CathexisVision 2014
Video Management Suite

Digital surveillance and beyond

Quick Start Guide

The objective of this document is to get you up and running as quickly as possible.

Contents[1]

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[1] While Cathexis has made every effort to ensure the accuracy of this document, there is no guarantee of accuracy, neither explicit, nor implied.

Specifications are subject to change without notice.

1 Welcome

Thank you for choosing Cathexis products!

This quick guide will provide basic instructions and information to setup Cathexis CathexisVisionNVR. The objective of this document is to get you up and running as quickly as possible.

For more detailed information please contact your supplier or support at support@cat.co.za (+27) 31 940 4360.

2 Requirements/Restrictions

In order to use this document & software, the assumption has been made that the installer has a basic understanding of the operating system they are using, and is able to do simple administrative tasks (for example, adding disks, adding printers, or setting IP addresses).

a. Windows 7 and NetBSD operating systems

- There is no netbsd2 code release.
- The NVR is supported on windows 7 and later; and windows server 2008 R2 and later.
- It is **not** supported on windows XP, Vista, and earlier.
- NetBSD 1.6 systems are **not** capable of viewing live or reviewing H264 video. So they cannot review video from AVM4's or SAM3's or view live video from AVM4's (remotely) or SAM3's.
- Download Cathexis Software

Note: There is a minimum requirement of 4 Gigabytes of RAM to run this software.

b. Routing/Port Requirements

The following information regards the router ports that need to be opened on the network firewall/router. These ports are important in allowing a number of Cathexis services to run correctly.

Ports to Open

Operational Ports	TCP/UDP
80	TCP
3306	TCP
30010-30100	TCP
30095	TCP
Maintenance Ports	
1194	UDP
20-23	TCP
25	TCP
465	TCP

Remote Support

We recommend that you open TelNet, FTP and SSH to facilitate connectivity for Support purposes.
If this is not feasible, please contact the Support Desk to make an alternative arrangement for a connection (optional).

3 Installation

a. Run Cathexis Cat Vision Suite installer

You will either receive the software on a CD, via a download link provided by us, or from the website www.cathexisvideo.com.

Once you have acquired the software, you will need to install it -


b. Follow the installation Wizard

c. Accept the license agreement, choose the installation location and install

d. Cathexis Windows Performance Wizard

The Cathexis Windows Performance Wizard optimises several Windows system settings for use of the CathexisVisionNVR on a Microsoft Windows PC. It is run after a successful installation and may be run anytime thereafter to change the settings.
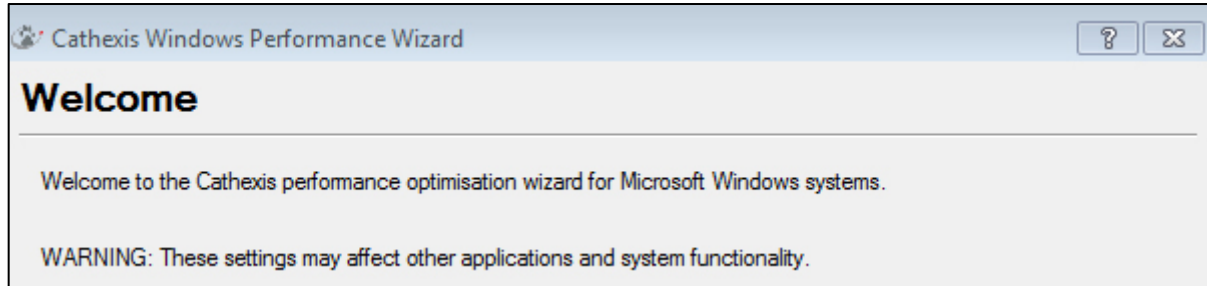
The installer will show the current state of each setting. It presents the following options:

- **DisableDOS 8.3 filenames on NTFS partitions**. This is a required setting for using the database engine. (<u>Required</u>)
- **Disable the Last Access timestamp on NTFS partitions**. This provides a small performance gain when accessing large volumes of files. (<u>Recommended</u>)
- **Enable the High Performance power management scheme**. This adjusts power settings to allow the best performance of the system. (<u>Recommended</u>)
- **Disable the Windows Defender service**. This isn't required but provides a small performance gain over a secured system. (<u>Optional</u>)
- **Disable the Windows Search Indexing service**. Provides a significant performance gain by preventing background indexing of the file system. (<u>Recommended</u>)
- **Disable the Windows Desktop Manager Service**. Will disable the Aero desktop and appearance enhancements to reduce graphics system load. (<u>Optional</u>)

e. Start CathexisVision

This is the user interface that allows you to configure the recording parameters, and allows you to view the live video and review the recorded video.

f. Log in
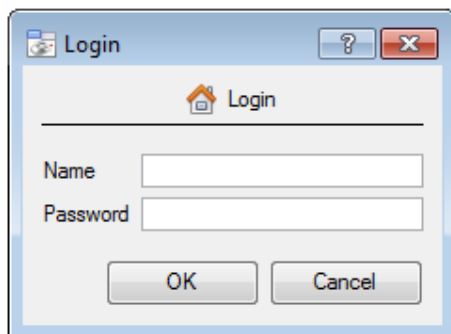
The default login details:

Username: admin
Password: admin

<u>Note</u>: The default Username/Password for NetBSD servers and all pre-CathexisVision 2014 systems will be dvs/dvs.

4 Licensing

Before progressing, the licenses for the unit need to be applied to the software. The mode of licensing will depend on whether you have access to the internet, and how you purchased the software. You may be licensing from a remote unit, or from the local unit (the unit you are working on). This section provides a guide for each situation.

a. Licensing from the Local Unit

Note: The following instructions describe the process for licensing the unit that you are currently working on. For the process for licensing a remote unit, see the next section (4b Licencing From a Remote Unit).
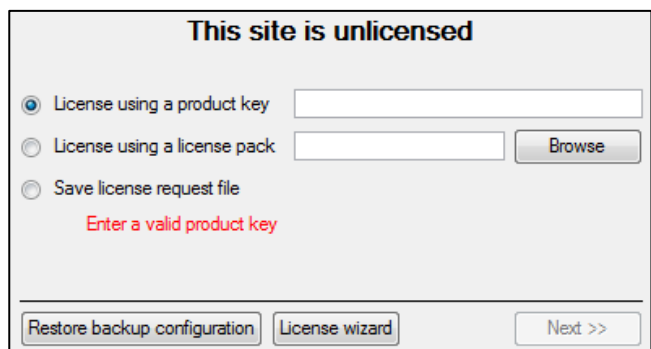

- *Log in*
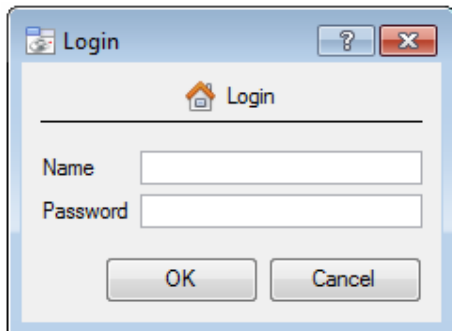
The default login details:

Username: admin
Password: admin

Note: The default Username/Password for NetBSD servers and all pre-CathexisVision 2014 Windows systems will be dvs/dvs.

Once you have logged in you should be presented with the following images. The splash on the left will be superimposed over the dialogue on the right.

You may now license your unit via one of the following steps:

Trial License

To activate a trial license, simply copy and paste the product key from your trial license pdf.

Internet Connection on the Unit

If you have access to the internet, and your vendor supplied you with a product key, enter the product key. The system will connect to the on-line licensing system and complete the process for you.

No Internet Connection on the Unit

If you have no internet connection on the unit that you are licensing from, then you will need to upload a .pack file. A pack file is a file that contains all the licensing information for a unit.

To get a .pack file from support@cat.co.za there are two steps. First you must save a .rqst (request) file, from the unit you are licensing, and email this to support, along with the information relevant to the licenses you wish to add to this unit. Support will then respond with a .pack file, containing the licenses, which you will then upload to that unit.
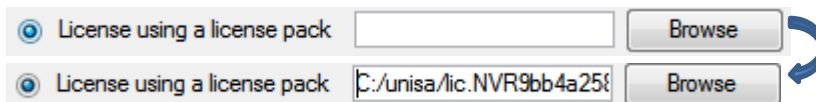
- ### Save a licence request file to a USB key/cd

A .rqst file must be retrieved from the unit that you wish to license.
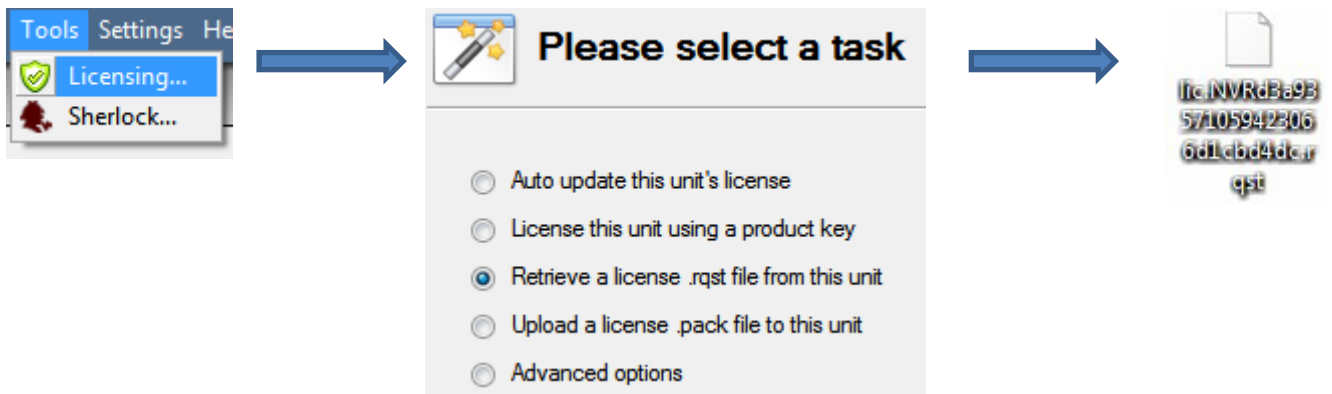
Email this .rqst file to support, along with the information relevant to the licenses you wish to add to this unit.

- ### Upload the .pack file to your unit

Your site should now be licensed. For further assistance you can contact support@cat.co.za.

b. Licensing From a Remote Unit

When you are licencing from a remote unit (i.e. the unit you are working on, is not the unit you are licencing) the procedure is different. This is because when you click **Tools —> Licensing** this will license the unit you are currently logged in on.

Open Configure Servers

To open **Configure Servers,** of the site that you are logged into, follow this path from the menu bar: **Site —> Open Tab —> Setup**.

Once in the setup tab click on the **Configure Servers** icon .
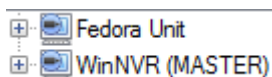
 Once Configure Servers is open right click on the individual unit that you would like to license and select **Licencing** from the drop-down menu.

After this the licensing procedure is the same as if you had selected **Tools — Licensing in** the GUI of the local machine.

You will get the options that you see here on the left.
You may **Auto-update** if this unit has already been licensed, or use a **Product Key** if one was provided.
If you need to request a license you should follow the procedure detailed above in the III No Internet Connection on the Unit section.

Note: You will save the .rqst files, and upload .pack files, to storage media attached to the unit you are doing the licensing *from*, not the one that you are licensing.
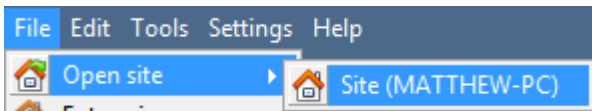
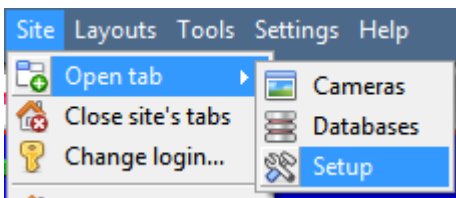# 5 Getting Started in the Setup Tab

a. Introduction

CathexisVision may run on one individual recording server, or on many interlinked servers. Cameras, and integrated devices, are added to individual servers. For this reason many of the setups are done on a server-by-server basis. Server based setups occur in the Configure Servers section of the Setup Tab.

b. Open the Setup Tab

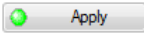- *File -> Open Site –> site_Name*

- *Site –> Open Tab –> Setup*

c. General Setup

From the general setup, you are able to set the site name, default access levels, site contacts and network speed.

Once you have made your changes you need to click for them to take effect.

6 Cameras ⬤

a. Introduction

There are two ways to add a camera in CathexisVision.
1. The camera Addition Wizard. (This will also give you the option to add databases, schedules, and events to system.)
2. The Copy/Paste Function.

This section of the manual will detail these two addition methods, followed by an examination of the Camera Edition options, and some extra information on the right-click menu.

- ***Open the Cameras Panel***

The cameras panel is located under Configure Servers.

File —> Your_Site_Name —> Open Tab —> Setup —> [icon] **—> Select, and expand a Server —>** ⬤ Cameras **.**
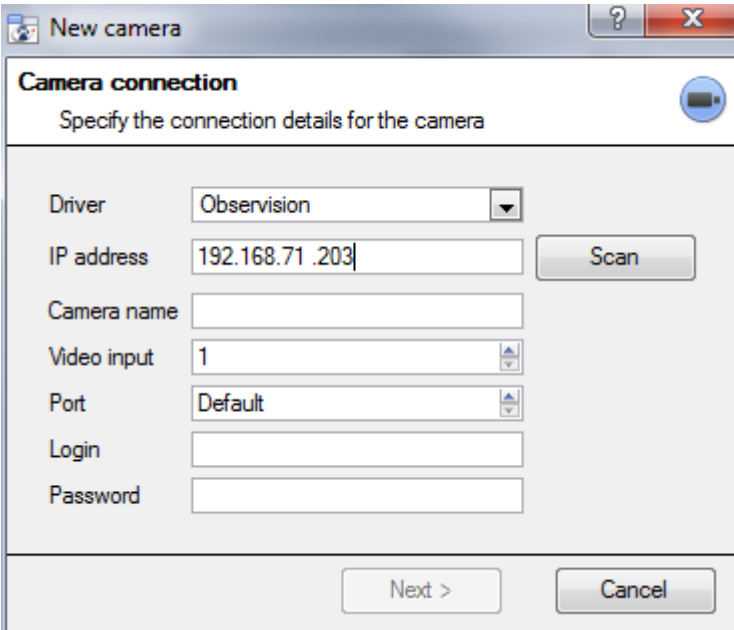
b. Wizard Addition

The camera addition wizard will take you through all the steps needed to add a camera, as well as allowing you to create databases, schedules, and events along the way. So there are two phases in the addition wizard:
1. The addition of the camera, and
2. Setting up the system to record from that camera. (Either via a VMD event, or via a scheduled recording.)

To start the camera addition wizard click on the New button at the bottom of the cameras panel. This will begin the wizard. The following will take you through each step in the wizard.

Camera Connection

The first step in the Wizard is the Camera Connection step. Here you setup all the connection details of the camera

Driver: Select the relevant driver for your camera.
IP Address: Set the IP address of the Camera you want to add.
Scan will scan the network for cameras that have been setup to make themself available. You may then click on a camera and it will automatically have its driver and IP address set.
Camera name is a descriptive name that you give the camera.
Video Input will be used if you are connecting to an encoder that has multiple analogue inputs. (Otherwise, leave it on 1.)
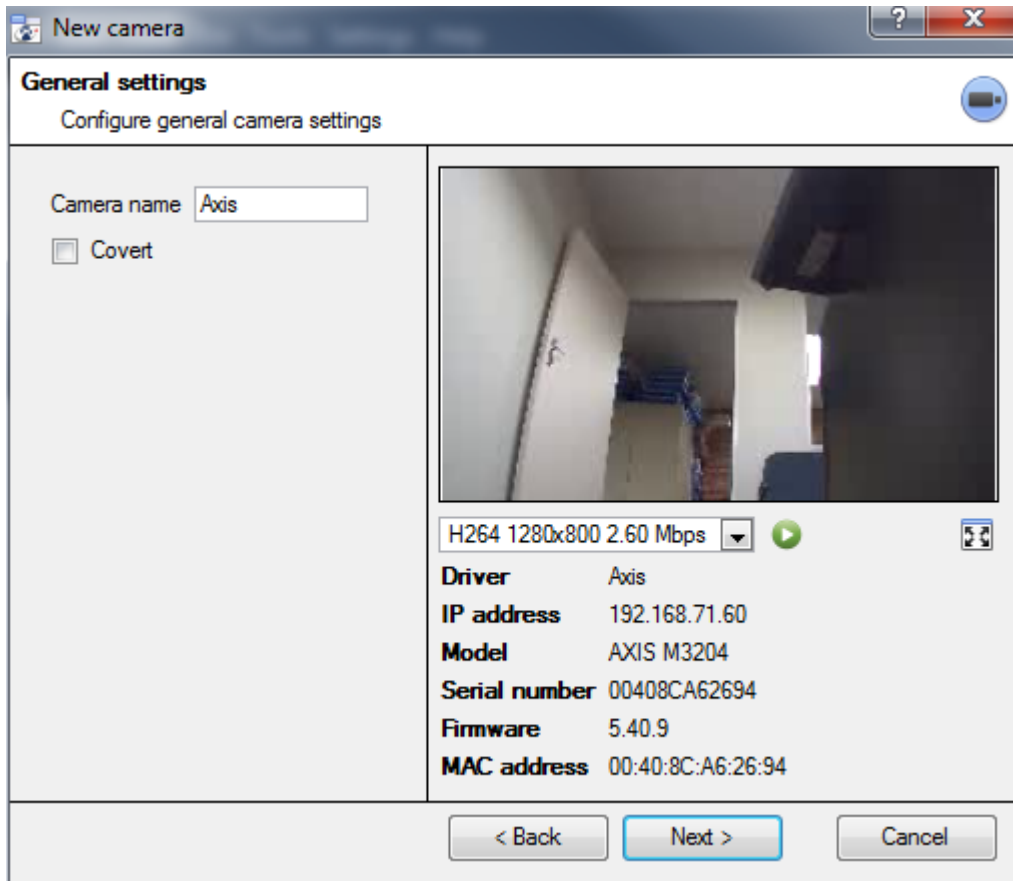**Port** will have a default setting, but if you wish to connect through a specific port, set it to the port of your choice.
Login and password are the cameras current login details.

- ***Note on Scanning:***

1. Some Cameras do not support automatic location requests, and will not be found using **Scan.**
2. Universal Plug and Play (UPnP) will have to be enabled on the cameras that do support location requests.

General Settings

Name	Give the camera a descriptive name. So as to make it easily identifiable in a list.
Covert	CathexisVision gives you the option to create a covert camera. There is a difference between a camera being covert, and a user not having access to it.
	<table><tr><td>**Covert vs.**</td><td>**Access Level Defined**</td></tr><tr><td>Will only be present in the Resources List of an Administrator, or an access level that has been granted access to this camera</td><td>Will still appear in the Resources List of lower log in levels, but they will not be able to view the feed.</td></tr></table>
Device Information	This will be a list of all the relevant information, pertaining to the device itself. You can see it underneath the image preview.
Live Preview	The image you see is a frame grab from the video feed that you have chosen. To play the live preview click on: To enlarge the image click on:

Note: The image in the preview will not reflect the actual quality of the feed, as it is transcoded when viewed in the camera addition wizard.
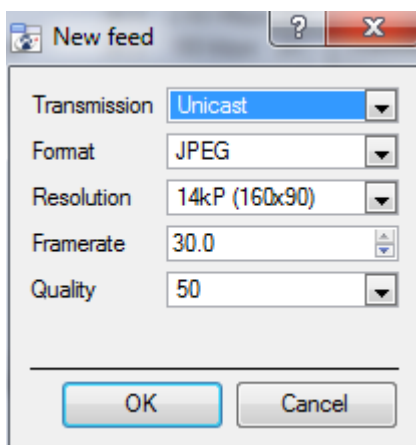
Video Feeds
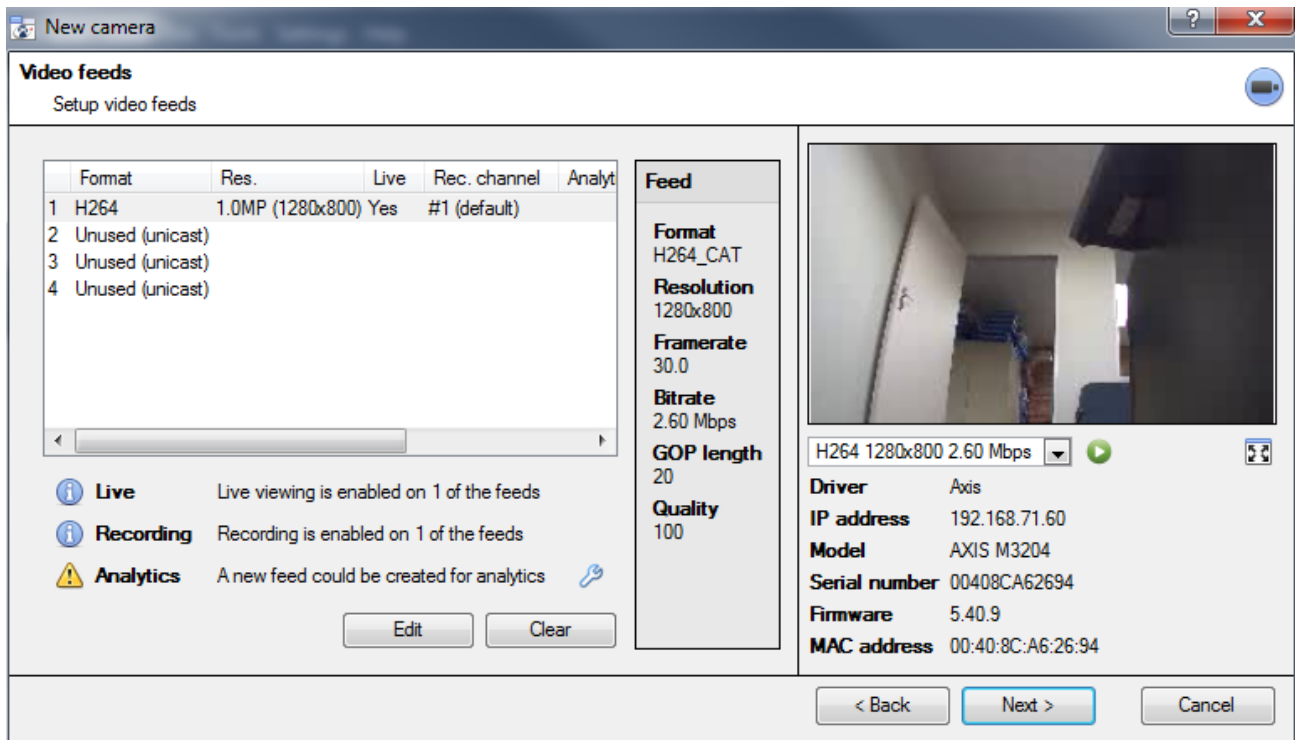
- ### *Add/Edit a Video Feed*

To add/edit a video feed click on one of the available feeds in the list, and click on the **Edit** button. This will bring up a feed dialogue with the available video feeds, and the options that pertain to them. The two most common IP feeds are JPEG and H.264.

JPEG
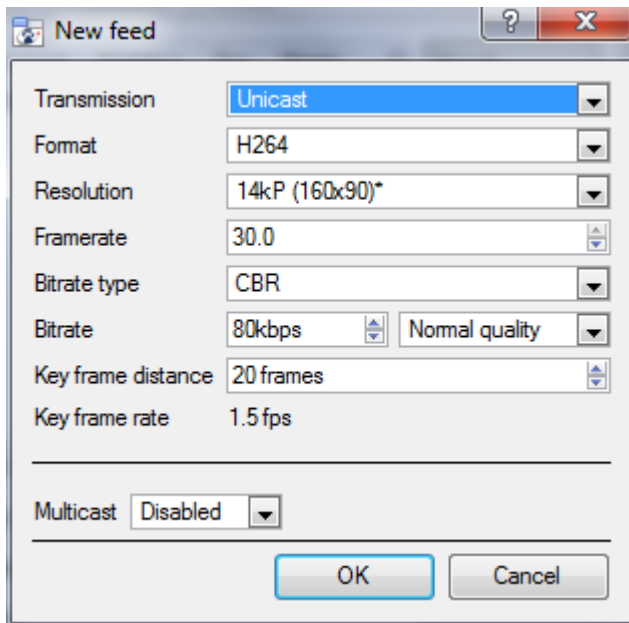

Transmission will show the transmission type
Format is the compression format used by this stream. Click the drop-down menu to choose the one you desire.
Resolution is the amount of pixels in the image.
Framerate is the amount of frames recorded per second
Quality defines how lossy the compression of the image is. At 100 the image will have the best quality; at 50 it will have the lowest quality.

H.264

Transmission will show the transmission type
Format is the compression format used by this stream. Click the drop-down menu to choose the one you desire.
Resolution is the amount of pixels in the image.
Framerate is the amount of frames recorded per second
Bitrate Type this is the way that your bitrate is handled. A constant bitrate will be more predictable, but will lose more information the more the image changes. Variable bit-rate is less predictable, but will have better images when the picture has more motion.
Bitrate is the amount of information, in bits, that the feed will send per second. (**Quality** defines how lossy the compression of the image is.)
Key Frame Distance is the number of frames between each I-Frame (Key Frame).

Multicast

You may setup Multicast on your feeds by selecting the relevant option from the feed dialogue. There are three options **disabled, auto,** and **manual**. (Leave disabled if you do not want to use multicast.)
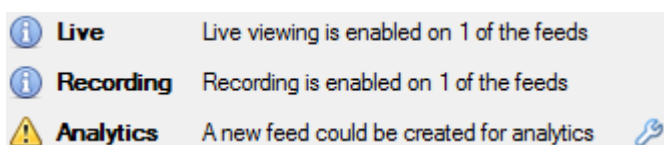
Manual

With manual selected you will have to enter in your own Multicast IP, and Multicast Port.

Auto

On auto the Multicast address will be automatically assigned. The core settings for this may be found in the document on the **General Site Setup** section of the **Setup Tab**.

- ### *Feed Notifications*

This area will show you the status of the feeds you have created. Whether you have enabled **Recording**, **Live Viewing**, or **Analytics**.

Note: *If you click on any of the icons* it will display some detailed information about the feed/problem.

Automatic Configuration

If there is an icon at the end of the feed notification, this means that there is a potential problem with your feed setup. Clicking this will automatically fix the problem for you.

- ### *Right-Click Menu (Live, Recording, and Recording Channel Settings)*

Right-clicking on a feed, after you have set it up, will bring up the menu seen below. These are setting that can only be accomplished after the feed has been setup.
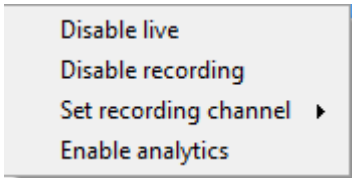
| Disable Live	viewing of the feed
Disable Recording	of the feed
Set Recording Channel	Define which channel number will represent this feed
Enable Analytics	Enable Video Analytics.

Analytics

In order to enable analytics on a unit you will need to setup a second feed, right-click on that feed, and click **Enable Analytics**. There are a few rules when it comes to enabling analytics.

1. If you do not setup an analytics enabled channel here you will not be prompted to add Video Motion Detection (VMD) later in this wizard, nor will you be able to add VMD, using this feed later.
2. Only Feeds that are QVGA resolution, and lower, will give you the option to enable analytics.
3. If you see a 🔧 at the end of the ⚠️ **Analytics** feed notification, you do not have a feed enabled for analytics. Clicking on the 🔧 will automatically enable one.

I/O

The next step in the addition is the I/O setup. The I/O values represented in the GUI will depend on the I/Os provided by the encoder.
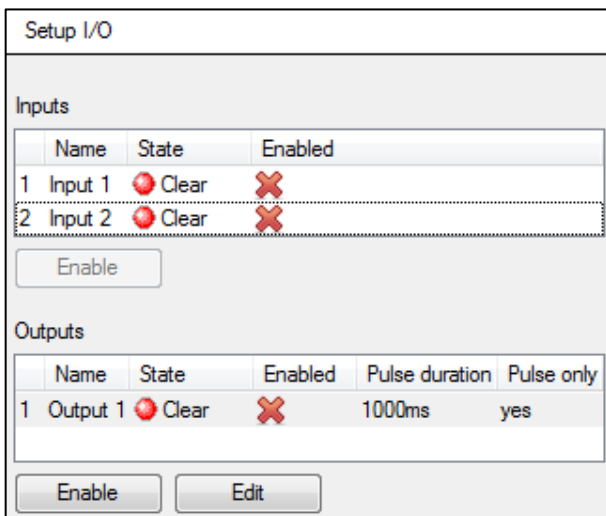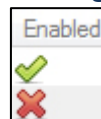

I/O
Inputs are used to trigger an event; **Outputs** are used to give a desired output as a result of a triggered event.
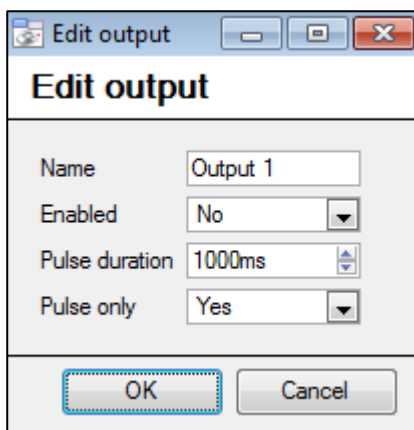
Renaming

Double click on the I/O name to rename it.

Enabling

Double click on the red cross or click the enable button. Once enabled it may be used to trigger an event.

Edit an Output

Name
Give your output a descriptive name

Enabled
Will tell you whether the output is disabled/enabled.

Pulse duration
Will set the amount of time (in milliseconds) that the output will pulse for, if it is set to pulse.

Pulse only
If set to Yes, the output will not allow itself to be permanently Set.
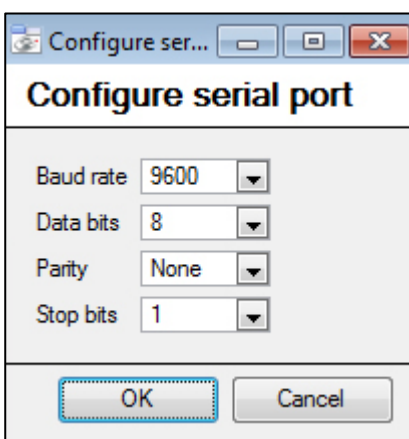

Triggers

Certain cameras will have their own event triggers, and encoders will often have I/O options

Note:
- Double clicking on any of the column values of an I/O will toggle the value. E.g. double clicking on a Clear state will change the state to Set). (These options are also available via the Right-Click menu.)
- Give your I/Os descriptive names, otherwise they will not be identifiable.

Serial Ports

Highlight the serial port you wish to configure then click the button.

This will give you the option to change the **Baud rate**, **Data bits**, **Parity** and **Stop bits**, and other camera dependent settings.

Note: This option will only be available if the camera has serial ports.

PTZ

Check the box, if you are adding a PTZ camera. After this all the available PTZ options will appear in the wizard interface:

- ### *General Settings*

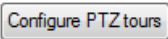|	
Preset Name	**You may give your Presets descriptive names (such as 'front door' etc.)**
Zoom Speed	This defines how fast your camera will zoom in when using the PTZ controls. **Note**: Use the live view panel, to the right, to see if the zoom speed is satisfactory. Test this by clicking on *Zoom* on the PTZ control wheel.
Home Position	A home position is a pre-set position to which the camera will return to after a set period of inactivity. **Automatic Return to Home** You may set a **schedule** during which the camera will return to its home position. When the schedule (see: Schedule) is inactive the camera will remain in the last position that it was left in. If there is no schedule set, the camera will never return automatically to its home position. To have it always return home after a period, simply enable the Every Day schedule.
Switch Wash and Wipe Relays	In the case that the Wash and Wipe relays are incorrectly attributed, this will swap them over to the correct order.
Configure PTZ tours	A ptz tour will run through a sequence of pre-set positions. (See section immediately below.)

- *Configure PTZ Tours*
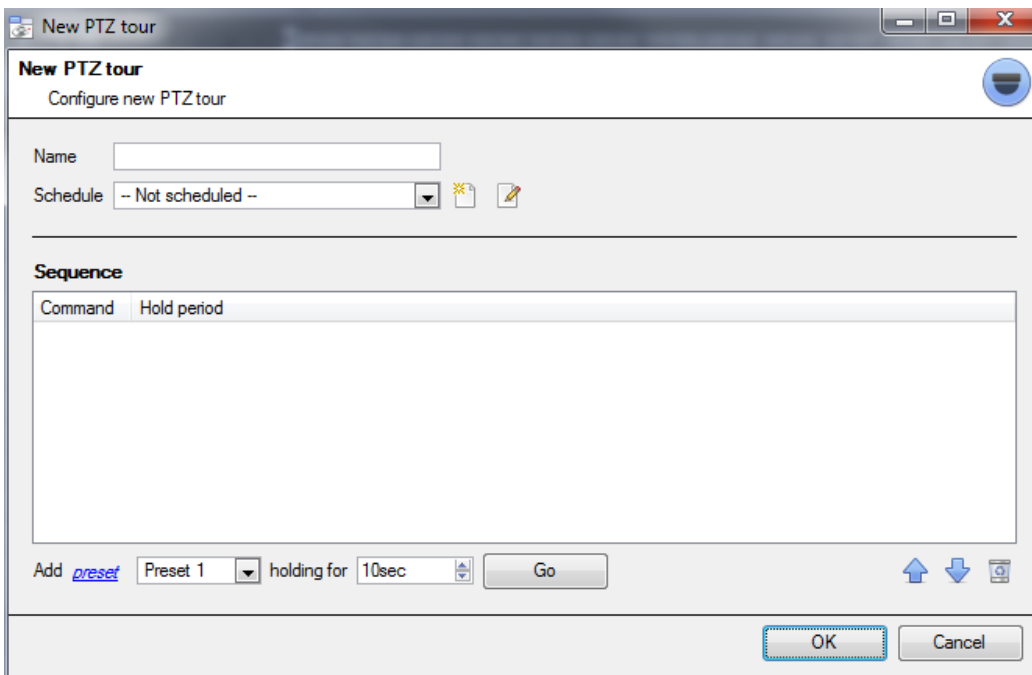
If your device supports Tours, to create/edit a PTZ tour click on **Configure PTZ tours**, this will take you to the list of tours. To create a new tour click on **New**.
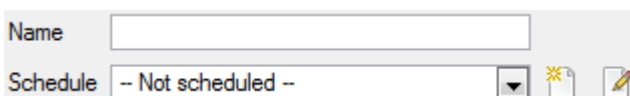
Name and Schedule

Give the tour a **descriptive name**, and, if you desire, a schedule (see: Schedule)

Sequence
This is the sequence that the Presets will run in.

Add Preset, Multiple Presets, or a Pattern, to the tour

Preset

Select the preset, set how long you want the camera to linger at this preset

Add *preset* | Preset 1 ▾ | holding for 10sec ▲▼ | Go

Multiple Presets

- <u>Starting at</u>: Select the first preset you want to add.
- <u>Add</u>: This is the number of Presets, you want to add.

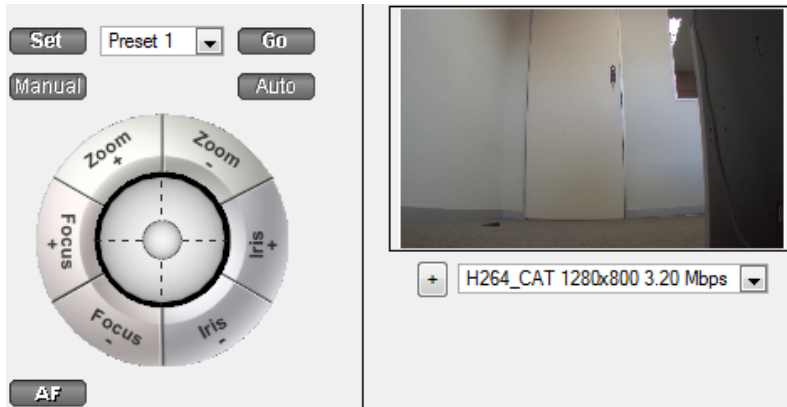In the example below you will be adding Presets 4 to 6.

Add *multiple presets* | starting at Preset 4 ▾ | add 3 ▲▼ | presets, holding for 10sec ▲▼ | Go

Pattern

Select the pattern that you want to add.

Add *pattern* | 1 ▲▼ | holding for 10sec ▲▼ | Go

- *PTZ Procedures*

With a Pan-Tilt-Zoom (PTZ) camera an operator can manipulate the camera's direction, Zoom, focal distance (Focus) and amount of light (Iris). He / she can also control pre-configured camera views called "Presets".

A Dome Control Panel becomes available when you select a Live PTZ camera in the CathexisVision interface.

Click the panel's dropdown menu and select **PTZ** (see below). The software joystick displays:

Note: Don't forget to select/play a live feed.

Using the PTZ Control Panel

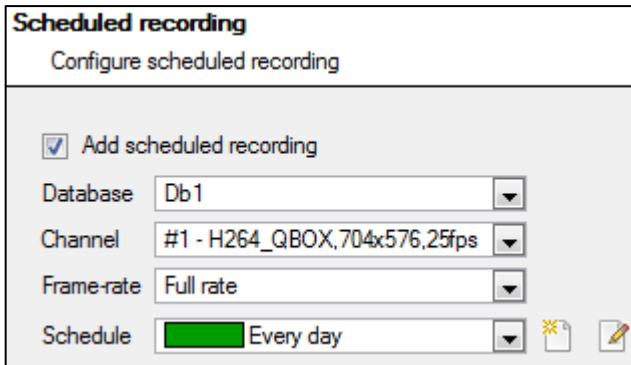|	
To pan left / right from the PTZ panel Drag joystick left / right	**To tilt up / down from the PTZ panel** Drag joystick up / down
To move the camera faster from the PTZ panel Distance determines speed - drag joystick out, in required direction	**To move the camera slower from the PTZ panel** Distance determines speed - drag joystick closer in, in required direction
To zoom in / out from the PTZ panel Watch the live camera as you press the Zoom + and Zoom - button	**To focus further / closer from the PTZ panel** Watch the live camera as you press the Focus + and Focus - button
To go to a preset from the PTZ panel Select the preset from the dropdown, and then click GO > The camera view will change to the preset.	**To gain manual control of the dome / PTZ camera from the PTZ panel** (This applies if you system runs remote tours automatically, or switches display based on events) Either click **manual**, or simply move the software joystick
To relinquish manual control of the dome / PTZ camera from the PTZ panel Click Auto. > If your system runs remote tours automatically, or switches display based on events, these automated responses will take over.	
To allow more or less light in the image (lighten and darken the live camera view) from the PTZ panel Watch the live camera as you press the **iris+, or iris –** button. You will see the image lighten or darken	**Define a Preset (To set a preset from the PTZ panel)** 1. Select the preset number, from the dropdown menu. 2. Use the joystick controls to establish the camera View, Zoom, Focus and Light (Iris). 3. Click SET. 4. Go to this preset to check it.

Database

All cameras need to record to a database. If you have not yet created a database you will be taken to the database setup, after you are done with the PTZ setup. If you have already created a database you can either proceed straight to the **Scheduled Recordings/Video Motion Detection setup** and use the current database.

You may create a new database for this camera by checking the ☑ Create a new database option in the bottom left hand corner of the screen.

Note: this will setup the database on the recording server that you added the camera to, and not the unit on which you are working (if you are using a client, or other remote unit). This means that you will have no file system knowledge of the remote unit, and will need to enter the path manually. (You will know whether you are on a remote unit, because you will not have the Browse option.)
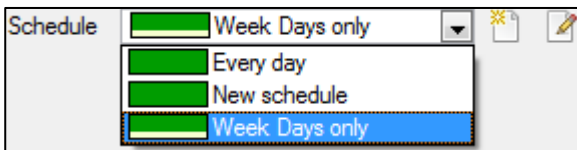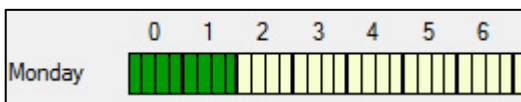
Schedule

Schedule recording

Set your camera to only record at certain times, to increase efficiency and save disk space.

Select the **database**, **channel** and **frame-rate** that you want to apply a schedule to.

Setup a Schedule

Select your schedule from the drop down menu. You can create a new schedule by clicking on the 📄 icon. To change an existing schedule click on the ✏ button.

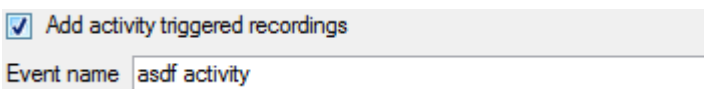

Select/Deselect time cells
Left click to **select recording time** – the green bars.
Right click to **unselect recording time** – the yellow bars.
In the above image, Monday will be recording from 00:00 – 02:00 in the morning.
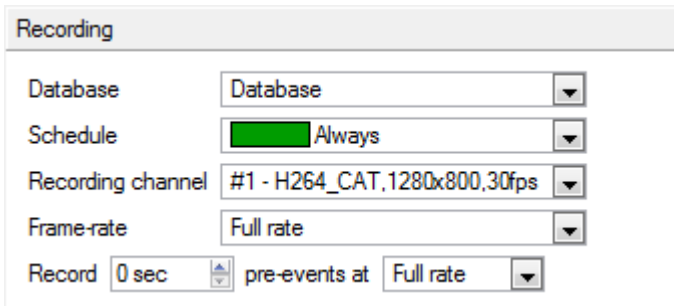
Activity Recording (VMD Event)

Note: This does a number of things. This will add Video Motion Detection, pre-event recordings, and add an Event to the system.

- Check the box to enable the event that you are creating.
- Enter a descriptive **Event Name.**

- *Recording*

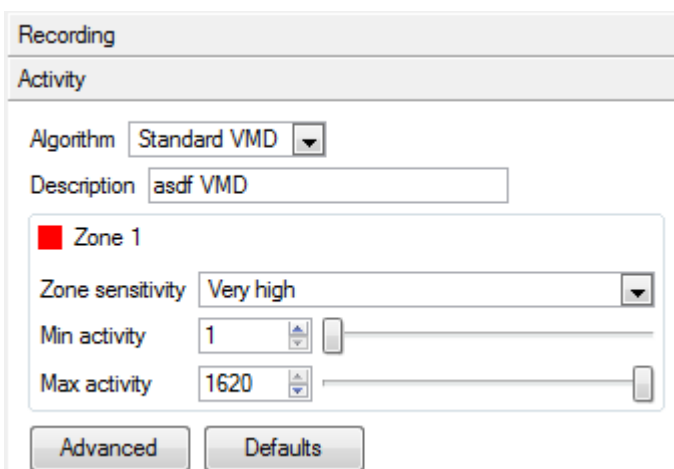The recording option allows you to setup the recording settings.
Database is the database this event will record to.
S**chedule** defines when this event will be active.
Recording channel defines which video channel will be recorded.
Frame rate defines the frame-rate that recordings will take place in.
Pre-events define a time that will be buffered, and recorded, from before the initial trigger.

- *Activity*

Selecting **Activity** will bring up the Video Motion Detection settings.

You may Choose either Standard VMD, or Smart VMD. Standard VMD will be fine in most indoor situations. Smart VMD is a learning algorithm, and is used to filter out repetitive motion, such as trees in the wind

The settings for Video Motion Detection are too detailed to go into under this section, for a full description see the Algorithms section, in the main manual.

c. Copy/Paste Cameras

Copy/Paste is accessible by right-clicking on an existing camera.

Copy/Paste a camera

If you are adding more than one camera that operates on the same driver CathexisVision offers a very easy solution. You may copy and paste entire new cameras, using the addition information of one preciously added camera.

To do Paste New cameras right click on the previously added camera and click on Copy. The right click anywhere in the Cameras Panel and click on Paste new... .

- *Paste Mode: Sequential*

The paste mode sequential window gives you the option to add the new cameras as a direct copy of the camera that you copied.

Start IP Address will determine the IP address of the first new camera that you are adding. The IP addresses will be incremented from here. (So make sure you have no used IP addresses in this range.)
Number of cameras per encoder must be the full amount of channels available on this encoder
Start Input is the actual physical channel that you want to add the first camera to.

- *Paste Mode: Discovered*

Note: This will copy the video settings from the copied camera onto the discovered cameras that you select.

Copy/Paste Video Settings

If you have already added a number of cameras with the same drivers and simply wish to transfer the Video Settings of each camera across, then you may right-click and select Copy . Then right-click on the camera you wish to add the video settings to and select Paste video settings .

Note:
- This is just the Video Feed settings; it will not add Video Motion Detection analytics.
- You may only copy onto cameras that have the same driver as the camera that has been copied.

d. Editing of an Added Camera (Tabs Based)[2]

You may edit an already added camera by selecting it and clicking on Edit . This will bring up an interface with tabs containing the cameras editable details.

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[2] If you make any changes to the setup of a camera, that is currently multicasting, you will need to restart the streams. This simply entails removing and reselecting the cameras in the Cameras tab, after you have saved your settings.

- *Repeated Options*

The camera setup options of *General*, *Connection*, *Video Feeds*, *I/0*, and *PTZ* are all dealt with verbatim, in section b.Wizard Addition (above), they will not be repeated here; two options are added in the Editing Tabs, these are: **pre-events,** and **Access Levels**. These two options will be dealt with here.

Note:
In the Wizard you may have gone through the process of setting up a Database, Scheduled Recordings, and Video Motion Algorithm triggered recordings. The Tab Edition only changes camera settings, and therefore does not have these extra options. (*Databases*, *Scheduled Recordings*, *Algorithms* and *Events* all have their own panels under Configure Servers.)

Pre-events
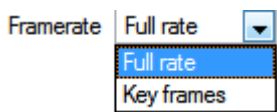
Pre-events were setup under the Activity Recording Section of the Wizard. You cannot define the amount of pre-events here, but you may define the frame rate of the pre-events in this tab.

Note: JPEG is recorded in Key Frames, so you will only be given the option of *Frames per Second* when setting the pre-events on a MJPEG stream.

Access

Under the Access tab you will setup which user access levels have control of the different facets of the camera.

Live	This controls which Access Levels can view the camera's live feed
Review	This controls which Access Levels can review recorded footage form this camera.
PTZ	This controls which Access Levels can control PTZ movement.
PTZ Menu	This controls which Access Levels have the ability to change PTZ menu.
Set Presets	This controls which Access Levels can change PTZ preset positions.
Set All	Selecting ✅ will give this level access to all settings; selecting ❌ will give this level access to none.

- *Important Note on Access Rights:*

1. All access levels on this unit are managed in the Access Rights Panel of the Server (**Site —> Open Tab —> Setup —> Configure Servers —> Expand the Server —> Access Rights**).

2. Access rights pertain to the access levels that you will assign to specific users. If you give a user a level 1 access level, and only assign this camera to other levels, that user will not see this camera. (Users are managed in the **Site —> Open Tab —> Setup —> Users**)

e. Middle Click on a Camera

There are a number of unique options under the middle-click menu in the Cameras Panel.

Snapshots are available for printing or saving the currently displayed image.
Format allows you to choose from the available streams.
Transform is a software transformation of the image, useful for unique cameras. (e.g. 360° cameras)
Algorithms If you middle click, on a camera, you may add overlays for algorithms, or configure them
PTZ Tours. Middle clicking on a Camera will give you access to the PTZ Tours Manager, if they are available. See 2.f. Configure PTZ Tours below
No camera will cause no camera to be displayed on the panel
Cameras full screen will make the current camera layout full-screen.
Help will bring up a useful help dialogue.

Note: **New**, **Paste New**, **Copy**, and **Paste Video Settings** are all dealt with above under Copy Paste Cameras.
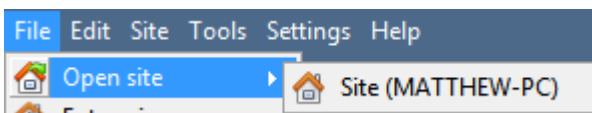
f. Camera Successfully Added
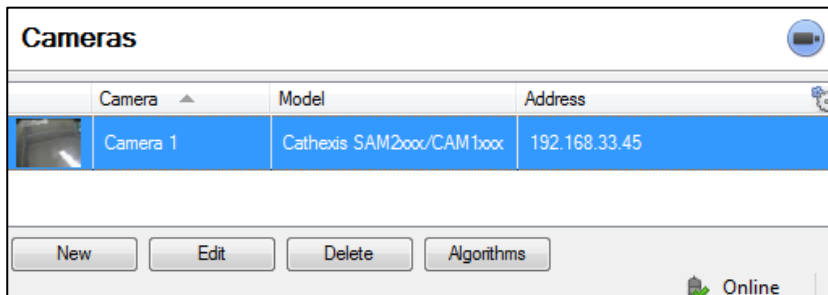
Your camera has now been setup and will start recording as configured. From this screen you can now add another camera or edit the camera you have just setup.
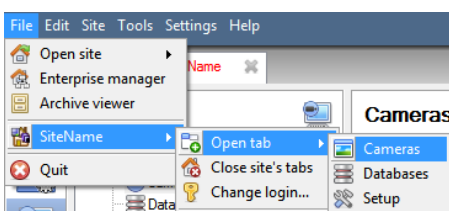
To view your Camera

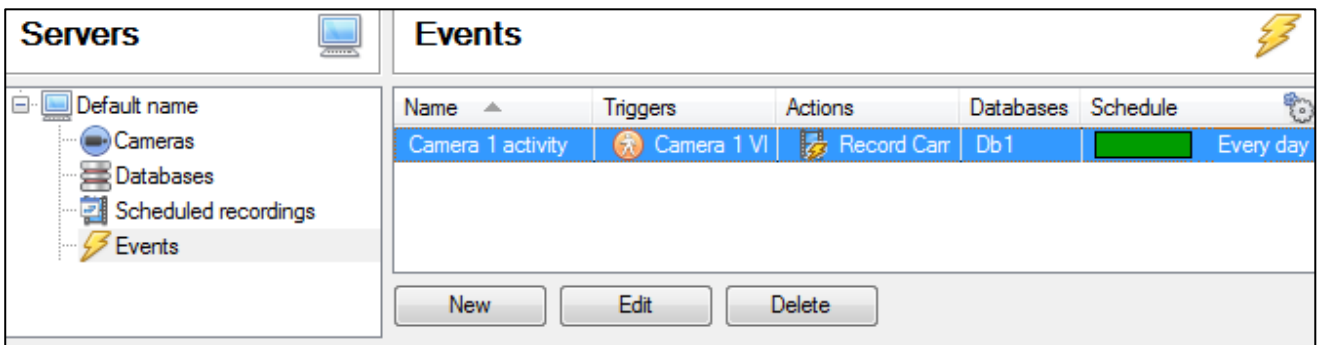- *Open Your Site*

File —> Open Site —> Your_Sites_Name.

- *Open the Cameras Tab*


File —> Your_Sites_Name —> Open Tab —> Cameras

7 Events

Events are located under **Site—>Setup—>Events.**

When you create your VMD it will be immediately added as an event. You can use this VMD setup in other events though. From the Events panel you can edit your current events, create new events, or delete events that are no longer desired.

Double clicking on, or editing, an event will allow you to adjust the Schedule, Resources, Triggers and Actions as required.
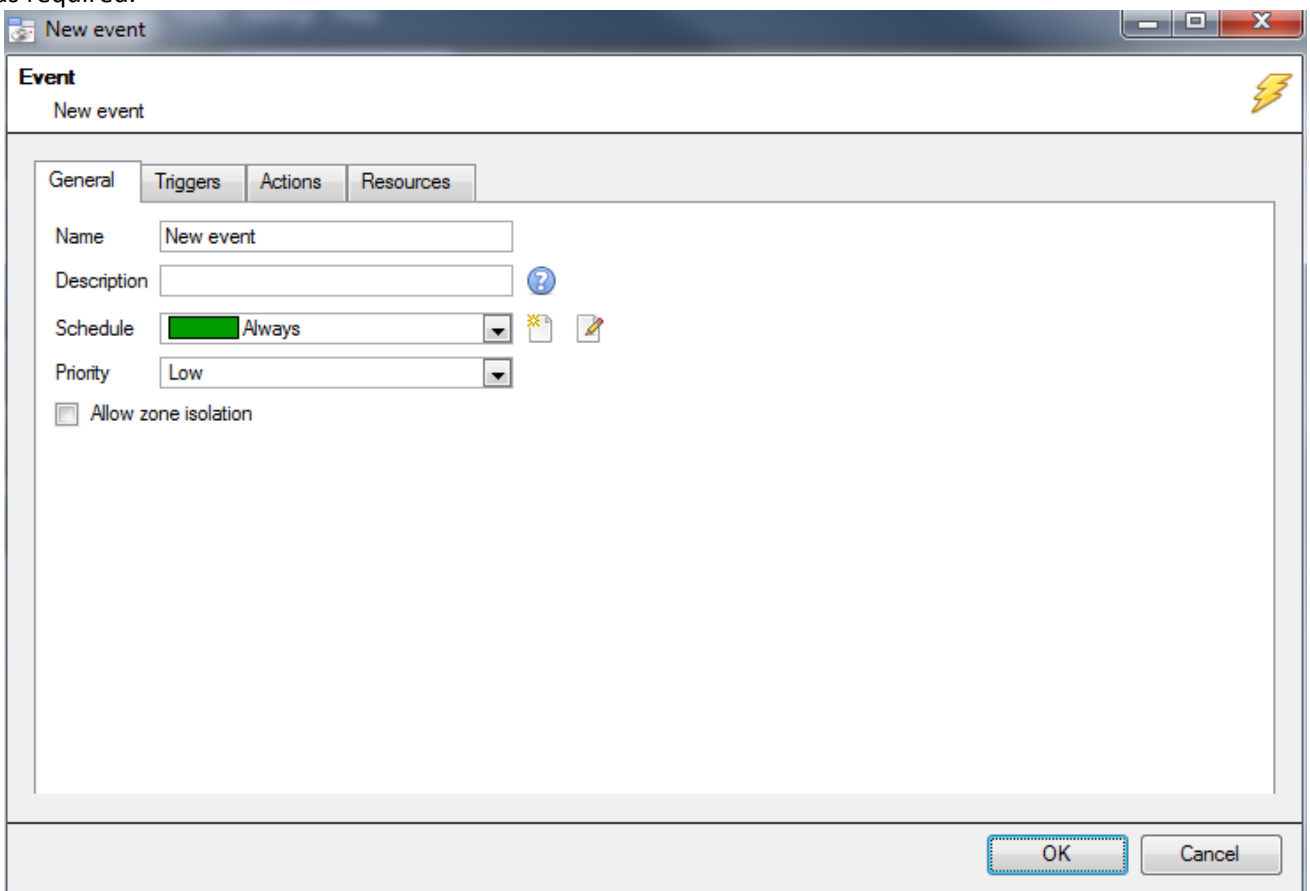
- A Trigger is what sets off an event. You can have more than one trigger per event (e.g. VMD from two cameras will cause the same Action)
- Actions are the actions taken by the system as a result of the Trigger.
- Note: The "Resources" section pertains to the ability to switch the display on a base station [to a relevant cameras stream], as a result of an action. This does not affect which cameras will be recorded
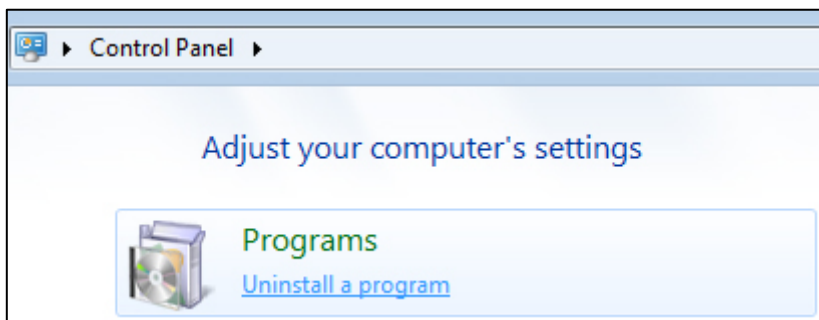
8 Uninstallation

Thank you for using Cathexis products! We are sorry to see you uninstalling the software. We welcome any feedback or comments that you might have on our products and services. support@cat.co.za
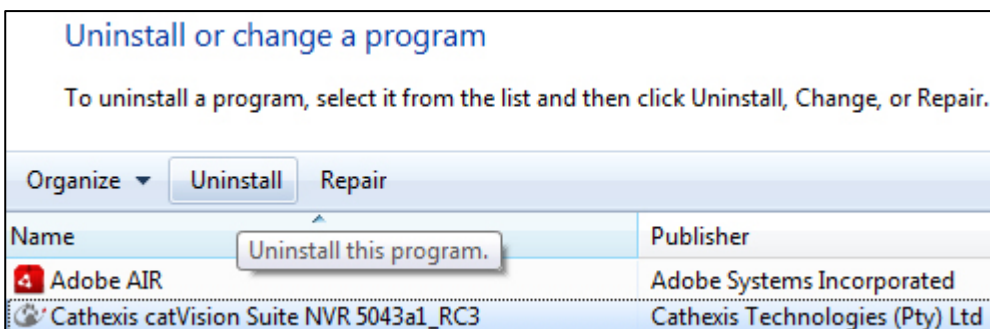
a. Start > Control Panel
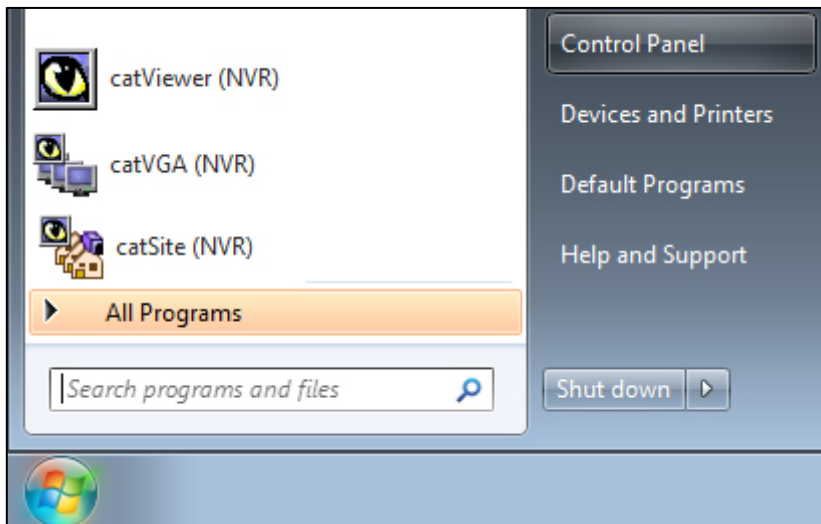
b. Programs

Uninstall a program

c. Uninstall

Select the Cathexis program that you which to uninstall, and click on Uninstall.

APPENDIX 1System Requirements

The CathexisVisionNVR software architecture is designed to utilise the various hardware system components with maximum efficiency.

When choosing hardware for your solutions there are many system issues to be taken into consideration. Some examples are:

- Camera resolution
- Camera bitrates for recording
- Camera Frame rates and resolution for "live" viewing
- Whether you are using the I.P camera or the Cathexis software to perform Video analytics.
- Whether you are viewing cameras "live" form the same server on which you are recording
- Whether you are streaming "multicast" video streams from the camera
- Storage methodology (on-board, Network Storage etc.)

All of these aspects influence the hardware system that you require to optimise performance and to provide the solution that will satisfy your requirements. Below are some guidelines which will assist you in choosing the hardware for your application. If you would like assistance with your design, contact your distributor, a Cathexis regional office or complete the System Design form by clicking on this link https://designtool.cathexisvideo.com/loginand emailing it to Cathexis and we will assist you.

Cathexis CathexisVisionNVR System Requirements Guidelines:

Processor	RAM	Operating system	Recording camera bitrate (Mb/s)	Live View MegaPixels/sec
Core i3	4GB	Windows 7-64bit	Less than 100Mb/s	< 100 MP/s
Core i5	8GB	Windows 7-64bit	Less than 150Mb/s	< 300 MP/s
Core i7	8GB	Windows 7-64bit	Less than 180Mb/s	< 600 MP/s