



Maxxess Access Control Integration App-note

6 September 2022

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1. Introduction

This document details the integration of the Maxxess Access Control software with CathesisVision. Functionally this integration will entail the triggering of standard CathesisVision Events, based on information received from the software.

The CathesisVision Maxxess integration communicates via TCP socket (port 1705) with the MultiPort Module of the Maxxess eFusion software to monitor events and control the system.

This integration runs on Windows or Linux.

Note:

1. For information regarding the regular operation of a Maxxess device, please consult the relevant documentation.
2. There is a General Integration section in the main *CathesisVision Setup Manual*. It contains information about creating an integration database, as well as a general introduction to the Integration Panel. **Read over this section.**

1.1 Requirements

1.1.1 General Requirements

- CathesisVision 2018.2 or later.
- Windows or Linux operating system.

1.1.2 CathesisVision License Requirements

License No.	License Name	Description
CMXX-2000	Device License.	This license is the “base” license to integrate with an access control system. It is applied to the server to which the access control device is connected. It will allow for the connection of a single Maxxess access control system.
CMXX-1001	Single reader license.	These licenses apply to the doors, or readers, in an access control system. The CMXX-1001 will license a single door/reader, and may be added on a door-by-door basis.
CMXX-3000	Bundle License.	This license includes the CMXX-2000 Maxxess device license, and also provides support for unlimited CMXX-1001 reader licenses.

Note:

1. Either purchase the bundle license, or **both the device and reader license.**
2. Individual devices (readers) will require a license for each device.

A NOTE ON CAMERA CHANNELS

The CathesisVision software packages have **limits on camera channels**. A multi-sensor camera is physically a single device (camera) but it **requires a camera channel for each one of the internal cameras**. The same applies to an encoder: a 16-channel encoder will account for 16 camera channels on the CathesisVision software, even though it is a single device. Even when a camera or device only uses a single IP license, the camera channel limit will still apply.

1.2 Specifications

The following were used in this integration:

- eFusion Software version 6.0.x (including associated eAXxess database).
- MultiPort Module of eFusion Software.
- Workstation Software (included in eFusion).

1.3 Integration Components

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

Device The device is CathesisVision software's interface, which handles all the interaction between CathesisVision and the integrated hardware. When an integration is added to the CathesisVision system, a device is added. The messages received from the device are called Device Events.

Objects Objects are the individual pieces of hardware that comprise the integration. There may be multiple "object types" under the objects group. For example, the main controller and door nodes of an access control system are both objects. They are different types of objects.

1.4 Features and Abilities

This section indicates the features/abilities of the Maxxess Access Control software when integrated with CathesisVision.

1.4.1 General Device Features

- The CathesisVision Maxxess integration communicates via TCP socket (port 1705) with the MultiPort Module of the Maxxess eFusion software to monitor events and control the system.
- CathesisVision Maxxess integration driver connects to the corresponding eAXxess database to retrieve default objects and their states.
- All device messages are databased as Access events, security events and information event messages.

- Reader objects support overlays indicating door status, access granted/denied, cardholder photo, and request to exit messages, among others.
- Device objects can be used to trigger events, and reader objects can be controlled as event actions.

1.4.2 Device Objects

Objects are populated automatically as soon as communication between the CathesisVision unit and the eFusion software is established.

Object Type	Abilities
<p>General</p>	<ul style="list-style-type: none"> • This integration has Door, Reader, and Panel objects. • Door objects can be commanded as an action of a CathesisVision system event. • Events on the device can be used to trigger CathesisVision system and map events. • Door objects support overlays. • Objects may be linked to cameras to associate device events with video footage.
<p>Door</p>	<ul style="list-style-type: none"> • Name of door. • Precise state. • State. <p>Object Properties</p> <ul style="list-style-type: none"> • Unknown. • Valid access. • Closed. • Forced. • Fault (open). • Held open. • Closed (force). • Fault (shot). • Lock down. • Locked. • Unlocked. • Allow access. • Command Discarded. • Online. • Offline. <p>States</p> <ul style="list-style-type: none"> • Allow access. • Clear lockdown. • Lock door. • Lockdown. • Unlock door. <p>Command</p>
<p>Reader</p>	<ul style="list-style-type: none"> • Name of object. • Precise State. <p>Object Properties</p>

		<ul style="list-style-type: none"> • State. • Enabled. • Licensed.
Panel	Object Properties	<ul style="list-style-type: none"> • Name. • Precise State. • State.

1.4.3 Device Events

The CathesisVision Maxxess integration generates Access Control Events, which are triggered on the device and reflected in CathesisVision.

Event Element	Features/Abilities
General	<ul style="list-style-type: none"> • Events triggered on the device are sent to CathesisVision. • Device event types are Door, Panel and Reader.
Device Event Types	Door <ul style="list-style-type: none"> • Denied Access (Voided card). • Valid Access. • Lockdown. • Lockdown clear. • Allow Access. • Unlocked. • Locked. • Denied access (reader disabled). • Door forced. • Sensor open. • Door closed (forced). • Sensor closed. • Request to exit. • Door held open. • Door closed (held open).
	Panel <ul style="list-style-type: none"> • Revision. • Communication lost. • Communication back.
	Reader <p>No reader events received from Maxxess.</p>
CathesisVision Event Actions	<p>Events generated by the device are reflected in CathesisVision, and can be used to create CathesisVision system events.</p> <p>A door object may be controlled via a CathesisVision event action to perform one of the following commands:</p> <ul style="list-style-type: none"> • Control Door object: <ul style="list-style-type: none"> ○ Allow access. ○ Clear lockdown.

1.4.4 Metadatabase

A unique metadatabase is created on the CathesisVision 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
General	<ul style="list-style-type: none"> • All device events are databased. • Database entries include the footage from cameras linked to device objects. • Multiple cameras may be linked to multiple objects. • Device event metadata is displayed where applicable. • Databased device events may be viewed in the embedded video player, which includes the usual CathesisVision video review tools.
View Options	<ul style="list-style-type: none"> • Events. • Panel Events. • Door Events. • Reader Events.
Sort Options	<ul style="list-style-type: none"> • Device event time.
Easy Search	<ul style="list-style-type: none"> • Type. • Name. • Detail. • Priority. • Badge. • Department. • Address. • Event Type.
Filter	<ul style="list-style-type: none"> • Timestamp. • Type. • Object name. • Detail. • Priority. • Badge. • Department. • Address.
Export	Database entries may be exported in CSV and PDF format.

USEFUL LINKS

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

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

2. Configure the Maxxess eFusion Software and eAXxess Database

The Maxxess eFusion software needs to be configured to send event information to the CathexisVision server. The configuration steps below take place during the installation of the eFusion software.

2.1 Workstation Feature Installation

During the installation process, workstation features need to be selected for installation in the Feature Installation window. Please consult the Maxxess documentation for more detailed information on this section. For the purposes of integration with CathexisVision, the following components need specifically be installed:

- Microsoft SQL Server,
- Workstation,
- MultiPort Integrators (API).
- The MultiPort Module Software gets installed during installation.

2.2 Configure SQL Server (eAXxess) Database

The Maxxess eAXxess database is configured during installation, and the following details should be noted for implementation during integration setup in CathexisVision:

- Database server name,
- Database server IP address,
- Database username,
- Database password,
- Database port number.

Once the database configuration is complete, the installation wizard will present the Communication Module Configuration window.

Note: The Database port number is not defined. To find the port number for the SQL server, open **Task Manager / Open Resource Monitor / Network tab** and locate the listening port for the sqlserver.exe process.

2.3 Configure MultiPort Communication Module

In the Service Control window, the MultiPort Communication Module is selected from the Module drop-down menu for installation.

The eFusion software is a distributed system consisting of modules that communicate with the hardware and modules that provide a user interface for the operator. The primary communication module is MultiPort, which interfaces with Area Controllers, Doors Controllers and with third party devices such as alarm panels

and CCTV devices. MultiPort operates as a Windows Service and thus continues to operate even if the workstation is logged off.

Note: MultiPort must be installed on the unit which is to connect to CathesisVision.

2.4 Install WorkStation Software Installation

The Workstation Software is required and must be installed on the same unit as the MultiPort Communication Module.

Double-click the Setup Application to open the software and login with default system administrator details. These details can be changed at a later time. Please consult Maxxess guide for information.

Default login for installation of workstation software:

Username: Master

Password: N/A (blank)

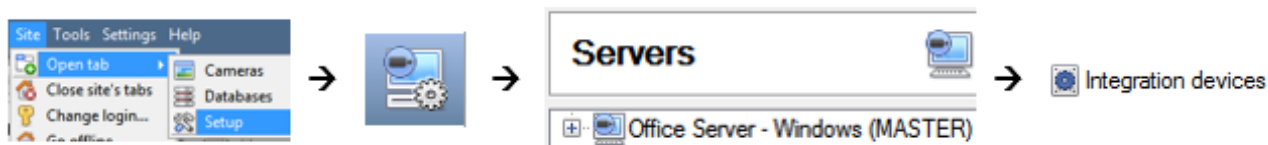
Note the above details for implementation in the CathesisVision integration setup.

3. Device Addition

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.

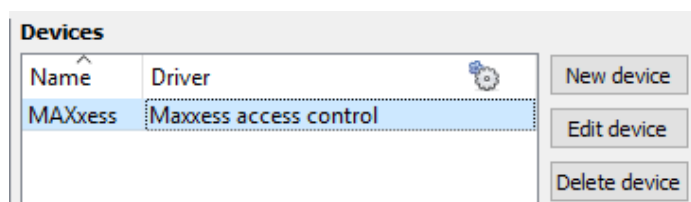
3.1 Integrations Panel

To get to the Integration Panel, follow this path: **Site / Open tab / Setup / Configuration icon / Server / Integration devices**.

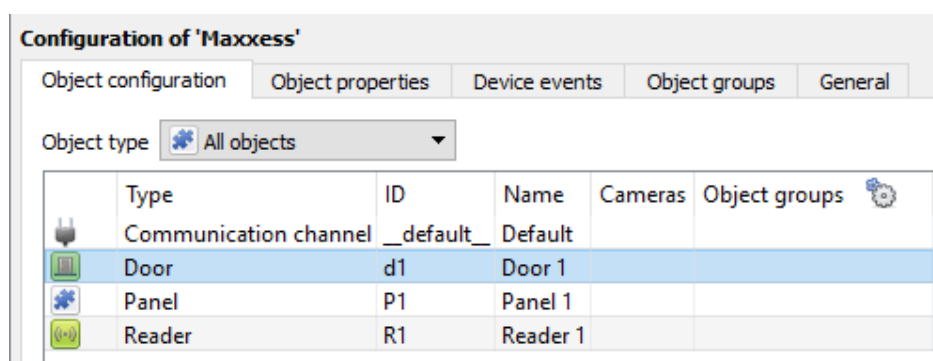


There are two sections in the Integration Panel:

1. The **Devices** list shows the integration devices attached to the integration database.



2. The **Configuration** section enables editing/reviewing the device selected in the **Devices** section.



3.2 Add New Device

1. Once in the Integration Panel, click on the **New device** button, in the Devices section. This will open the addition dialogue.
2. Select the **Maxxess Access Control** driver.

3. Give the device a descriptive **name**.
4. Enter the **Connection details** for the server on which the MultiPort Communication Module is running.

By default, the MultiPort software listens on **port 1705** for establishing a communication link for control and monitoring.

5. Enter the **Settings** details, outlined below.
6. Click **Finish** when done.

3.2.1 Settings Details

Operator username and password: Use login details as noted during installation of Workstation Software ([section 2.4](#)). Default details are Username: Master

Password: Leave blank (unless changed).

Database Details: Enter the details as noted down during the configuration of the SQL server ([section 2.2](#)). See note below.

Database poll rate: Set intervals at which CathexisVision will read information from the eAXxess database. Once the device has been added and configured, select it in the **Devices list** and all the objects will automatically populate the **Configuration Section**.

Note:

The Database port number is not defined. To find the port number for the SQL server, either:

- Open **Task Manager / Open Resource Monitor / Network tab**, and locate the listening port for the sqlserver.exe process.
- Or, obtain the SQL database port from the **SQL Server Configuration Manager**. See the image on the following page. This option may be preferable.

Sql Server Configuration Manager

File Action View Help

SQL Server Configuration Manager (Local)

- SQL Server Services
- SQL Server Network Configuration (32bit)
- SQL Native Client 11.0 Configuration (32bit)
 - Client Protocols
 - Aliases
 - SQL Server Network Configuration
 - Protocols for MAXXESS
 - SQL Native Client 11.0 Configuration

Protocol Name	Status
Shared Memory	Enabled
Named Pipes	Disabled
TCP/IP	Enabled

TCP/IP Properties

Protocol IP Addresses

TCP Dynamic Ports	0
TCP Port	
<input checked="" type="checkbox"/> IP6	
Active	Yes
Enabled	No
IP Address	:::1
TCP Dynamic Ports	0
TCP Port	
<input checked="" type="checkbox"/> IP7	
Active	Yes
Enabled	No
IP Address	127.0.0.1
TCP Dynamic Ports	0
TCP Port	
<input checked="" type="checkbox"/> IPAll	
TCP Dynamic Ports	49690
TCP Port	

Active
Indicates whether the selected IP Address is active.

OK Cancel Apply Help

4. Configure the Device in CathexisVision

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

The Maxxess device objects will populate as soon as communication is made with the software.

4.1 Object Configuration Tab

The object configuration tab is the tab where the individual objects that comprise the integration may be viewed. The Maxxess integration objects are Door, Panel and Reader objects.

Door objects support overlays.

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

Configuration of 'Maxxess'

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

Object type: All objects

	Type	ID	Name	Cameras	Object groups	License
	Communication channel	__default__	Default			
	Door	EVERT-W10-VM1.R0.0.1	Panel1-d01		doors	
	Door	EVERT-W10-VM1.R0.0.2	Door2	ShopCam	doors	
	Panel	EVERT-W10-VM1.R0.0.0	Panel1			
	Reader	EVERT-W10-VM1.R0.0.1	Sensor1			
	Reader	EVERT-W10-VM1.R0.0.2	Sensor 2			

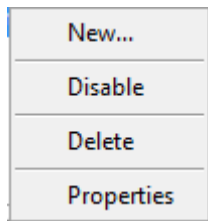
4.1.1 Object Configuration Buttons

	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.

Note:

The Door, Panel and Reader objects are automatically created as soon as communication between the CathexisVision unit and the eFusion software is established. Additional Panel and Reader objects must be created in the Maxxess software in order to function correctly.

4.1.2 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.

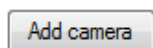
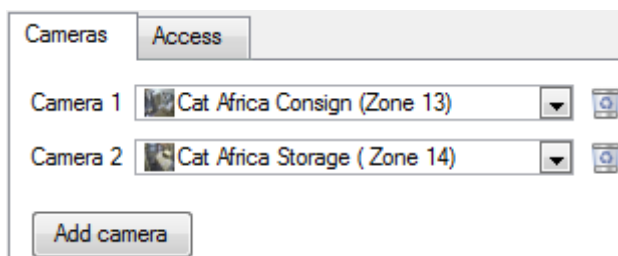
4.1.3 Edit Object

Use the Object configuration tab to make changes. Open the object editing window by selecting an object from the list, and clicking the **Edit button**, or **right-click 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**.

4.1.3.1 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.



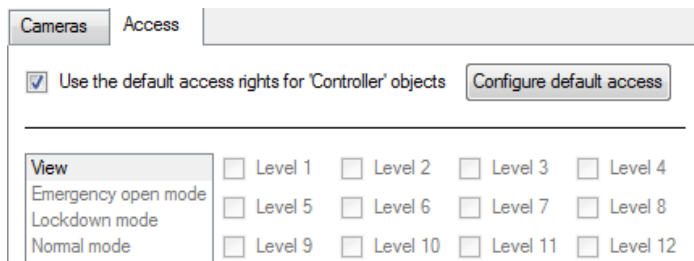
To **add** a camera, click Add camera, and select the relevant camera from the drop-down menu.



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

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.

4.1.3.2 Properties: Access



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

4.1.4 Configure Overlays

Overlays are supported for Door objects. Overlays may be configured globally for **all doors**, or they may be configured for a single door.

See below for how to open the overlay configuration window for global or specific overlay configuration. Thereafter, the overlay configuration window looks the same for both options.

4.1.4.1 Configure Global Overlays

The object configuration tab has a drop-down menu alongside a settings icon:

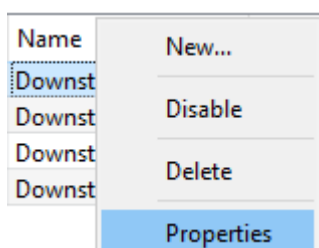


Select the door object from the Object type drop-down menu and click the **Default Settings icon**.

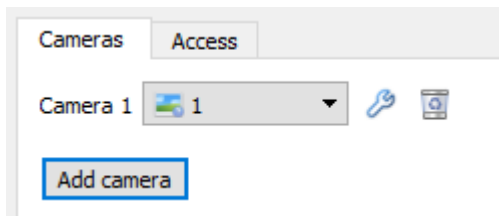
Select the Overlays tab.

Note: *Door unlock time* is explained below.

4.1.4.2 Configure Overlays for Single Object



Right-click object and select **Properties** to edit the object.

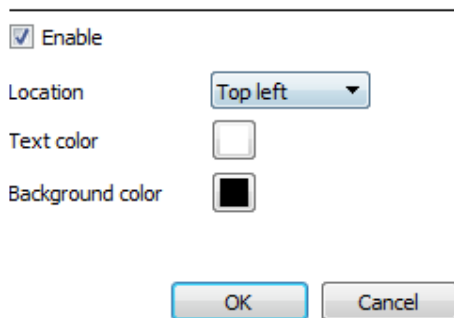


Add a camera to the object, and then click the settings icon that appears next to the camera name.

Note: This option only appears for door objects.

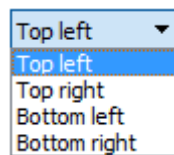
4.1.4.3 Overlay Configuration Window

Note: This window looks the same for both global and specific object overlay configurations.



Enable Check to **Enable** overlays.

Select the **Location** of the overlay:



Choose the **Text Color** of the overlay text. Clicking the will open a color chart.



Choose the **Background colour** of the overlay. Clicking will open a colour chart.

4.1.5 Configure Door Unlock Time

The door unlock time is essentially an interval at which doors are polled for their statuses. Door statuses are then reflected in the Device Events tab of the Integrations Panel in CathexisVision.

This setting is configured for all door objects.



Select the **Door** option from the Object type drop-down menu.

Then click the Default Settings button that appears.

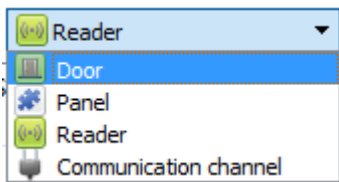


In the General tab, set the interval time (in seconds) at which doors will be queried for their status.

4.2 Objects Properties Tab

The Object properties tab displays the object properties, sorted by object type.

In the case of the Maxxess device, the object types available are **Door, Panel, and Reader**.



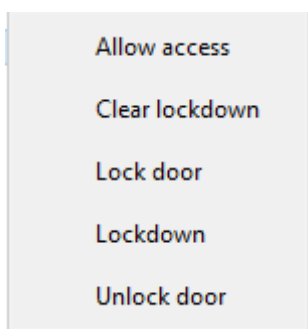
Select the object type from the drop-down menu:

Note: Object states are reflected in the Object Properties tab, however object and device events (like invalid access events) are reflected in the Device Events tab.

4.2.1 Control Object

Select **Device** from the drop-down menu on the **Object properties** tab.

Only the Door object can be controlled.



Right-click on the door object to see available commands.

4.3 Device Events Tab

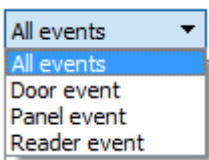
The Device events tab lists real-time events happening on this device. Installers can ensure that the integration is functioning, and monitor the Events happening on site.

Configuration of 'Maxxess'

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

Door event Filter

Time	Object name	Event type	Detail	Priority	Badge	Department	Address
2018-02-13 15:18:53.126	Door2	Sensor closed		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:18:53.251	Door2	Sensor open		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:18:54.110	Door2	Sensor closed		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:18:54.361	Door2	Sensor open		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:18:54.611	Door2	Sensor closed		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:00.829	Door2	Door forced		40			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:00.845	Door2	Sensor open		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:03.282	Door2	Door closed (Forced)		1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:03.314	Door2	Sensor closed		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:03.376	Door2	Sensor open		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:03.892	Door2	Sensor closed		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:04.142	Door2	Sensor open		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:04.532	Door2	Sensor closed		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:27.048	Door2	Allow access		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:43.705	Door2	Unlocked		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:47.642	Door2	Locked		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:19:53.173	Door2	Lockdown		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:20:00.923	Door2	Denied access (Reader disabled)	Notallowed, Andy	40	155-98	IT	EVERT-W10-VM1.R0.0.2
2018-02-13 15:20:03.376	Door2	Denied access (Reader disabled)	Potgieter, Evert	40	115-103	IT	EVERT-W10-VM1.R0.0.2
2018-02-13 15:20:09.564	Door2	Lockdown clear		-1			EVERT-W10-VM1.R0.0.2
2018-02-13 15:20:22.892	Door2	Valid access	Potgieter, Evert	0	115-103	IT	EVERT-W10-VM1.R0.0.2
2018-02-13 15:54:14.313	Door2	Denied access (Voided card)	Notallowed, Andy	40	155-98	IT	EVERT-W10-VM1.R0.0.2

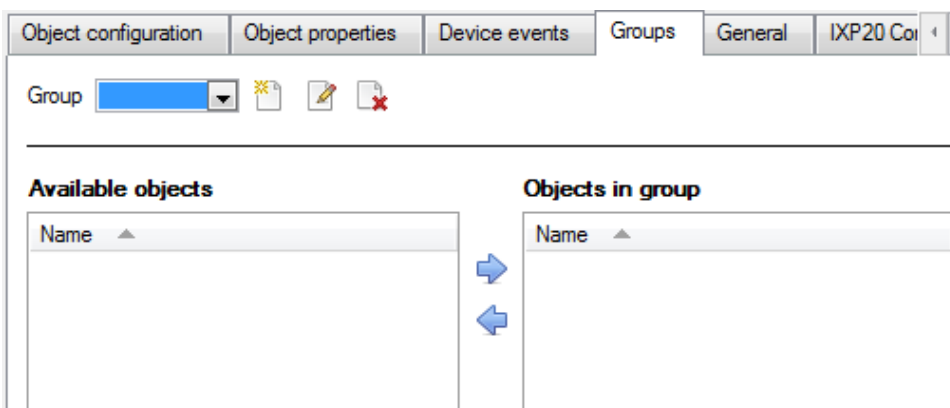


Events may be viewed by type:

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 7 Database** for more information on navigating to and interacting with the database.




4.4 Groups Tab

Groups of the same type of object may be created.

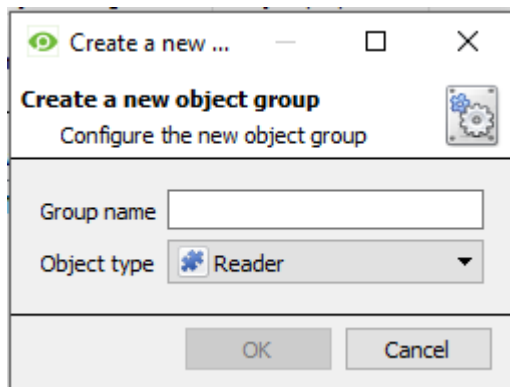


Tip: This is useful when setting up events, because events can be triggered by an object group. (E.g. a group will trigger an event if any of the doors in that group are triggered.)

4.4.1 Create a Group

-  To **create** a group, click on this icon.
-  To **edit** a group, click on this icon.
-  To **delete** a group, click on this icon.

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

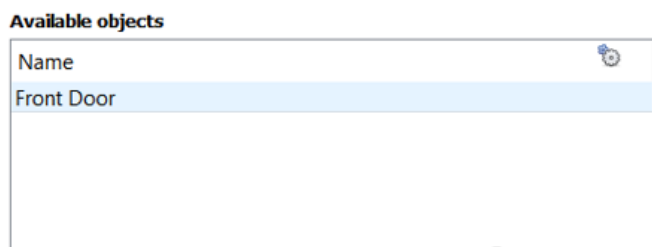


When creating a group, select what object type to include in the group. Once the group is created the available objects panel will fill up with all available objects of that type. From this list, choose which objects to use in the Group.



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

Click on the drop-down menu to select the **object type** to group.

4.4.2 Add or Remove Objects



A list of available objects will be displayed in the Available objects panel.


-  To **add** these objects to the group, select them 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.

4.5 General Tab

Currently the General tab deals with the integration database. Select a pre-created database, or configure a new database.

4.5.1 Select an Integration database

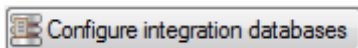
-  If an integration specific database has already been created, select it by clicking the settings icon.

Only databases relevant to the integration being added should appear.

If a database has not been created, see below.

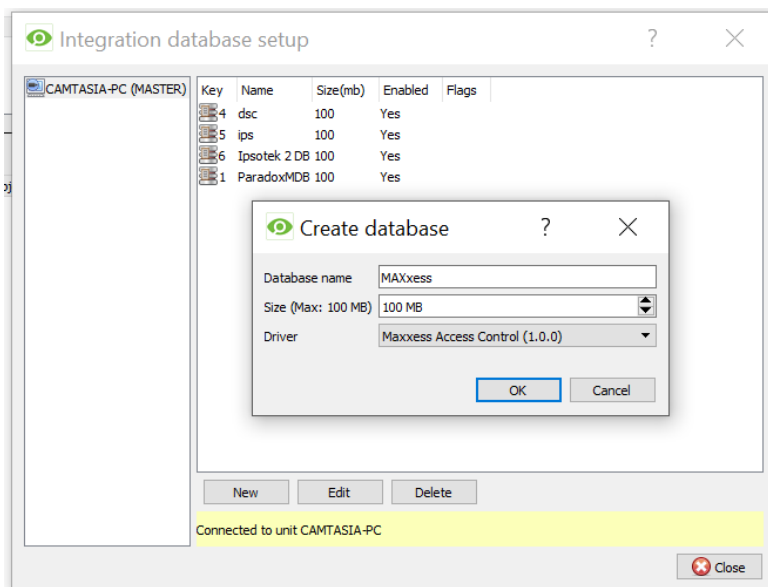
4.5.2 Configure a New Database

The first time an integration database is added, the general integration database will need to be **initialised**. Thereafter, a database for a specific integration can be **created**.



If an integration database has not yet been created, click the **Configure integration databases** button from the General tab. This opens the integration database setup.

Click **New** to create a database.



Give the database a **Name**.

Select the **Size** of the database.
The max is 1000MB.

Select the Maxxess driver.

Click **OK** when done.



Select the newly created database by clicking the settings icon 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 CathesisVision Setup Manual.

5. Events

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 Maxxess 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 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.

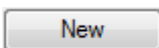
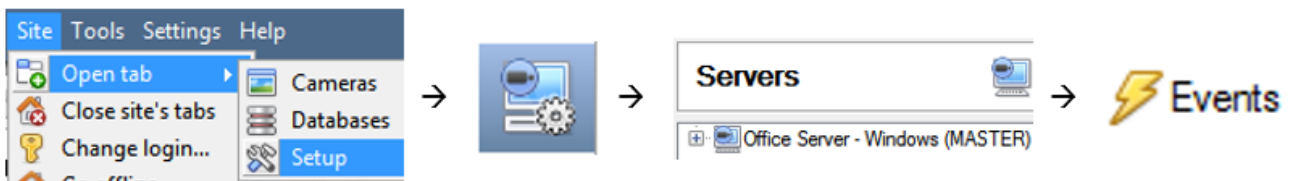
5.1 Event Window

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.

5.2 Creating an Event

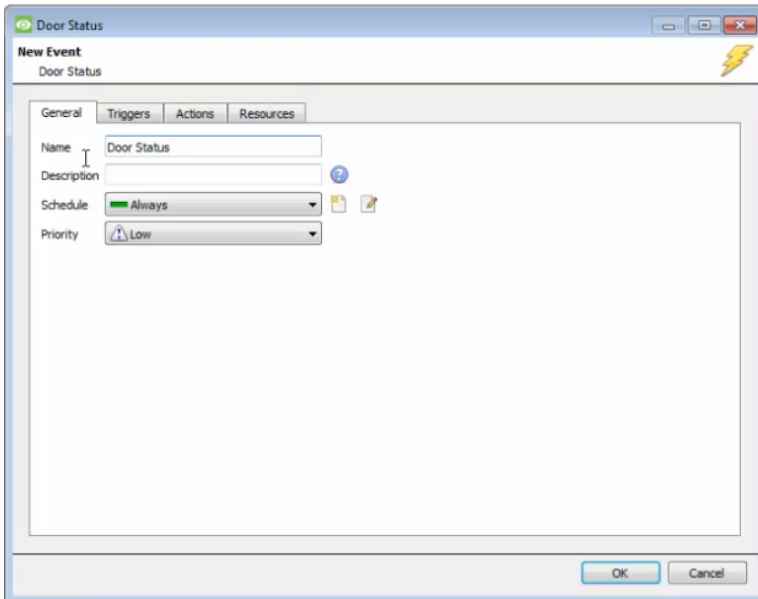
To create an event using the Maxxess device, enter the Events management area by following the sequence: **Open Tab / Setup / Servers / Master Server / Events**. This is shown below.



Once in Events management area, click the New icon at the bottom of the screen. This will open up the **New Event window**. Alternatively, right-click and select **New**.

5.3 General Tab

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



Give the event a descriptive **Name**.

Modify the Description if relevant.

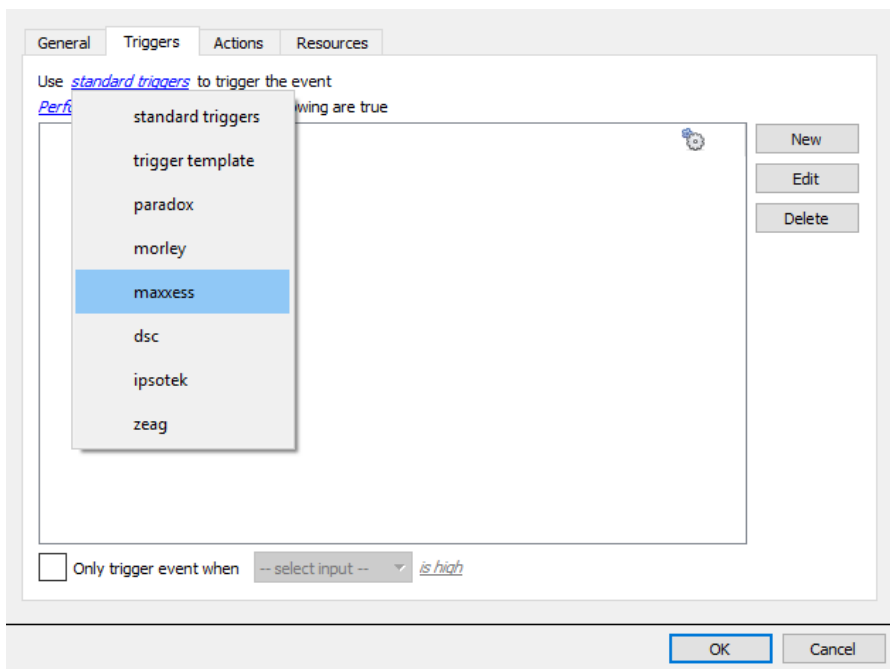


Set up a **Schedule** if desired by clicking the icon.

Select a **Priority**.

5.4 Triggers Tab

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



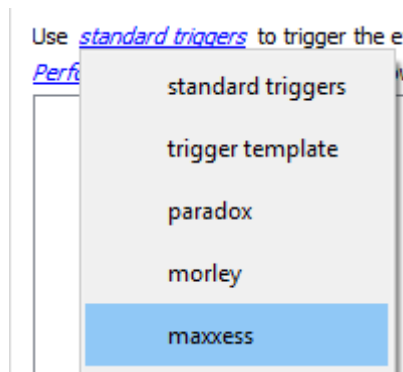
In this window, define the rules and constraints which will trigger an event on the device.

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.

5.4.1 Set the Device as the Trigger

Choose the Master Trigger type here.



When 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 Maxxess device, click on the hyperlink, and **select the relevant device name** (Maxxess) from the drop-down menu.

5.4.2 While/When and Any/All

When triggering on a door, 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.

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.

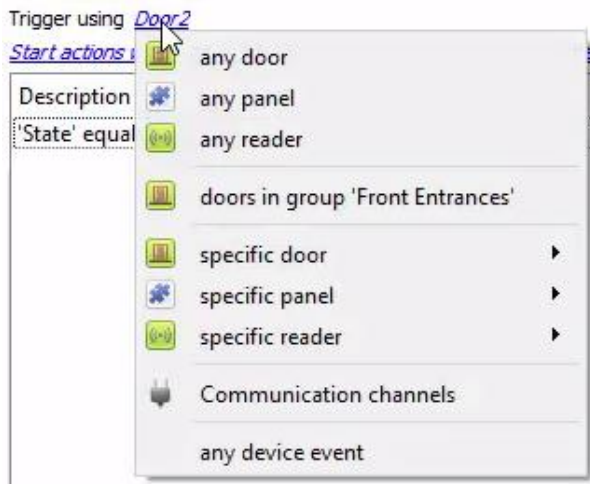
Start actions when	any of the properties meet the following criteria any of the following device events occur
Perform actions while	any of the properties meet the following criteria all of the properties meet the following criteria

Use [maxxess](#) to trigger the event
 Trigger using [Door2](#)
[Start actions when any of the properties meet the following criteria](#)

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

5.4.3 Trigger Types

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



Any door/panel/reader will trigger using any of the panel/reader/wrapper objects.

Readers in group... If a group has been created, an option to trigger using any of the reader in that group is present.

Specific door/panel/reader will trigger using only a specific panel/reader/wrapper object.

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

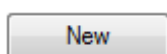
Click on the question mark icon to see a list of available descriptions.

Example usage: `value=$input_name`

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

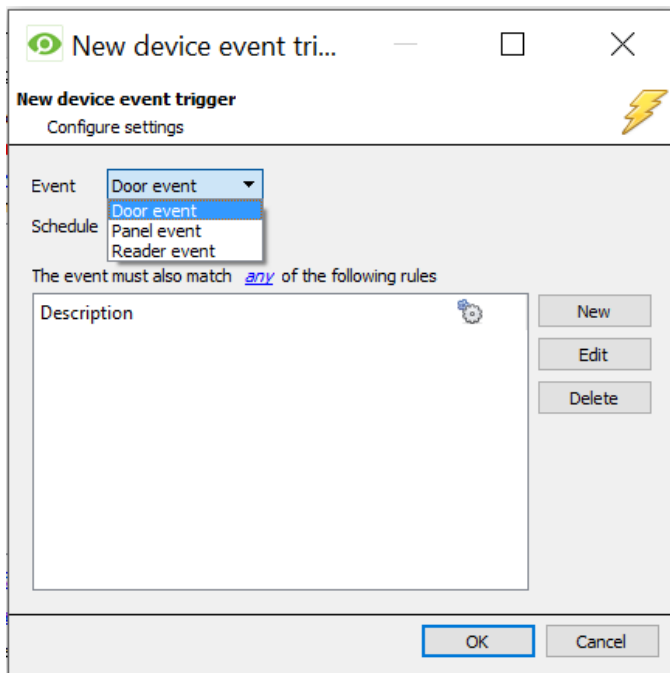
5.4.4 Define the Trigger (“Any Device Event” Option)

After selecting a master trigger type, add a trigger to the event. The following example is based on a user having selected “Trigger using **Any device event**”.



Click on **New** in the Triggers tab. Clicking on New will bring up the **New device event trigger** dialogue box.

5.4.4.1 New Device Event Trigger



Choose the type of **device Event** that will be the trigger. Choose from the drop-down menu.

Define the **Schedule**.

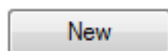
Click on the blue hyperlink to define whether the **any** or **all** of the configured device event rules should trigger an event.

Next, add rules to the device event trigger.

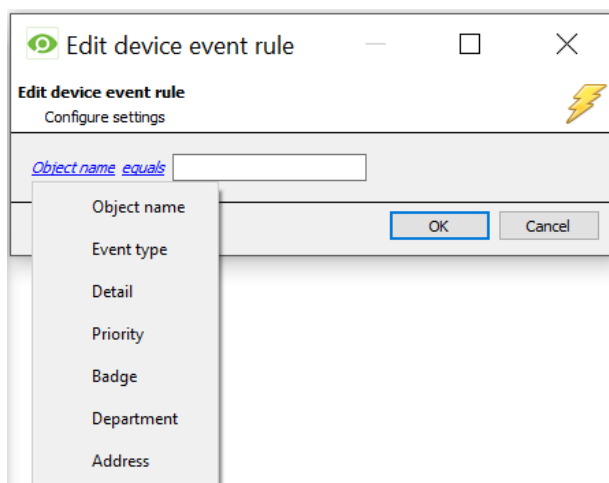
Note:

1. 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.
2. Multiple constraints can be set. If constraints are not defined, every device event will trigger this event.

New Device Event Rule



To configure a **New device event rule**, click on New in the **New device event trigger** window. This will bring up the **New device event rule** dialogue.



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.

Device event rules will differ depending on a number of factors, including:

- Type of event (Door/Panel/Reader).
- If event is set to trigger on any device event or specific/any objects.
- If event is set to trigger when any of the device event triggers occur, or if the event is set to trigger when any of the properties meet the configured the criteria.

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 entered manually.

The information pulled through to the events is information sent to CathexisVision from the Maxxess device. See the Maxxess settings for the strings needed here.

Triggering on 'Denied Access' Event

If the 'Denied Access' device event message is required to trigger an event, this needs to be specified manually.

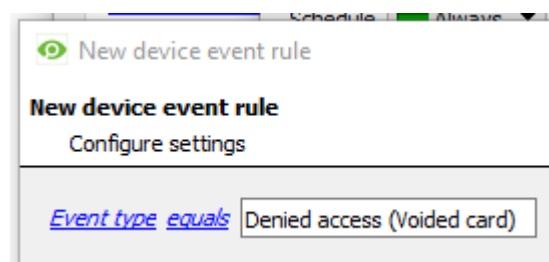
- 'Denied access' device event message is door-related, therefore either configure the event to trigger using any door, a specific door or any device event. If set to trigger using any device event, ensure that the door event type is selected when adding a device event trigger.
- When adding a new device event trigger rule, select 'Event Type' from the drop-down hyperlink on the left, and type the correct 'Denied access' text string into the text field. See example below.

The event type text entered here must match the string sent from the eFusion software. This is critical to ensure that the denied access event type is used to trigger an event. Please see the Maxxess settings for the correct strings.

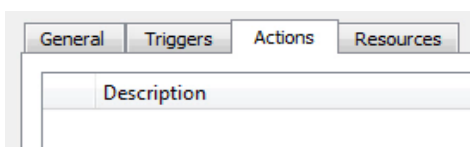
Example:

One example of an access denied device event message string is the voided card. It is written into the text field exactly as it is received from Maxxess.

Please ensure the strings match.



5.5 Actions Tab




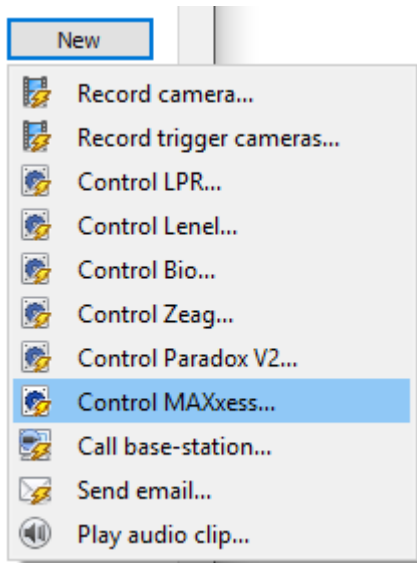
Having defined the triggers that will initiate an event, the user will need to define Actions.

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

One of the available actions will be to *control* a Maxxess device.

5.5.1 Adding an Action

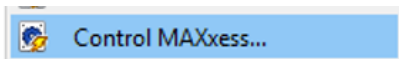
 To add an action, click New in the Actions tab.



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

Select an option.

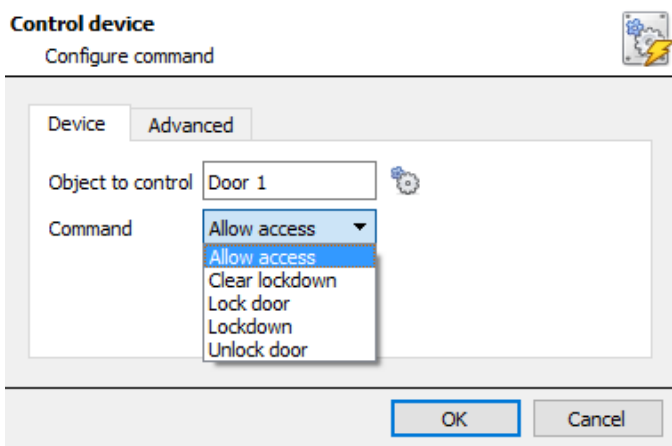
5.5.1.1 Control Device




Click a Control device option to bring up the **control device** dialogue.

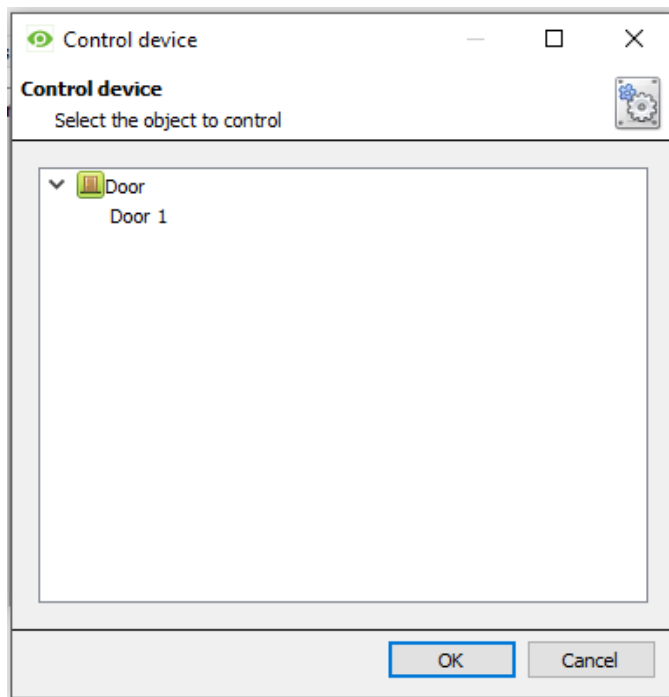
Only door objects can be controlled as an event action.

Configure Command Window



 To select an **Object**, click on the settings icon.

This shows all the Objects available on the Maxxess device.



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

Click OK.

Then, select the **Command** from the drop-down menu.

6. Camera Tab Overlay Setup

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

Note: Cameras must have already been added to the objects.

6.1 Overlay Display Details

Overlays are configured in the Integrations Panel of the Configure Servers section of the Setup Tab. Overlays are supported for **door** objects.

- The **location, text colour and background colour** of the overlay can be configured for all overlays, or individual overlays.
- The **time for which overlays are displayed** (before disappearing) can be configured/changed by editing the integration device.

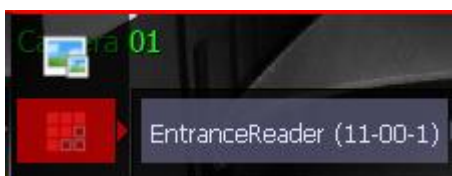
6.2 Video Feed Options Panel



To bring up the overlay, click the arrow to the left of the screen, to pop out the Video feed options panel.

Once popped out, the Video feed options panel will present a number of options specific to the settings configured for that video feed.

6.2.1 Select the Overlay

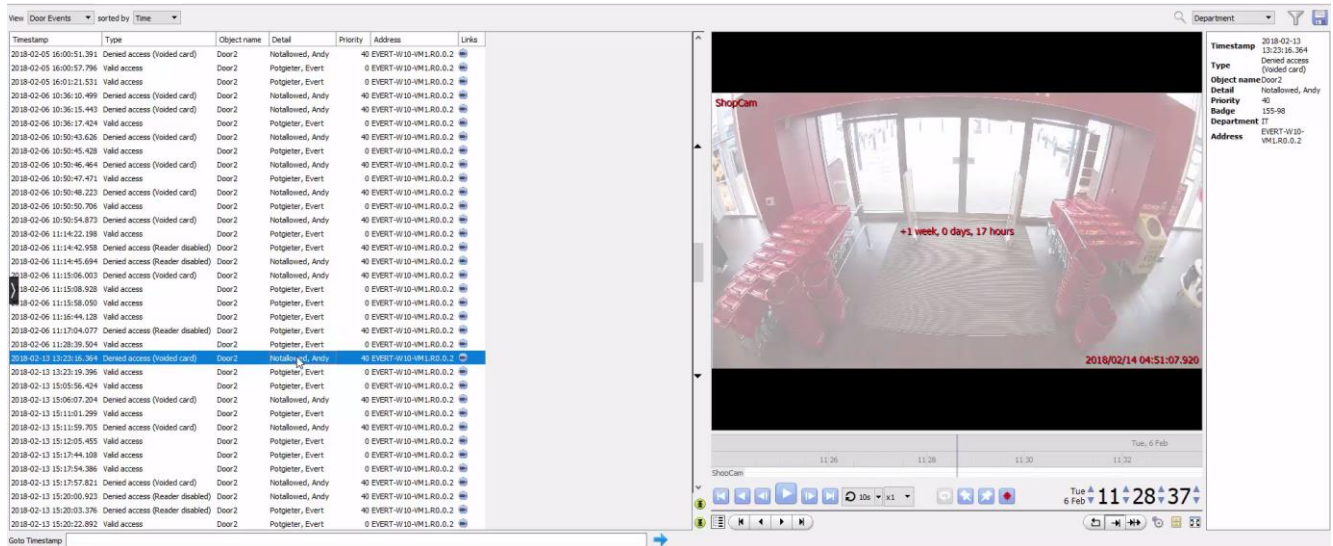


Clicking this icon will bring up the overlay options for this video feed.

Select the device, enable the overlay, and it will appear over the video feed.

7. Database

The databases tab will allow the user to navigate the records in 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 record has an associated recording, the user will also be able to launch this recording, from within the databases tab.

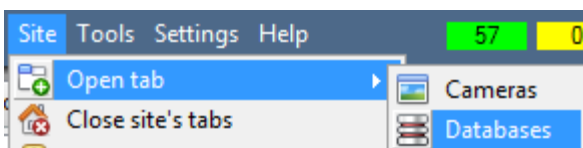


This database video player is embedded in the database view. This player uses the same timeline features as the CathexisVision cameras tab.

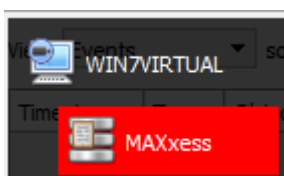
Most integrations will have a different database presentation, and unique filters, due to the different parameters sent to CathexisVision by the integrated device.

7.1 Navigate to the Database

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



Follow the path on the left: **Site / Open tab / Databases.**



Select the **MAXxess** integration database from the database panel that opens on the left-hand side.

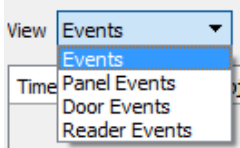
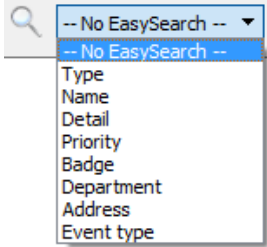
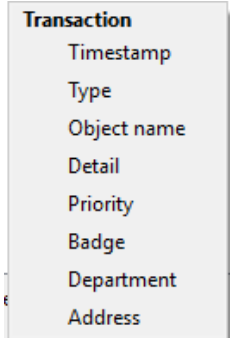
The databases are ordered under the NVRs to which they are attached.

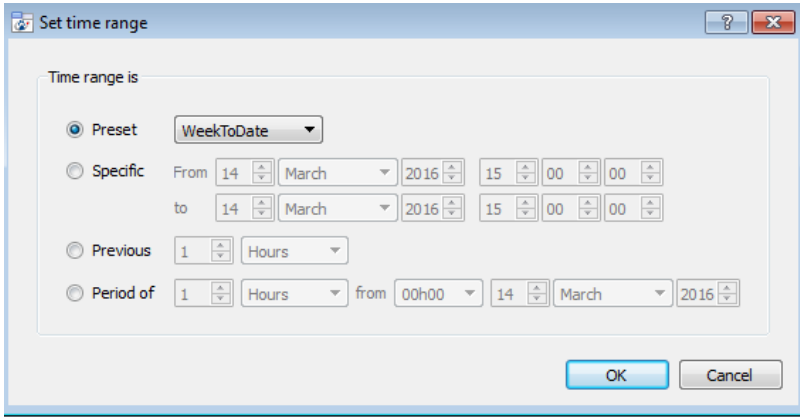



Hover over the arrow on the left-side of the camera image to bring up the database panel on the left.

7.2 Database Interface



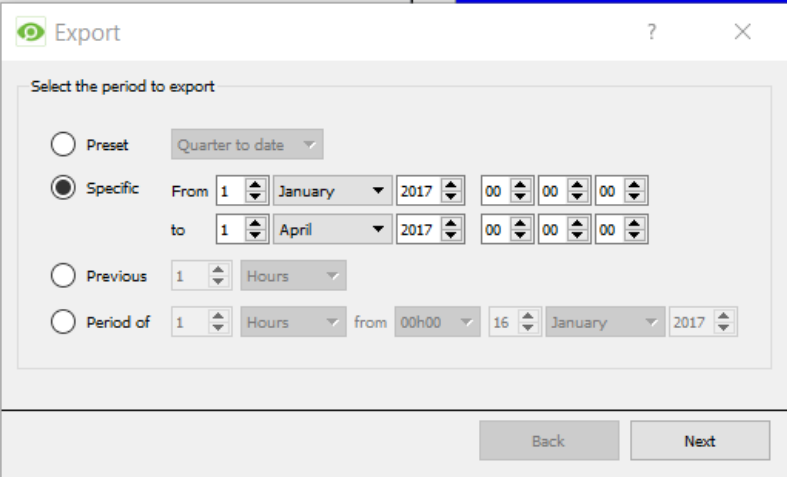
<p>① View</p>	<p>The way the database is presented may be changed. Some integration databases have multiple view options. The Maxxess database allows viewing by:</p> 
<p>② Sorted By</p>	<p>Events may be further sorted based on the following parameters: Time.</p>
<p>③ Easy Search</p>	<p>The easy search option allows for a quick search of the database within one of the following options:</p> 
<p>④ Filter</p>	<p>Filter offers a more advanced manner of sorting information in the Integration Database table. Once the filters dialogue is open, the following options are available:</p> <ol style="list-style-type: none"> To enable filters check this box: <input checked="" type="checkbox"/> Enable filters To add a new filter click on . The filter icon will change to when filters are active. To delete an added filter click on . <p>Filter options:</p> 

	<p>A Time range, within which the search will be conducted, may also be set.</p> <p>To set a Time range, click on the blue hyperlinked text which specifies time (e.g., in the Week to date).</p> <p>This will bring up the following dialogue box, where the time range can be defined:</p>  <p>Note:</p> <ol style="list-style-type: none"> Multiple filters may be run simultaneously. Filters with the same parameters may be run more than once. To change a filter click on the blue hyperlinked text.
<p>⑤ Export</p>	<p>Generate 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.</p> <p> Then click on the arrow icon.</p>

7.2.1 Generate Metadatabase Reports

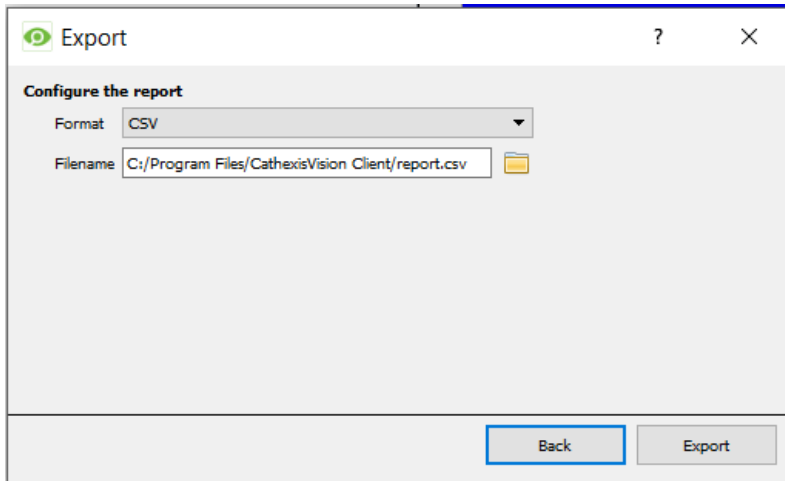


Click the save icon to open the Export window.



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

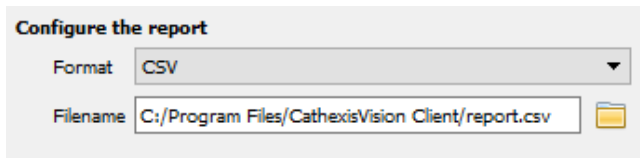
Click **Next**.



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

See below for the two options.

7.2.1.1 Export CSV



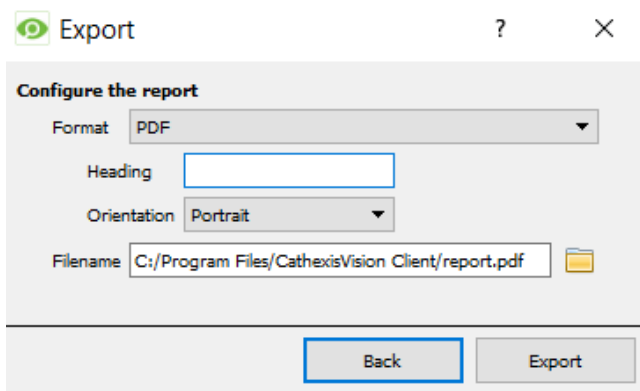
Select CSV **Format**.

Edit the **Filename** by entering it into text field (replacing **report.csv**).



Or, click the folder to choose a new save folder and filename.

7.2.1.2 Export PDF



Select PDF **Format**.

Give the PDF a **Heading**.

Select either Landscape or Portrait **Orientation** of the PDF.

Edit the **Filename** by entering it straight into text field (replacing **report.csv**).





Or, click the folder icon to choose a new save folder and filename.

7.2.2 Metadata

Timestamp	2018-02-13 13:23:16.364
Type	Denied access (Voided card)
Object name	Door2
Detail	Notallowed, Andy
Priority	40
Badge	155-98
Department	IT
Address	EVERT-W10- VM1.R0.0.2

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

7.2.3 Viewing an Entry's Associated Recording

-  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.

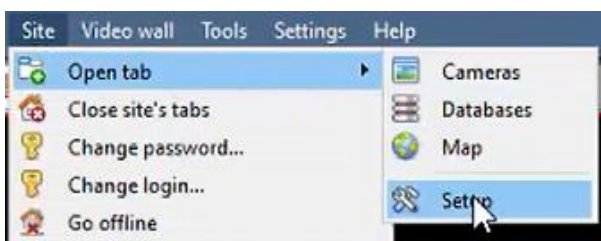
8. Maps

It is possible to add the device to a site map, which will allow for a number of action options when objects are triggered. These options include the animation of triggered objects and connecting to site cameras when.

Note: This section will only deal with the specifics of the Maxxess device. For more information on using the CathexisVision Map Editor and Map Tab, please consult the dedicated and detailed **Map Editor Operation Manual**.

8.1 Add the Device as a Resource

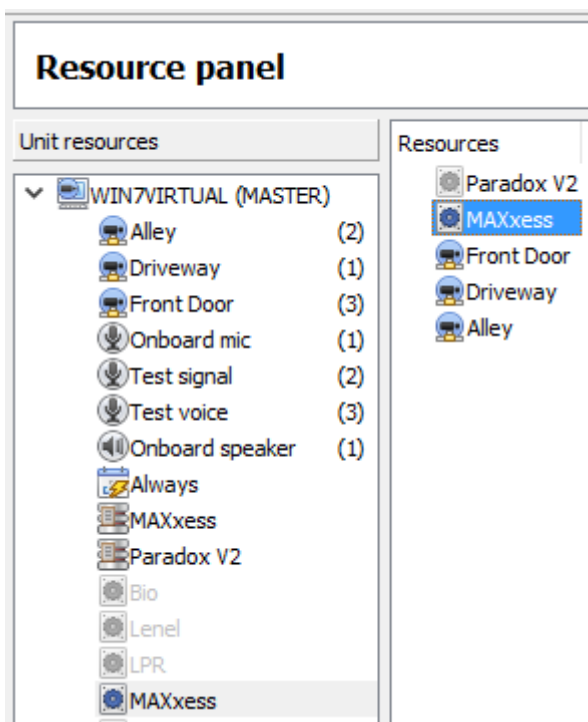
To configure the map, the Maxxess device must be added as a resource to be added to the map.



Navigate to the **Resource Panel** by following:
Site / Open Tab / Setup / Configure resource Panel



Click the **Configure Resources** icon.



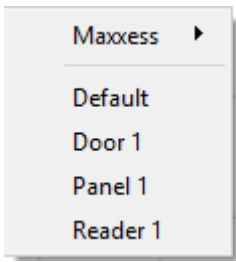
In the site's Resource panel, a list of resources will be displayed.

Select the **Maxxess** integration device. Drag and drop it under **Resources** on the right.

8.2 Add the Device in Map Editor

Once the device has been added as a **Resource**, it will be available to drag onto the map area from the **Site Resources** list in the Map Editor software.

8.3 Adding Device Objects



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

Select one of the associated objects.

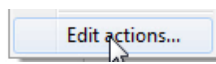
Note: To add multiple objects, repeatedly drag-and-drop the device resource from the Site Resources list onto the map area to bring up this option.

8.4 Adding Device Actions

To add or edit actions to the device objects:

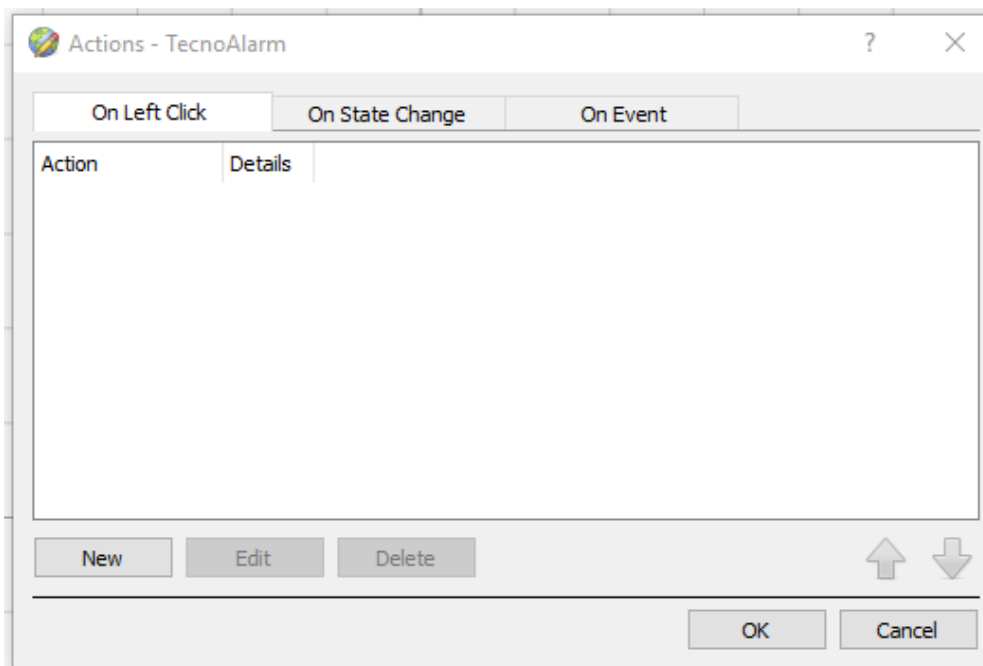


Right-click the map object and select



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

Once configured, the list of actions will populate the white space in the relevant tabs.



8.4.1 Map Action Triggers (Tabs)

Map actions may be set to trigger on **Left-Clicks**, **State Changes** and **Events**. The table below illustrates the trigger options that are available in each tab.

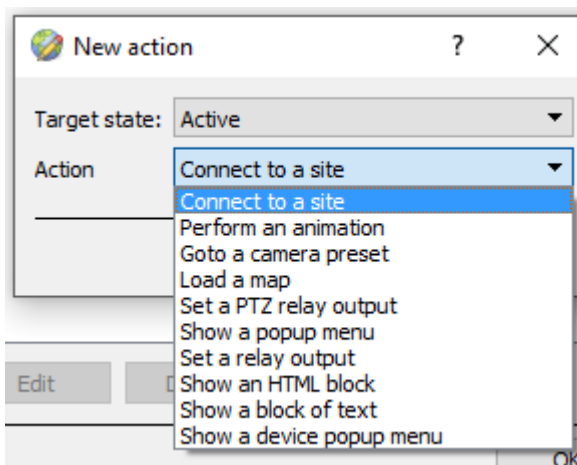
Tab	Map Action Trigger Detail
On Left Click	Left-clicking on the object in the map will trigger an associated map action. See below for actions.
On State Change	When the state of the selected object changes, the map action will occur. State change options will differ according to selected object.
On Event	When a device object event occurs, the associated map action will be triggered. Event types change depending on the selected object.

8.4.2 Action Options



Click New in the relevant tab of the action window.

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



Action options are the same for all tabs, except for the Device Events Tab, which has the added option to Show a Device Event Notification.

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

Once finished, save the map.

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

8.5 Map Tab

Upload the saved map to CathesisVision. 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.

9. Conclusion

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

For support, please contact support@cat.co.za.