



CathexisVision 2018.4 Quick Start Guide



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1 Welcome

This short guide provides basic instructions and information on how to setup **CathexisVision**.¹ Follow the steps below to get the software up and running as quickly as possible. For more detailed information, please consult the Setup Manual or contact support at support@cat.co.za.

Please note that in order to use this document and software, the assumption is that the installer has a basic understanding of the operating system they are using, and is able to do simple administrative tasks e.g. adding disks, adding printers, or setting IP addresses.

¹ While Cathexis has made every effort to ensure the accuracy of this document, there is no guarantee of accuracy, neither explicit, nor implied. Specifications are subject to change without notice.

2 Requirements/Restrictions

Please download **CathexisVision** Software to continue with this document, and note that there is a **minimum requirement of 4 Gigabytes of RAM** to run this software.

a. Supported Systems

Listed below are the supported operating systems.

Note: Supported systems apply to all contents of CathexisVision software install, including:

1. CathexisVision software.
2. Map Editor.
3. Archive Viewer.

Not Supported

The following systems are **not supported**:

- Windows XP and earlier.
- Windows Vista.
- Windows Server 2008.
- NetBSD.

Linux

Fedora 16 (32-bit)

- Ubuntu 12.04 LTS Desktop (32-bit)
- Ubuntu 16.04 LTS Desktop (64-bit)

Windows

- Microsoft® Windows® 7 SP1
- Microsoft® Windows® 8
- Microsoft® Windows® 8.1
- Microsoft® Windows® 10
- Microsoft® Windows® Server 2008 R2 SP1
- Microsoft® Windows® Server 2012
- Microsoft® Windows® Server 2012 R2
- Microsoft® Windows® Server 2016

b. Windows Update Requirements

The Universal C Runtime Update is required for certain systems.

From CathexisVision 2017 onwards, updated Windows runtime libraries are used. This means that the Windows 10 Universal C Runtime update must be run on systems prior to Windows 10 (see list below).

Note: From CathexisVision 2018.4 onwards, Windows Vista and Windows Server 2008 are no longer supported, thus the update no longer applies to those systems. Windows Server 2008 R2 is still supported.

This update requirement applies to:

- Windows Server 2012 R2
- Windows 8.1
- Windows RT 8.1
- Windows Server 2012
- Windows 8
- Windows RT
- Windows Server 2008 R2 Service Pack 1 (SP1)
- Windows 7 SP1

Windows XP and earlier is not supported.

Windows updates can be run, or the specific update KB2999226 may be run. The Windows 10 Universal C Runtime update can be downloaded from: <https://support.microsoft.com/en-us/kb/2999226>.

Running the KB2999226 update has prerequisites, and one may first need to install:

- Windows 7 Service Pack 1 (download from <http://windows.microsoft.com/installwindows7sp1>).
- Windows Server 2008 Service Pack 2 (download from <https://support.microsoft.com/en-us/kb/968849>).
- Windows Server 2008 R2 Service Pack 1 (download from <http://go.microsoft.com/fwlink/?LinkID=199583>).
- Windows RT 8.1, Windows 8.1, and Windows Server 2012 R2 update
 - KB2919442 (download from <https://support.microsoft.com/en-us/kb/2919442>).
 - then KB2919355 (download from <https://support.microsoft.com/en-us/kb/2919355>).

c. Hardware

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

When choosing hardware, 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 the I.P camera or the Cathexis software is used to perform Video analytics.
- Whether cameras are viewed “live” from the same server on which the user is recording.
- Whether “multicast” video streams from the camera are being used.
- Storage methodology (on-board, Network Storage etc.).

All of these aspects influence the hardware system required to optimise performance. Below are some guidelines, which will assist in choosing the appropriate hardware. For assistance with the design, contact a distributor, a **Cathexis** regional office, or complete the **System Design Tool form** by clicking on this link: <http://downloads.cathexisvideo.com/support/design-tools/>.

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 600Mb/s	< 600 MP/s

d. Anti-Virus Exclusions

If an anti-virus, with active or real-time protection scanning enabled, is running, then certain CathexisVision folders need to be excluded from anti-virus scanning. This is in order for CathexisVision to run correctly.

The folders which need to be excluded are:

- CathexisVision **Server** installation folder.
- CathexisVision **Client** installation folder.
- Any folders, drivers, and volumes where **database/s** reside.

Note: All folders and paths referred to below are default installation folders – if the default folder option was not selected during installation, then installation folders need to be located and excluded from anti-virus scanning.

The sections below indicate the default installation folders and paths, which need to be excluded from scanning.

Folders to Exclude in CathexisVision 2016 and 2017

For sites running CathexisVision 2016 and/or 2017, please exclude the following from anti-virus scanning:

Folders to Exclude		
CathexisVision Server	32-bit	c:\program files (x86)\CathexisVision Server
	64-bit	c:\program files\CathexisVision Server
CathexisVision Client	32-bit	c:\program files\CathexisVision Client
Database folders/drives/volumes	Please locate and exclude.	

Complete List of Folders to Exclude

If a **global anti-virus is being used** (meaning anti-virus protection is applied globally and not to individual units) and different units in a site have different installation folders, or if the **installation is prior to CathexisVision 2015**, then exclude **all** the default installation folders to avoid hassle.

Note: All folders and paths referred to below are default installation folders – if the default folder option was not selected during installation, then it needs to be located and installation folder/s must be excluded from anti-virus scanning.

	Folders to Exclude
CathexisVision Server	c:\program files\Cathexis CathexisVision Suite NVR
	c:\program files (x86)\Cathexis CathexisVision Suite NVR
	c:\program files\CathexisVision Server
	c:\program files (x86)\CathexisVision Server
CathexisVision Client	c:\dvs
	c:\program files\Cathexis CathexisVision Suite WRV
	c:\program files (x86)\Cathexis CathexisVision Suite WRV
	c:\program files\CathexisVision Client
	c:\program files (x86)\CathexisVision Client
Database folders/drives/volumes	Please locate and exclude.

e. 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	Protocol	Application
80	TCP	Default CatMobile Access
30010-30100	TCP	CathexisVision Software

Maintenance Ports	Protocol	Application
22	TCP	Secure Shell (SSH) - Linux
3389	TCP	Windows Remote Desktop
NA	NA	TeamViewer Access

Remote Support

Please download and install one of the following programs relevant to the specific operating system to ensure remote support is available..

Linux: Secure Shell (SSH - TCP port 22).



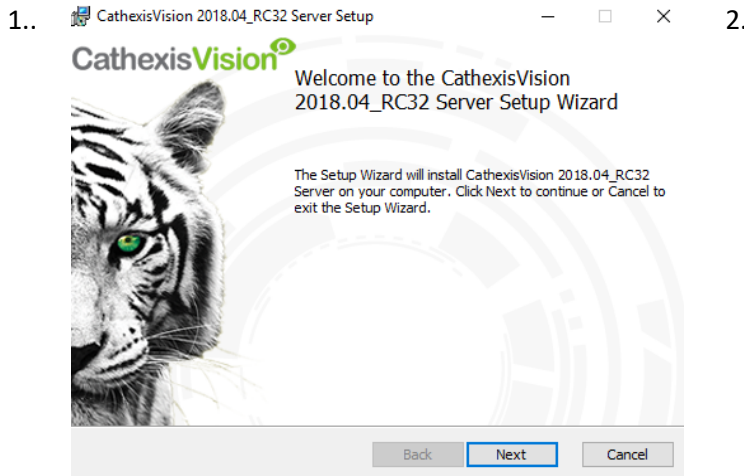
Windows: Teamviewer, or Remote Desktop.

3 Installation

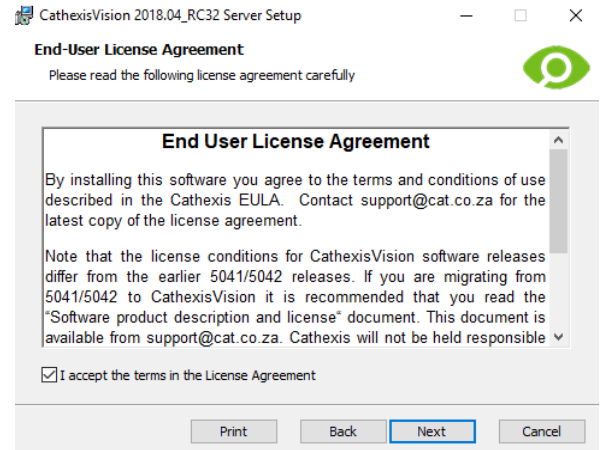
Double-clicking the installer file will provide directions to the **Installation Wizard**.



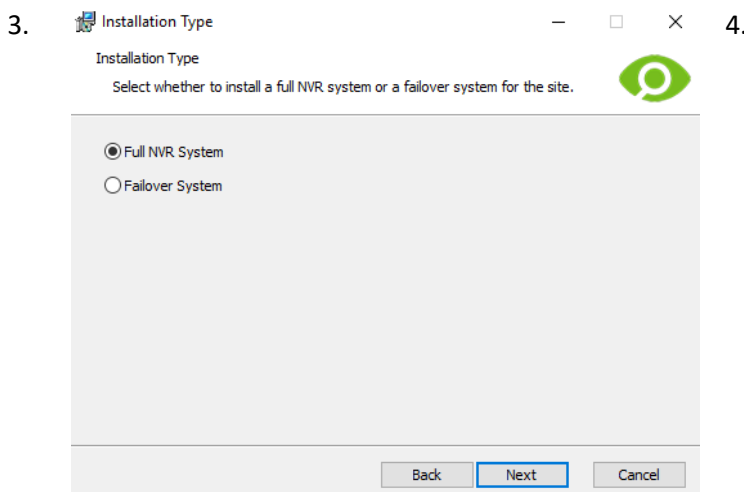
a. Follow the installation Wizard



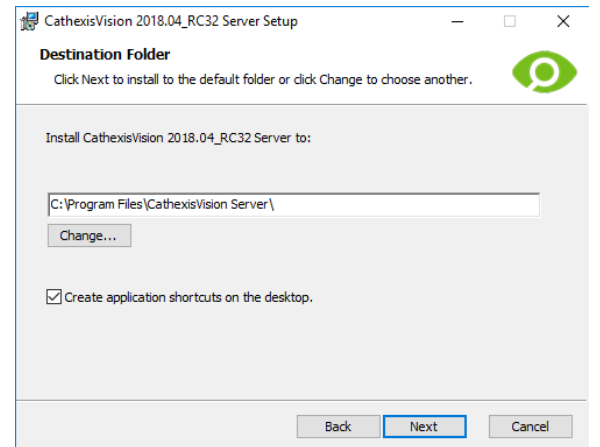
Click **Next**.



Accept the End User License Agreement.

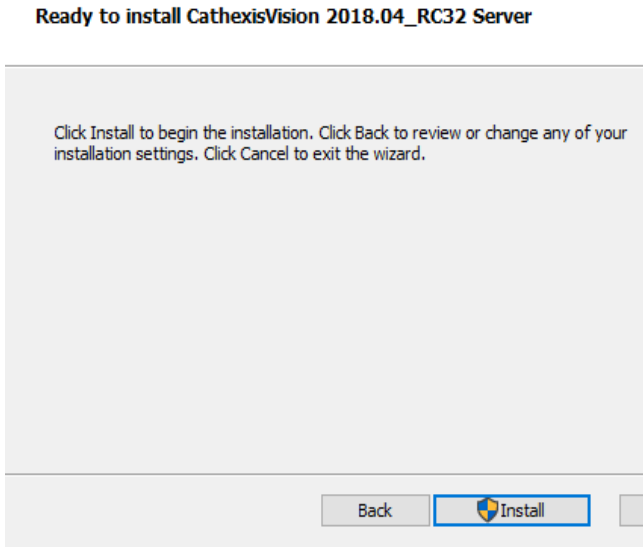


Follow the prompt to choose between a **Full NVR System** and a **Failover System** installation.



Choose the installation folder (this is best left as it is).

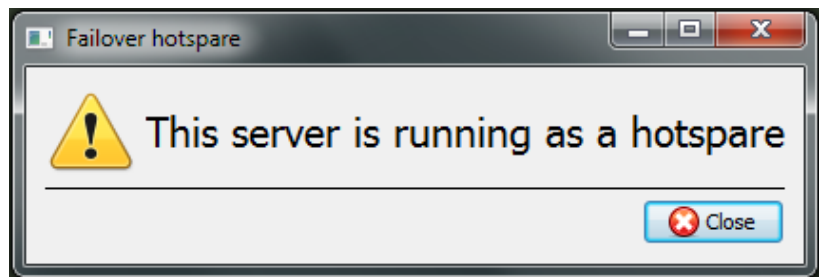
5. CathexisVision 2018.04_RC32 Server Setup



Click **Install**, and when the installation is complete, click **Finish**.

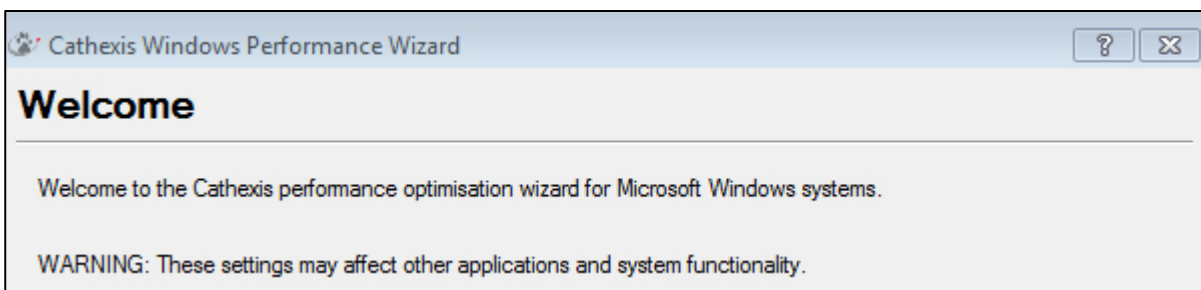
Failover Installation

After a successful Failover installation,² attempting to initiate **CathexisVision** (by double clicking on the **CathexisVision** icon) will open the following dialogue box:



b. Cathexis Windows Performance Wizard

The Cathexis Windows Performance Wizard optimises several Windows system settings for use of the CathexisVision on a Microsoft Windows PC. It is run after a successful installation and may be run anytime thereafter to change the settings.



² There is detailed information about Failover in the **Setup** section of the **CathexisVision** manual.

The installer shows the current state of each setting. It presents the following options:

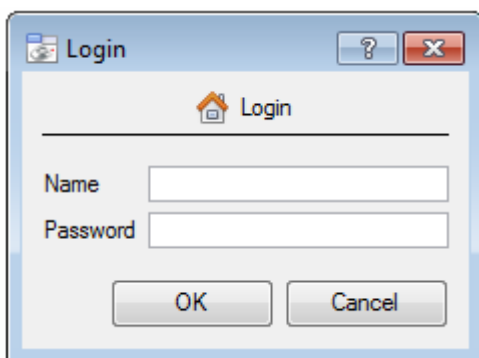
Setting	Explanation	Action
Disable DOS 8.3 filenames on NTFS partitions	This is a required setting for using the database engine.	Required
Disable the Last Access Timestamp on NTFS partitions	Provides a small performance gain when accessing large volumes of files.	Recommended
Enable the High-Performance power management scheme	Adjusts power settings to allow the best performance of the system.	Recommended
Disable the Windows Defender service	Not required, but provides a small performance gain over a secured system.	Optional
Disable the Windows Search Indexing service	Provides a significant performance gain by preventing background indexing of the file system.	Recommended
Disable the Windows Desktop Manager Service	Disables the Aero desktop and appearance enhancements to reduce graphics system load.	Optional

c. Start CathexisVision

This is the user interface that allows one to configure the recording parameters, and allows the live video to be viewed and review of the recorded video.



d. Log in



Default Login Details

Username: admin
Password: admin

NetBSD servers and all pre-CathexisVision 2014 systems:

Username: dvs
Password: dvs

4 Licensing

The mode of licensing will depend on whether the license task is being performed on the local unit (the unit being worked on), or a remote unit (this being a viewing unit on which a copy of the software has been installed). This section provides a guide for each situation.

For details on the licensing structure of CathexisVision, please consult the Software Product Description and License Document, or contact support@cat.co.za.

a. Trial License

Once CathexisVision is installed, a trial license is automatically applied to the system. To license the system further, consult the relevant licensing sub-section.

Features of the trial license include:

- Two permanent IP camera licenses.
- Maximum recording review time of two days.
- Standard CathexisVision basic analytics.

Trial licenses to unlock additional features may be requested by emailing support@cat.co.za.

Recording Review Time

With a trial license applied, only two days (48-hours) of recordings may be reviewed at a time. The camera will continue to record to database (provided there is space, the cameras have the requisite bitrates, etc.), but review of the recordings will be restricted to two days (48-hours) from the point of review. Apply the relevant licenses to unlock the database and review all recordings for as far back as the database has recorded.

b. Licensing from a Local Unit

NB: The following instructions describe the process for licensing the unit that is **currently being worked on**. For the process of licensing a **remote unit**, see the next section ([4c Licensing from a Remote Unit](#)).

Internet Connection on the Unit

With access to the internet, and a product key, enter this key. The system will connect to the online licensing system and complete the process.

No Internet Connection on the Unit

If there is no internet connection on the unit one is licensing from, then 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, save a **.rqst** (request) file, from the unit being licensed, and email this to support, along with the information relevant to the licenses one wishes to add to this unit. Support will then respond with a **.pack** file, containing the licenses, which should then be uploaded to that unit.

- **License Request File**

A **.rqst** file must be retrieved from the unit being licensed.

The screenshot shows a software interface. On the left, a 'Tools' menu is open with 'Local server licenses...' selected. An arrow points to a dialog box titled 'Please select a task' with the following options:

- Auto update this server's license
- License this server using a product key
- Retrieve a license .rqst file from this server
- Upload a license .pack file to this server
- Advanced options

An arrow points from the dialog to a file icon representing a license request file (.rqst) with a long alphanumeric name.

Email this **.rqst** file to support, along with the information relevant to the licenses being added to this unit.

Upload .pack File

Please select a task

- Auto update this server's license
 - License this server using a product key
 - Retrieve a license .rqst file from this server
 - Upload a license .pack file to this server
 - Advanced options
-

The screenshot shows a file selection dialog. The file list contains:

DirectX9	File Folder	2019/05/29 11:51
dumps	File Folder	2019/05/29 11:51
failover	File Folder	2019/05/29 11:51

File name:

Files of type: License Pack Files (*.pack)

Next > Finish


The site should now be licensed. For further assistance, contact support@cat.co.za.

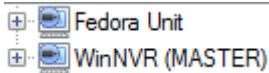
c. Licensing from a Remote Unit

When licencing from a remote unit (i.e. licencing a unit that is not being worked on), the procedure is different. This is because clicking **Tools** → **Licensing** will license the unit that is currently logged in.

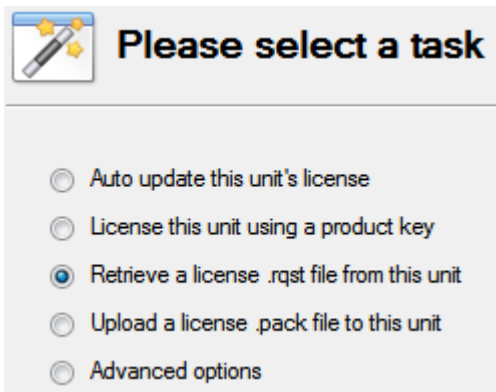
Open Configure Servers

To open **Configure Servers**, of the site one is 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 to license and select **Licensing** from the drop-down menu.



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

The options seen here on the left will appear.

One may **Auto-update** if this unit has already been licensed, or use a **Product Key** if one was provided.

To request a license, follow the procedure detailed above in the **0 No Internet Connection on the Unit section**.

Note: Save the **.rqst** files, and upload **.pack** files, to storage media attached to the unit that licensing is being done from, not to the unit being licensed. Always retain the **.rqst** file & the **.pack** file for future licensing support.

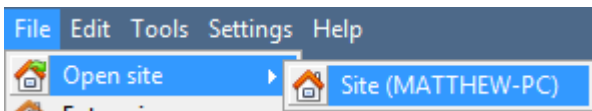
5 The Setup Tab

CathesisVision 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**.

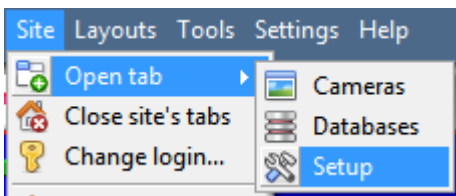
a. Open the Setup Tab

Generally, there are two ways of navigating to the **Setup Tab**:

1. **File** → **Open Site** → **Site_Name**



2. **Site** → **Open Tab** → **Setup**



b. General Setup

General site setup

Site name	<input type="text" value="SiteName"/>
Offline access level	<input type="text" value="1"/>
Default access level	<input type="text" value="Password required"/>
Site contact	<input type="text" value="No contact"/>
Network	<input type="text" value="312500kb"/> <input type="text" value="1 Gb LAN"/>
Multicast addresses	<input type="text" value="-- default --"/>
<input checked="" type="checkbox"/> Use site passwords	
<input type="checkbox"/> Hide failed cameras in resource panel	
<input type="button" value="Configure archiving"/>	

From the general setup, one is able to set the site name, default access levels, site contacts, network speed and operator archiving profiles.

Once changes are made, click for them to take effect.

6 Cameras

This section of the manual will detail methods for adding cameras, followed by an examination of the **Camera Editing** options, and some extra information on the right-click menu.

a. Adding Cameras

There are two ways to add a camera in **CathexisVision**.

1. The camera **Addition Wizard**. (This will also offer the option to add databases, schedules, and events to system.)
2. The **Copy/Paste** Function.


For either method, enter the **Cameras Panel**, which is located under **Configure Servers**.

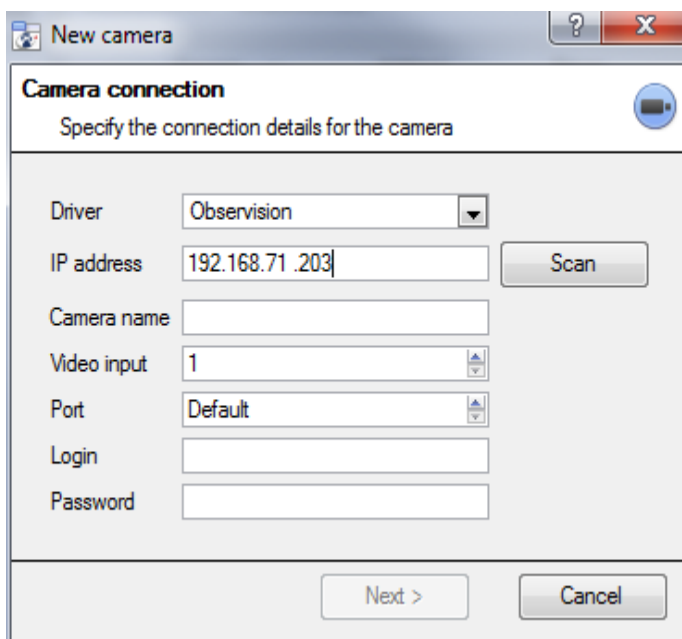
File → **Your_Site_Name** → **Open Tab** → **Setup** → **Configure Servers**  → **Expand the appropriate Server** →  **Cameras**.

Addition Wizard

The camera addition wizard walks the user through all the steps needed to add a camera, as well as allowing the creation of databases, schedules, and events along the way. 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 Video Motion Detection (VMD) event, or via a scheduled recording).

To start the camera addition wizard, click on the  button at the bottom of the cameras panel. This will begin the wizard. The following explains each step in the wizard.



Driver: Select the relevant driver for the camera.
IP Address: Set the IP address of the camera being added.
Scan: will scan the network for cameras that have been set up to make themselves available. Then, click on a camera and it will automatically set its driver and IP address.
Camera name: the descriptive name given the camera.
Video Input: Use if connected to an encoder that has multiple analogue inputs (if not, leave it on 1).
Port: has a default setting, but to connect through a specific port, set it to a port of choice.
Login and password: The cameras' current login details.

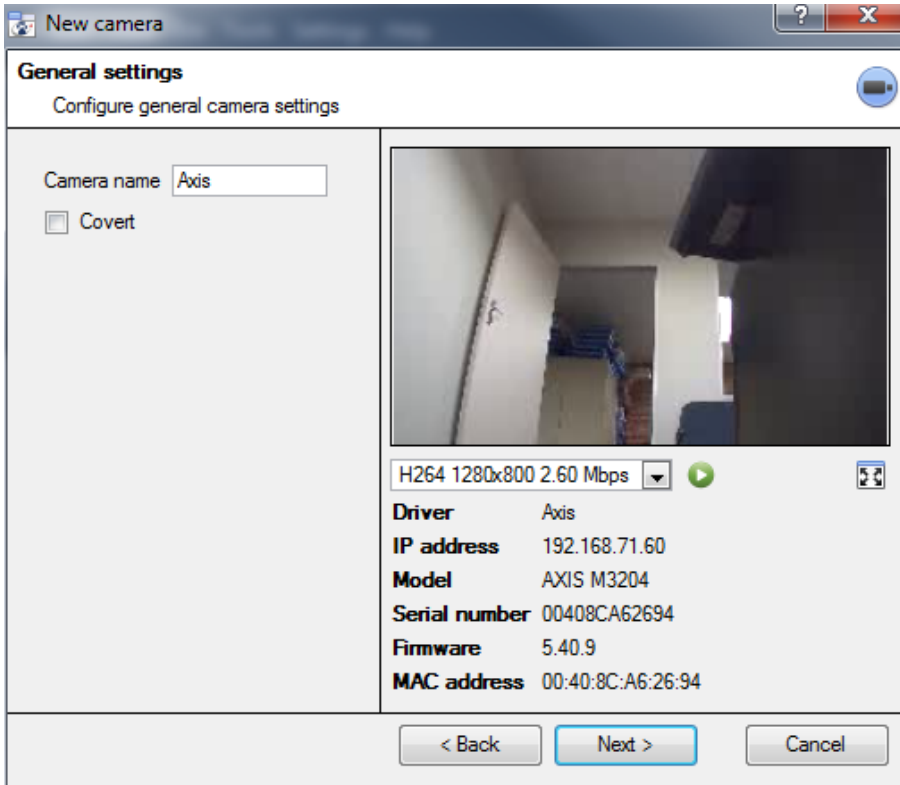
Connection

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

Note on Scanning:

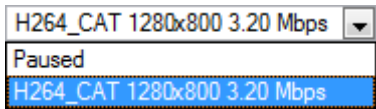

1. Some Cameras do not support automatic location requests, and will not be found using **Scan**.
2. Universal Plug and Play (**UPnP**) will have to be enabled on the cameras that do support location requests.

General Settings



See the table below for description of this window.

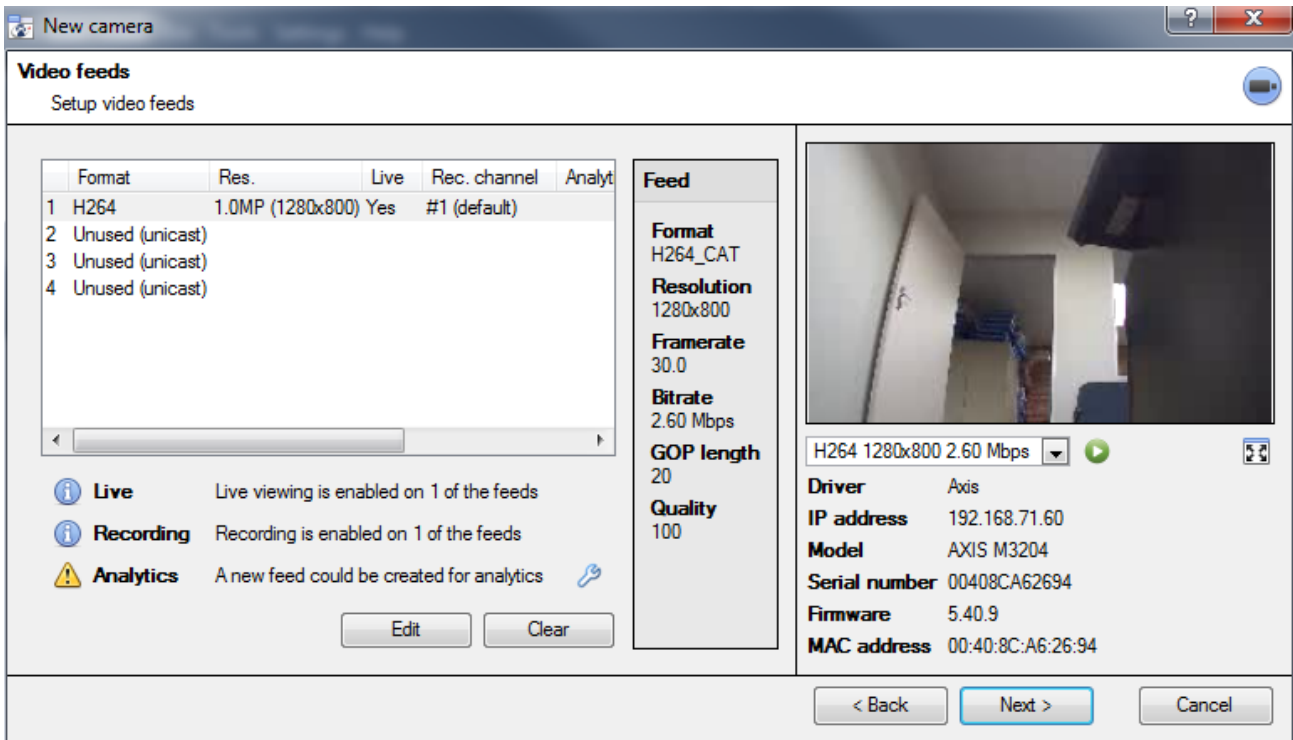
Note: The image in the preview will not reflect the actual quality of the feed, as it is transcoded when viewed in the camera addition wizard.

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

To enlarge the image, click on:

Add/Edit Video Feeds

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 desired.

Resolution is the number of pixels in the image.

Framerate is the number 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.

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 desired.

Resolution is the number of pixels in the image.

Framerate is the number of frames recorded per second.

Bitrate Type this is the way that the 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

Setup **Multicast** feeds by selecting the relevant option from the feed dialogue. There are three options; **disabled**, **auto**, and **manual**. If not wanting to use **Multicast**, leave this disabled.

Manual

With manual selected, enter in **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 **Setup Manual**.

• **Feed Notifications**

Live	Live viewing is enabled on 1 of the feeds
Recording	Recording is enabled on 1 of the feeds
Analytics	A new feed could be created for analytics

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

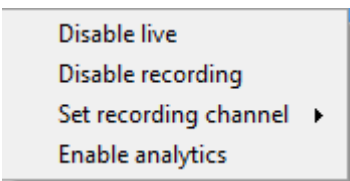
Note: If clicking on any of the above icons, they will display some detailed information about the feed/problem.

Automatic Configuration

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

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

Right-clicking on a feed, after it is set up, will bring up the menu seen below. These are settings that can only be accomplished after the feed has been set up.



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, configure 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 an analytics-enabled channel is not enabled, there will not be a prompt to add VMD later in this wizard, nor can VMD be added, using this feed later.
2. Only Feeds that are QVGA resolution, and lower, will give the option to enable analytics.
3. If there is a at the end of the **Analytics** feed notification, feed is not 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.

General Connection Video feeds I/O PTZ F

Inputs

Name	State	Enabled	
1 Input 1	Set	✗	Enable Edit

Outputs

Name	State	Enabled	Pulse duration	
1 Output 1	Set	✗	1000ms	Enable Edit

I/O

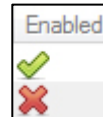
Inputs are used to trigger an event; **Outputs** are used to give a desired output as a result of a triggered event.

Renaming

Name	State	Enabled
1 Button	Clear	✗

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 the output a descriptive name.

Enabled

Will say 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

Name	State	Enabled	Message

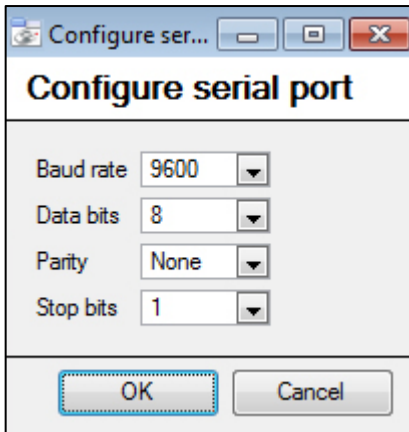
Enable/Disable Edit New Delete Show trigger messages


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 the I/Os descriptive names, otherwise they will not be identifiable.

Serial Ports



Highlight the serial port to configure, then click the  button.

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

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

Pan-Tilt-Zoom (PTZ)




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

- **General Settings**

Enable PTZ

Protocol



Address

Port   

Preset 1 name


Zoom speed

Home position

Go home during schedule  

The home preset will be recalled when user control is relinquished
or after a system PTZ command is issued

Switch wash/wipe relays

Preset Name	One may give Presets descriptive names (such as 'front door' etc.)
Zoom Speed	This defines how fast the 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  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

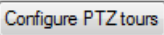

One may set a schedule during which the camera will return to its home position. When the schedule (see: **Schedule**) is inactive the camera will remain in the last position that it was left in. If there is no schedule set, the camera will never return automatically to its home position.

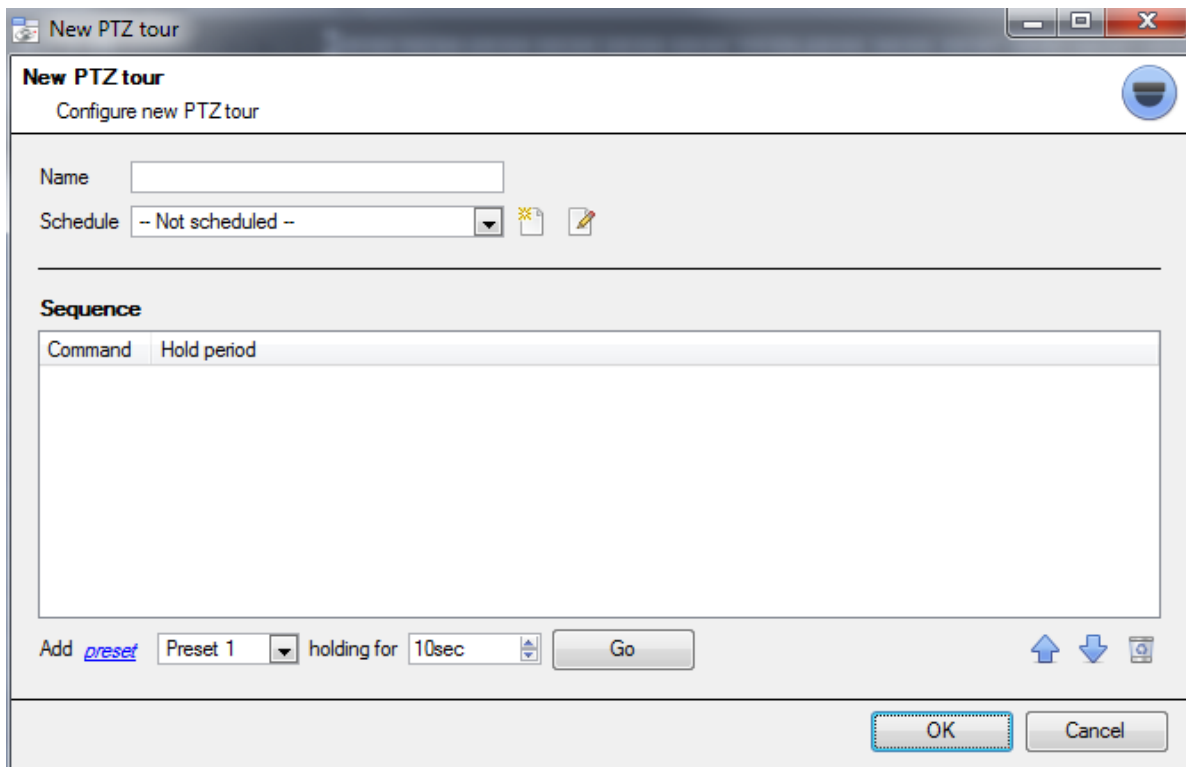
To have it always return home after a period, simply enable the **Every Day** schedule.

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 the device supports Tours, to create/edit a PTZ tour click on ; this will navigate to the list of tours. To create a new tour, click on .



Name and Schedule

Name

Schedule

Give the tour a **descriptive name**, and, if desired, 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 the camera should linger at this Preset.

Add preset Preset 1 holding for 10sec

Multiple Presets

- **Starting at:** Select the first Preset to add.
- **Add:** This is the number of Presets to add.

In the example below, Presets 4 to 6 are being added.

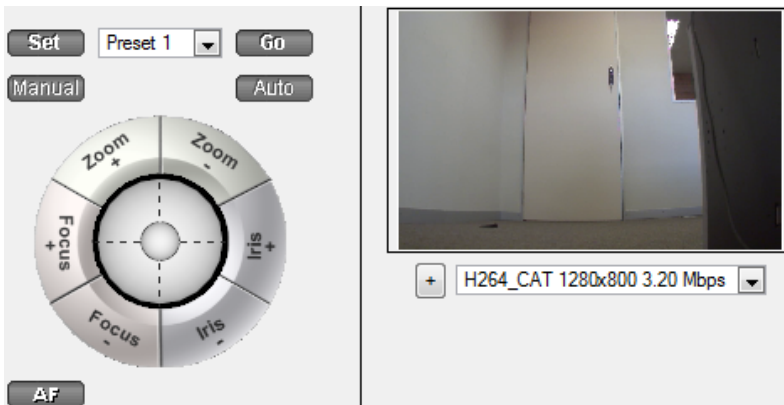
Add multiple presets starting at Preset 4 add 3 presets, holding for 10sec

Pattern

Select the pattern to add.

Add pattern 1 holding for 10sec

- **PTZ Procedures**



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

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 a Live PTZ camera is selected in the CathexisVision interface.

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

Using the PTZ Control Panel

Pan Left/Right:

Drag joystick left / right.

Tilt Up/Down:

Drag joystick up / down

Move Camera Faster:

Distance determines speed - drag joystick out, in required direction.

Move Camera Slower:

Distance determines speed - drag joystick closer in, in required direction.

Zoom In/Out:

Focus Further/Closer:

Watch the live camera while pressing the Zoom + and Zoom – button.

Watch the live camera while pressing the Focus + and Focus – button.

Go to Preset:

- Select the Preset from the dropdown, and then click GO.
- The camera view will change to the Preset.
- To relinquish manual control of the dome / PTZ camera from the PTZ panel, Click Auto.
- If the system runs remote tours automatically, or switches display based on events, these automated responses will take over.

Gain Control of Dome/PTZ:

(Applies if system runs remote tours automatically, or switches display based on events).
 Either click manual, or simply move the software joystick.

Lighten/Darken Live Camera View:

Press the iris+, or iris – button. The image will lighten or darken.

Define a Preset:

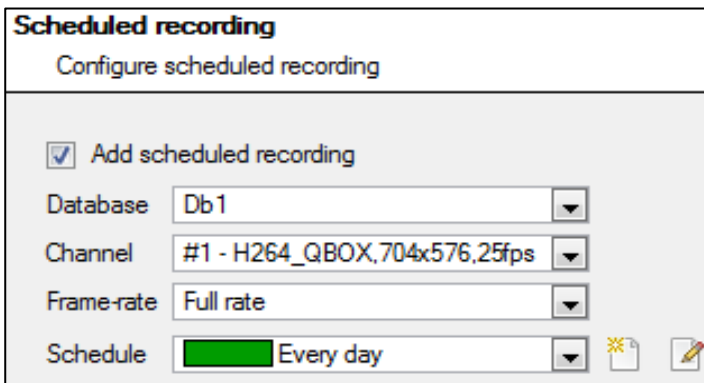
1. Select the Preset number, from the drop-down menu.
2. Use the joystick controls to establish the camera View, Zoom, Focus and Light (Iris).
3. Click SET.
4. Go to this Preset to check it.

Database

All cameras need to record to a database. If a database is not yet created, the user will be taken to the database setup, after the PTZ setup is completed. If a database is already created, either proceed straight to the **Scheduled Recordings/Video Motion Detection setup** and use the current database, or 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 the camera is added to, and not the unit being worked on (if using a client, or other remote unit). This means there will be no file system knowledge of the remote unit, and the path must be entered manually. (If on a remote unit, there will be no option.)

Schedule

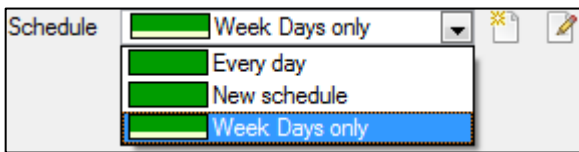




Schedule recording

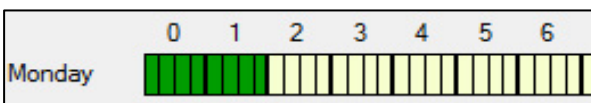
Set the camera to only record at certain times, to increase efficiency and save disk space.

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

Setup a Schedule



Select the schedule from the drop-down menu. Create a new schedule by clicking on the  icon. To change an existing schedule, click on the  button.



Select recording time - Left-click and drag (the green bars).

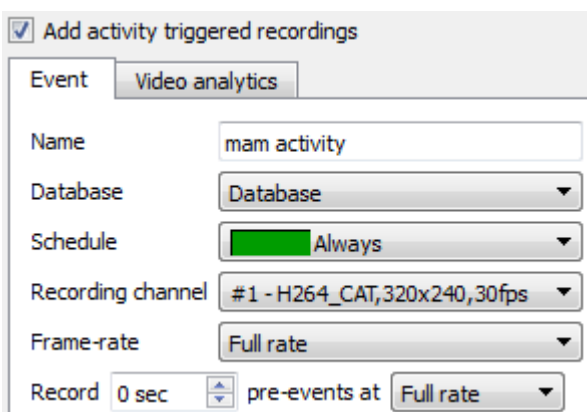
Deselect recording time - Right click and drag (the yellow bars).

In the above image, Monday will be recording from 00:00 – 02:00 in the morning.

Activity Recording (VMD Event)

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

- **Recording**



The recording option allows setup of the recording settings.

Database is the database this event will record to. **Schedule** 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**

The default algorithm here is the **Basic Video Motion detection**.

For a full description of the **CathesisVision** algorithms, see the **Video Analytics** section of the main manual.

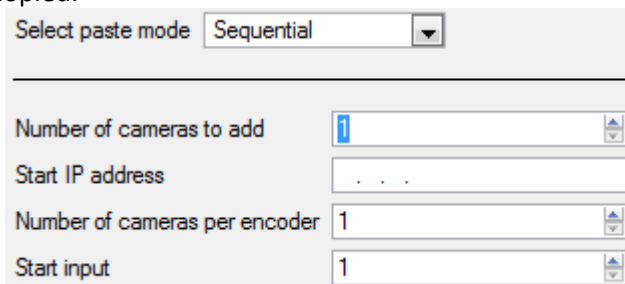
b. Copy/Paste Cameras

If adding more than one camera that operates on the same driver, **CathexisVision** offers a very easy solution. Copy and paste entire new cameras, using the additional information of one previously added camera.

To Paste New cameras, right-click on the previously added camera and click **Copy**. Then right click anywhere in the Cameras Panel and click **Paste new...**.

Paste Mode: Sequential

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

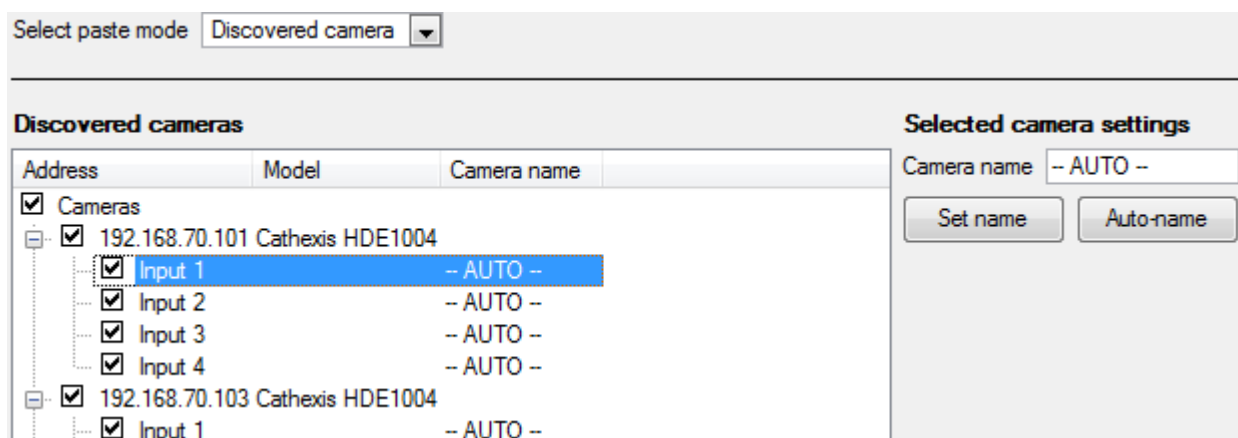


Start IP Address will determine the IP address of the first new camera being added. The IP addresses will be incremented from here. (So, make sure there are no used IP addresses in this range).

Number of cameras per encoder must be the full number of channels available on this encoder

Start Input is the actual physical channel to add the first camera to.

Paste Mode: Discovered



Note: This will copy the video settings from the copied camera onto the discovered cameras selected.

Copy/Paste Video Settings

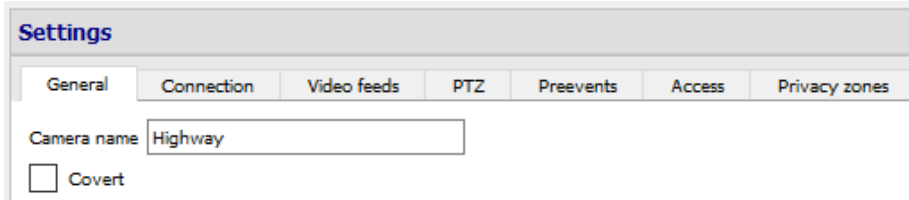
If a number of cameras are already added with the same drivers, to simply transfer the Video Settings of each camera across, right-click and select **Copy**. Then right-click on the camera to add the video settings to and select **Paste video settings**.

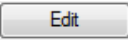
Note:

- These are just the Video Feed settings; it will not add Video Motion Detection analytics.
- It is only possible to copy onto cameras that have the same driver as the camera that has been copied.

c. Edit Existing Camera

Note: If any changes are made to the setup of a camera that is currently multicasting, it is necessary to restart the streams. This simply entails removing and reselecting the cameras in the Cameras tab, after settings are saved.



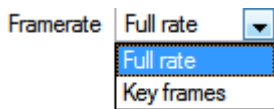
Edit an already added camera by returning to **Setup Tab** → **Configure Servers** → **Cameras**, selecting a camera and clicking . This will bring up an interface with tabs containing the cameras editable details.

- *Repeated Options*

The camera setup options of **General**, **Connection**, **Video Feeds**, **I/O**, and **PTZ** are all dealt with in section 6a (above), and they will not be repeated here. However, the Pre-events, Access, and Privacy Zones tabs will be dealt with here.

Note: The **Wizard**, covers the process of setting up a **Database**, **Scheduled Recordings**, and **Video Motion Algorithm** triggered recordings; these appear as individual panels in **Configure Servers** and not as options within the **Edit** tabs.

Pre-events



Pre-events were setup under the **Activity Recording** section of the **Wizard**. The number of pre-events cannot be defined here, but the frame rate of the pre-events can be defined in this tab.



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

Access

Under the **Access** tab, setup which user access levels have control of the different facets of the available cameras.

	Live	Review	PTZ	PTZ menu	Set presets	Audio listen	Hide privacy zones	Set all
Level 1	✗	✗	✗	✗	✗	✗	✗	✓ ✗
Level 2	✗	✗	✗	✗	✗	✗	✗	✓ ✗
Level 3	✗	✗	✗	✗	✗	✗	✗	✓ ✗

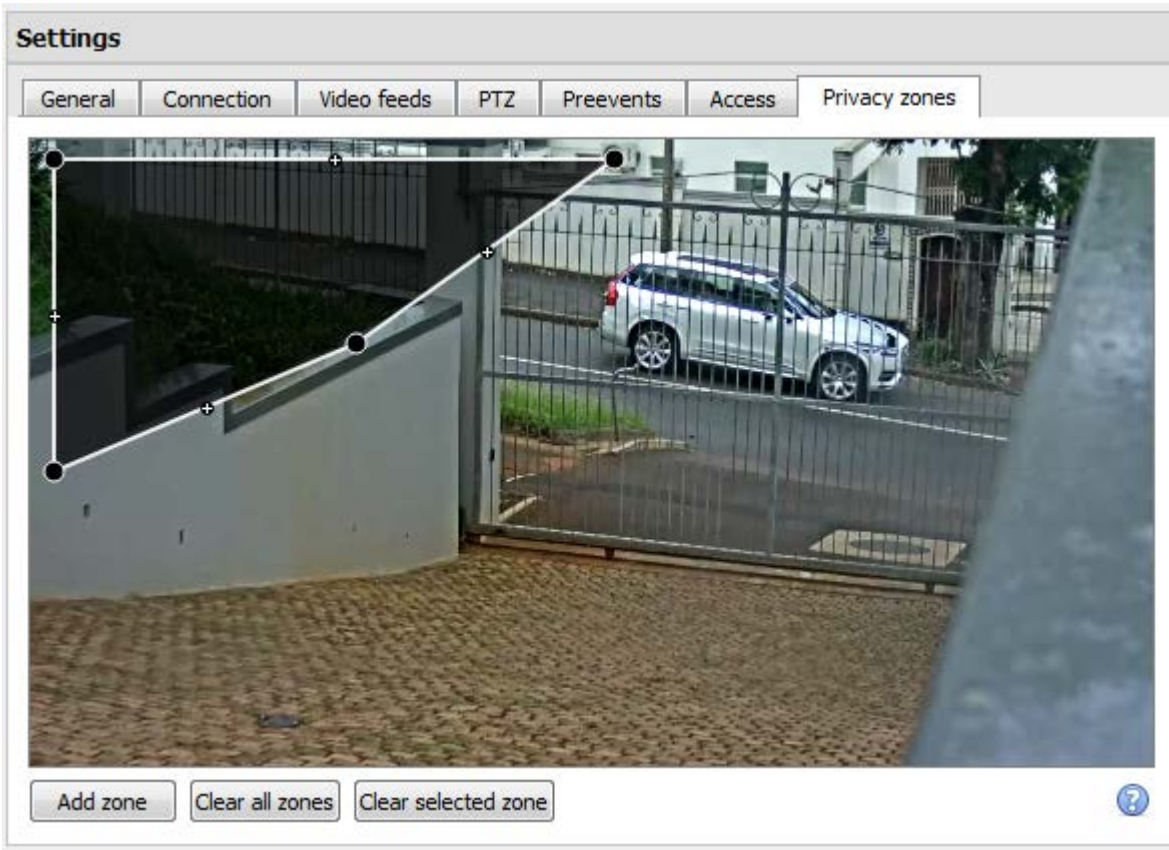
Live	This controls which Access Levels can view the camera's live feed
Review	This controls which Access Levels can review recorded footage form this camera.

PTZ	This controls which Access Levels can control PTZ movement.
PTZ Menu	This controls which Access Levels have the ability to change the PTZ menu.
Set Presets	This controls which Access Levels can change PTZ Preset positions.
Audio Listen	This controls which Access levels can listen to the audio from the onboard mic.
Hide privacy zones	This controls which Access Levels can hide privacy zones on the camera image.
Set All	Selecting  will give this level access to all settings; selecting  will give this level access to none.

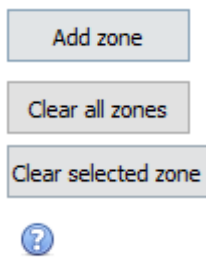
- **Important Note on Access Rights:**

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 assigned to specific users. If a user has a level 1 access level, and this camera is only assigned to other levels, that user will not see this camera. (Users are managed in the **Site → Open Tab → Setup → Users**).
3. Non-admin users may be given the right to configure other non-admin users. See the main Setup manual for more information on this.

Privacy Zones



Using privacy zones, certain areas of the camera image can be blocked from view. They can be hidden (removed) by operators who have been granted access rights to do so (see above). Otherwise, privacy zones can be set to blacken out the sensitive information on the camera image, and will reflect in snapshots, recordings and review.

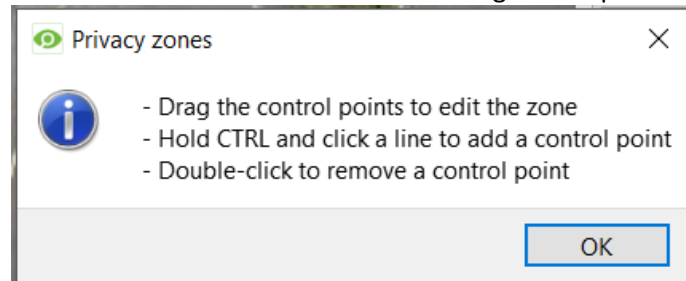


Add a new privacy zone to the camera image.

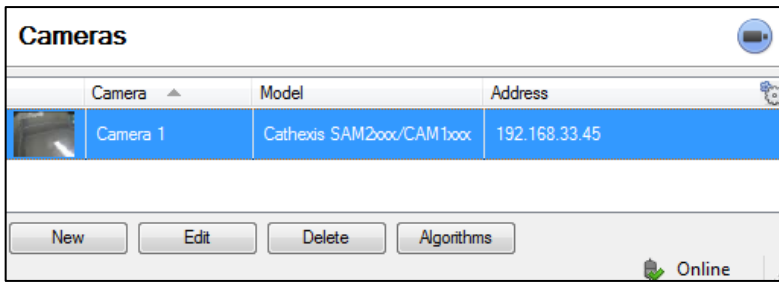
Clear all privacy zones from the camera image.

Clear only the selected zone from the camera image.

Click this to show instructions on defining the shape of a privacy zone:



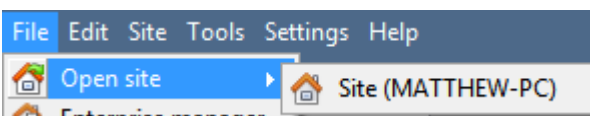
d. Camera Successfully Added



The camera has now been setup and will start recording as configured. From this screen, one can now add another camera or edit the camera that has just been set up.

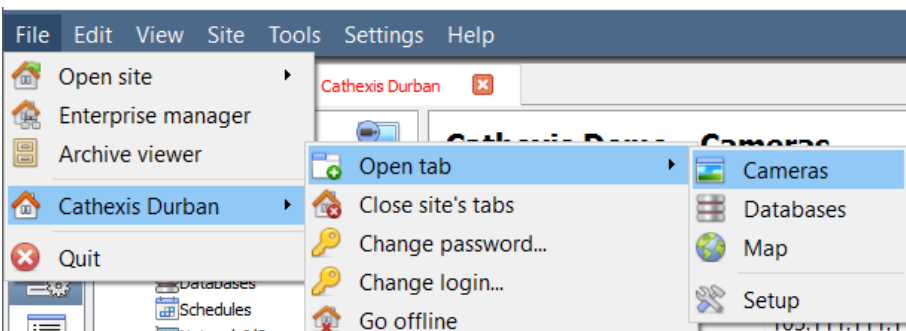
To view the Camera/s

- *Open the Site*



File → Open Site → Your_Sites_Name.

- *Open the Cameras Tab*

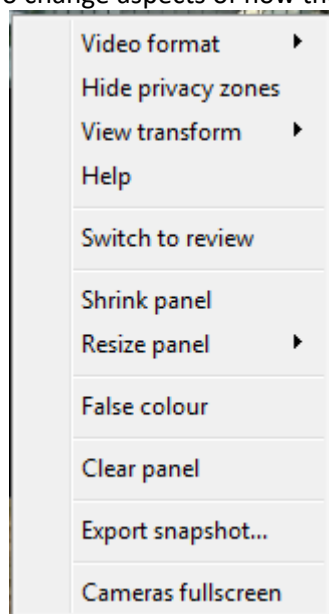


File → Your_Sites_Name → Open Tab → Cameras.

Double click on a camera in the **Resources** panel, to start viewing it

Middle Click on a Live Camera

To change aspects of how the camera appears on in a panel.



Video format: Allows the user to select which of the cameras video streams (which format/resolution) they wish to view.

Hide/show privacy zones: Will hide/show privacy zones on camera image depending on access rights.

View transform: Allows transformation of images for cameras with special lenses. (E.g. 360-degree cameras.)

Overlays: Allows view of the different analytics algorithm's that have been applied to this camera's feed, live in the Cameras Tab.

Help: Pops-up a help window on Digital Zoom, and PTZ Control within this panel.

Switch to review: Allows switching back and forth between live and review footage.

Shrink panel: Reduces the size of the camera panel.

Resize panel: Gives more resizing options.

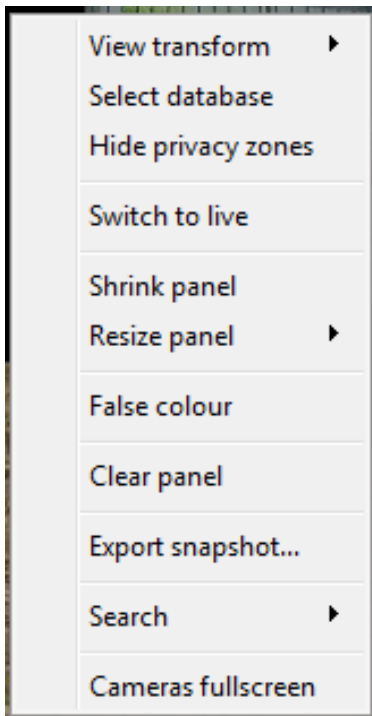
False colour: Changes the colour of the image to false colour.

Clear panel: Removes the camera/s from the currently selected panel/s.

Export Snapshot...: Opens a window to print snapshot, save to folder, copy to system clipboard, or copy to CathexisVision clipboard. Also choose to include the camera name and time of snapshot in the overlays.

Cameras fullscreen: Fills the entire screen with the Cameras Panel; creating a Video Wall. The same procedure will exit fullscreen mode.

Middle-Click on a Camera in Review



View transform: Allows transforming images for cameras with special lenses. (E.g. 360-degree cameras.)

Select database: If multiple databases are set up, set a camera to record to a certain database using this option.

Hide/show privacy zones: Will hide/show privacy zones on a camera image depending on access rights.

Switch to review/live: Allows switching back and forth between live and review footage.

Shrink panel: Reduces the size of the camera panel.

Resize panel: Gives more resizing options.

False colour: Changes the colour of the image to false colour.

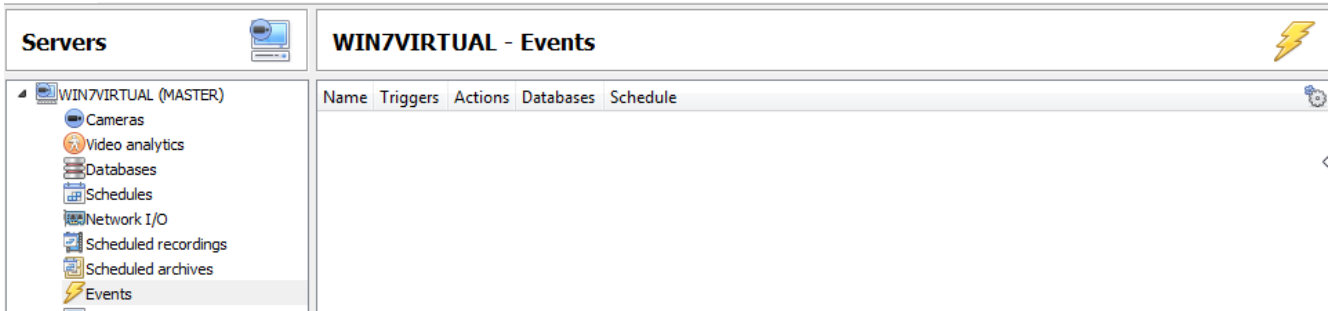
Clear panel: Removes the camera/s from the currently selected panel/s.

Export snapshot...: Opens a window to print snapshot, save to folder, copy to system clipboard, or copy to CathexisVision clipboard. One may also choose to include the camera name and time of snapshot in the overlays.

Search: Use snap-search feature to search the database for snapshots similar to the current image.

Cameras fullscreen: Fills the entire screen with the Cameras Panel; creating a Video Wall. The same procedure will exit fullscreen mode.

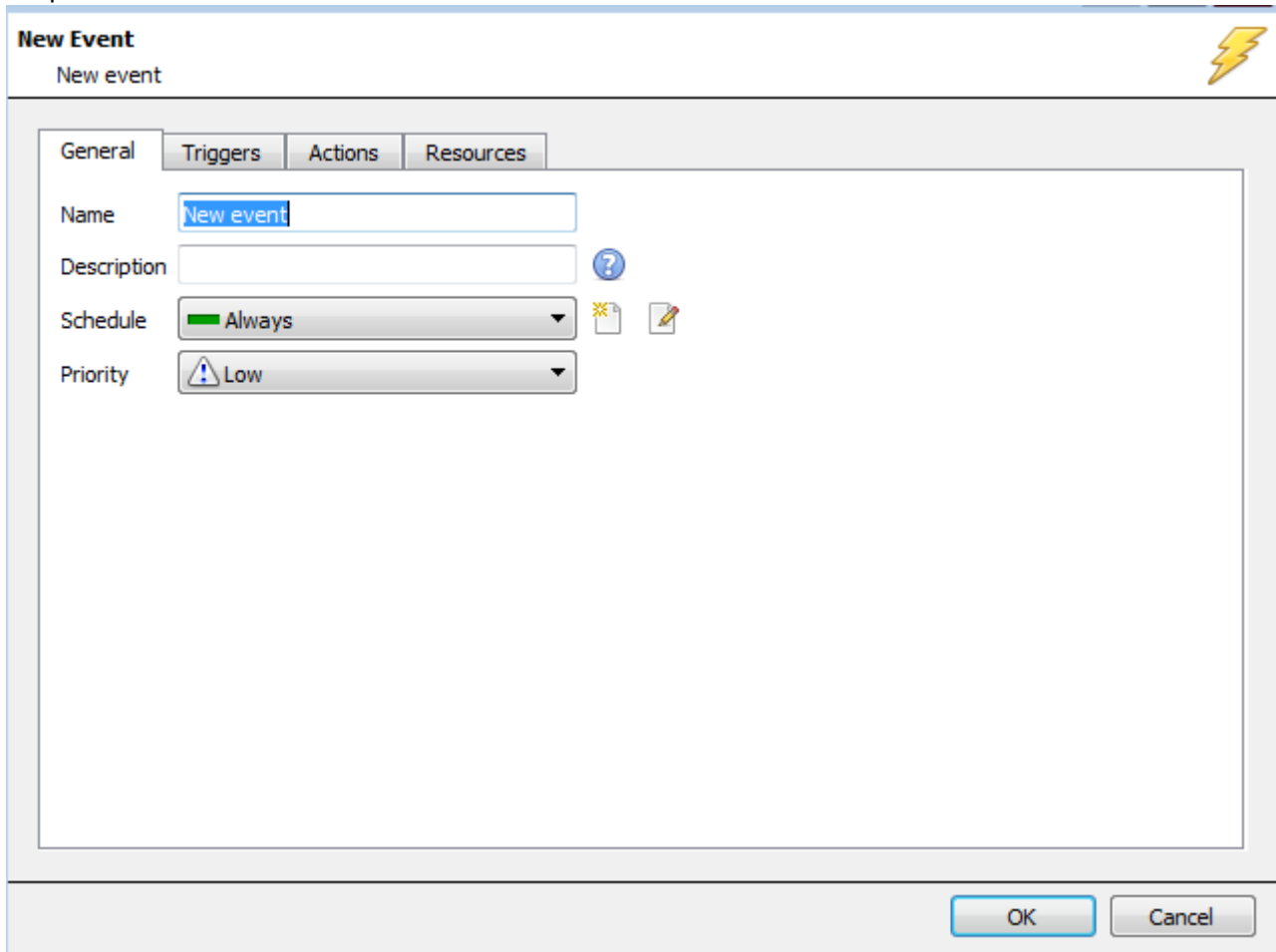
7 Events



Events are located under **Site** → **Setup** → **Events**.

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

Double clicking on, or editing, an event will allow adjustment of the **Schedule**, **Resources**, **Triggers**, and **Actions** as required.



- A Trigger is what sets off an event. There can be 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 Client Viewing PC [to a relevant camera’s stream], as a result of an action. This does not affect which cameras will be recorded.



8 Uninstall

To uninstall, simply follow the uninstallation process that is native to the operating system on which **CathexisVision** is installed.

Any feedback, or comments, on CathexisVision products and services are welcomed.