

HALO Smart Sensor Integration App-note

8 November 2023



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1. Introduction

The document provides instructions for the integration of the HALO Smart Sensor solution with CathexisVision.

HALO Smart Sensor is a key component in the solution to providing a low-risk environment by monitoring Carbon Dioxide (CO2), Particulate concentrations, Humidity, Volatile Organic Compounds (VOC), and Nitrogen Dioxide (NO2) in the air. This multi-sensor is capable of vape detection, smoke detection, THC detection, and sound abnormalities like gunshots and shouting in areas a camera cannot be placed. HALO delivers safe, healthy, and comfortable environments that keep all personnel safe while saving money by efficiently running the HVAC system.

Note:

- 1. For information regarding the regular operation of the HALO Smart Sensor system, please consult the manufacturer's documentation.
- 2. There is a General Integration section in the main *CathexisVision Setup Manual*. It contains information about creating an integration database, as well as a general introduction to the Integration Panel. **Read this section.**

1.1 Requirements

1.1.1 General Requirements

- CathexisVision 2023.2 or later
- Cathexis NVR 64-bit version
- Windows 10 Pro
- Ubuntu 16.04 LTS and 20.04 LTS

1.1.2 License Requirements

License	Name	Description
CHLO-1000	HALO Smart Sensor	These licenses apply to the smart sensor. The CHLO-1000 will license a single sensor and may be added on a sensor-by-sensor basis.
CHLO-2000	HALO Smart Sensor Device	This license is the "base" license to integrate with the smart sensor system. It is applied to the server to which the HALO Smart Sensor is connected. This licence will allow for the connection of a single integration device.
CHLO-3000	HALO Smart Sensor bundle	This license includes one CHLO-2000 smart sensor device license, and provides support for unlimited CHLO-1001 HALO Smart Sensor licenses.

Note: In this integration, individual devices will require a license for each device.

1.1.3 Third-Party Device Information

This integration was tested on three different HALO sensors. All three sensors send CathexisVision the detected sensor data values via a configurable TCP port which can be configured in the HALO sensor web interface.

Tested Sensor 1:

Hardware name	HALO Smart Sensor 3C
Hardware model number	HALO-3C
Firmware as tested	2.6.2 build 7.218-3

Tested Sensor 2:

Hardware name	HALO Smart Sensor V2.50
Hardware model number	HALO-V2.50
Firmware as tested	2.6 build 14.173

Tested Sensor 3:

Hardware name	HALO Smart Sensor 2C
Hardware model number	HALO-2C
Firmware as tested	2.6.2 build 7.218-3

Note: Cathexis makes a best attempt to ensure that the equipment and license requirements of thirdparty equipment are adequately specified. However, it is possible that the requirements of third-party equipment may change over time, including the interface hardware/firmware and licensing. The user is advised to clarify the latest requirements directly with the third-party equipment supplier.

1.2 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 objects.

1.3 Features and Abilities

CathexisVision receives event messages from the HALO Smart Sensor device which can be used to trigger a CathexisVision system event.

1.3.1 Device Objects

Object Type		Abilities
General		 This integration has Sensor and Communication channel objects. Device objects can be commanded as an action of a CathexisVision system event. All Device objects support overlays with a configurable timeout. Events on the software can be used to trigger CathexisVision system and map events. Objects may be linked to cameras to associate device events with video footage.
Sensor	Object Properties	 Name IP Firmware Connected Triggered Temperature Humidity Pressure Light level Health index AQI TVOC CO 2Cal NO 2 PM2.5 PM10 Sound
Communication Channel	Object Properties	 Type ID Name

1.3.2 Device Events

The CathexisVision HALO Smart Sensor integration generates Device events (logs), which are triggered on the device and reflected in CathexisVision.



Event Element	Features/Abilities
General	 Event messages generated by each sensor will generate event messages in CathexisVision. Device event notifications populate both on the map and CathexisVision when an action/event triggers from a sensor. A device can be associated with a camera in order to view live/recorded video with event overlays. An overlay is generated, with a configurable timeout, when an event occurs.
Device Event Types: There are many different events that can be triggered from the Actions tab of each sensor (Gunshot, Vape, Humidity, etc.)	 A device event notification is sent to CathexisVision when an event triggers from the sensor with the following properties: Time (includes date) Device Location Device IP Event identifier Detected (set/reset)
CathexisVision Event Actions	There's a system list of different events that can be triggered from the Actions tab of each sensor (Gunshot, Vape, Humidity, etc.)

1.3.3 Metadatabase

A unique metadatabase is created on the CathexisVision server for this integration. It is fully searchable, with configurable filters based on device event information (as above), and time stamping. The filtered event/s, and the associated video, will then be available for review in a new window from which an archive can be created and exported.

Database Element	Features/Abilities		
	All device events are databased.		
	• Database entries include the footage from cameras linked to device objects.		
	 Multiple cameras may be linked to multiple objects. 		
General	Device event metadata is displayed where applicable.		
	 Databased device events may be viewed in the embedded video player, which includes the usual CathexisVision video review tools. There's only one view option for device events and they can only be sorted by time from the metadatabase. 		
View Options	Standard		
Sort Options	• Time		
	• Time		
	Location		
Easy Search	• IP		
Lusy scarch	• Event		
	Event detected		
	Detected		
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	• Time
	Location
	• IP
Filter	• Event
	Detected Sub-stat F Stat
	Sub-stat on/off
	Log ID internal.
Export Database entries may be exported in CSV and PDF format.	

1.3.4 Maps

The CathexisVision GUI provides for configurable site maps that feature multi-layered, hierarchical, interactive interfaces providing representation and control of a site and its resources.

Map Element	Features/Abilities		
General	Device objects can be embedded in a site map, which offers multiple action options when messages are received from the device, the device triggers an event, and/or the user manually initiates a map action.		
Map Action Triggers	 All device objects may be set to trigger a map action if the user left-clicks on map. Some device objects may be set to trigger a map action if an event <i>message</i> is received from the device. All device objects may be set to perform a map action if <i>any</i> event occurs on the device. Device objects, which can be configured to trigger CathexisVision events, may also be set to perform a map action when specific CathexisVision events are triggered. 		
Map Actions Options	When triggered (see above), objects may perform the following map actions		
	 (where applicable): Connect to a site. Perform an animation. Go to a camera preset. Load a map. Set a PTZ relay output. Show a popup menu. Set a relay output. Show an HTML block. Show a block of text. Show a device popup menu. 		



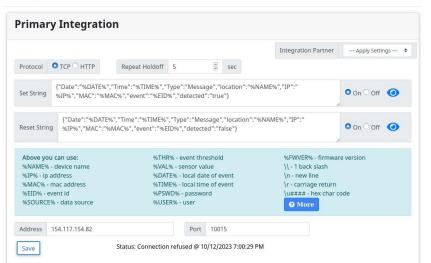
2. Device Addition

This section will detail the procedure for adding the the HALO Smart Sensor device to CathexisVision.

2.1 HALO Smart Sensor Specific Setup

The HALO Smart Sensor device requires some manual configuration for it to communicate successfully with the CathexisVision HALO Smart Sensor Integration. The integration communicates via a TCP listening port, and the device must be setup via the HALO web interface in order for it to send the data to CathexisVision.

Integration



- Navigate to the integration tab of the HALO Web Interface and fill in the IP and Port that the CathexisVision software is running on.
- Fill in the request strings for Set, Reset.
- Click Save.

						Integration Partner	Apply Settings 💠
Protocol	Отс	P O H	TTP				
Message	VER9 %IP9 Hg% SEN9	6","IP" 6","MA ","Lux' 50R:TV	:" .C":"%M/ ":"%SEN! OC%","C	AC%", "Temp": SOR:Lux%", "h O2cal": "%SEN	E%", "Type": "Heartbeat", "location": "%NAM "%SENSOR:F%", "RH": "%SENSOR:RH%", "p ealth_index": "%SENSOR:H1%", "AQI: "%SE ISOR:CO2cal%", "NO2": "%SENSOR:NO2%", "Noise": "%SENSOR:Noise%", "Triggered":	ressure":"%SENSOR:P- NSOR:AQI%","TVOC":"% "PM2.5":"%SENSOR:PM2	● On ○ Off ④
Above y %NAME9 %IP% - ij %MAC% %FWVER	% - devi o addre - mac a	ce nam ss iddress			%EVENTS% - list of event states %EVENTVALS% - list of event values %ACTIVE% - list of active events %SENSOR:id% - value of selected sensor %DATE% - local date	%TIME% - local time \\ - 1 back slash \n - new line \r - carriage return \u#### - hex char co ? More	de
nterval	15	()	sec	Address	154.117.154.82 Por	t 10015	
Save				Status: Con	nection refused @ 10/13/2023 1:39:03 AM		

- Fill in the heartbeat request string.
- Click Save.



The request strings for Set, Reset and Heartbeat can be seen below:

Set:

{"Date":"%DATE%","Time":"%TIME%","Type":"Message","location":"%NAME%","IP":"%IP%","MAC":" %MAC%","event":"%EID%","detected":"true"}

Reset:

{"Date":"%DATE%","Time":"%TIME%","Type":"Message","location":"%NAME%","IP":"%IP%","MAC":" %MAC%","event":"%EID%","detected":"false"}

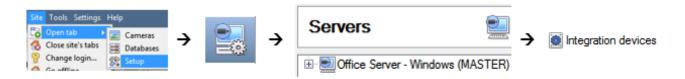
Heartbeat:

{"Date":"%DATE%","Time":"%TIME%","Type":"Heartbeat","location":"%NAME%","Firmware":"%FWVE R%","IP":"%IP%","MAC":"%MAC%","Temp":"%SENSOR:F%","RH":"%SENSOR:RH%","pressure":"%SENS OR:PHg%","Lux":"%SENSOR:Lux%","health_index":"%SENSOR:HI%","AQI":"%SENSOR:AQI%","TVOC":" %SENSOR:TVOC%","CO2cal":"%SENSOR:CO2cal%","NO2":"%SENSOR:NO2%","PM2.5":"%SENSOR:PM2 .5%","PM10":"%SENSOR:PM10%","Noise":"%SENSOR:Noise%","Triggered":"%ACTIVE%"}

2.1 The Integration Devices Panel

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: Site / Open tab / Setup / Configuration icon / Server / Integration devices.



There are two sections in the Integration Panel:

- The **Devices** list shows the integration devices attached to the integration database.
- The **Configuration** section enables editing/reviewing the device selected in the **Devices** section.

evices				
lame Driver				
lalo Halo smart ser	sor			
officientian of Use				
onfiguration of 'Halo			 	
onfiguration of 'Halo Object configuration		ect groups General		
Object configuration	Object properties Device events Obj	ect groups General		
Object configuration Object type 🗱 All ob	Object properties Device events Obj		Object groups	License
Object configuration Object type All ob	Object properties Device events Obj	ame	Object groups	License
Object configuration Object type All ob	Object properties Device events Obj jects ID Na on channel CommsChanneldefault_ De	ame	Object groups	License
Object configuration Object type # All ob Type Communicati	Object properties Device events Obj jects ID Na on channel CommsChanneldefault_ De	ame	Object groups	
Object configuration Object type # All ob Type Communicati	Object properties Device events Obj jects ID Na on channel CommsChanneldefault_ De Sensor.B08353D113F3 IPV	ame	Object groups	



2.2 Add a New Device

New device

 \rightarrow In the Integration Panel, navigate to the **Devices section**.

→ Click on the **New device** button on the right-hand side. This will open the addition dialogue.

New integration device	? 💌	→ Select the HALO Smart Sensor driver from the list, and click Next.
Select a driver		
GFE Gekko Fire System Galaxy alarm panel Galaxy alarm panel (legacy)	^	
Gallagher Gallagher event injector Genesis Genesis wirless PIR	н	
Grekkom ngaro analytics Halo smart sensor		
Herra Horne Bargains POS ISS SecurOS LPR Illovo weighbridge (SASA) Illovo weighbridge (UniSolutions) Impro IXP20 / APLITE access control Impro IXP220 access control Impro IXP400 access control		
New integration device		\rightarrow Give the device a descriptive name .
Configure the device		Note: This integration communicates directly
Name Halo smart sensor		with the HALO Smart Sensor device.
Settings		
Port 10015		\rightarrow Enter the desired TCP port number.
		→ Click Finish .
	Finigh	

2.3 Select Device

The newly added device will show in the Devices section.



3. Configuration

The configuration section is divided into five main tabs. These tabs are: **Object configuration**, **Object properties**, **Device events**, **Groups**, and **General**.

3.1 Object Configuration Tab

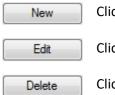
The object configuration tab is where all the individual objects that comprise the integration may be viewed. Here, objects can be linked with cameras and overlays can be configured.

The HALO Smart Sensor system has two object types: Sensor and Communication channel.

Object configuration Object pro		operties Device events		Object groups Genera		al			
)bjec	t type 🚺 All of	ojects	•						
*	Туре		ID		Name		Cameras	Object groups	License
Gommunication channel		CommsChanneldefault		Default					
* Sensor		Sensor.B0B353D113F3		IPV_BATHROOM_LRG				0	
*	# Sensor		Sensor.B827EB7F9E7C		IPV_BATHROOM_MED				0

All objects are automatically populated when communication to the HALO Smart Sensor device is established.

3.1.1 Object Configuration Buttons



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

Click **Edit** to change an existing object.

Click **Delete** to remove an existing object from the CathexisVision configuration.

3.1.2 Object Configuration Right-Click Options

New
Disable
Prioritise license
Delete
Properties

New will open the dialogue to add a new object.
Disable/Enable allows objects to be enabled/disabled manually.
Prioritise license allows the user to give specific objects priority when licenses are applied. This is useful if there are fewer licenses than objects.
Delete will permanently remove this object from the list.

Properties will open up the object editing window.



3.1.3 Edit Object

Open the object editing window by selecting an object from the list, and **right-clicking Properties**.

This window is where cameras are added to objects, overlays are configured, and access rights to the integration are added. These are dealt with in two tabs: **Cameras** and **Access**.

3.1.3.1 Properties: Camera

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.

Edit object	- • •
Edit object Edit object settings	
Name IPV_BATHROOM_LRG	
Cameras Access	
Camera 1 💽 Cam 01 🔻 🤌 🧟	
Add camera	
ок	Cancel

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

0

ß

To **delete** a camera, click the trash icon.

To edit individual **overlays**, click the spanner icon. See instructions below.

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



3.1.3.2 Properties: Access

Access can be used to protect sensitive objects, by allowing only certain user levels access to them.

Cameras	Access				
Use the	default access rights for 'Sens	or' objects Configure	default access		
View		E Level 1	E Level 2	Level 3	🔲 Level 4
		E Level 5	📄 Level 6	Level 7	🔄 Level 8
				Level 11	

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

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

3.1.4 Configure Overlays

Overlays may be configured globally for all objects, or individually for selected objects (Sensor objects).

The path to follow for opening the configuration window for global or individual overlays is different, however the overlay configuration process is the same.

3.1.4.1 Configure Global Overlays

Global overlays may be configured for **Sensor** objects. If global overlays are configured for sensor objects, then configuration will then apply to *all* sensor objects.

Navigate to the global overlays setup by first opening the **Object configuration tab**. Choose an object type.

Object configration	Object properties	Device events	Object group	s General
Object type 🚺 Sen	sor 🗸 🗸	B		
ID ^	Name	Cameras	Object groups	License
Sensor.B0B353D113	F3 IPV_BATHROOM	LRG		0
Sensor.B827EB7F9E	TC IPV BATHROOM	MED		0

Select the spanner icon next to the drop-down menu to configure the global overlays for the chosen object.

A new window will open.



Configure overlays	 → Enable: Check the box to enable overlay configuration. → Define the Text size by selecting from the drop-down menu.
Text Size Large Location Top right Background color	 → Define the Location of the overlay by selecting from the drop-down menu. → Chose the Text colour and Background colour of the overlay stream.
Text color	Click the colour boxes to bring up a colour chart.

3.1.4.2 Configure Individual Overlays

For individual devices, there is a choice to use the global overlay settings (above), which apply to all objects, or to configure the settings for an individual device.

For example, the overlays for the camera on one sensor might be configurated to show up with yellow text, while another sensor displays in red.

onfiguration of 'H	lalo smart <mark>s</mark> ensor '							\rightarrow	Right-click an item in
Object configuration	n Object properties	Device events	Object groups	Genera	1				the list and select
Object type 🏼	Il objects	•							Properties to edit the
Туре	ID		Name		Cameras	Object groups	License		•
👹 Communi	cation channel Comm	sChanneldefault	_ Default						object.
Sensor	Sensor	B0B353D113F3	IPV_BATHRO	OM_LRG			0		
Sensor	New	B827EB7F9E7C	IPV_BATHRO	OM_MED			0		
	Disable								
	Prioritise license								
	Delete								
	Propecties								
Cameras Camera 1 (Add came	Access	Contraction of the second seco			drop- →	down me	nu. k the s	etti	or, select a camera fron ngs icon that appears name.
Configure	e overlays	8	×		nchec verlay		se def	ault	s' box to configure th
Sensor o	verlay 🖑	Use de	faults						



Configure overlay Configure ov	 → Enable: Check the box to enable overlay configuration. → Define the Text size by selecting from the drop-down menu. → Define the Location of the overlay by selecting from the drop-down menu. → Define the Text colour and Background colour of the overlay stream. Click the colour boxes to bring up a colour chart.
Cancel	Note: Click to reset values.

3.2 Objects Properties Tab

The Object properties tab allows objects to be viewed, sorted by type.

In the case of the HALO Smart Sensor system, there is the option of viewing by **Sensor**, and **Communication** channel.

Object configuration	Object properties D	evice events	Object groups General							
bject type 😹 Sens	ar ~									
Name	hre	Connected	Triggered	Temperature	Humidity (%RH)	Pressure (Hg)	Light level (lux)	Health index	AQI	TVOC (ppb
Mame	nunication channel	Connected	Triggered	Temperature	Humidity (%RH) 0	Pressure (Hg) 0	Light level (lux) 0	Health index	AQI 0	TVOC (ppb 0

Note: The properties shown in the Object properties tab are the same as what can be seen on the HALO Smart Sensor dashboard. The dashboard was used as a guide to know what properties to include.

3.3 Device Events Tab

The Device events tab lists real-time events happening on this device. Installers can ensure that the integration is functioning, and monitor the Events happening on site.

Return to CathexisVision and navigate to the Integration Panel. Open the Device events tab.

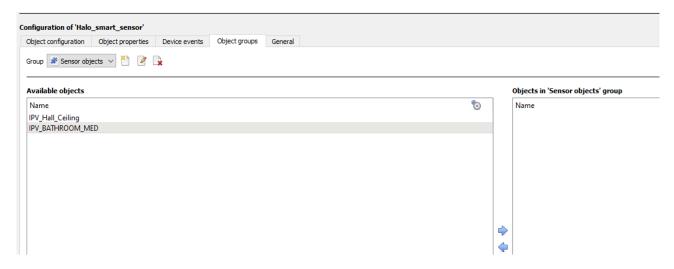
Object configuration	Object properties	Device event	ts Object	groups	General
Message 💌					
Time	Location	IP	Event	Detected	ł
2023-05-10 14:14:16	IPV_BATHROOM_MED	10.1.6.215	Aggression	Set	
2023-05-10 14:14:26	IPV_BATHROOM_MED	10.1.6.215	Aggression	Reset	
2023-05-10 14:20:22	IPV_BATHROOM_MED	10.1.6.215	AQI	Set	
	IPV_BATHROOM_MED			Reset	

Use the drop-down menu to sort the events. This integration only has a **Message** event type.



3.4 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. (E.g. a group will trigger an event if any of the doors in that group are triggered.)

3.4.1 Create a Group

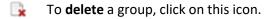
To create a group, click on this icon.
A new dialogue box will open.

reate a new	v object group	
Configure	the new object gr	oup
Group name	Sensor objects	
Object type	Sensor	~

- → Give the group a descriptive **Group name**.
- → Click on the drop-down menu to select the **object type** to group.

Note: Once a group has been created, the object type of the group cannot be edited.

To **edit** a group, click on this icon.



The next step is to add individual objects to the group.



3.4.2 Add or Remove Objects

After creating a group, a list of all the available objects for that group will be displayed in the Available objects panel, on the left-hand side. Objects can then be chosen from this list, and added to the group.

Available objects	
Name	
IPV_Hall_Ceiling	
IPV_BATHROOM_MEI	0

To **add** these objects to the group, select them from the list, and **click on the right arrow**.

To remove these objects from the group, select them and click on the left arrow.

Note: Multiple objects may be selected at a time.

Objects in 'Sensor objects' gro	up
Name	
IPV_Hall_Ceiling	
IPV_BATHROOM_MED	

Once individual objects have been added to the group using the arrows (above), they will appear in the section on the right-hand side.

The object group information will also reflect in the Objection configuration tab:

Сог	nfigura	tion of 'Halo_	smart_sen	sor'						
C	bject o	onfiguration	Object prop	erties	Device events C	bject groups	General			
c	bject t	ype 🏾 🏶 All obj	ects	~						
	^	Туре		ID		Name		Cameras	Object groups	License
	i	Communicati	mmunication channel CommsChanneldefault		Default					
	*	Sensor		Sensor.B	0B353D02E29	IPV_Hall_Ceil	ing	HikVision Testing	Hall Ceiling Object	0
	*	Sensor		Sensor.B	8827EB7F9E7C	IPV_BATHRO	OM_MED	Bosch testing		0

3.5 General Tab

The General tab of the Configuration section (Integration panel) deals with the integration database. Setup must be completed here, before the Databases tab can be used to search events and view associated footage.

From the General tab, the user must:

- Select an existing database, or
- Configure a *new* database. ٠

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



3.5.1 Configure a New Database

- The first time an integration database is added, the general integration database will need to be *initialised*.
- Once the general integration database has been initialised, then a database for a *specific integration* can be created.

3.5.1.1 Initialise the Integration Database

If an integration database has not yet been created, follow the steps below.

→ Click the Configure integration databases button from the General tab.

This opens the Integration database setup window.

abase setup (direct)		? ×	→ Select the unit to which th database will be added, fror
Initialise integrat	ion database		 database will be added, from the list on the left. → Then, click Initialise integration database. Initialise integration database
Initialise integration database	§	1	hoose the partition on which the atabase will be created.
Partition Total space available Disk space allocated to integration database	C:\(C:\) 29062 MB 1000MB		elect disk space allocation.
	Cancel	→ C	lick OK .



3.5.1.2 Add a New Devices Database

After initialisation, the database can be added to the integration.

Integration database select integration database So Configure integration database So Configure integration databases	togration databases
lanas -	•
	the General tab.

Integration database s	etup (direct)			?	×	This opens the integration database
Host-server (MASTER)	Key Name		ed Flags			setup window. New → Click the New button.
	New	Edit De	ete	C	Close	

A dialogue will appear for creating the integration database.

Database name	Halo metadb	
Size (Max: 400 MB)	100 MB	
Driver	Halo smart sensor (1.1.1)	-

- → Give the database a descriptive Database Name.
- → Allocate a **Size** to the new device database.
- → Select the device **Driver** (HALO smart sensor), from the drop-down list.
- \rightarrow Click **OK** to create the database.



Integration database s	etup (direct)		The newly created database will appear in the
Host-server (MASTER)	Key Name Size(mb)	Enabled Flags Yes	Integration database setup panel. → Click Close to return to the General tab.
	New Edit	Delete	

3.5.2 Select the HALO Smart Sensor Integration Database

Once a HALO Smart Sensor database has been created, it must be actively selected.

Object configuration	Object properties	Device events	Object groups	General	\rightarrow Return to the General tab.
Integration database	select integration da	atabase 🏷		63	\bigcirc \rightarrow Then, click the
Configure integrat	ion databases				settings icon.
General settings					

A dialogue will appear. Only databases which relate to the device being added should appear.

ntegration databas	e	5.00
Select integration da	atabase	
Integration database	Halo metadb	•

- → Select the HALO Smart Sensor database from the drop-down menu.
- \rightarrow Then click **OK**.

Once selected, the database will reflect in the General Tab as shown below.

Object configuration	Object properties	Device events	Object groups	Genera
Integration database	Halo metadb	Q		
Configure integrat	ion databacan			

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



4. Events

A CathexisVision event has a trigger, which causes an action. Set integrated devices to act as triggers, or as actions. This document describes the **HALO Smart Sensor** 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 gives 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.

4.1 Event Window

Events in CathexisVision are set up via the Event Window, which has four tabs.

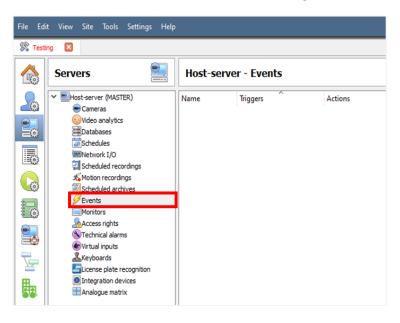
- In the General Tab, an event is given a name, description, schedule, and priority.
- In the **Triggers Tab** the trigger/s for the event is defined.
- In the Actions Tab the action/s which the event takes, is defined.
- In the **Resources Tab** the various site resources which can be used as part of an event are defined.

4.2 Creating an Event

To create an event using the HALO Smart Sensor system, navigate to the Events management area by following the sequence: **Open Tab / Setup / Servers / Master Server / Events**. This is shown below.



This will allow the user to enter the Events management area:





New

Once in Events management area, click the **New** icon at the bottom of the screen.

This will open up the **New Event window**.

The new event window has four tabs which can be used to set up the event: General, Triggers, Actions, and Resources.

4.3 General Tab

Create a new event under the General tab by filling in the fields.

🔯 Halo sens	or events			\rightarrow Give the event a descriptive Name .
New Event Halo sensor		-		2. Set up a Schedule if desired by clicking the icon.
General	Triggers Actions	Resources		
Name	Halo sensor events			→ Select a Priority .
Description			3	-
Schedule	Always	~ *	7 1	\rightarrow A description may be entered. Or, modify the
Priority	Medium	~		Description if relevant according to the instructions below.

Note for group triggers: For an 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 question mark icon to see a list of available descriptions and instructions for how to enter these descriptions.

Below is a list of the descriptions available for the HALO Smart Sensor integration:

💿 Help		?	×
This is the name the event is given when datab	ased or sent as an alarm. If th	his field is empty then the event nam	ne is used
The current triggers provide the following varia	oles:		
 msg_detected msg_event msg_lop msg_lope obj_aqi obj_co2cal obj_fmware obj_health_index obj_licensed obj_licensed obj_name obj_noize obj_pm10 obj_pm2 obj_ressure obj_rtate obj_tate obj_tagered obj_tvoc 			
Example usage: value=\$msg_detected			
(note the variable must be prefixed with a '\$')			
(note the variable must be prefixed with a '\$')			Clos



4.4 Triggers Tab

New Event

Perfe

standard triggers

trigger template

halo smart sensor 63

A trigger is a user-defined input, for example, the user may choose to define the trigger as a door opening on an access control system.

Once the user defines the *trigger*, it can be used to cause a subsequent action.

New	/ Event				
	New event				
	General	Triggers	Actions	Resources	
		<i>ard triggers</i> to ctions while <u>ar</u>		event lowing are true	2
		Description	n		

The user will need to click on the hyperlinks (depicted alongside) to set up the trigger.

The subsections below provide instructions.

4.4.1 Set the Device as the Trigger

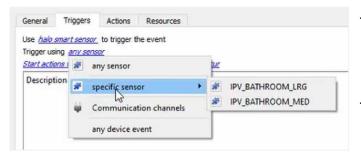
For a new event, the trigger type will default to "standard triggers". The user will need to change this to the HALO Smart Sensor system.

W Event Halo senso	r events		\rightarrow	To change the event trigger, click on "standard triggers" (the hyperlink after the word "Use").	
General	Triggers Actions	Resources		-	
Use <u>stand</u>	dard triggers to trigger th	e event		This will open a drop-down menu with more options.	

→ To set HALO Smart Sensor as the trigger, select the name from the drop-down menu.

4.4.2 Trigger Types (Trigger Using)

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



wing are true

→ Click on the hyperlink after the words "Trigger using".

This will open a drop-down menu.

 \rightarrow **Click an option** from the menu to select.

See the table below for descriptions of the options on the drop-down menu.

MENU OPTION	DESCRIPTION OF TRIGGER TYPE
Any [device]	This will trigger if anything happens on any device i.e. any sensor.
Specific [device]	This will trigger on the specific object chosen for example, IPV_BATHROOM_LRG.
Specific system	This will trigger if anything happens on a specific HALO Smart Sensor system
Any device event	This will trigger, initially, when any event occurs on the integration.



4.4.3 While/When and Any/All

The third row of hyperlinks further specifies when the event triggers. The user will choose to trigger either based on a *device event* occurring, or based on an *object property*.

Triggers	Actions	Resources	
smart sensor	Contraction of the second	ne event	
ing <i>any sens</i> ang when any		wing device events oc	7.15

To change these settings, click on the blue hyperlinks in the *third* row as shown in the image on the left.

The user can choose the option to:

- **start actions when** any of the properties meet user-configured *criteria*, or any user-configured *device events* occur, or
- perform actions while any/all of the properties meet user-configured criteria.

Start actions when	any of the following device events occur
<u>Start actions when</u>	any of the properties meet the following criteria
Perform actions while	any of the properties meet the following criteria all of the properties meet the following criteria

4.4.4 Define the Trigger ("Any Device Event" Option)

After using the hyperlinks to set up how the trigger will be defined, the user may proceed to creating a new *device* event.

One of these options is to select any of the following device events occur.

General	Triggers	Actions	Resources		
		to trigger t	the event		
Trigger usir	ng any sens	00			
		and the second second	wing device events occur		
	ns when any	<i>any</i> of the follo	wing device events occur the following device events occur the properties meet the following criteria	6	New

Pictured alongside is the **Triggers tab** where a user selects *any of the following device events occur*.

New

Click on **New** in the Triggers tab.

Clicking on New will bring up the New device event trigger dialogue box.



4.4.4.1 New Device Event Trigger

The user will then need to configure the new device event trigger.

ew device event trigger Configure settings		4
Event Message ~		
Schedule Always V The event must also match <u>any</u> of Description	the following rules	New
e comprision	~	Edit
		Delete

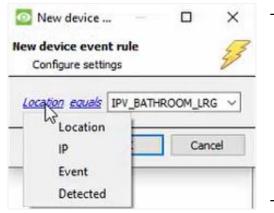
- \rightarrow Select the **type of Event** where applicable.
- → Choose a **schedule**.
- → Choose whether ^{any}, or ^{al} constraints need to be fulfilled to set off a trigger.
- → Use the new/edit/delete buttons on the right-hand side to add a device event rule (a constraint). Follow the instructions below.

4.4.4.2 New Device Event Rule

Note: From within the **New device event trigger** window (above), it is necessary to set further constraints. Multiple constraints can be set. If constraints are not defined, every device event will trigger this event.

New

→ To configure a New device event rule, **click on New** in the New device event trigger window.



This will bring up a further window, called **New device event rule**.

→ Change the constraint by clicking on the first hyperlink (which is "Location" in this example).

This will bring up the full list of available constraints. In the HALO Smart Sensor integration the following constraints are available:

Location, IP, Event, and Detected.

 \rightarrow **Click an item** to select it.



equals	ightarrow To modify the way this constraint will be treated, click on the
less than	second hyperlink (which is "equals" in the example). This will
less than or equal to	display further options.
not equal to	
greater than	
greater than or equal to	Click an option to select.

Next, the constraint must be defined. Follow the instructions below to do this.

Defining a Constraint: Drop-Down Menu or Written Description

When all available options are known to CathexisVision, a drop-down menu will appear alongside the chosen constraint.

New devic	e		×
lew device ev Configure se	and the second		3
Event equals	AQI	~	
[CO2cal Gunshot Health_Index Help Humidity NO2 PM2.5	an	icel
	THC TVOC Tamper	~	

→ Click an item from the drop-down menu to select.

Or, if the variables for a constraint are *not* predefined, fill them in manually.

4.4.5 Define the Trigger ("Properties Meeting Criteria" Option)

If the user has defined the trigger by choosing according to *properties meeting criteria*, the **New object property trigger** dialogue box will open.

- In these instances, further constraints do not need be set, since they are being added one at a time.
- This option is better if a few triggers have been selected.
- This is also true for groups, since a group may only be made up of one object type.

4.4.5.1 New Object Property Trigger: Configure Settings

gger	43
equal to 0.0°C	•
1	
OK	Cancel
	anan binb
UL-**	goes high
1.1.1	
	едие! to 0.0°С

- → Select the event type by clicking the first hyperlink.
- → Further define the rule by clicking the second hyperlink.



Defining a Constraint: Drop-Down Menu or Written Description

When all available options are known to CathexisVision, a drop-down menu will appear alongside the chosen constraint.

💁 New object property trigger		\times
New object property trigger Configure settings		23
<u>Temperature</u> less than or equal to 0.0℃ Schedule — Always ~	•	
OK	Can	cel
 New object property trigger New object property trigger Configure settings 		×
<u>Name equals</u> Schedule Always V		
ОК	Cano	el

→ If the variables are pre-defined, Select an item from the drop-down menu.

→ If the variables are *not* pre-defined, fill them in **manually**.

Note: Descriptions are *case sensitive* and must be identical to how they appear in the Object Properties tab.

4.5 Actions Tab

General	Triggers	Actions	Resources
De	scription		

Having defined the triggers that will initiate an event, the user will need to define Actions.

Select the **Actions tab** from the **New event** window.

One of the available actions will be to control a HALO Smart Sensor device.

4.5.1 Adding an Action



New

Record camera...
 Record trigger cameras...
 Control Halo smart sensor ...

Call base-station... Send email... I Play audio clip...

 \rightarrow To add an action, click New in the Actions tab.

A list of **available actions** will appear. The drop-down contains all the available **action types**.

→ Select an option, for example, Record Camera.



4.5.1.1 Actions: Record Camera

If the user has selected a new action to record camera, the following setup steps are required

Camera Advar	nced		
Camera	Bosch testing	~	
Database	Rec_db	\sim	
Recording channel	#1-H264_CAT (1536x864 30fps)	~	
Frame-rate	Full rate	\sim	
Record for	the duration of the event	\sim	
Pre-events	Osec	-	

Click the drop-down menus to see more options and click to select the appropriate option.

- → Choose the **camera** appropriate for the event.
- → Choose the **database** to which the video recordings will be saved.
- → Edit **Recording channel**, **frame rate**, and **recording duration** if necessary.
- → Next to pre-events, increase the amount of time when recording begins before the event.
- → Click **OK**.

4.5.1.3 Actions: Call Base-Station

If the user has selected a new action to call base-station, the following setup steps are required. Use the tabs along the top of the window.

Call base-station Call base-station Configure base-stations to call	- 0	×	→ Click the edit icon next to a base- station to configure.
Call base-station Alarm preview Add First try Test base-station ************************************	vanced		
 Edit Test base_station Edit Test base_station Edit Test base_station settings 	×		In the window that opens, edit or enter the name of the base-station and select the type .
Name Test base_station Type Cathexis IP address 127.0 .0 .1			Ensure that the correct IP address has been entered. This is the IP to receive the alarms on the specific unit.
OK Canc	el	\rightarrow	Click OK .

Call Base-Station Tab

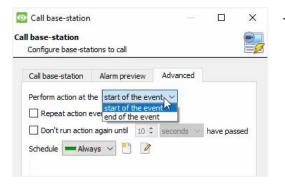


Alarm Preview Tab

Configure base-stations to call		 -2
Call base-station Alarm preview	Advanced	
Enable alarm preview		
Cameras		
Camera 1 select camera 🗸		
Camera 2 Cam 01 Cam 02		
Camera 3 select camera		
Camera 4 - select camera - 🗸		
Use trigger cameras		
Settings		
Number of pre-event images 2		
Number of post-event images 3 🔹		
Indude trigger info		

- → Click the checkbox to Enable alarm preview.
- \rightarrow Select an appropriate camera/s.
- \rightarrow Click OK.

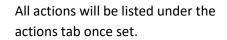
Advanced

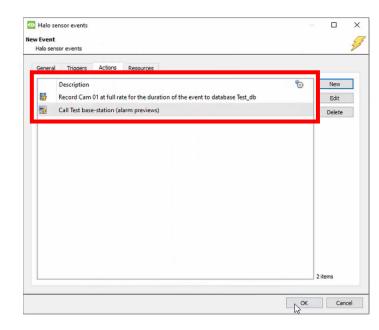


→ From the Advanced tab, **choose** to *perform the action* either at the start of the event, or once the event triggers have subsided.

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.

→ Select the schedule. This is a standard Cathexis schedule, which may be applied to the actions.







4.6 Resources Tab

General	Triggers	Actions	Resources	
Cameras		Audi	o input	3
select o	amera 🔹	- se	lect audio input	-
select o	amera 🔹	Audi	o output	
select o	amera 🔹		ect audio output	•
select o	amera 🔹	•		
select o	amera 🔹	•		
select o	amera 🔹	•		
select o	amera 🔹	•		
select o	amera 🔹			

In the Resources tab, users can select the cameras, audio input, and audio output to be used.

The default is to select "Use trigger resources."



5. Camera Tab Overlay Setup

Once all the relevant settings have been configured, the fence system *overlay* can be pulled through over the appropriate camera feed.

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

5.1 Navigate to the Cameras Tab

Site	Video wall	Tools	Settings	Help	
6	Open tab		I	•	Cameras
🏀 (Close site's tab)S		8	Databases
8	Change passw	ord			Мар

To see the camera feeds, go to the Cameras tab by following this path.

Site / Open tab / Cameras

5.2 Video Feed Options Panel



To bring up the overlay, click the arrow to the left of the screen.

This will pop out the Video feed options panel.

The Video feed options panel will present options specific to the settings that have been configured.

Right-clicking on the feed will also bring up the overlay option as shown below.

Video format View transform	+				
Overlays	•	28	IPV_BATHROOM_MED	•	Sensor overlay
Show live graph		28	Bosch testing motion	•	Configure overlays
Help			Enable default overlays		, and the second s
Switch to review			Disable all overlays		
Export snapshot					
Shrink panel					
Resize panel	۲				
Show source graph					
Show source text					
Clear panel					
Cameras fullscreen					
Open motion heatma					

Through the right-click option, one can select the overlay and it will appear over the video feed, as above.

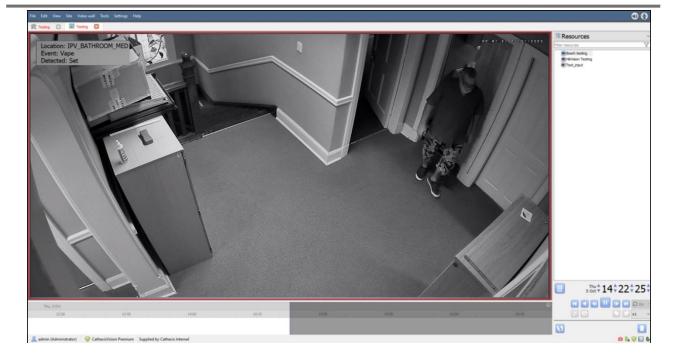
5.2.1 Select the Overlay



- $\rightarrow~$ Clicking this icon will bring up the overlay options for this video feed.
- → Select the device and enable the overlay.

The overlay will appear over the video feed, as below.





5.3 Enable Overlays from the Database

 \rightarrow Click this arrow on the central panel of the database.





- → Select the overlay icon on the left side of the camera player screen.
- → A red dot indicates that the overlay is enabled.



The overlays will appear as configured by the user.

For this integration the overlay is configured to show the device name (Location), event type (Event), and status (Detected) of the selected database entry.



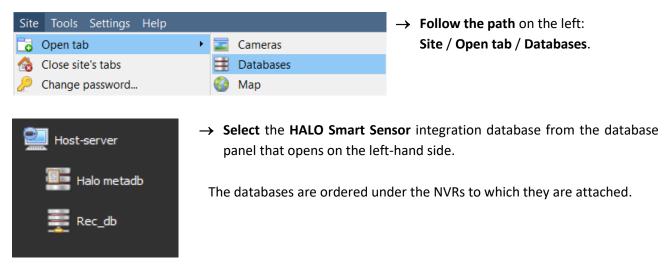
6. Database

The Databases tab allows the user to navigate to the databased entries for each individual database. In the Databases 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 Databases tab.

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

6.1 Navigate to the Database

To view information stored in the Integration, first navigate to the Databases Tab:



Below is an image of a HALO Smart Sensor database.

Time	Location	IP	Event	Detected	Links
2023-05-09 15:30:35	IPV_BATHROOM_LRG	10.1.6.144	Motion	Reset	۲
2023-05-09 15:30:56	IPV_BATHROOM_LRG	10.1.6.144	Motion	Set	۲
2023-05-09 15:32:03	IPV_BATHROOM_MED	10.1.6.215	TVOC	Reset	
2023-05-09 15:58:34	IPV_Hall_Ceiling	10.1.6.225	Aggression	Set	
2023-05-09 15:58:44	IPV_Hall_Ceiling	10.1.6.225	Aggression	Reset	
2023-05-09 16:02:41	IPV_Hall_Ceiling	10.1.6.225	CO2cal	Set	
2023-05-09 16:02:52	IPV_Hall_Ceiling	10.1.6.225	CO2cal	Reset	



6.2 Database Interface

View	Events	\sim sorted by	Time	~	Q No EasySearch ∨	Y 🛛 🖸
	1		2		3	456
Goto	Timestamp	2022-06-24 1	0:14:51	€ →(7)		

1	Change the way that the database is presented. Some integration databases have multiple view options.				
View	Click the field to see the available options in the drop-down menu.				
	The database view presentation available for the HALO Smart Sensor integration is: • Standard				
2 Sorted By	Sort the Events based on the following parameter: Time.				
Sorted By	Easy Search options allow quick searching of the database.				
3	Click the field to see the queilable entires in the dury devue means				
Easy Search	Click the field to see the available options in the drop-down menu.				
	The following options are available: • Time				
	Location IP				
	• Event				
	Event detected				
	Detected				
4 Filter	Filter offers a more advanced manner of sorting information in the Integration Database table.				
	For this integration the database can be filtered according to:				
	 Filter Time Location IP Event Detected 				
1	Once the filters dialogue is open, the following options are available:				

CATHEXIS

	1. To enable filters, check this box: I Enable filters				
	2. To add a new filter, click on $\overline{}$.				
	The filter icon \overline{M} will change to \overline{M} when filters are active.				
	3. To delete an added filter, click $\mathbf{\overline{6}}$.				
	A Time range, within which the search will be conducted, may also be set.				
	To set a Time range, click on the blue hyperlinked text which specifies time (e.g. in the week to date). This will bring up the following dialogue box, where the time range can be defined:				
	Set time range ? X				
	Time range is				
	● Preset Week to date ∨				
	O Specific From 23 ♀ June ∨ 2022 ♀ 08 ♀ 00 ♀ 00 ♀				
	to 23 🖨 June 🗸 2022 🖨 08 🖨 00 🖨 00 🖨				
	○ Previous 1				
	○ Period of 1 → Hours ✓ from 00h00 ✓ 23 → June ✓ 2022 →				
	OK Cancel				
	 Note: Multiple filters may be run simultaneously. Filters with the same parar may be run more than once. To change a filter, click on the blue hyperlinked text. 				
5 Export	Generate metadatabase reports in PDF or CSV format. See below.				
6 Manage Reports	Generate scheduled metadatabase reports. See below.				
7	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.				
Go to Time	Then, click on the arrow icon.				

6.2.1 Generate and Export Metadatabase Reports



 $\rightarrow~$ Click the save icon to open the Export window.



Export		? >	< _	Select the Period to export and enter
Select the period	d to export			the required details.
Preset	Month to date \checkmark			
O Specific	From 23 🗘 June 🗸 2022 🖨 08 🖨 00 🌩 00 🖨		-	Click Next.
	to 23 🖕 June 🗸 2022 🌲 08 💭 00 🌩 00 🖨			
O Previous	1 🗣 Hours 🗸			
O Period of	1 🗣 Hours ∨ from 00h00 ∨ 23 🗣 June	✓ 2022 ♣		
	Back	Next		
Export		? >	× _	Select the Format to export the report
Configure the re	eport			in; either CSV or PDF.
Format CS				
Filename C:/	Program Files/CathexisVision Server/report.csv			
			S	ee below for the two options.
	Back	Export		

6.2.1.1 Export CSV

Format	CSV	\sim
Filename	C:/Program Files/CathexisVision Server/report.csv	

- \rightarrow Select CSV Format.
- → Edit the **Filename** by entering it into the text field (replacing **report.csv**).
- Or, click the folder to choose a new save folder and filename.

6.2.1.2 Export PDF

Format PDF	\sim
Heading	
Orientation Portrait ~	
Filename C:/Program Files/CathexisVision Server/report.pdf	

- \rightarrow Select PDF Format.
- \rightarrow Give the PDF a **Heading**.
- → Select either Landscape or Portrait **Orientation** of the PDF.
- → Edit the **Filename** by entering it into the text field (replacing **report.csv**).
- Or, click the folder icon to choose a new save folder and filename.



6.2.2 Scheduled Metadatabase Reports

 \rightarrow Click the report icon to open the scheduled report window.

💿 Manage rep	oorts	?	\times
Add	Edit	Ren	nove
Report			

- All created reports will be listed here.
 - \rightarrow Click **Add** to create a report.

→ Then **edit** to define the reporting schedule. See below for more detail.

6.2.2.1 New Scheduled Report

☑ Manage reports ? ×	→ In the Manage reports window, click Add.
Add Edit Remove	
CathexisVision ? ×	→ Give the report a description.
Enter a report description	→ Click OK .
OK Cancel	
🙆 Manage reports ? X	The item will appear in a list.
Add Edit Remove	
Bathroom Sensor Report	

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

Schedule

→ Either right-click the entry and select schedule or **select the entry** and **click the schedule button** at the bottom of the screen



Cathexi	sVisio	on			?	×	\rightarrow Edit the Description if needed.
Description							\rightarrow Edit the View options.
View	1	Standard 🗸 🗸					→ Select a Sorted by option.
Sorted by	1	Access Event Time $$	Y				\rightarrow Select the Format .
Format		PDF ~					ightarrow Select the orientation of the Format
PDF orienta	ation	Portrait ~					\rightarrow Select the Period to be reported on.
Period	Monti	h to date		Edit) Define the Cabadula for the report
Schedule	Week	dy on Monday at 07:00		Edit			\rightarrow Define the Schedule for the report.
Recipients			-	Add	Remo	ve	\rightarrow Select Recipients from the drop-
			Г	ОК	Car	ncel	down menu to whom reports will be sent.

Add/Remove Recipients

Use the icons to edit the drop-down menu.

Add recipient	Add	Click Add and enter the email address of the recipient. Multiple recipients may be added. All will receive emails.
Remove recipient	Remove	Select the recipient from the drop-down menu and click Remove .

6.2.3 Metadata

Time	2023-05-10 14:22:58
Location	IPV_BATHROOM_LRG
IP	10.1.6.144
Event	Tamper
Detected	Set

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

6.2.4 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. See the image below.



Testra C Streating C B Testra C		
New Standard v sorted by Tane v	٩	-to taylearth
Time Location IP Event	Detected Unio	Time 2023-00-06 02:04:48 Location IPV_BATHROOH_MED
2023-10-05 09:48:58 JPV_BATHROOM_MED 10.1.6.215 TVOC		IP 10.1.6.215
2023-10-05 09:50:21 JPV_BATHROOM_MED 10.1.6.215 TVOC	and a	Event Tanper
2023-10-05 10:13:29 \$PV_BATHROOM_HED 10.1.6.215 Health_3rdex		DetectedReset
2023-10-05 10:42:43 JPV_BATHROOM_MED 10:1.6.215 TVOC	et	
2023-10-05 10:43:13 IPV_BATHROOM_MED 10.1.6.215 TVOC		
2023-10-05 13:59:06 IPV_BATHROOM_MED 10.1.6.215 HumidRy	Detected Set	
2023-10-05 13:59:36 JPV_BATHROOM_MED 10.1.6.215 Humidity	and •	
2023-10-05 14:10:51 PV_BATHROOM_MED 10.1.6.215 TVOC		
2023-10-05 14:11:23 IPV_BATHROOM_MED 10.1.6.215 TVOC		
2023-10-05 14:15:09 JPV_BATHROOM_HED 10.1.6.215 Humidity		
2023-30-05 14:21:08 PV_BATHROOM_MED 30.1.6.215 Humidity		
2023-30-05 15:04:58 PV_BATHROOM_MED 30.1.6.215 Humidity		
2023-30-05 15:09:50 JPV_BATHROOM_MED 30.1.6.215 Humidity		
2023-10-05 15:12:12 PV_Hel_Celling 10.1.6.225 C03cal		
2023-10-05 15:35:25 JPV_Hall_Ceiling 10.1.6.225 Health_Undex		
2023-10-05 15:49:31 IPV_Hall_Celling 10.1.4.225 Health_Jindex		
2025-10-05 16:07:21 PV_BATHROOM_MED 10.1.6.215 Humidity		
2023-10-05 16:07:51 PV_BATHROOM_MED 10.1.6.215 Humidity		
2023-10-05 16:52:30 IPV_BATHROOM_MED 10.1.6.215 Humdry		
23-10-05 16:53:03 IPV_BATHROOM_MED 10.1.6.215 Humidity		
23-10-05 17:34:15 IPV_Hall_Celling 10.1.6.225 C02cal	teet •	
2023-30-05 18:17:00 PV_BATHROOM_MED 10.1.4.215 Temp_F		
2023-10-05 20:47:30 PV_BATHROOM_MED 10.1.6.215 TVOC		
2023-10-05 20:48:00 PV_BATHROOM_MED 10.1.6.215 TVOC		
2023-10-05 21:03:14 PV_BATHROOM_MED 10.1.4.215 TVOC		
2023-30-05 21:03:45 PV_BATHROOM_MED 10.1.6.215 TVOC	hart •	
2023-10-05 21:19:00 PV_BATHROOM_MED 10.1.6.215 TVOC		
2023-10-05 21:55:13 PV_BATHROOM_MED 10.1.6.215 Health_Index		
2023-10-06 02:04:16		
2023-30-06 02:04:17 IPV_Hal_Celling 30.1.6.225 AQ5		
2023-10-06 02:04:19 3PV_Hall_Celling 10.1.6.225 Help		
2023-10-06-02:04:26 JPV_Hall_Celling 10.1.6.225 Aggression	laart 🖷	
2023-10-06-02:04:27 IPV_Hall_Celling 10.1.4.225 AQL	leet 💼	
2023-10-06 02:04:29 JPV_BATHROOM_HED 10.1.6.215 C020#	let 🖷	
2023-10-06-02:04:33 JPV_BATHROOM_HED 10.1.4.215 Vide	et 🖷	
2023-10-06-02:04:38 PV_BATHROOM_MED 10.1.4.215 Tamper	et	
2023-10-06 02:04:40 JPV_BATHROOM_MED 10.1.6.215 CO2ual		
2023-30-06 02:04:40 PV SATHROOM MED 30.1.4.215 NO2		
2023-10-06 02:04-42 IPV BATHROOM MED 10.1.4.215 Humdry	Beech Barry	
2023-10-06-02:04:44 JPV_BATHROOM_MED 10.1.6.215 Vape		
2023-10-06-02-04-48 JPV_BATHROOM_MED 10.1.6.215 Tamper		
2022-10-06 02:04:50 BV_BATHROOM_MED 10.1.6.215 NO2	wet • • • • • • • • • • • • • • • • • • •	
Goto Time 2023-30-06 08:04:57 🔹 🔿		
🚨 admin (Administrator) 🛛 🥪 Cathexistilision Premium Sup	and by Cathesis Internal	0 1 3 9 2 4

To view an associated recording, simply left-click on a database entry which has the camera icon in the Links column.

Then click **play** in the video player.



7. Maps

It is possible to add the HALO Smart Sensor device to a site map, which will allow for a number of action options when zones/partitions are triggered. These options include the animation of triggered zones and connecting to site cameras when zones are triggered, etc.

Note:

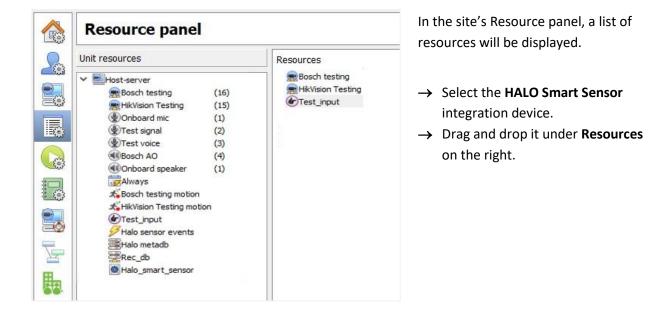
- This section will only deal with the specifics of the HALO Smart Sensor Integration. For more information on using the CathexisVision Map Editor and Map Tab, please consult the dedicated and detailed *Map Editor Operation Manual*.
- The CathexisVision Map Editor is only available on **Windows** operating systems.

7.1 Add HALO Smart Sensor Device as a Resource

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

7.1.1 Add the Device in the Resource Panel

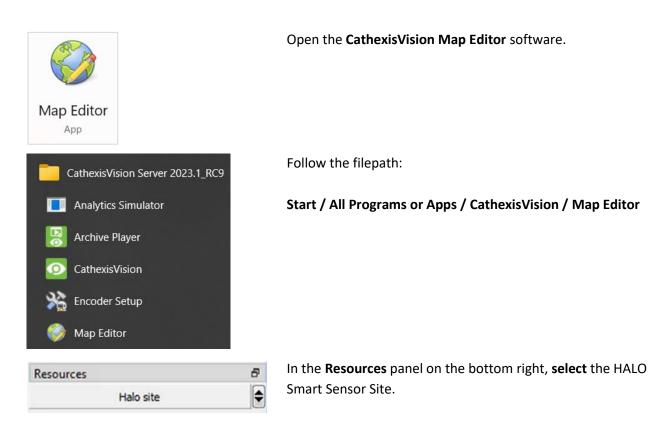
Site	Video wall Tools Settings I	Help	→ Navigate to the Resource Panel by following:
Co	Open tab	Cameras	
6	Close site's tabs	Databases	Site / Open Tab / Setup / Configure resource Panel
8	Change password	🍪 Map	
8	Change login Go offline	SS Settro	\rightarrow Click the Configure Resources icon.



The HALO Smart Sensor integration device will now be listed as a Resource in the Map Editor.



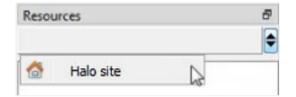
7.2 Configure Map Editor

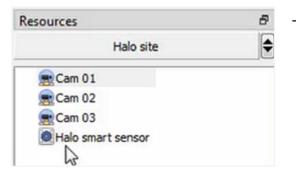


The HALO Smart Sensor integration device will then be listed as a resource underneath.

7.2.1 Add the Device in Map Editor

Once the HALO Smart Sensor device has been added as a **Resource** in CathexisVision, the HALO site will be available for connection in the **Resources** panel in the bottom-right corner of the Map Editor.



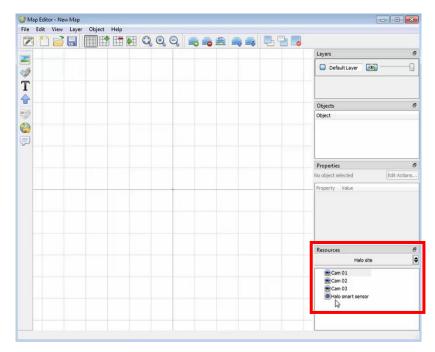


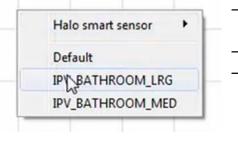
- → At the bottom right-hand of the Map Editor screen, click the drop-down menu to select the site to connect to.
- → Once connected to site, all the resources available will populate the panel below.



7.2.2 Add Device Objects

The Map editor will appear as below, with the selected site and resources appearing in the bottom right.





hà

→ Drag the **HALO Smart Sensor** device from the Site Resources list onto the **map area**.

→ All the **HALO Smart Sensor** device objects will appear in a list.

- → Select an object.
- \rightarrow The selected object will appear on the map.

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

7.2.3 Add a Polygon

Some Actions require a polygon to show the action.

BATHROOM LRG



1. Select the draw icon in the icons bar on the left to begin creating a shape.



	20,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
■ * * * * * * * * * * * * *	ГЛ
Objects	🗗 🛛 The polygon will no

. Use the mouse to draw the sides of the polygon (i.e., shape) on the map interface.

The polygon will now be listed under **Objects** on the right.

7.2.4 Adding and Editing Device Actions

→ To add or edit actions to the device objects, either:



Right-click the map object and select Edit actions.

Select the object on the map and click **Edit Actions** (in the Properties panel on the right)

This will open the **Actions window**.

On Left Click	On State Change	On Event	may be set for Left/Right-Clicks, State
Filter Action	Details	<u> </u>	Changes and Events.
			→ To create a new action, select New
New Edit	Delete	 	

7.2.5 Action Options

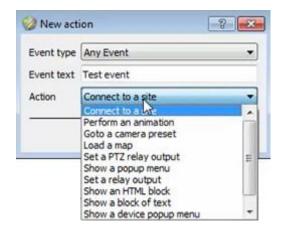
The action triggers will differ according to the object selected, as well whether the action is being set for a Click, State Change, or Event. In the HALO Smart Sensor Integration, Actions may only be set for **Events**.



7.2.4.1 On Event Tab

Event type	Message		
Event text	Message		
Eren en	Any Event		
Action	Connect to a site		

Event text Test event



→ Select the event type of the device object which will trigger the map action.

For this integration the available event types are: **Message** and **Any Event**

- → Enter Event text which will appear on the map when the selected event triggers this map action.
- → Select the map action which will be triggered by the device object event.

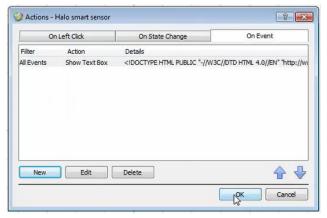


Note: Some actions such as Show Text Block will require a further step of setup

Halo smart sensor event detected!	

 \rightarrow Setup as desired.

All set actions will appear under the On Event Tab in the Actions window as shown below:



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



7.3 Save Map

Once finished, save the map.

🤣 Map Editor - New Map	\rightarrow In map editor click the Save icon.
File Edit View Layer Object Help	
Save File Dialog \leftarrow → \checkmark ↑ \frown C Search Halo Smart Sensor \checkmark C \bigcirc Search Halo Sm	
Organize 🔻 New folder	\equiv \bullet Give the map a name.
✓ ■ Date modified Type	Size \rightarrow Click Save.
> E Desktop No items match your search.	
> Documents	
> 💆 Downloads	
> 🕑 Music	
File name: Halo Map 1	~
Save as type: Map Files (*.map)	~
∧ Hide Folders Save	Cancel

Note: **NB** - The map <u>**must not be saved**</u> in the Work folder of the installation directory.

7.4 CathexisVision Map Tab

The saved map now needs to be uploaded to CathexisVision. Once opened in CathexisVision, all objects added to the map area in the Map Editor will be visible on the map, and all actions set will be available.

ile	Edit	View	Site	Map	Tools	Settings
	Site name	Te	Change	e login		Setup
8	General	site se		ite's tabs e password		DatabasesMap
	🕸 Test	-	O Open ta	ab		Cameras

- → Navigate to the Map tap by following the filepath:
 Site / Open tab / Map
- → Once the Map tab is opened follow the filepath: Map / Add site map



🖸 Add Map	? ×	The Add Map window will open.
Map Advanced Map file C:/Users/Public/Documents/Halo smart sensor files/Map 1.map Map name Test Map1		→ Click the icon to retrieve the Map file from its location.
		→ Give the map a descriptive name.
		→ Click OK .
c	Ok Cancel	

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.



8. Conclusion

This document was designed to deal specifically with this integration. For further information about the CathexisVision software, consult the main manual (<u>https://cathexisvideo.com/</u>).

For support, email support@cathexisvideo.com.

USEFUL LINKS

To view tutorial videos on CathexisVision setup, visit <u>https://cathexisvideo.com/resources/videos</u>

Find answers to Cathexis Frequently Asked Questions: https://cathexis.crisp.help/en/?1557129162258