

Commend Intercom Integration

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1 Introduction

This document will detail the integration of the Commend Intercom system with CathexisVision.¹ Functionally this integration will entail the triggering of standard CathexisVision Events, based on calls between intercoms.

Note:

1. For information regarding the regular operation of a Commend device, please consult the relevant 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

License No.	License Name	Description
CCMD-2000	Commend Intercom Device license.	This licenses the Comment Intercom device.

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 an integration is added to the CathexisVision 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.

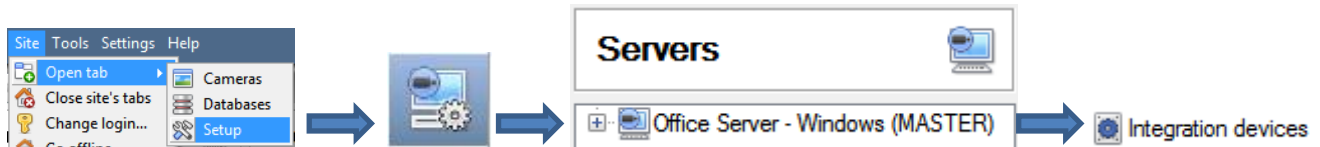
In the case of the Commend system, the **device** is the integration itself; the objects are the **terminals**.

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.

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:



There are two sections in the Integration Panel:

1. The **devices** list will list the integration devices that are attached to the integration database.
2. The **Configuration** section enables the user to edit or review the device selected in the **devices** section.


b. Commend Specific Setup

The Commend Intercom integration communicates with the CCT800 software package (available on the Commend website) to receive device information. The communication medium (between the Commend Intercom device and CathexisVision) can be either via RS232 serial connection, or TCP over Ethernet.

TCP over Ethernet

If TCP over Ethernet is used, the CCT800 software package needs to be configured to send data to the NVR's IP address and port (as set up when the integration device is created on the NVR).

c. 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. Select the **Commend Intercom** driver.

Add the Device

Configure the device

Name:

Connection

Type:

Use:

Connect using a: at: on port:

Baud:

Data bits:

Parity:

Stop bits:

Flow control:

Settings

Password (Optional, TCP only):

Give the device a descriptive **name**.

Select the **Connection Type**.

Note: If selecting TCP connection type, then the CCT800 software package needs to be configured to send data to the NVR's IP address and port number – configured here.

Set the **Baud, Data bits, Parity, Stop bits and Flow control**.

Set an optional **password** to be used with the TCP connection for extra security.

d. 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**.

The Commend Intercom objects will be automatically added to the system once events are received from the device and objects generated.

Object Configuration Tab

The object configuration tab is the tab where the individual objects that comprise the integration may be viewed. The Commend Intercom integration objects are **Intercom, Output, Server** and **Communication**.

In this tab, the **Names, Cameras** and **Groups** assigned to each object are visible.

Configuration of 'Commend Intercom'

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

Object type:

	Type	ID	Name	Cameras	Object groups
	Communication channel	__default__	Default		
	Intercom	11	11		
	Intercom	33	33		
	Server	IntecomServer	IntecomServer		

• Object Configuration Buttons

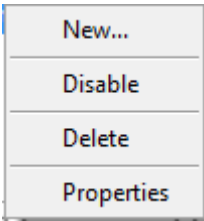
In the case of the Commend device, existing objects are detected automatically. However, output objects may be configured. See below.

Will open up an existing object for editing.



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

• **Object Configuration Right-click Options**



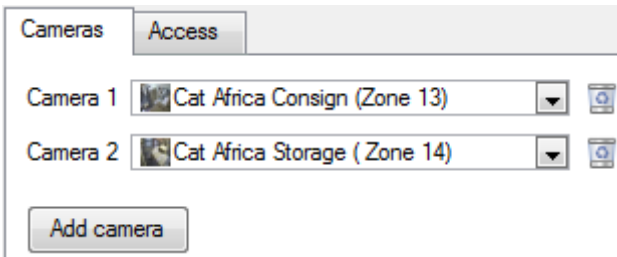
New allows objects to be created.

Disable/Enable allows individual nodes to be enabled or disabled.

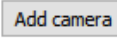
Delete will permanently remove this object from the list.

Properties will open up the object properties. The object may be edited from here. (Specifically, this is where cameras and user access levels are assigned.)

Properties: Cameras



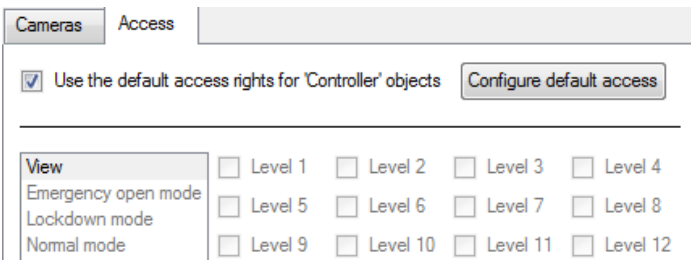
Adding a camera to an object will mean that, whenever there is an event on that object, the recording from that camera will be related to the time and date of the object event, in the Integration database.

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

To delete a camera, click on .

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

Properties: Access

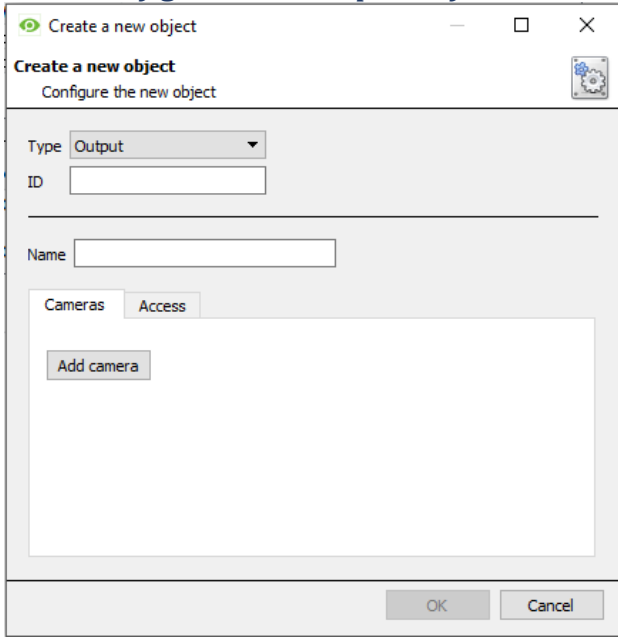


Access allows sensitive objects to be protected by only allowing certain levels users access to them.

A list of objects for which access levels may be set, is visible.

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 New Output Object**



Select **Output** from the Type drop-down menu.

Enter the Caller Number as the object's **ID**.

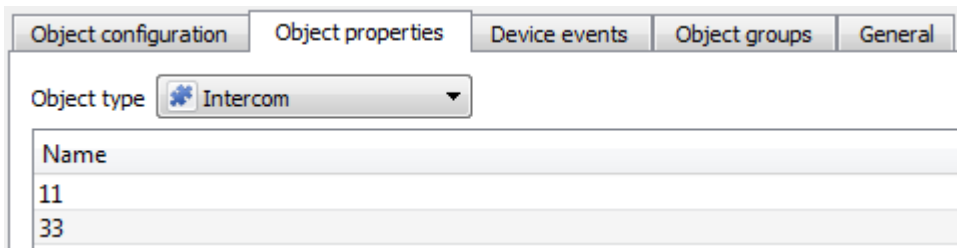
Give the object a **descriptive name**.

Click **Add camera** to **add a camera** to the object.

Configure the access rights in the **Access** tab.

Click **OK** when done.

Objects Properties Tab



The Object properties tab displays the objects, sorted by type. In the case of the Commend device, the object types available are **Intercom, Output, Server and Communication Channel**.

Below are the definitions for each of the specific object type columns found in the Object Properties tab.

Device Events Tab

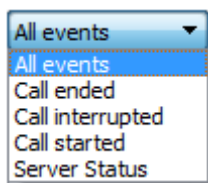
This will list real time events happening on this device. It is an excellent way for installers to see that the integration is functioning, and to monitor the live events happening on site:

Configuration of 'Commend Intercom'

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

All events Filter

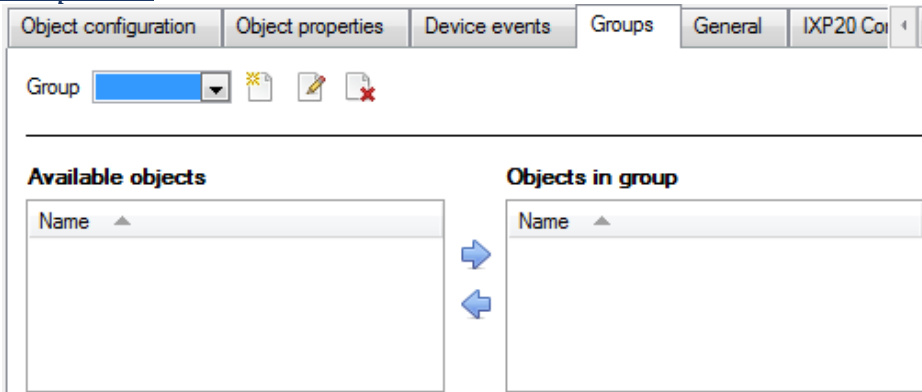
Event type						
Server Status	2017-03-02 10:49:29.136	Established communication with intercom server				
Call ended	2017-03-02 10:49:29.145	10	42	11	33	1111 2222
Server Status	2017-03-02 10:49:30.651	Lost communication with intercom server				
Server Status	2017-03-02 10:49:31.191	Established communication with intercom server				
Call interrupted	2017-03-02 10:49:31.191	11	42	11	33	111 2F22
Server Status	2017-03-02 10:49:32.072	Lost communication with intercom server				
Server Status	2017-03-02 10:49:32.625	Established communication with intercom server				
Call started	2017-03-02 10:49:32.625	12	42	11	33	1111 2222
Server Status	2017-03-02 10:49:37.923	Lost communication with intercom server				



Events may be viewed by type:

Note: When navigating away from this window, the device events for that session will disappear but will still be accessible in the integration metadata base. Please see **Section 3 Database** for more information on navigating to and interacting with the database.

Groups Tab

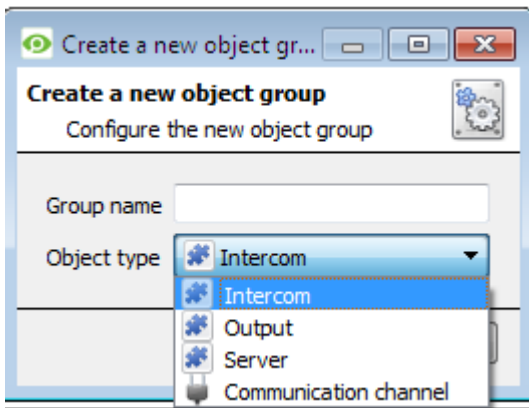


Groups of the same type of object may be created.

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 objects in that group are triggered.)

- **Create a Group**

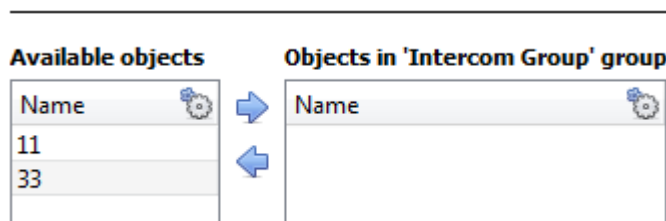
To create/edit a group click on / . (**Note:** Once a group has been created, the object type of the group may not be edited.)



When creating a group, 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, 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 is a list Available Objects. To add/remove these objects to the group select them (it is possible to select multiple at a time), and click on ➡ / ⬅.

General tab

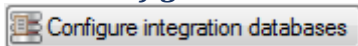
Currently the general tab deals with the integration database. Here, select a pre-created database, or configure a new database.

- **Select an Integration database**

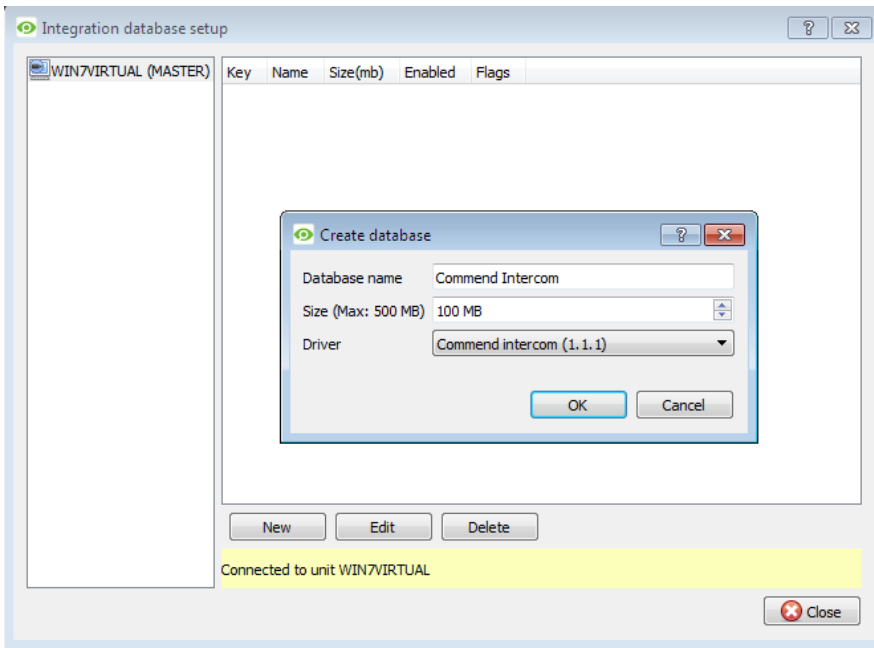
If an integration specific database has already been created, select it by clicking . Only databases relevant to the integration being added should appear.

If a database has not been created, see below.

- **Configure a new database**



If there is no database created yet, clicking on this button will take open the integration database setup. Click **New** to create a database.



Give the database a **Name**.

Select the **Size** of the database. The max is 100MB.

Select the **Commend Intercom** driver.

Click **OK** when done.

Select the newly created database by clicking the  and selecting it from the drop down menu.

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

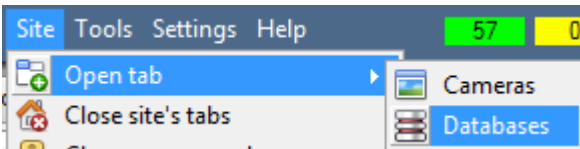
3 Database

a. Introduction

The database tab will allow the user to navigate the records in 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 record has an associated recording, the user 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




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



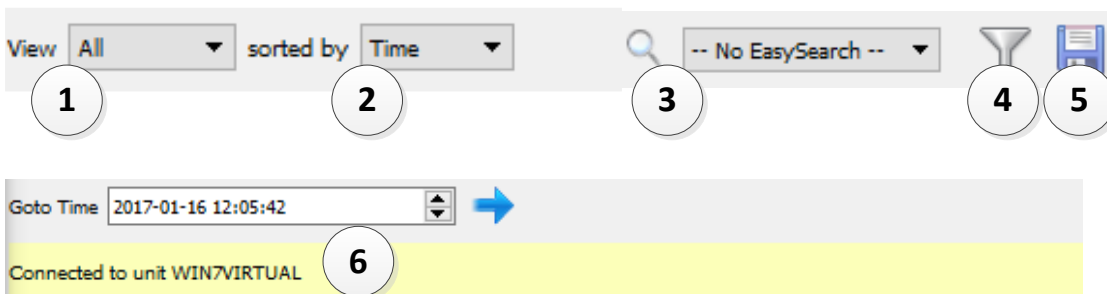
This will open the Database Tab.

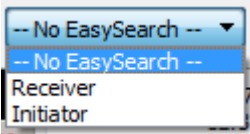
Once in the databases tab, select the relevant integration database. The databases are ordered under the NVRs that they are attached to.









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	The user may change the way that the database is presented. Some integration databases have multiple view options. The Commend device has: Server and Events .
② Sorted By	Events can only be sorted by certain parameters. Commend Intercom events can only be sorted by Time .
③ Easy Search	The easy search option lets the user quickly search the database. The Commend device has: 

<p>④ Filter </p>	<p>Filter offers a more advanced manner of sorting information in the Integration Database table.</p> <p>Once the filters dialogue is open, the following filter options are available:</p> <ol style="list-style-type: none"> 1. To enable filters check this box: <input checked="" type="checkbox"/> Enable filters 2. To add a new filter click on . 3. To delete an added filter click on . <p>It is possible to filter the same parameters more than once.</p> <p>To change a filter click on the blue hyperlinked text. (For example, click on Timestamp to change the filter from Timestamp, to any of the other available options.)</p> <p>The filter options in this integration are:</p> <div data-bbox="405 680 657 1077" style="border: 1px solid gray; padding: 5px;"> <p>Transaction</p> <ul style="list-style-type: none"> Start Time End Time Type Task Receiver Initiator Parameter 1 Parameter 2 </div> <p>Note:</p> <ol style="list-style-type: none"> 1. Multiple filters may be run simultaneously. 2. The filter icon  will change to  when filters are active.
<p>⑤ Export</p>	<p>Generate meta-database reports in PDF or CSV format. See below.</p>
<p>⑥ 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>

- **Generate Meta-Database Reports**

Click the  icon to open the Export window.

The screenshot shows the 'Export' dialog box with the title 'Export'. The main section is titled 'Select the period to export'. It contains four radio button options: 'Preset' (selected), 'Specific', 'Previous', and 'Period of'. The 'Preset' option is set to 'Quarter to date'. The 'Specific' option is selected, showing a date range from '1 January 2017 00:00:00' to '1 April 2017 00:00:00'. The 'Previous' option is set to '1 Hours'. The 'Period of' option is set to '1 Hours from 00h00 16 January 2017'. At the bottom right, there are 'Back' and 'Next' buttons.

Select the **Period** to export, and enter the required details.

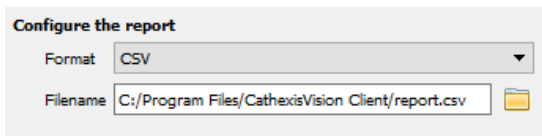
Click **Next**.

The screenshot shows the 'Export' dialog box with the title 'Export'. The main section is titled 'Configure the report'. It contains a 'Format' dropdown menu set to 'CSV' and a 'Filename' text box containing 'C:/Program Files/CathexisVision Client/report.csv'. At the bottom right, there are 'Back' and 'Export' buttons.

Select the **Format** to export the report in; either CSV or PDF.


See below for the two options.

Export CSV

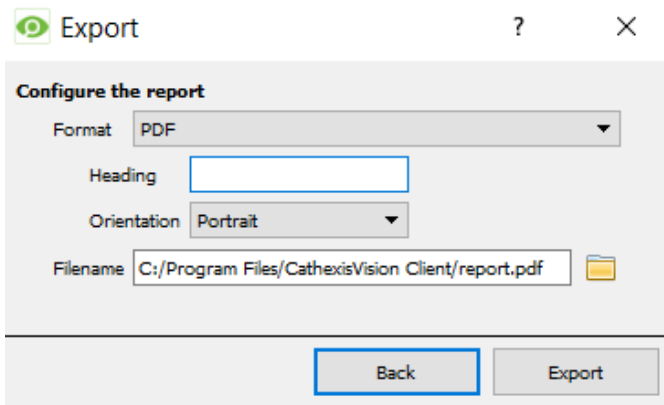


The screenshot shows a dialog box titled "Configure the report". It has two fields: "Format" is a dropdown menu set to "CSV", and "Filename" is a text box containing "C:/Program Files/CathexisVision Client/report.csv" with a folder icon to its right.

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.

Export PDF




The screenshot shows a window titled "Export" with a close button (X) and a help button (?). Inside is a "Configure the report" dialog. It has four fields: "Format" is a dropdown menu set to "PDF"; "Heading" is an empty text box; "Orientation" is a dropdown menu set to "Portrait"; and "Filename" is a text box containing "C:/Program Files/CathexisVision Client/report.pdf" with a folder icon to its right. At the bottom of the dialog are two buttons: "Back" and "Export".

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.

[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.

- **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 an integration database entry is selected, its event information will be displayed on the right of the video player:

Start Time	2017-03-02 12:37:24
End Time	2017-03-02 12:37:24
Type	12
Task	42
Receiver	11
Initiator	33
Parameter 1	1111
Parameter 2	2222
Notification	

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 Commend Intercom 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 Commend 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 a door, the option is to trigger **while/when** a trigger is active. The user will also be able to select multiple triggers, and define whether **all/any** of the triggers need to be active to set-off an event.

Use [commend intercom](#) to trigger the event

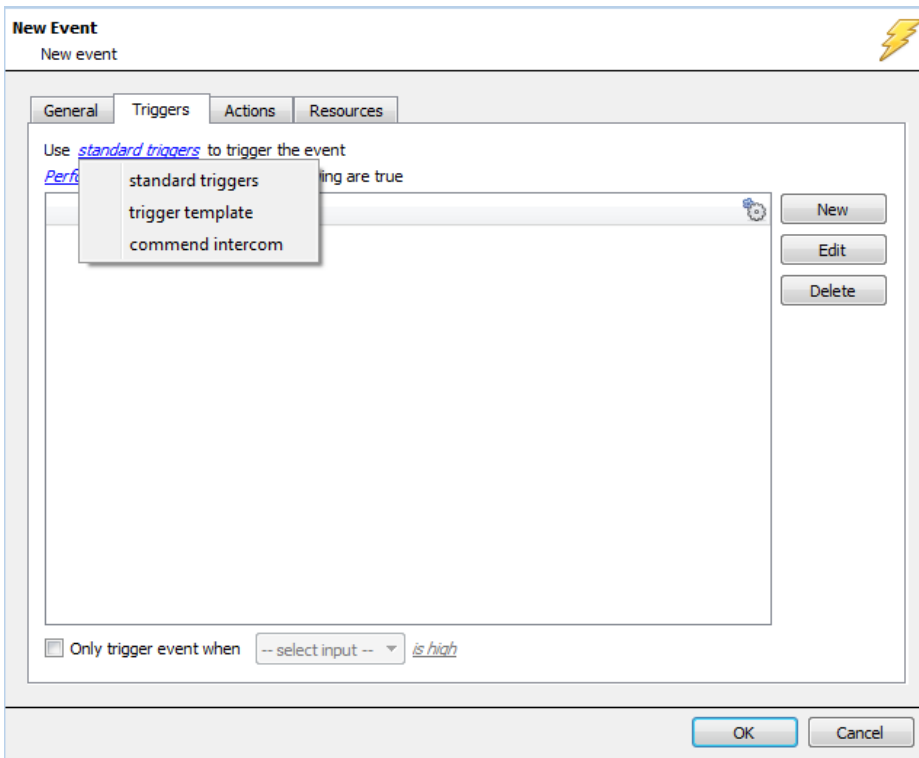
Trigger using [any intercom](#)

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

As usual, to change these settings click on the 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).



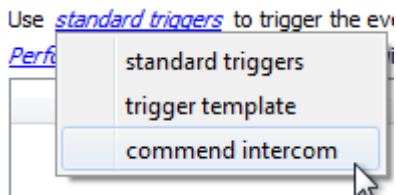
In this window, define the rules and constraints which will trigger an event on the Command device.

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

Note: The user may set multiple constraints, choosing if *any*, or *all* constraints need to be fulfilled to set off a trigger.

- **Set the device as the trigger**

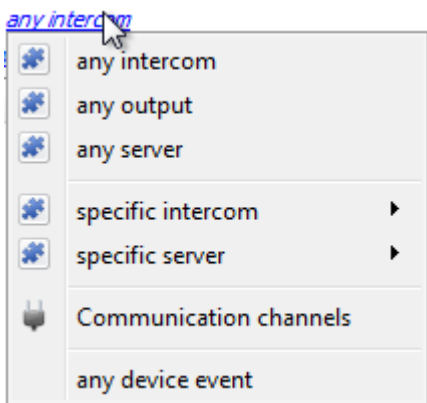
Choose the Master Trigger type here.



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

- **Trigger Types**

Choose whether certain device objects or any device event will trigger an event.




Any ... will trigger using any of the listed objects.

Objects in group... will trigger using any of the objects in that group.

Specific object will trigger using only a specific object.

Any device event will trigger when any trigger occurs on the Command Intercom device.

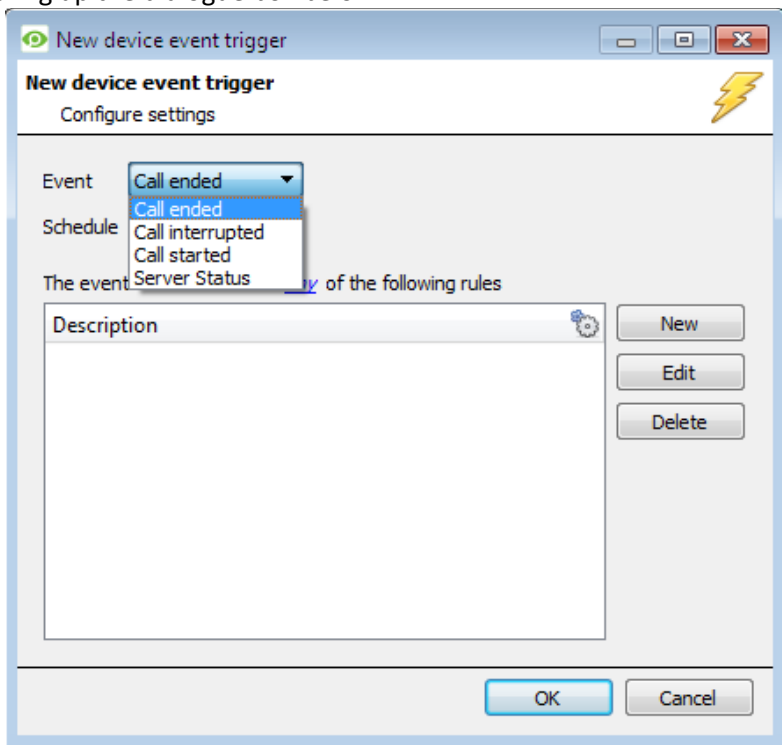
Note: If object groups have been created, the option to trigger using specific/any group will appear here.

Note for group triggers: To database this 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. `Example usage: value=$input_name`

In this example, replace 'value' with the name the event should be databased under.

Device Event Triggers

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



Select the **Event** type.

Define the **Schedule**.

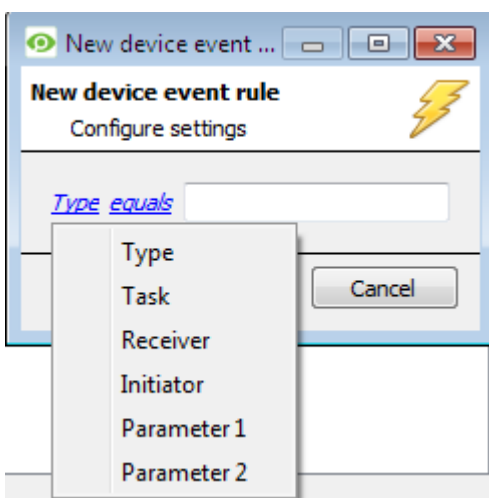
Click on the blue hyperlink to define whether the **any** or **all** of the configured device event rules should trigger an event.

Next, add rules to the device event trigger.

Note: Rules for different event types must be added individually. I.e., switching from Access to Door event types in this window will lose any rules configured for Access events.

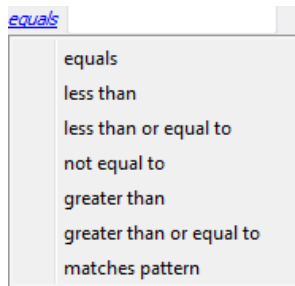
- **Add Rules to Device Event Triggers**

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 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 (equals in the example) this will display the rules options:

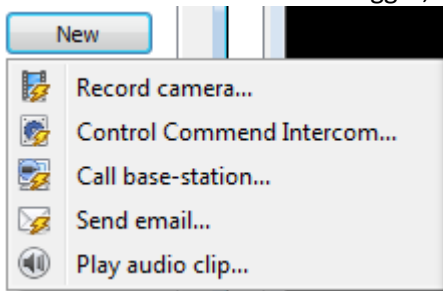


Note: When all available options are known to CathexisVision, they will be visible in a drop-down menu. When these variables are not pre-defined, they will need to be filled in manually. The information pulled through to the events is information sent to CathexisVision from the Commend Intercom device,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

c. Actions

Once the triggers that are going to initiate the event have been defined, to define some Actions in the **Actions tab** of the **New Event** window.

To set an action for an event trigger, click  and select an action from the available options:



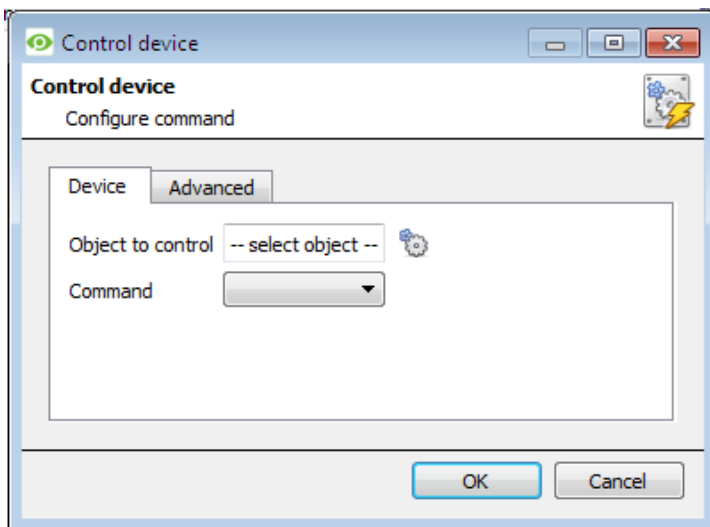
One of the available actions will be to *control* the Commend Intercom device.

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.

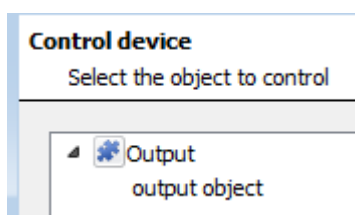
Note: Only Output objects may be controlled. Output objects need to be manually created, as they are not automatically generated by device events.

- *Configure Command Window*



Select Object to Control

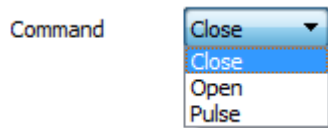
Click  to select an object to control




Under the object type parent group, select the individual objects to control.

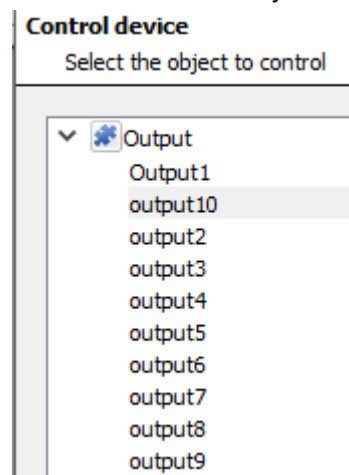
Note: Only output objects can be controlled.

Choose Command



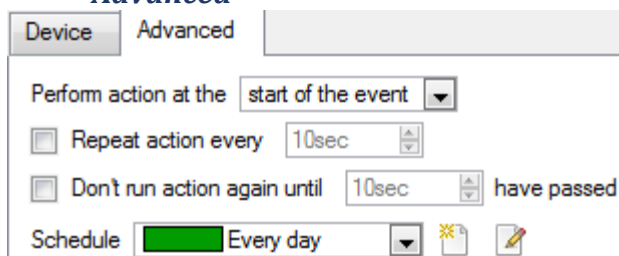
Choose a command with which to control the selected object.

To select an **Object to control**, click on the  icon. This will display a selection of all the Objects available on the Command device.



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

• *Advanced*



Decide when to **perform action at**: the options are either 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.

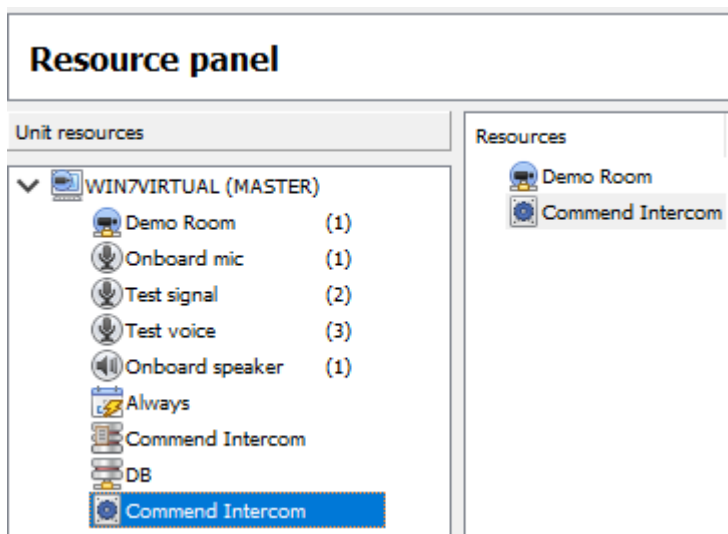
Schedule is a standard CathexisVision schedule, which may be applied to the actions.

5 Map

It is possible to add the Commend device to a site map, which will allow for a number of action options triggered by intercom calls and server status changes. These options include the animation of triggered resources and connecting to site cameras, etc.

Note: This section will only deal with the specifics of the Commend 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 Commend Intercom Device as a Resource



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

- **Add the Device in the Resource Panel**

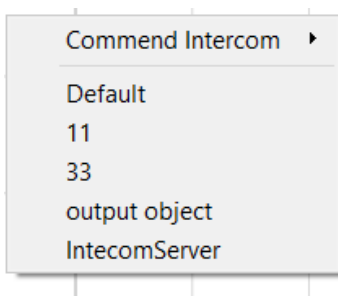
1. Navigate to the **Resource Panel** by following **Site** → **Open Tab** → **Setup** → **Resource Panel**.
2. Drag the device from the **Unit Resources** list into the **Resources** list, on the right.

b. Add the Device in Map Editor

First, connect to site in Map Editor.

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

Adding Device Objects

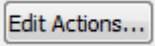
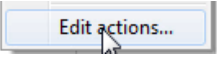


Drag the device from the Site Resources list onto the map area.

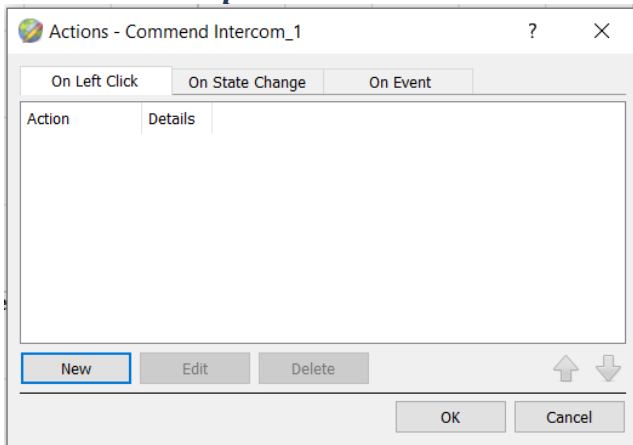
Select one of the associated objects.

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

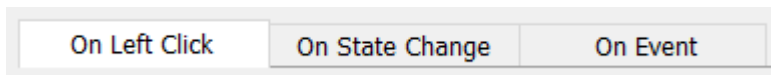
Adding Device Actions

To add actions to the device objects, either select the object on the map and click  or right-click the map object and select .

• **Action Options**



Map actions can be triggered by left-clicks, right-clicks, state changes and events, and differ according to the object. These options are indicated by the tabs in the Action window when editing actions for specific objects.



Select the appropriate tab in the actions window to determine whether actions will be triggered by left/right-click, state change or event. Then click **New** to add a new action.

Actions can be set for the Server object state changes, and intercom object actions may be configured to display a map notification when a device event occurs.

Note:

1. Map action trigger details (such as the kinds of events and state changes) will differ according to the object selected. For example, an intercom server object will have a server status event trigger option, whereas an intercom object will have call ended/started etc. options.
2. All action options are the same, except for On Event action triggers, where there is an addition action to show a device event notification.
3. Multiple actions may be added to the map objects.

Once finished, save the map.

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

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 document 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