



Herta Facial Recognition Integration App-note

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While Cathesis has made every effort to ensure the accuracy of this document, there is no guarantee of accuracy, neither explicit nor implied. Specifications are subject to change without notice. The integration hardware and firmware used are current at the time of the integration development and newer versions of such may not be compatible with the integration.

1. Introduction

This document details the integration of the Herta Facial Recognition software with CathesisVision software.

1.1 Requirements

1.1.1 Software

- CathesisVision 2020.3 and later.
- Win 10: 64-bit and later, Win Server 2008 R2 and later.
- Minimum 4GB of RAM required.

Note:

1. For information regarding the regular operation of a Herta FR Software, please consult the relevant Herta documentation.
2. There is a General Integration section in the main CathesisVision manual. It contains information on creating an integration database, as well as a general introduction to the Integration Panel. Read over this section.
3. The Herta FR software:
 - Herta software version integrated: 3.2.13
 - This integration is compatible with Herta software version 3.3.2.
 - It is highly recommended to install the software on a dedicated server and not the CathesisVision NVR.
4. The Herta FR Software is licensed directly with Herta.
5. Operators will need to review the latest Herta software requirements for updated information and licensing.

1.1.2 Licensing

The Herta FR Software integration license with CathesisVision requirements are the following:

CHRT-1001	Herta face recognition camera
CHRT-2000	Herta face recognition device
CHRT-3000	Herta face recognition bundle

*There needs to be an API License added to the NVR that will be using Cathesis. This will be detailed below in the [Device Addition](#) section.

Note: in this integration, a single license will cover multiple linked devices.

A NOTE ON CAMERA CHANNELS

The CathexisVision 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 CathexisVision software, even though it is a single device.

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.

USEFUL LINKS

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

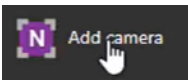
Find answers to Cathexis **Frequently Asked Questions**: <https://cathexis.crisp.help/en/?1557129162258>

2. Device Addition and Configuration

This section will detail the procedure for setting up the two systems to effectively communicate with each other.

In order for a camera to be added to the Herta software, it needs to first be added to the Cathexis software.

Refer to CathexisVision Quickstart or Setup manual.



In the **Herta interface**, click on **Add camera**. This will open the addition window.

Give the device a descriptive **name**.

Select the **correct graphics card**.

Select the following:

Protocol – rtsp

Transport – tcp

Manufacturer - **Other**

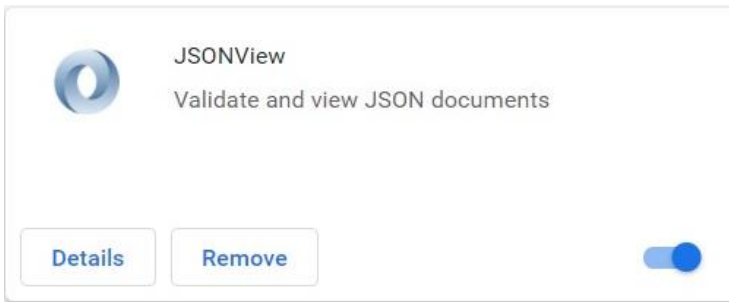
Add the **IP address** of the NVR that is being connected to (the unit on which Cathexis software is installed).

Port number remains the same.
Add username and password for the NVR.

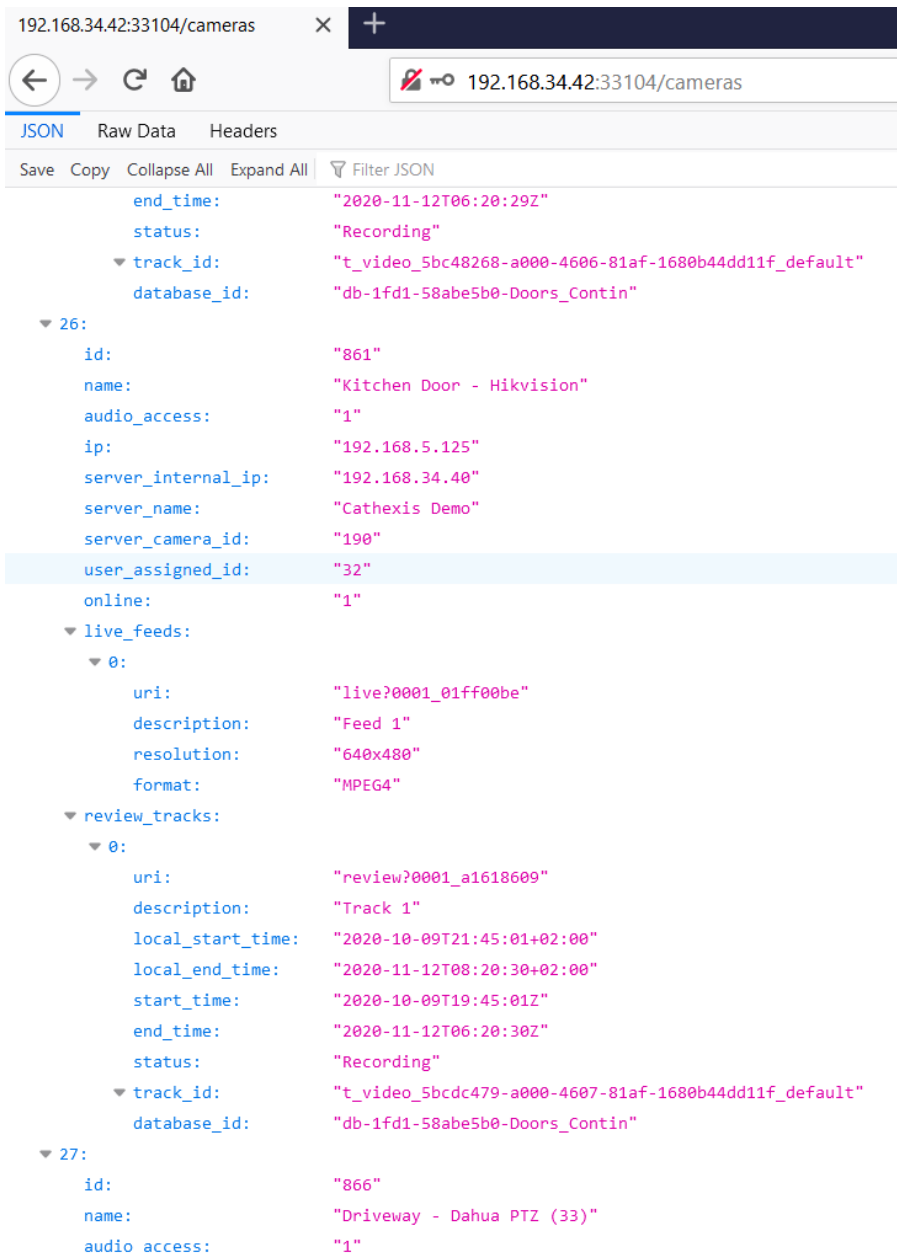
For Path, enter **/live**

To find the Parameters for this camera, go to the Cathexis web interface.

Note: if accessing in Chrome, download the JSONView extension so that it is easier to extract information from the web interface.



Note: in order to connect to this web interface, the Cathexis NVR needs to have the Cathexis API License or the following information will not be displayed.

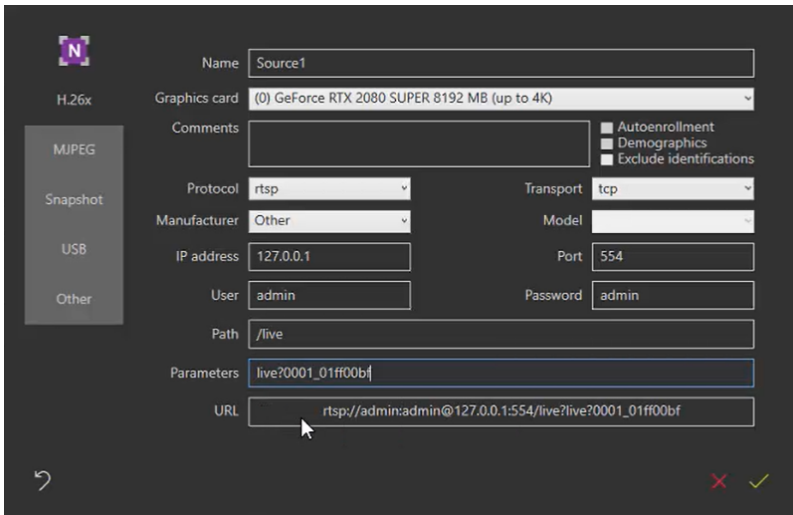


On the **Cathexis web interface**, enter the following:
192.168.34.42:33104/cameras

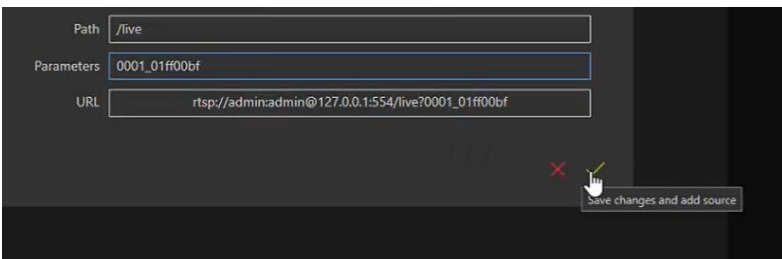
[This is the IP address for this NVR followed by the port number/cameras.]

The user will then be presented with raw data.

Copy the **URI information** after the following text: **live?** for the camera that is to be added to the Herta software.



In **Herta**, paste the copied information in **Parameters**.

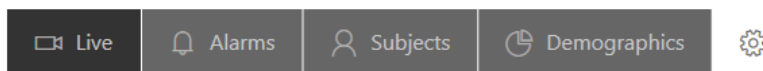


Click the **green tick** at the bottom right of the screen to save the information.

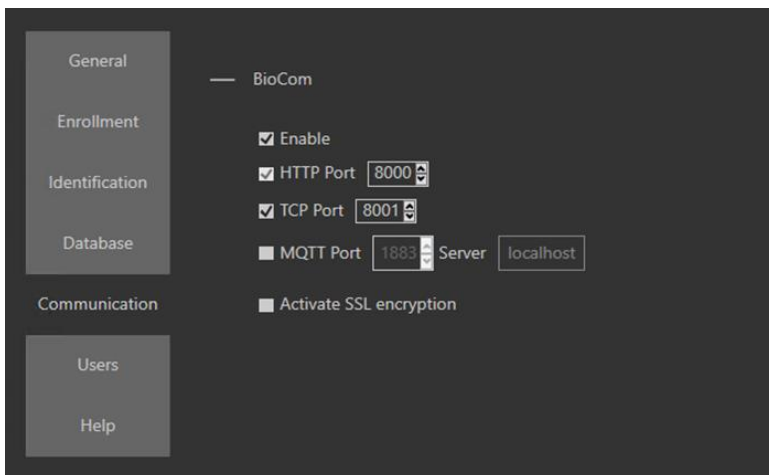
The user can then **add the camera** by double-clicking on the name of the camera to be added.

Note: If using Herta Software Version 3.3.2 the following further configuration step must be done:

Herta v3.3.2



Click on the **settings** icon



Go to the **Communication** tab.

Enable the **ports** radio button.

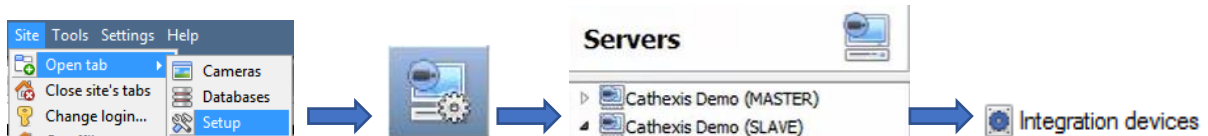


Click the green tick at the bottom right of the screen to save the settings.

2.1 Add a New Device in CathexisVision

Integrations are added on a server-by-server basis. They are managed in the Integration Devices panel, under the Setup Tab of the servers to which they are added. To get to the Integration Panel, follow this path:

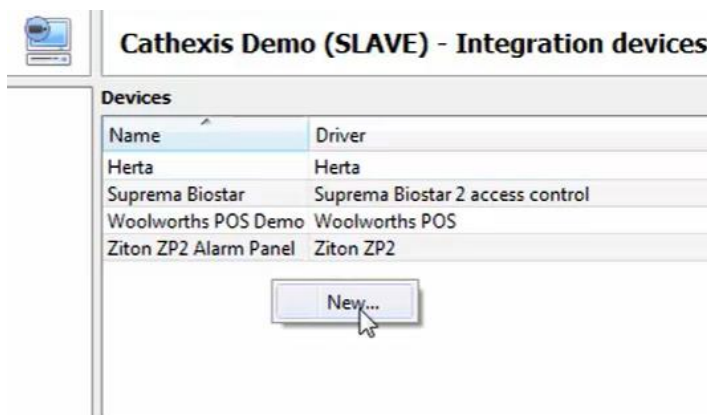
2.1.1 Integration Devices Panel



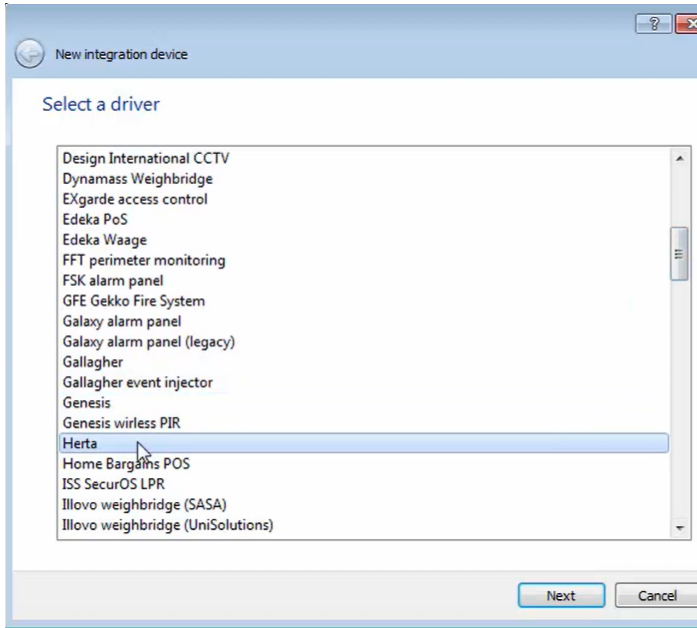
There are two sections in the Integration Panel:

1. The **devices** list will list the integration devices attached to the integration database.
2. The **Configuration** section enables editing/reviewing the device selected in the **devices** section.

2.1.1.1 Device Addition



Once in the Integration Panel, click on **Integration devices**, and then right-click on the tab at the top to **add** a new device.



Scroll down and select **Herta**. Click Next.



Enter **Name**, the **IP address** of the computer Herta is installed on, and **the port number** the information is being sent on. The default port number is 8001.

Click **Finish**.

Cathexis Demo (SLAVE) - Integration devices

Devices	
Name	Driver
Herta	Herta
Suprema Biostar	Suprema Biostar 2 access control
Woolworths POS Demo	Woolworths POS
Ziton ZP2 Alarm Panel	Ziton ZP2

The Herta device will be shown in the integration devices panel.

2.2 Configuration Section (Tabs)

The configuration section is divided into several tabs. They are: **Object configuration**, **Object properties**, **Device events**, **Object Groups**, and **General**.

Configuration of 'Herta'

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

Object type: All objects

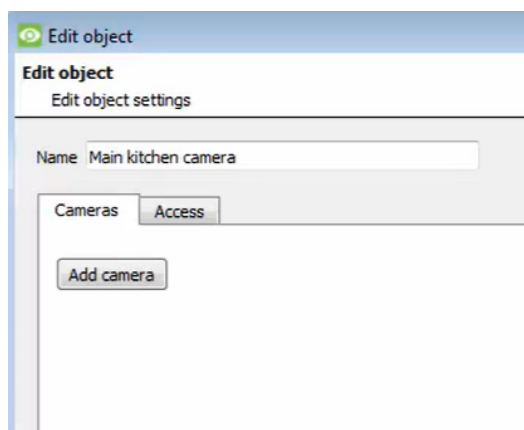
Type	ID	Name	Cameras	Object groups	License
Camera	Cathexis Demo System	Cathexis Demo System			
Camera	Herta Test Camera	Herta Test Camera		Group 1	
Camera	Kitchen Cam (Virtual)	Kitchen Cam (Virtual)	Herta Kitchen (Virtual)	Group 1	
Camera	Kitchen Camera	Kitchen Camera	Kitchen Door - Hikvision		
Camera	Main kitchen camera	Main kitchen camera			
Communication channel	__default__	Default			
Herta	Herta	Herta			

2.2.1 Object Configuration Tab

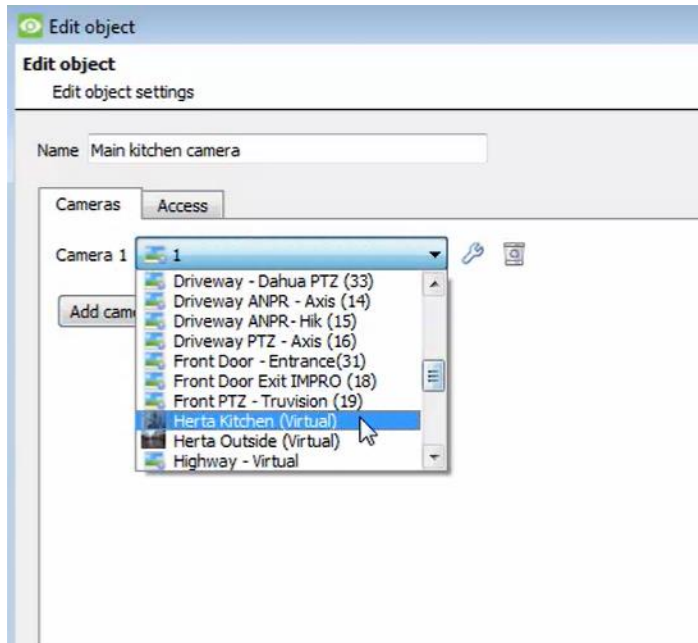
The object configuration tab is the tab where all the individual objects that comprise the integration may be viewed.

The Herta device will add all the information for the cameras that have already been added, but the newly-added camera needs to be linked to the Herta device.

2.2.1.1 Properties: Cameras



Double-click the object that needs to be linked to a camera. This will open a new window.

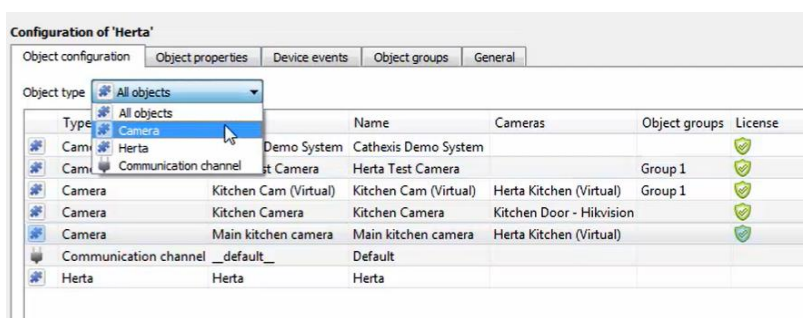


Scroll through the drop-down menu and select the camera to be linked to the object. Click OK.



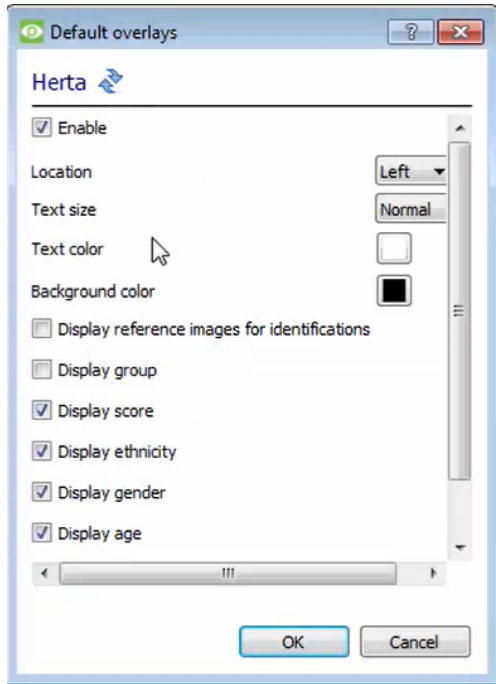
The newly-added camera will link and be shown in the cameras tab.

2.2.1.2 Configure Overlays



From here, the user can filter **All objects** to **Camera**. To change the default overlays, click the settings icon:



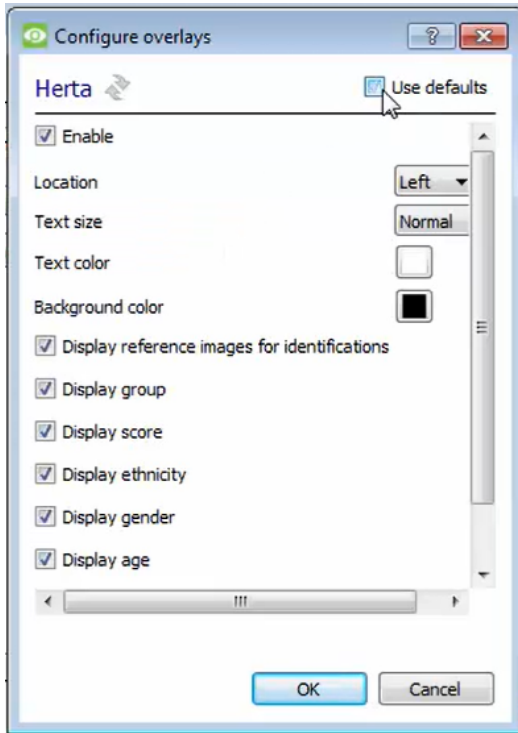


Default overlays can then be changed as desired.

Configure individual overlays

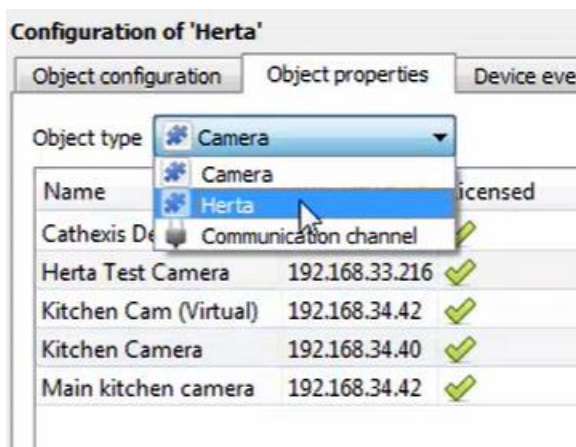


To configure overlays for each camera as needed, double-click the name of the camera and then click on the settings icon.



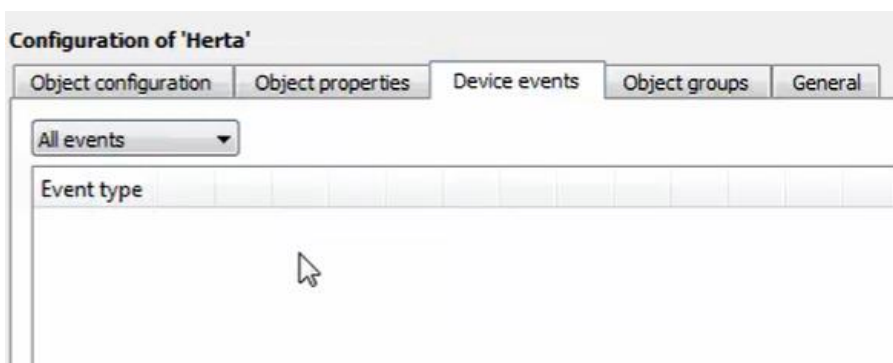
Un-select **Use defaults** and change accordingly.

2.2.2 Object Properties Tab



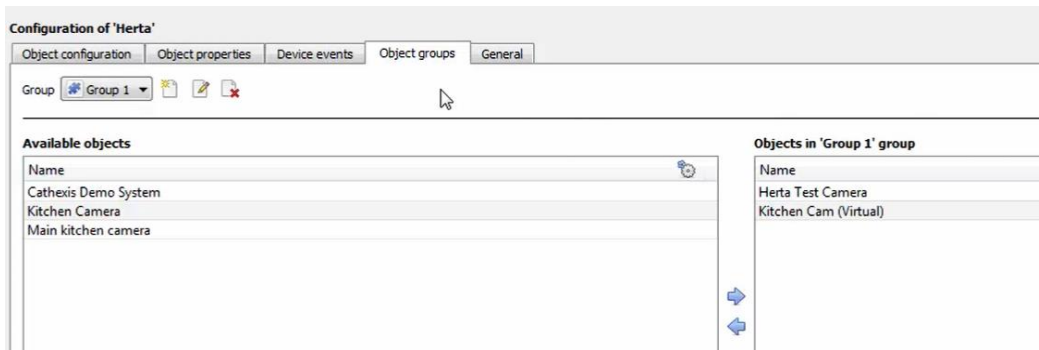
The Object properties tab allows objects to be viewed, sorted by type. This tab displays information for the cameras and for the Herta device.

2.2.3 Device Events Tab



Device events reach the software as faces are detected.

2.2.4 Object Groups Tab



Groups of the same type of object can be created.

2.2.4.1 Create a Group

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

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



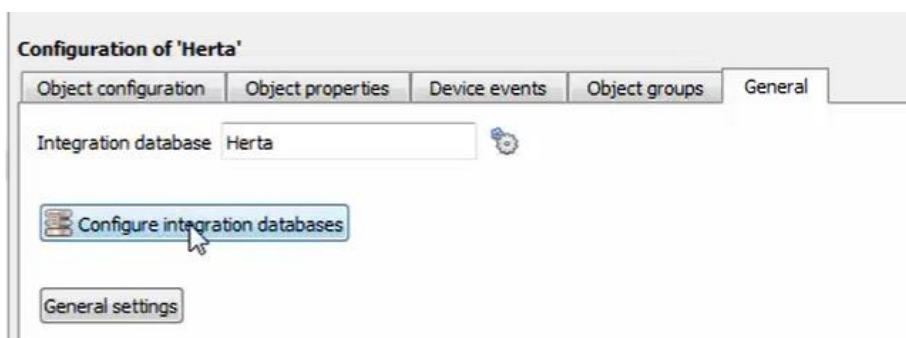
When creating a group, select the object type to include in the group. Users can add Cameras or Herta devices into groups. Once the group is created, the available objects panel will fill up with all available objects of that type. From this list, choose which objects to use in the Group.

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

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

2.2.5 General Tab

The general tab deals with the integration database. Here, add a database in order to store all the information.



Click on **Configure integration database**.

2.2.5.1 Configure a new database

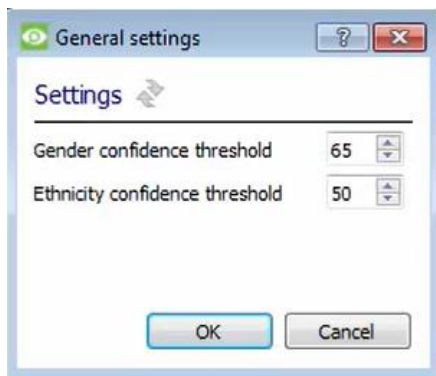


Enter the name of the database.

For Driver, scroll down and select Herta (1.1.1). Then click OK. All the information will now be stored in the metadatabase.

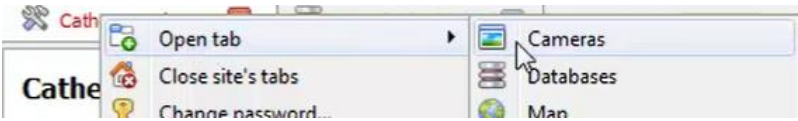
Note: The information on setting up an integration database may be found in the **Integration Devices General Settings** section of the CathesisVision Setup Manual.

2.2.5.2 General settings

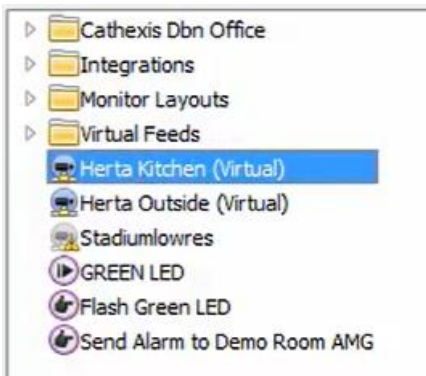


Click on **General settings** to change information as required.

3. Camera Tab Overlay Setup



To get to the Cameras tab, right-click on the top panel. Go to Open tab. Then select Cameras.



The operator can then select the camera that has the Herta software connected to it.

Double-click the Herta camera, and it will show up on the screen.



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

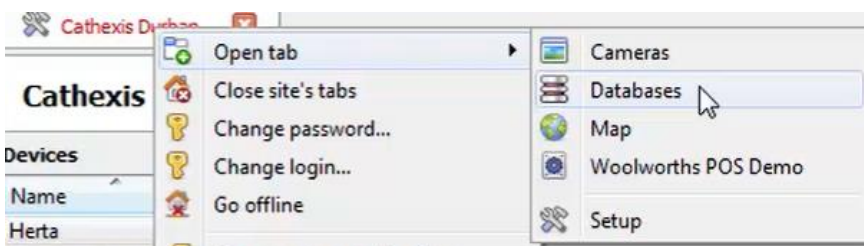
Note: faces in the above image have been covered to protect privacy.

4. Database

The database tab allows navigating to the databased entries, for each individual database. In the database tab, each database is presented as a table. It has built in filters, and the ability to navigate by timestamp. If a database entry has an associated recording, this recording can be launched from within the database tab.

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

4.1 Navigate to the database

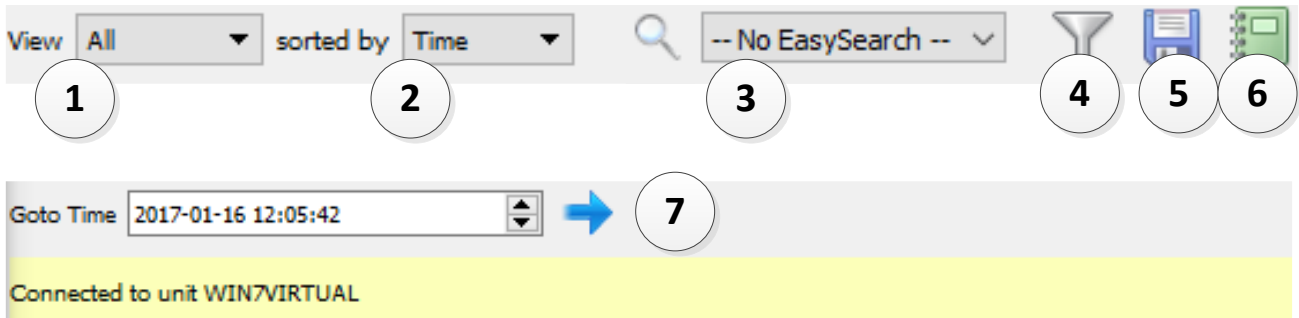









View information stored in the Integration database, by following the path seen to the left. This will navigate to the Database Tab.


Start time	End time	Type	First name	Surname	Group	Score	Camera
2020-10-15 09:45:22	2020-10-15 09:45:28	Identification	Rob	Smith	Product management	99	Kitchen Camera (SU
2020-10-15 09:45:26	2020-10-15 09:45:35	Detection				0	Kitchen Camera (SU
2020-10-15 09:45:33	2020-10-15 09:45:38	Detection				0	Kitchen Camera (SU
2020-10-15 09:45:47	2020-10-15 09:45:52	Detection				0	Kitchen Camera (SU
2020-10-15 09:46:14	2020-10-15 09:46:20	Detection				0	Kitchen Camera (SU
2020-10-15 09:46:32	2020-10-15 09:46:42	Detection				0	Kitchen Camera (SU
2020-10-15 09:46:42	2020-10-15 09:46:47	Detection				0	Kitchen Camera (SU
2020-10-15 09:46:53	2020-10-15 09:47:03	Detection				0	Kitchen Camera (SU
2020-10-15 09:48:50	2020-10-15 09:48:50					0	
2020-10-16 12:45:03	2020-10-16 12:45:03					0	
2020-10-16 12:45:03	2020-10-16 12:45:03					0	
2020-10-16 12:45:04	2020-10-16 12:45:04					0	
2020-10-16 12:45:04	2020-10-16 12:45:04					0	
2020-10-16 12:45:04	2020-10-16 12:45:04					0	
2020-10-16 12:45:05	2020-10-16 12:45:05					0	
2020-10-16 12:45:05	2020-10-16 12:45:05					0	
2020-10-16 12:45:06	2020-10-16 12:45:06					0	
2020-10-16 12:45:15	2020-10-16 12:45:15					0	
2020-10-16 12:45:19	2020-10-16 12:45:19					0	
2020-10-16 12:45:26	2020-10-16 12:45:26					0	
2020-10-16 12:45:38	2020-10-16 12:45:38					0	
2020-10-16 12:45:41	2020-10-16 12:45:41					0	
2020-10-16 12:45:42	2020-10-16 12:45:42					0	

Once in the databases tab, select the Herta integration database. The databases are ordered under the NVRs that they are attached to. On the left is an image of a Herta database.

4.2 Database interface



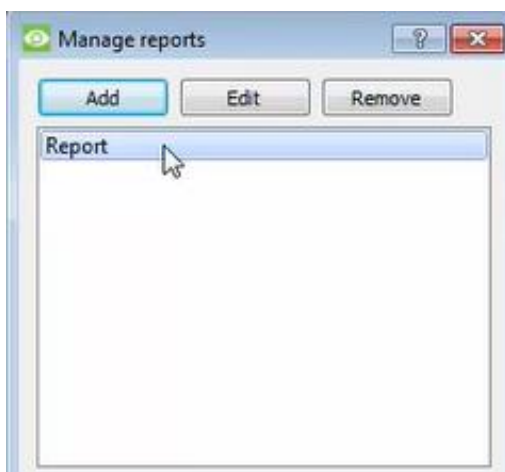
<p>① View</p>	<p>Change the way that the database is presented. Some integration databases have multiple view options. The Herta database has the following view options:</p> 
<p>② Sorted By</p>	<p>Sort the Events based on the following parameters: Time.</p>
<p>③ Easy Search</p>	<p>The easy search option allows quickly searching 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.</p> <p>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 . <p>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.</p> <p>Start time</p> <p>in the Week to date</p>

	<p>Clicking on Start time will bring up the following dialogue box:</p> <p><u>Start time is in the Wee</u></p> <div data-bbox="450 277 667 819" style="border: 1px solid gray; padding: 5px;"> <p>Transaction</p> <ul style="list-style-type: none"> Start time End time Type First name Surname Group Score Camera Ethnicity Gender Age Glasses </div> <p>Note:</p> <ol style="list-style-type: none"> 1. Multiple filters may be run simultaneously. Filters with the same parameters may be run more than once. 2. To change a filter, click on the blue hyperlinked text.
<p>⑤ Export</p>	<p>Generate metadatabase reports in PDF or CSV format. See below.</p>
<p>⑥ Manage Reports</p>	<p>Generate scheduled metadatabase reports. See below.</p>
<p>⑦ Go to Time</p>	<p>This navigates to a specific point in time, down to the second. To navigate to a timestamp, set the time using the time and date boxes, and then click on the  icon.</p>

4.2.1 Scheduled Metadatabase Reports



Click this icon to open the scheduled report window.



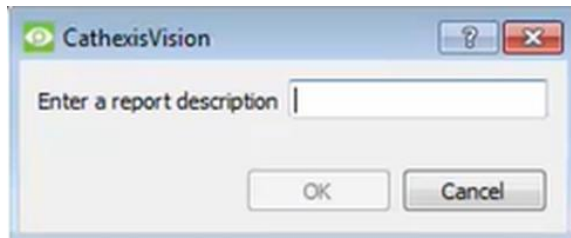
All created reports will be listed here.

First, click **Add** to create a report. Then **edit** to define the reporting schedule. See below for more detail.

To create, edit, or delete a report, select the entry and click on the corresponding button.

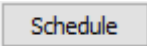
4.2.1.1 New Scheduled Report

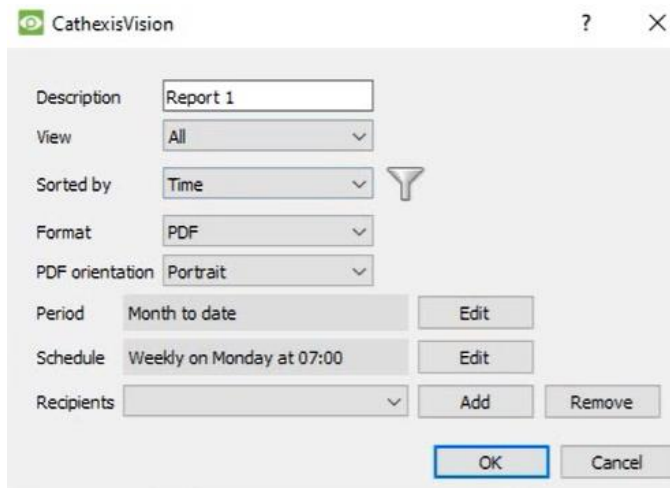
Click **Add** and give the report a description.



Click **OK** when done.

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

Either right-click the entry and select schedule or select the entry and click the schedule button at the bottom of the screen:  .



Edit the **description** if needed.

Edit **Viewing** options.

Select the **Sorted by** option.

Select the **Format**.

Select the **orientation** of the Format.

Select the **period** to be reported on.

Define the **Schedule** for the report.

Add/remove recipients to whom reports will be sent.

Add recipient: Click **Add** and enter the email address of the recipient. Multiple recipients may be added. All will receive emails.

Remove recipient: Select the recipient from the dropdown menu and click **Remove**.

4.2.2 Generate Metadatabase Reports



Click this icon to open the Export window.

The 'Export' window has a title bar with a question mark and close button. Below the title bar, it says 'Select the period to export'. There are four radio button options:

- Preset**: A dropdown menu showing 'Month to date'.
- Specific**: Two rows of date and time pickers. The first row is 'From' (23, January, 2020, 07:00:00) and the second is 'to' (23, January, 2020, 07:00:00).
- Previous**: A spinner for '1' and a dropdown for 'Hours'.
- Period of**: A spinner for '1', a dropdown for 'Hours', and a 'from' field with '00h00', '23', 'January', and '2020'.

 At the bottom are 'Back' and 'Next' buttons.

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

Click **Next**.

The 'Configure the report' window has a title bar. Below it, it says 'Configure the report'. There are two main fields:

- Format**: A dropdown menu currently set to 'CSV'.
- Filename**: A text box containing 'C:/Program Files/CathesisVision Client/report.csv' and a folder icon button.

 At the bottom are 'Back' and 'Export' buttons.

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

See below for the two options.

4.2.2.1 Export CSV

This is a close-up of the 'Configure the report' window for CSV export. The 'Format' dropdown is set to 'CSV'. The 'Filename' text box contains 'C:/Program Files/CathesisVision Client/report.csv' and has a folder icon button to its right.

Select CSV **Format**.

Edit the **Filename** by either entering it straight into text field (replacing **report.csv**), or click the to choose a new save folder and filename.

4.2.2.2 Export PDF

This is a close-up of the 'Configure the report' window for PDF export. The 'Format' dropdown is set to 'PDF'. Below it is a 'Heading' text box. The 'Orientation' dropdown is set to 'Portrait'. The 'Filename' text box contains 'C:/Program Files/CathesisVision Client/report.pdf' and has a folder icon button to its right. At the bottom are 'Back' and 'Export' buttons.

Select PDF **Format**.

Give the PDF a **Heading**.

Select either Landscape or Portrait **Orientation** of the PDF. Edit the **Filename** by either entering it straight into text field (replacing **report.csv**), or click the to choose a new save folder and filename.

5. Events


A CathesisVision event has a trigger, which causes an action. Set integrated devices to act as triggers, or as actions. This document will detail the Herta specific aspects of Events. There is a comprehensive guide to CathesisVision Events in the main setup manual.

5.1 Creating an Event

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



1. Once in Events management area, right click on the screen to add a new event. An icon will appear.

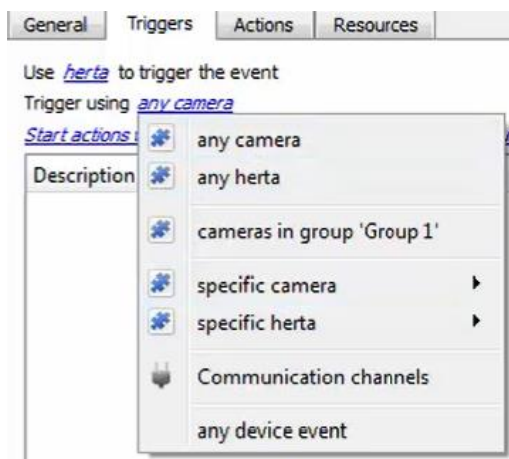
Select **New**:  This will open up the New Event window.

2. Add an event name.
3. Once in this window, select the Triggers tab and click on the hyperlink titled, [standard triggers](#).
 - a. From the drop-down menu, select **Herta**.

5.2 Triggers

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

5.2.1 Trigger Types (Trigger using) or Set the device as the trigger

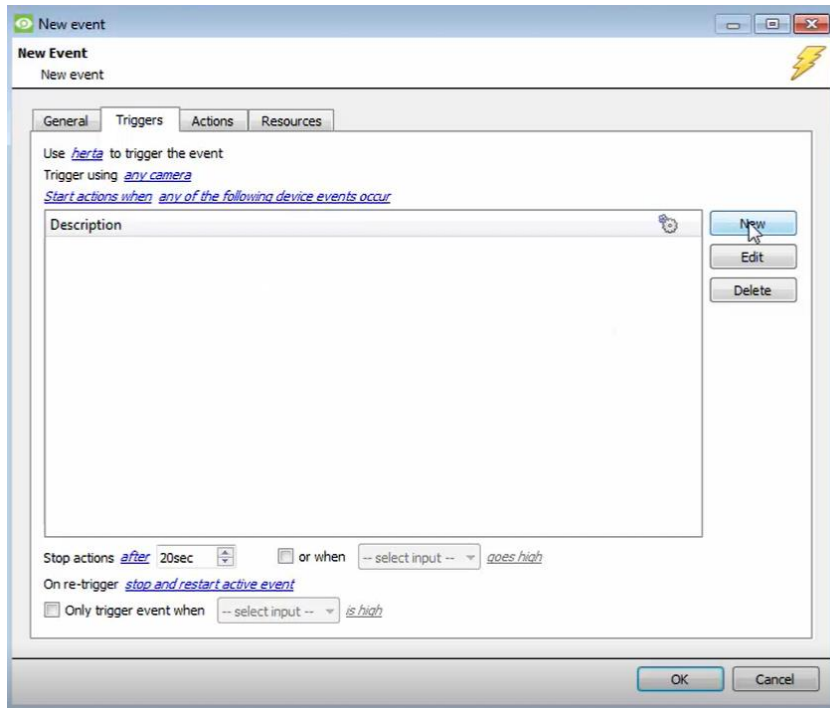


To set the Herta device itself to trigger events, click on the hyperlink **any camera**, and then select the Herta device from the drop-down menu.

Alternatively, choose another trigger from the drop-down menu.

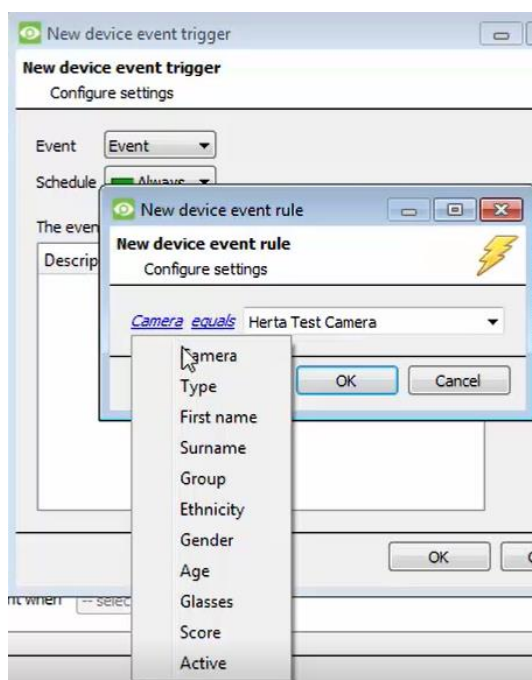
Within the **Trigger using** event setup (it is useful to think of these as master triggers), “device event rules” may be set, which will constrain the events that prompt triggers. After selecting a master trigger type, add a trigger to the event. Click on **New** in the Triggers tab. This will bring up the dialogue box below:

5.2.1.1 Any camera



For example, within the [any camera](#) option, select **New** and choose the type of device Event that will be the trigger. Choose from the drop-down menu.

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



To change the constraint, click on the first hyperlink. This will bring up the full list of available rules (shown here on the left).

To modify the way this rule will be treated, click on the second hyperlink ([equals](#) in the example). This will display the rules options.

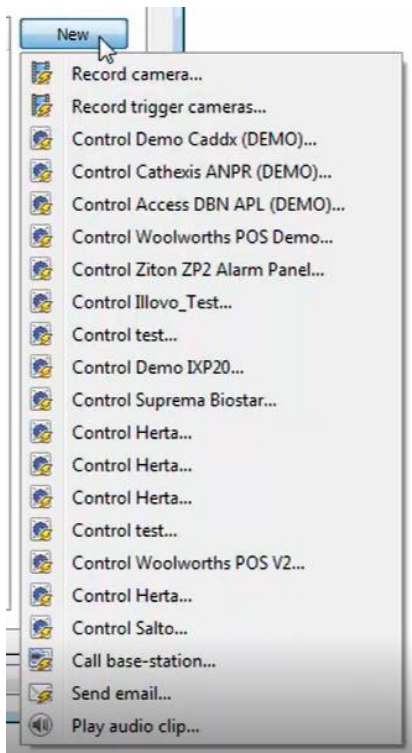
5.3 Actions

Once the triggers that are going to initiate the event are defined, Actions can be added.

5.3.1 Open Actions Tab



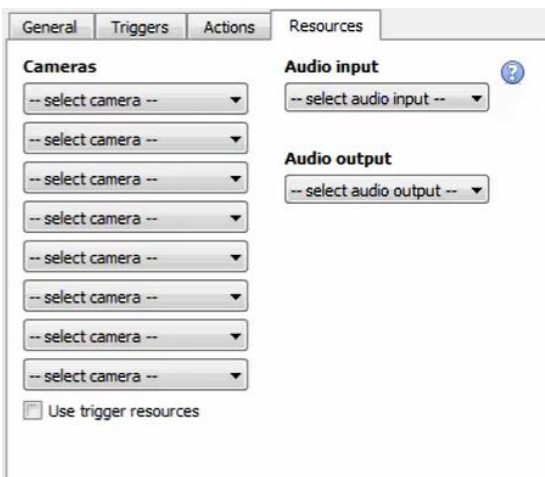
To get started, click on the tab titled "Actions", and click .



A menu will drop down containing all the available action type, depending on its capabilities or what has been added on the software.

The device action type is represented by this icon:

5.4 Resources



Other options can be changed within the Resources tab.

6. Conclusion

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

For support, email support@cat.co.za