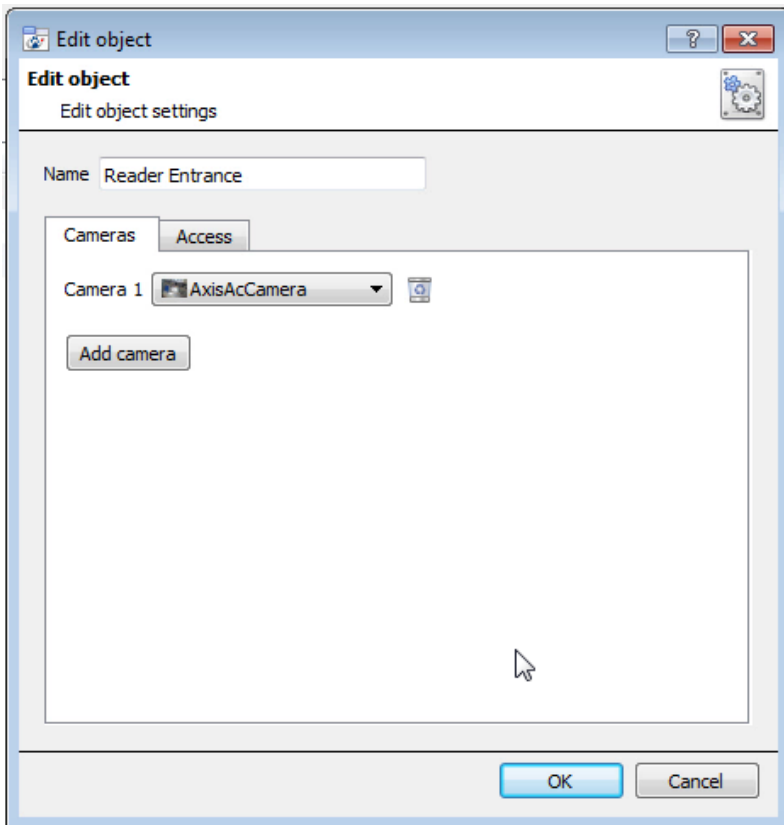
Adding a camera to an object will mean that, whenever there is an event on that object, the recording from that camera will be related to the time and date of the object event, in the Integration database. To add a camera, click on "Add Camera.

To delete a camera click on

Note: While you can add multiple cameras here, only the first camera added with the object will be linked in the integration database.

Note: If you do not have *continuous recording* set up, on associated cameras, you will run the risk of device objects triggering while the cameras are not recording. To only record cameras, when an object triggers, you will need to set up **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 user levels access to them.

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

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
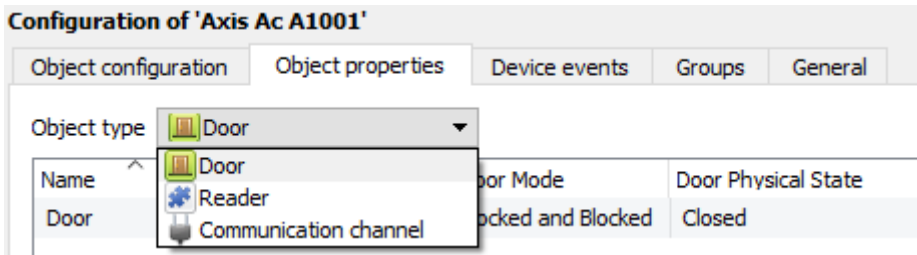
The Object properties tab allows you to view the objects, sorted by type. In the case of the A1001 device you will have the options of viewing by **Reader**, and **Door**.

- ### Right Click Options
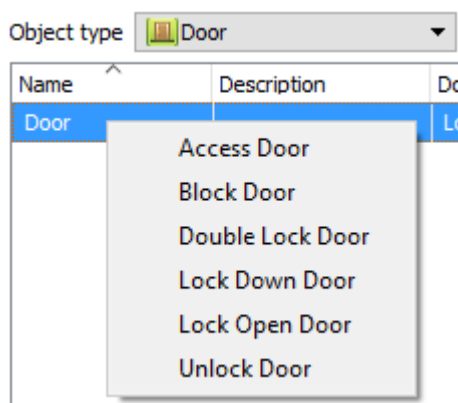
Depending on the current state of the door you will get different right-click options. You may **Access, Block, Double Lock, Lock Down, Lock Open,** and **Unlock Doors.**

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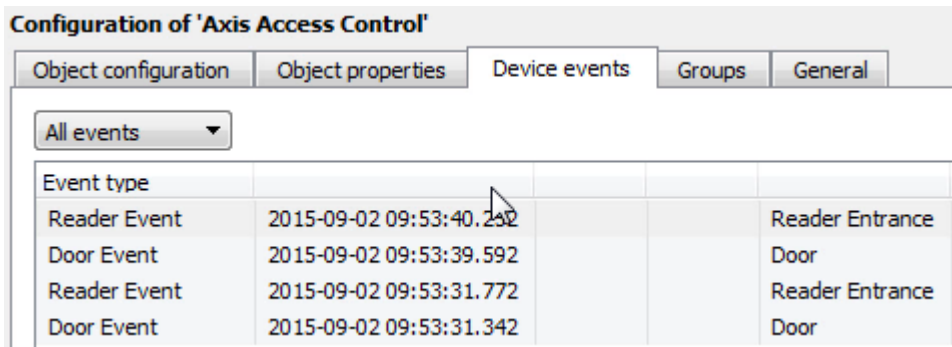
This will list all events sent from this device. It is an excellent way for installers to see that the integration is functioning, and to monitor the events happening on site.

Groups Tab
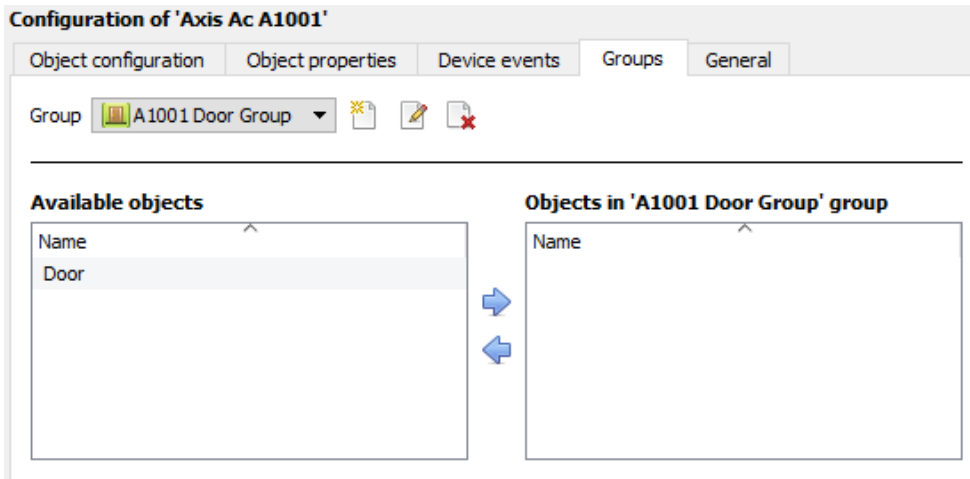
You can create groups of the same type of object.

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 devices in that group is triggered.)
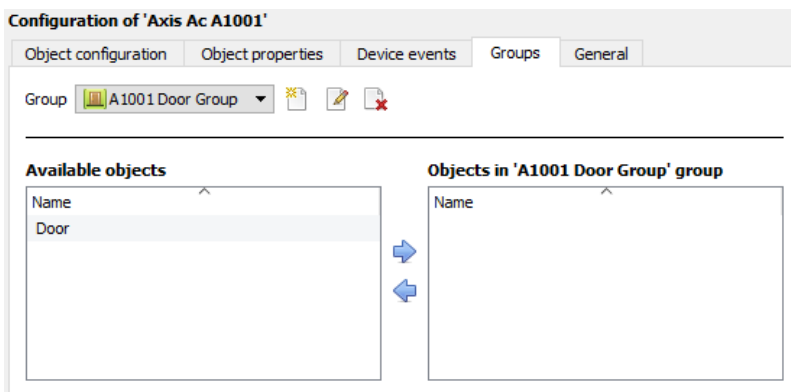
- *Create a Group*
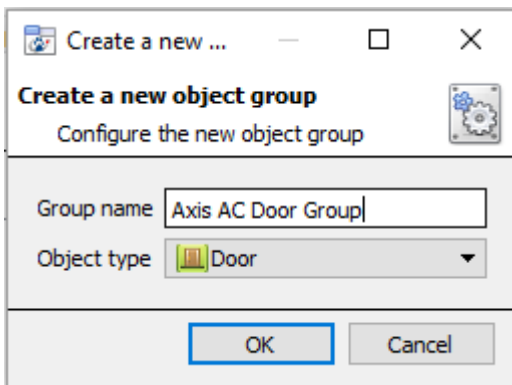
To create/edit an A1001 group click on /. (**Note**: Once a group has been created, you may not edit the object type of the group.)
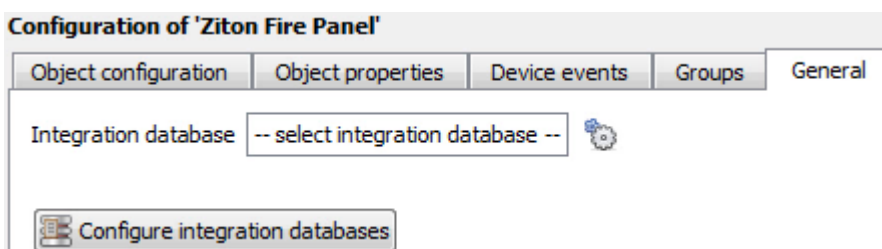
Give the group a descriptive **Group name.**

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 an existing database, or you will be able to configure a new database for your integration.

Important Note: Each integrated device needs to be attached to an Integration database. Without setting up/adding a database here your integration will not function properly within the CathexisVision system.
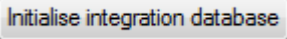
- *Configure a new database*
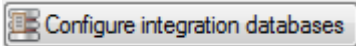
If there is no database created yet, clicking on this button will take you to the integration database setup.
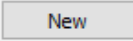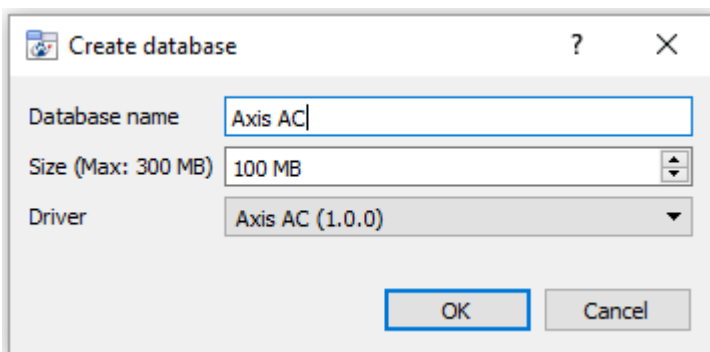
Initialise the Integration Database
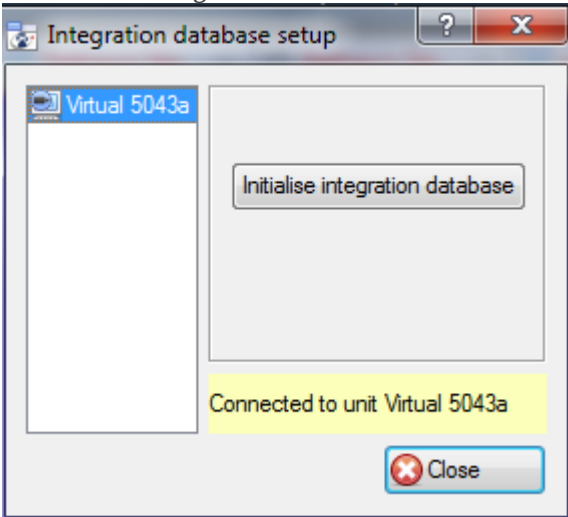
The first time you add an integration database you will have to initialise this feature on the unit. This will add a broad database, within which you will be adding all of your integrated device's databases.

Select the unit you wish to add the database to, from the list on the left, and click . You will have to choose which partition the database will be formed on, and select how much space it will take up.
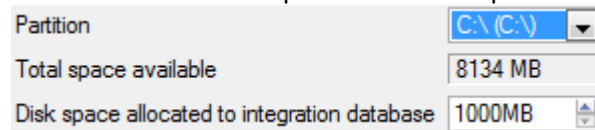
Add a New Device Database

After initialisation, you will be able to add the database for the integration that you are working with. Click on the button, at the bottom of the Create database window.
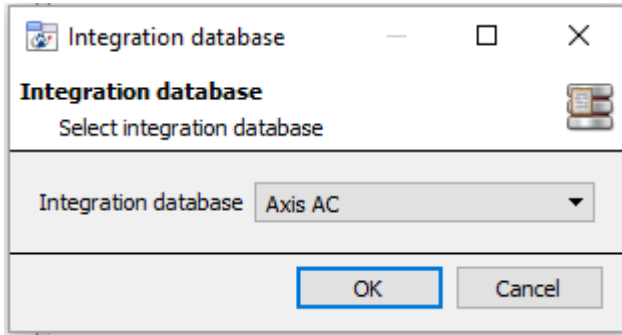
Give your Integration database a descriptive **Database Name**. e.g. Axis A1001 Integration database.

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

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

- *Select the A1001 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 you are adding should appear.
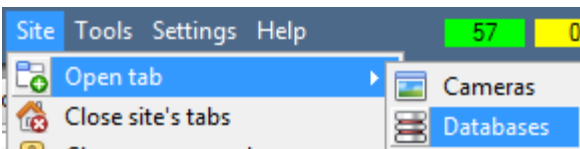
3 Database

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.
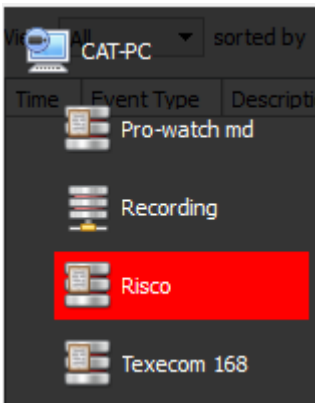
The A1001 database is information rich. This is an example of some of the information that is included.
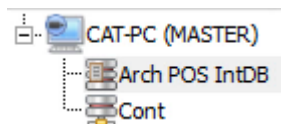
b. Navigate to the Database

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.

From 2016.2 onwards, when the database tab opens you will have to select the relevant integration database from the database panel that opens on the left hand side. The databases are ordered under the NVRs that they are attached to. To open and close this list click on the arrow in the centre of the list:

❮ and ❯

Pre 2016.2 databases will have a permanently visible tree of databases:
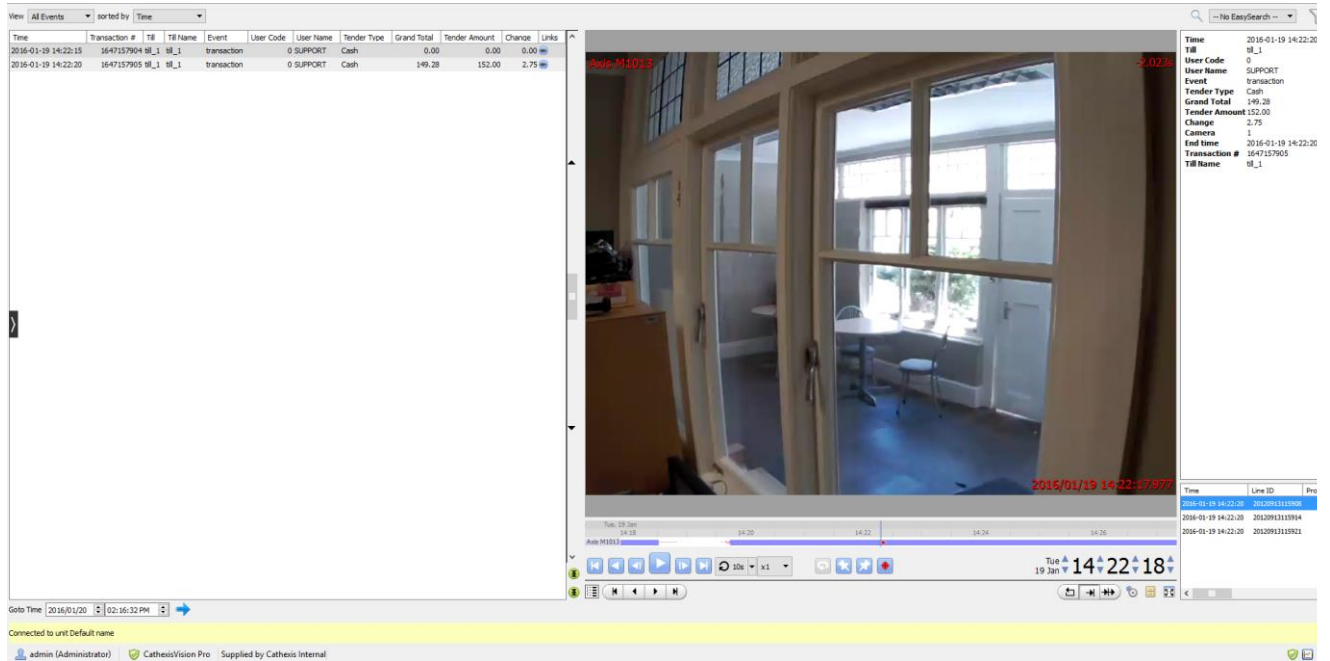
c. Database Interface

① **View**	You may change the way that your database is presented. Some integration databases have multiple view options. The A1001 database has **All Events, Door Events** and **Reader Events** options.	
② **Sorted By**	You may sort the Events based on the following parameters: **Time, Event Token, Device Token, Type, Name Description, Topic, Reason/Action, Alarm, Area, Location, User Name** and **Card**.	
③ **Easy Search**	The easy search option allows you to quickly search the database within one of the following options: **Time, Event Token, Device Token, Type, Name Description, Topic, Reason/Action, Alarm, Area, Location, User Name** and **Card**.	
④ **Filter**	Filter offers a more advanced manner of sorting information in the Integration Database table. Once you have the filters dialogue open you will have the following options: 　1.　To **enable** filters check this box: 　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 . The options in this integration are **Time, Device Type, Device Name, Description, Topic, Reason/Action, Alarm, Area, Location, User Name,** and **Card.** **Note**: 　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.)	
⑤ Go to Time	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 then click on the icon.	

Viewing an Entry's Associated 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.

- ***Viewed in 2016.2***

- *Viewed in 2016.1 and Before*

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 A1001 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 A1001 device, enter the Events management area:

Once in Events management click on [New]. This will open up the New Event window.

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

When triggering on an object 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 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).
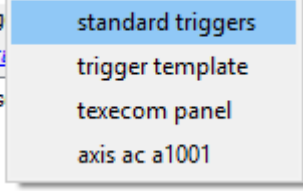
Set your device as the trigger

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 A1001 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 door/reader will trigger when any of these objects sends the selected trigger.

Object in group... If you have set up a group it will appear here in this list.

**Communication channels** will trigger only on the Communication channels.

Specific door/reader will trigger on an event from the specific object selected.

Any device event will trigger on any event that occurs on the device. Within the "any device event" setup you may set "device event rules" which will constrain which device events will trigger the event.

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 A1001 example:

Description | $msg_till (?)

Define Your Trigger

After selecting a master trigger type, you will need to add a trigger to the event. Click on [New] in the Triggers tab. This will bring up the dialogue box you see below, for the various trigger types:
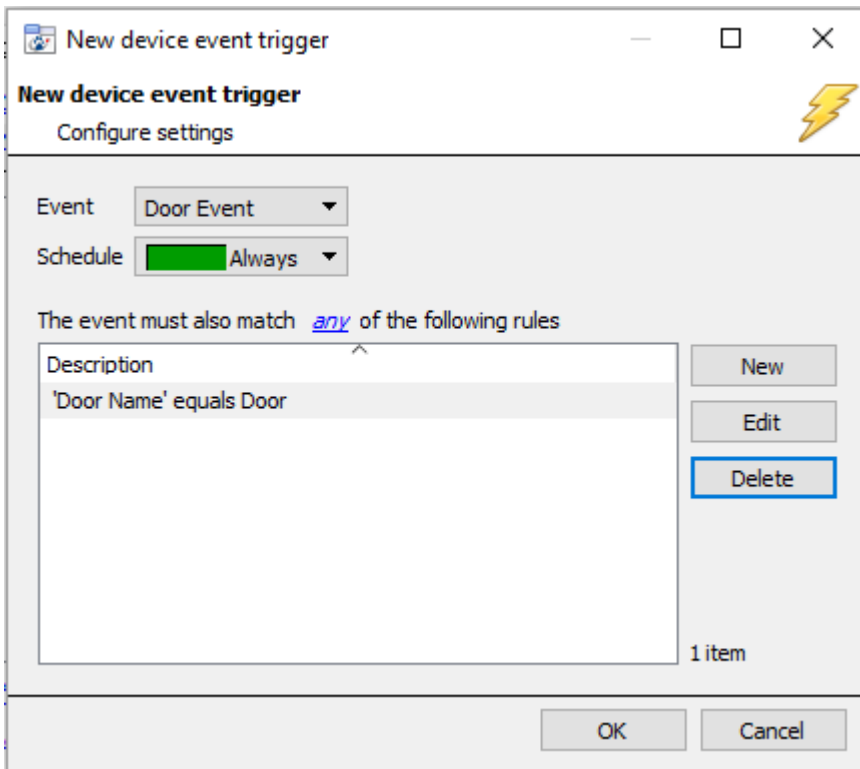
For example within the *any device event* option you may choose what type of device Event will be your trigger. Choose an event type from the drop down menu.

Note: You may set multiple constraints (**Device Event Triggers**). If you do not define a constraint, every single device event will trigger this event.

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

Choose if *any*, or *all* constraints need to be fulfilled to set off a trigger.
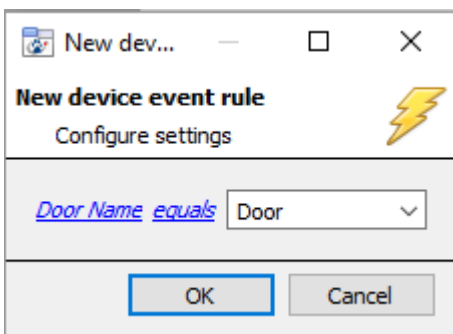
To change the constraint, click on the first hyperlink, this will bring up the full list of available rules.

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 A1001 device, see the A1001 settings for the strings needed here.
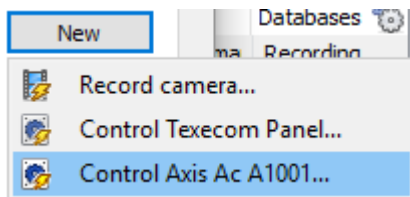
d. Actions
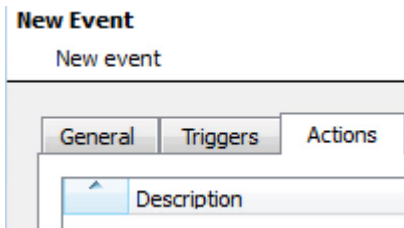
Once you have defined the triggers that are going to initiate your event, you will need to define some Actions. With many integrations there will be the option to control the integrated device, as one of the actions.
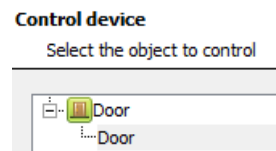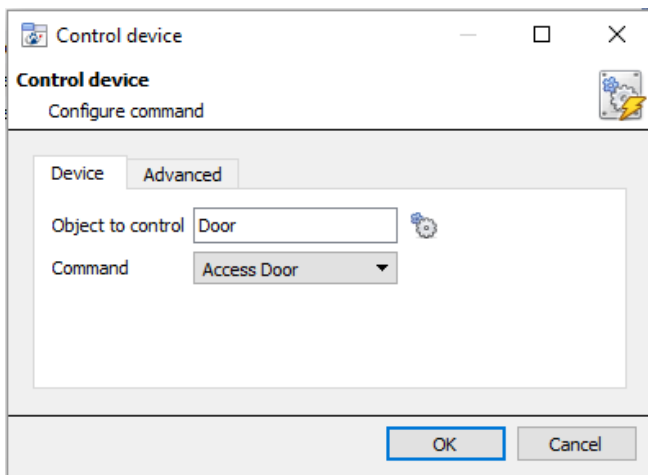
CathexisVision cannot send commands to the A1001 device, as this integration has two-way communication.

New Action

To create a new Event Action click on New.

Select **Control Risco panel** if you wish to control this device with the CathexisVision event.

Clicking on the icon will bring up a list of the A1001 objects which may be controlled by this event.

Click on the **Command** options drop-down menu, to see all the options which CathexisVision can control on the selected object.

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