



CathexisVision 2018.2 Quick Start Guide

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1 Welcome

Thank you for choosing Cathexis products! This quick guide will provide basic instructions and information to setup **CathexisVision**.¹ The objective of this document is to get you 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 & 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).

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.

Supported Systems

Listed below are the supported operating systems.

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

- a.
 1. CathexisVision software,
 2. Map Editor,
 3. Archive Viewer.

• *Not Supported*

Windows XP and earlier, and NetBSD, are not supported.

Linux

Fedora 16 (32-bit)

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

Windows

- b.
 - Microsoft® Windows® 7 SP1
 - Microsoft® Windows® 8
 - Microsoft® Windows® 8.1
 - Microsoft® Windows® 10
 - Microsoft® Windows® Server 2008 SP2
 - Microsoft® Windows® Server 2008 R2 SP1
 - Microsoft® Windows® Server 2012
 - Microsoft® Windows® Server 2012 R2
 - Microsoft® Windows® Server 2016

Windows Update Requirements

The following Windows updates are required for certain systems.

Universal C Runtime Update (Older Windows 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).

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 Server 2008 Service Pack 2 (SP2)
- Windows Vista SP2

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 you may first need to install:

- Windows Vista Service Pack 2 (download from <https://support.microsoft.com/en-us/kb/935791>)
- 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>)

OpenCL Driver Required

OpenCL is usually installed by the graphics card driver, but there have been instances on virtual machines where that driver is not present. On these virtual machines, the graphics device is an Intel device and installing the Intel OpenCL runtime drivers resolves this issue. The Intel OpenCL drivers can be downloaded from <https://software.intel.com/en-us/articles/opencl-drivers>.

OpenCL™ Runtime for Intel® Core™ and Intel® Xeon® Processors

This runtime software package adds OpenCL CPU device support on systems with Intel Core and Intel Xeon processors.

Supported OpenCL devices:

- CPU

Latest release (16.1.1)

- [OpenCL™ Runtime 16.1.1 for Intel® Core™ and Intel® Xeon® Processors for Windows* \(64-bit & 32-bit\)](#)
- [OpenCL™ Runtime 16.1.1 for Intel® Core™ and Intel® Xeon® Processors for Windows* \(32-bit\)](#)

Near the bottom of the page, select the latest release for **OpenCL Runtime for Intel Core and Intel Xeon Processors**.

Hardware

The **CathexisVision** 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:

- c.
- 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 required to optimise performance. 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 Tool form** by clicking on this link: <http://downloads.cathexisvideo.com/support/design-tools/>.

CathexisVision 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 600Mb/s	< 600 MP/s

d.

Anti-Virus Exclusions

If you are running an anti-virus with active or real-time protection scanning enabled, certain CathexisVision folders need to be excluded from anti-virus scanning 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 you did not select the default folder option during installation, then you need to locate and exclude your installation folder/s 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 CathesisVision 2016 and 2017

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

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

Complete List of Folders to Exclude

If your system uses a **global anti-virus** (meaning anti-virus protection is applied globally and not to individual units) and the different units in your site may have different installation folders, or if the **installation is prior to CathesisVision 2015**, then you may want to simply exclude **all** the default installation folders to avoid hassle.

Note: All folders and paths referred to below are default installation folders – if you did not select the default folder option during installation, then you need to locate and exclude your installation folder/s from anti-virus scanning.

Folders to Exclude	
CathesisVision Server	c:\program files\Cathesis CatVision Suite NVR
	c:\program files (x86)\Cathesis CatVision Suite NVR
	c:\program files\CathesisVision Server
	c:\program files (x86)\CathesisVision Server
CathesisVision Client	c:\dvs
	c:\program files\Cathesis catVision Suite WRV
	c:\program files (x86)\Cathesis catVision Suite WRV

	c:\program files\CathexisVision Client
	c:\program files (x86)\CathexisVision Client
Database folders/drives/volumes	Please locate and exclude.

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.

e. 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 your operating system to ensure remote support is available to you.

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

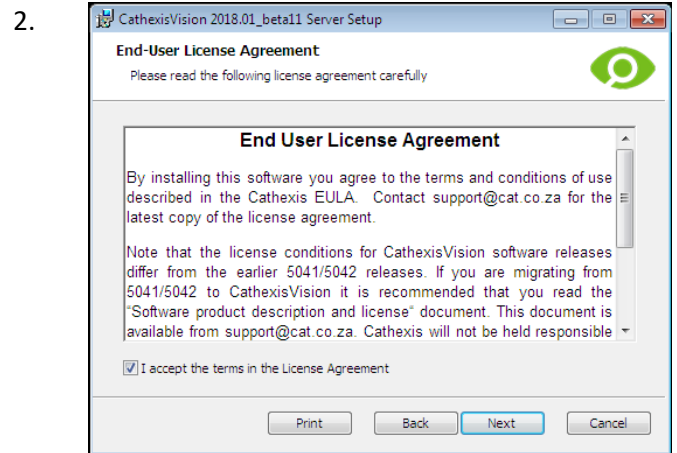
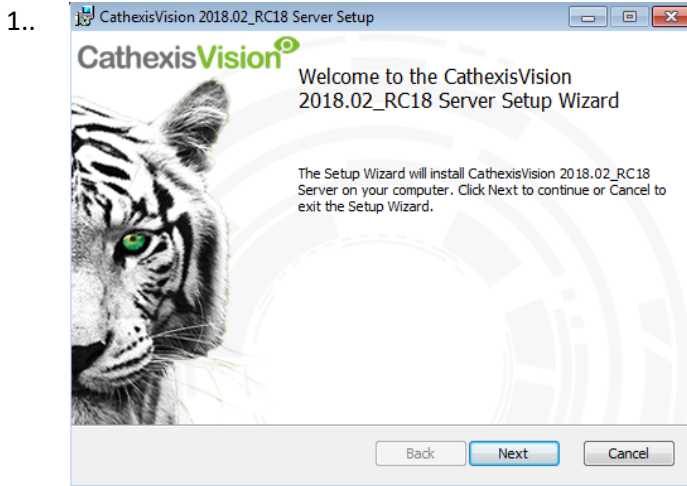
Windows: Teamviewer, or Remote Desktop.

3 Installation

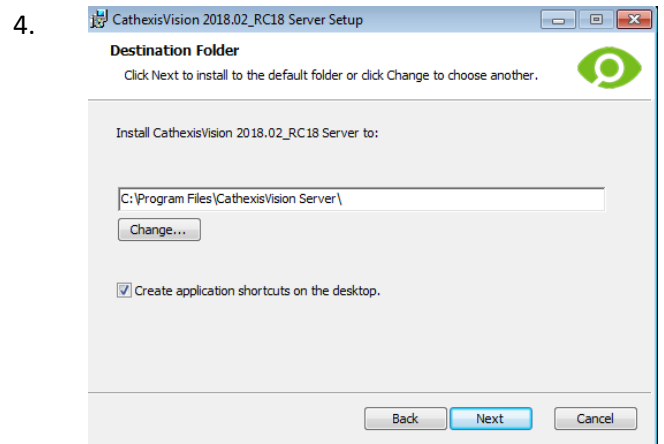
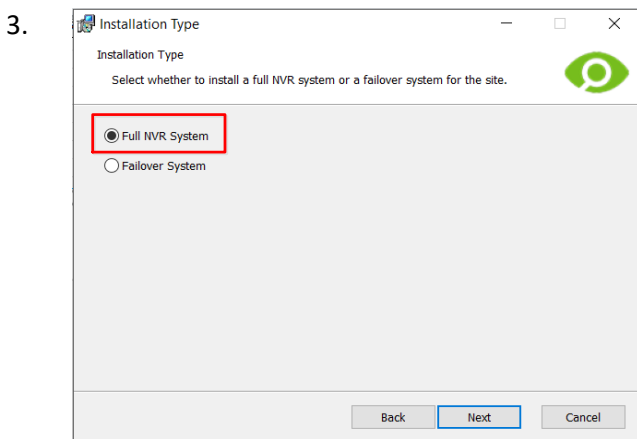
Double-click the installer file will direct you to the **Installation Wizard**.



Follow the installation Wizard

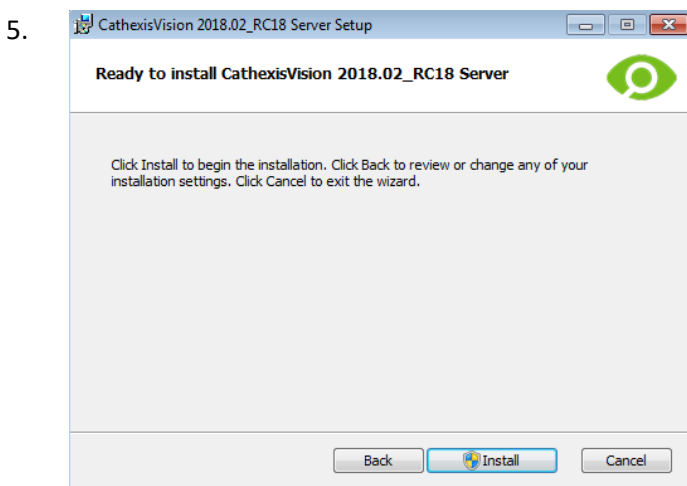


Click **Next**.



You will be prompted to choose between a **Full NVR System** and a **Failover System** installation.

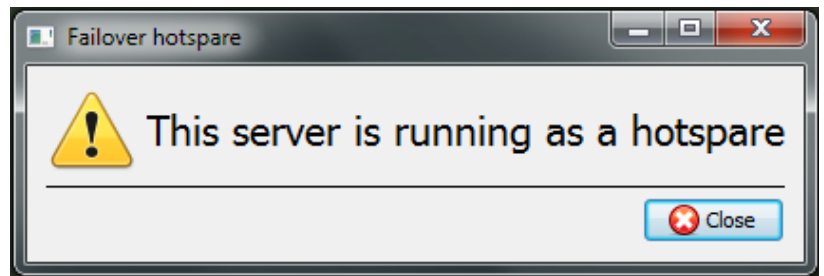
Choose the installation folder (this is best left as it is.)



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

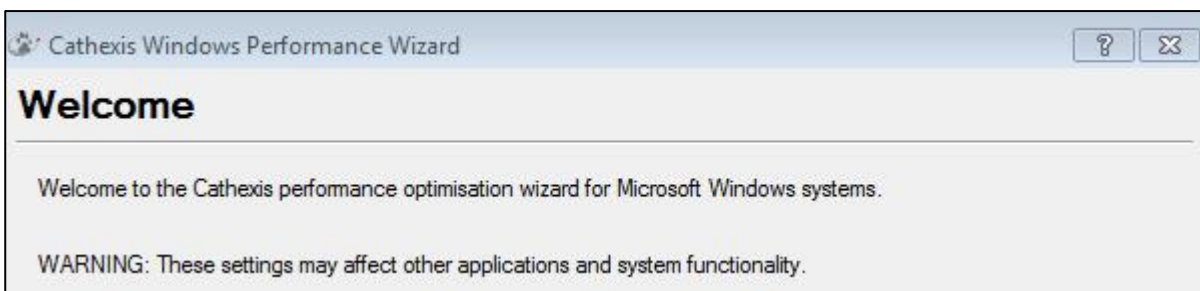
Failover Installation

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



Cathexis Windows Performance Wizard

- b. 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.



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

² There is detailed information about Failover in the **Setup** section of the [CathexisVision manual](#).

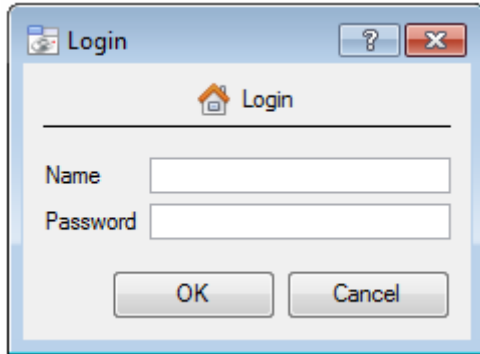
Start CathesisVision

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.



c.

Log in



The screenshot shows a standard Windows-style dialog box titled "Login". It has a title bar with a question mark icon and a close button. Below the title bar, there is a home icon and the word "Login". The dialog contains two input fields: "Name" and "Password". At the bottom, there are two buttons: "OK" and "Cancel".

d.

Default Login Details

Username: admin

Password: admin

NetBSD servers and all pre-CathesisVision 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 you are working on), or a remote unit (this being a viewing unit on which you have installed a copy of the software). 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.

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.

a. 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 you are **currently working on**. For the process for licensing a **remote unit**, see the next section ([4c Licensing from a Remote Unit](#)).

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.

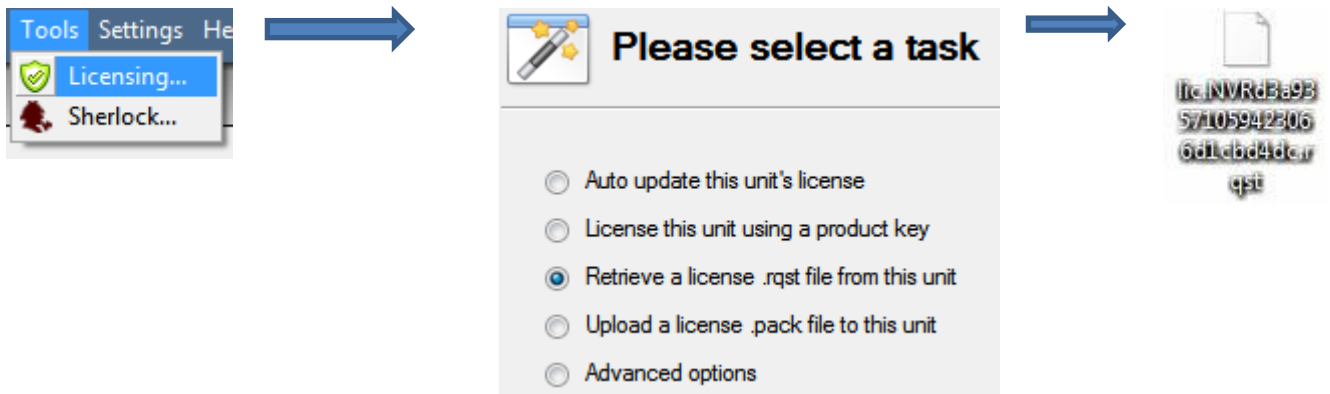
No Internet Connection on the Unit

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.

- *License Request File*

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 .pack File

License using a license pack

License using a license pack

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

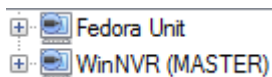
c. **Licensing from a Remote Unit**

When you are licencing from a remote unit (i.e. you are licensing a unit that is not the one you are working on), 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 **Licensing** from the drop-down menu.



Please select a task

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

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 [0 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. You should always retain the **.rqst** file & the **.pack** file for future licensing support.

5 The Setup Tab

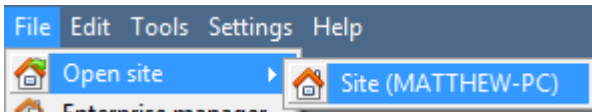
CathesisVision may run on one individual recording server, or on many interlinked servers. Cameras, and integrated devices, are added to individual servers. For this reason many of the setups are done on a server-by-server basis. Server based setups occur in the **Configure Servers** section of the **Setup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

Open the Setup Tab

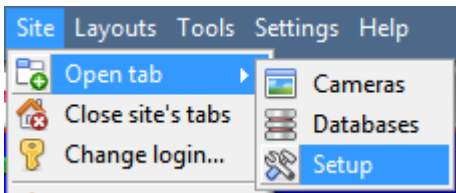
There are two general ways of navigating to the **Setup Tab**:

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

a.





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, you are able to set the site name, default access levels, site contacts, network speed and operator archiving profiles.

Once you have made your changes you need to 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.

Adding Cameras

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.)
- a. 2. The **Copy/Paste** Function.

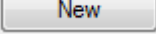
For either method, you will need to enter the **Cameras Panel**, which is located under **Configure Servers**.

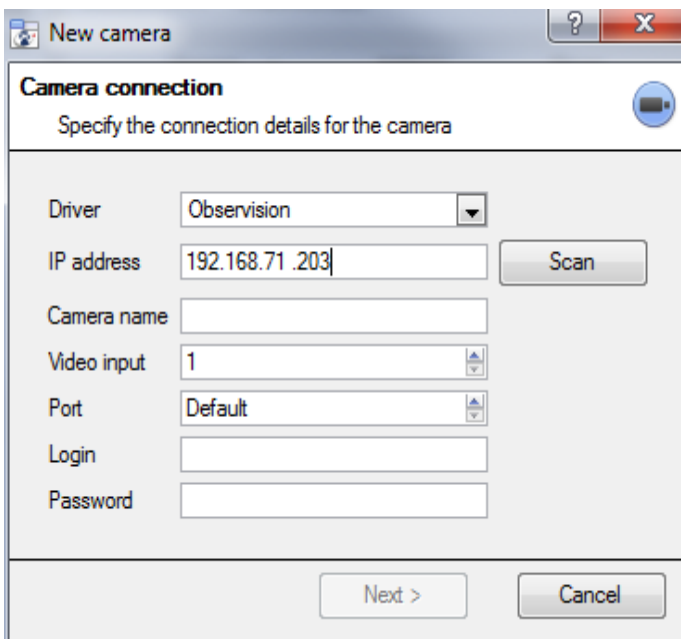
File → **Your_Site_Name** → **Open Tab** → **Setup** → **Configure Servers**  → **Expand the appropriate Server** →  **Cameras**.

Addition Wizard

The camera addition wizard 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. 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 will take you through each step in the wizard.



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 themselves available. You may then click on a camera and it will automatically set its driver and IP address.
Camera name: the descriptive name you give the camera.
Video Input: use if you are connecting to an encoder that has multiple analogue inputs (if not, leave it on 1).
Port: has a default setting, but if you wish to connect through a specific port, set it to the port of your choice.
Login and password: the cameras' current login details.

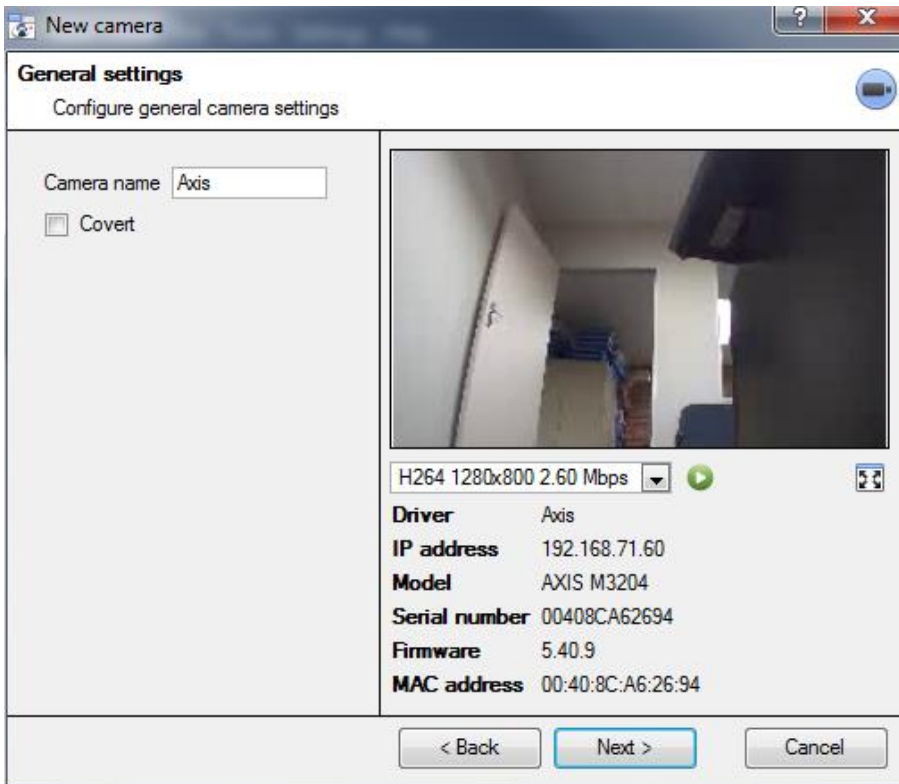
Connection

The first step in the Wizard is the Camera Connection step. Here you 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.

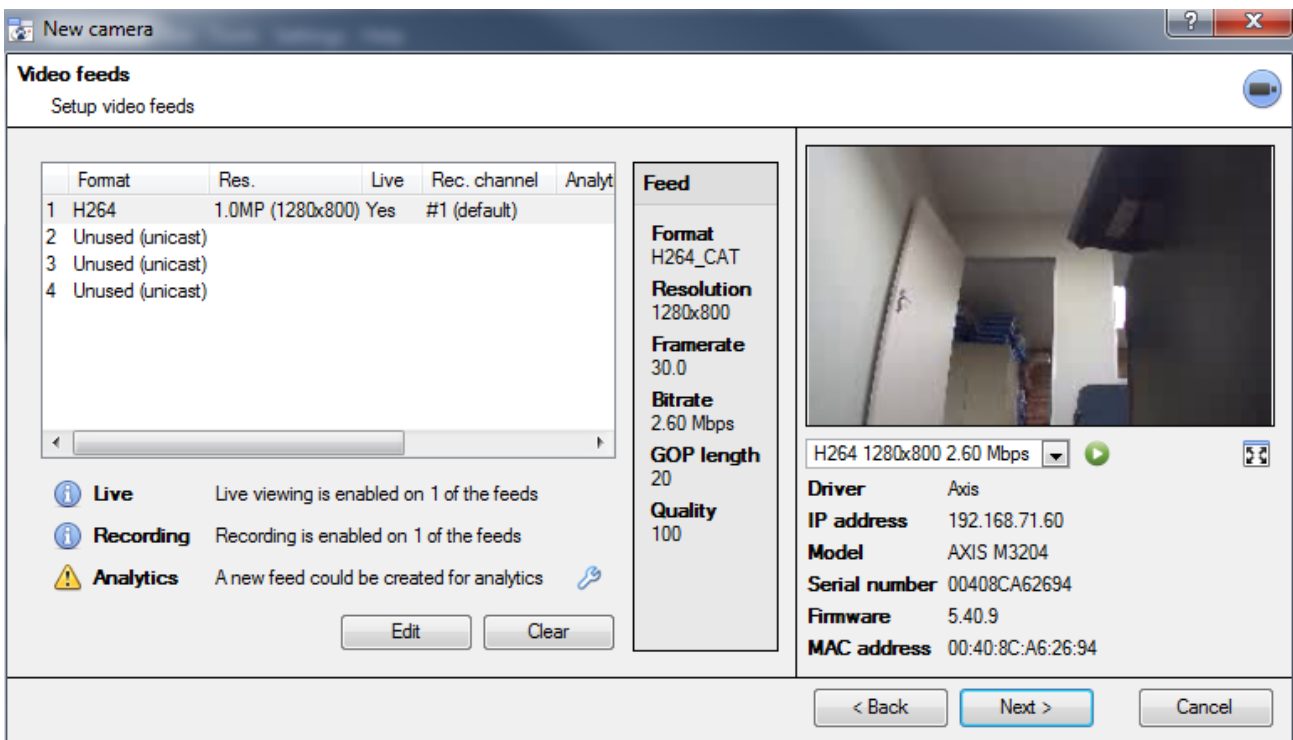
Note: The image in the preview will not reflect the actual quality of the feed, as it is transcoded when viewed in the camera addition wizard.

Name	Give the camera a descriptive name. So as to make it easily identifiable in a list.	
Covert	CathexisVision 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.	
	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 log in 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. 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:

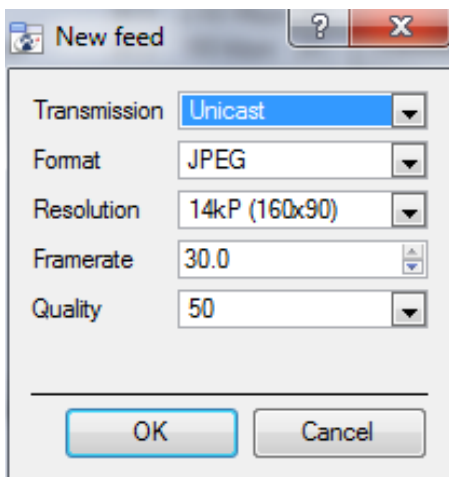
To enlarge the image click on:

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.

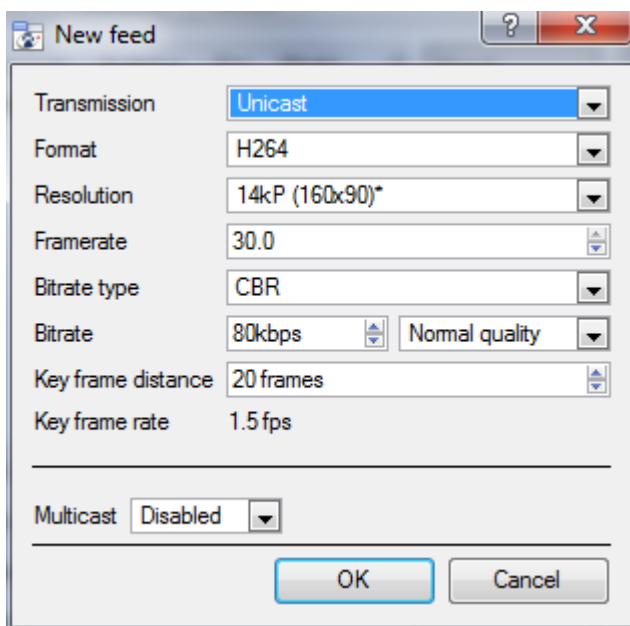


JPEG



Transmission will show the transmission type
Format is the compression format used by this stream. Click the drop-down menu to choose the one 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.

H.264

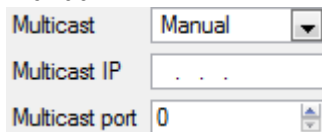


Transmission will show the transmission type.
Format is the compression format used by this stream. Click the drop-down menu to choose the one you desire.
Resolution is the amount of pixels in the image.
Framerate is the amount of frames recorded per second.
Bitrate Type this is the way that your bitrate 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**. If you do not want to use **Multicast**, leave this disabled.

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 **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 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 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 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 settings that can only be accomplished after the feed has been setup.

Disable live	Disable Live	viewing of the feed
Disable recording	Disable Recording	of the feed
Set recording channel ▶	Set Recording Channel	Define which channel number will represent this feed
Enable analytics	Enable Analytics	Enable Video Analytics

Analytics

In order to enable analytics on a unit you should 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 you do not setup an analytics-enabled channel here you will not be prompted to add 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.

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

Edit output

Name:

Enabled:

Pulse duration:

Pulse only:

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

Name	State	Enabled	Message

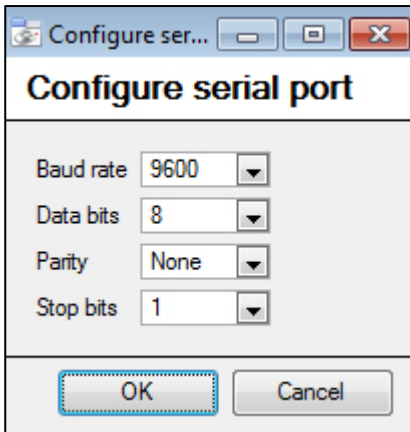
Enable/Disable Edit New Delete Show trigger messages


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 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.

Pan-Tilt-Zoom (PTZ)




Check the **Enable PTZ** box, if you are 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	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  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

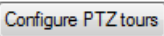
You may set a schedule during which the camera will return to its home position. When the schedule (see: **Schedule**) is inactive the camera will remain in the last position that it was left in. If there is no schedule set, the camera will never return automatically to its home position.

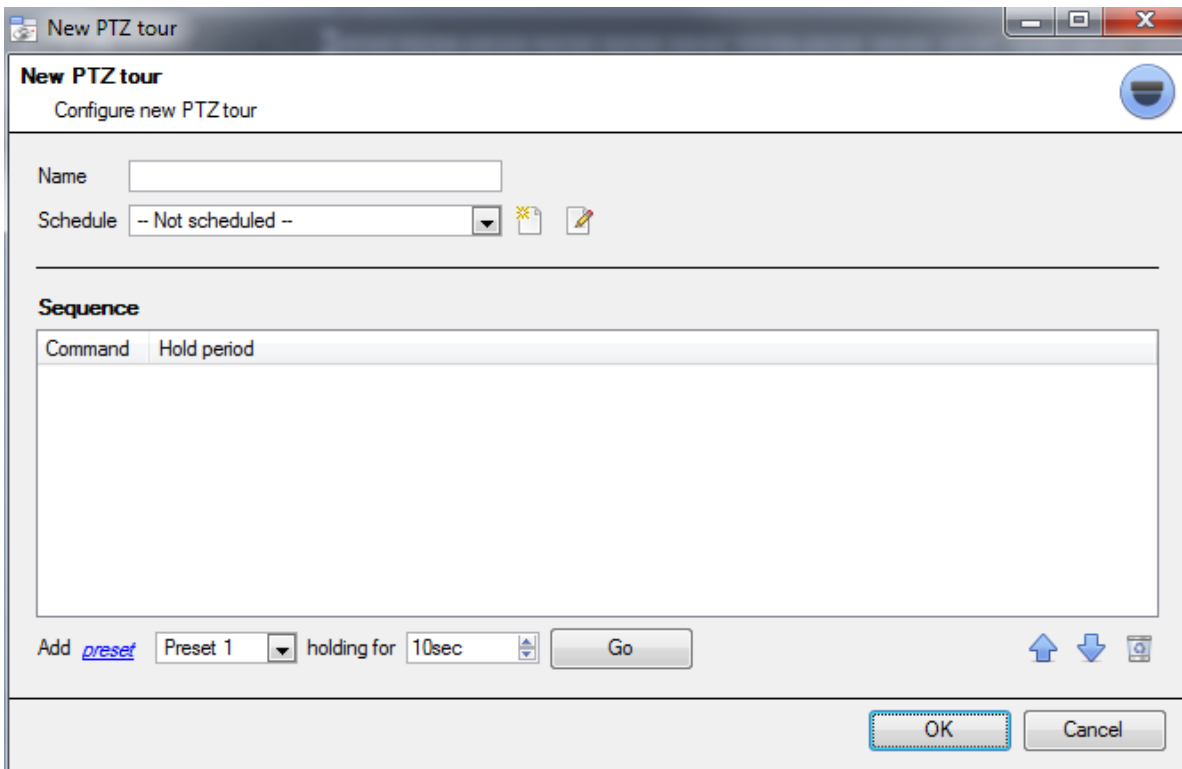
To have it always return home after a period, simply enable the **Every Day** schedule.

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 ; this will take you 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 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

Multiple Presets

- **Starting at:** Select the first preset you want to add.
- **Add:** 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

Pattern

Select the pattern that you want to add.

Add pattern 1 holding for 10sec

- **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

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:

Watch the live camera as you press the Zoom + and Zoom – button.

Focus Further/Closer:

Watch the live camera as you press 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 your 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. You will see the image lighten or darken.

Define a Preset:

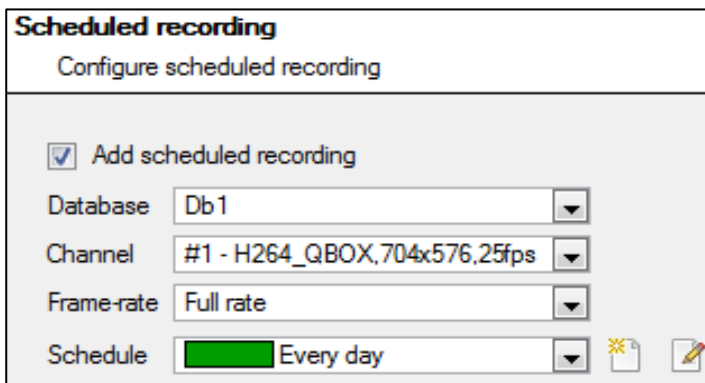
1. Select the preset number, from the dropdown menu.
2. Use the joystick controls to establish the camera View, Zoom, Focus and Light (Iris).
3. Click SET.
4. Go to this preset to check it.

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, or 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. (If you are on a remote unit you will not have the option.)

Schedule

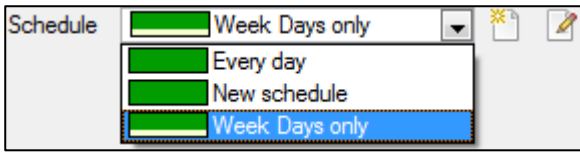




Schedule recording

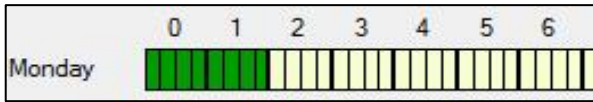
Set your camera to only record at certain times, to increase efficiency and save disk space.

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

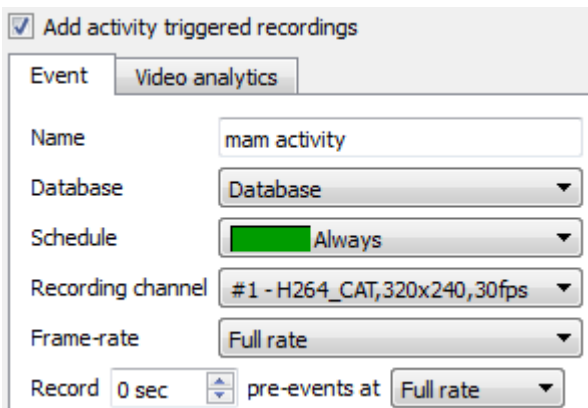
Deselect recording time – Right click and drag (the yellow bars).

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 you to setup 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**

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

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

Copy/Paste Cameras

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 previously added camera.

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

Select paste mode

Number of cameras to add

Start IP address

Number of cameras per encoder

Start input

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

Select paste mode

Discovered cameras			Selected camera settings	
Address	Model	Camera name	Camera name	
<input checked="" type="checkbox"/> Cameras			<input type="text" value="-- AUTO --"/>	<input type="button" value="Set name"/> <input type="button" value="Auto-name"/>
<input checked="" type="checkbox"/> 192.168.70.101	Cathexis HDE1004			
<input checked="" type="checkbox"/> Input 1		-- AUTO --		
<input checked="" type="checkbox"/> Input 2		-- AUTO --		
<input checked="" type="checkbox"/> Input 3		-- AUTO --		
<input checked="" type="checkbox"/> Input 4		-- AUTO --		
<input checked="" type="checkbox"/> 192.168.70.103	Cathexis HDE1004			
<input checked="" type="checkbox"/> Input 1		-- AUTO --		

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**.

c. **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.

Edit Existing Camera

Note: 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.

Settings

General | Connection | Video feeds | PTZ | Preevents | Access | Privacy zones

Camera name:

Covert

You may 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 **Preevents, Access and Privacy Zones** tabs 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; these appear as individual panels in **Configure Servers** and *not* as options within the **Edit** tabs.

Pre-events

Framerate:

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

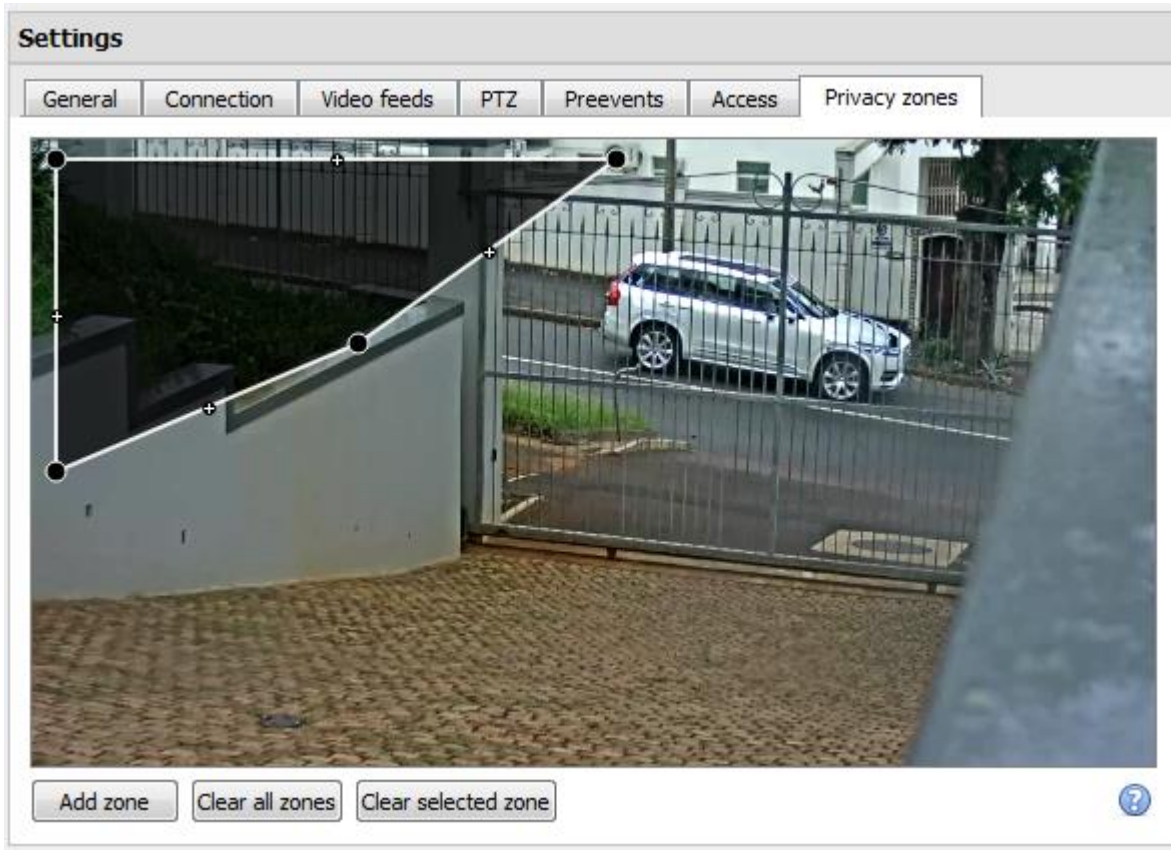
Live	This controls which Access Levels can view the camera's live feed
Review	This controls which Access Levels can review recorded footage form this camera.
PTZ	This controls which Access Levels can control PTZ movement.
PTZ Menu	This controls which Access Levels have the ability to change PTZ menu.
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 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**)

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 zone

Add a new privacy zone to the camera image.

Clear all zones

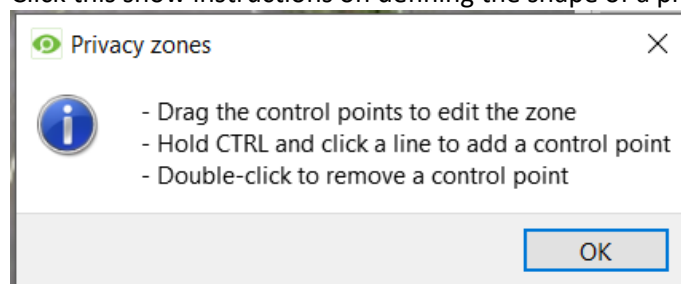
Clear all privacy zones from the camera image.

Clear selected zone

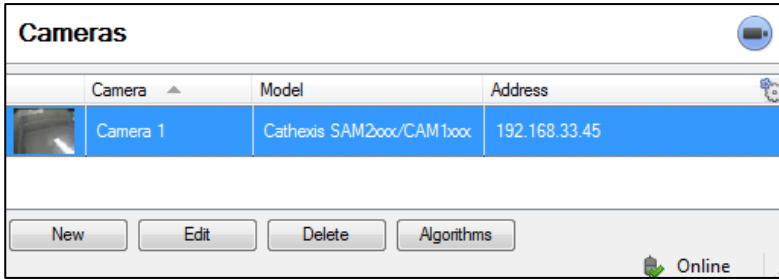
Clear only the selected zone from the camera image.



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



Camera Successfully Added

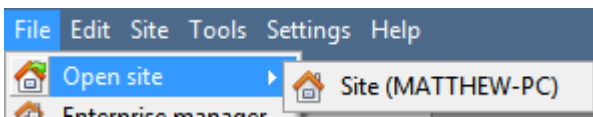


Your camera has now been setup and will start recording as configured. From this screen you can now add another camera or edit the camera you have just setup.

d.

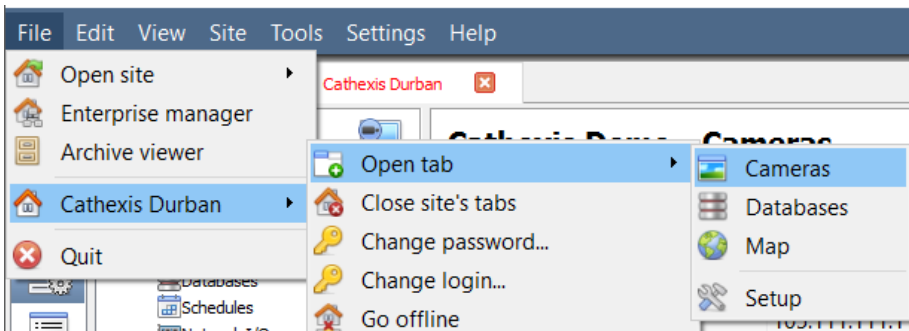
To view your Camera/s

- **Open Your Site**



File → Open Site → Your_Sites_Name.

- **Open the Cameras Tab**

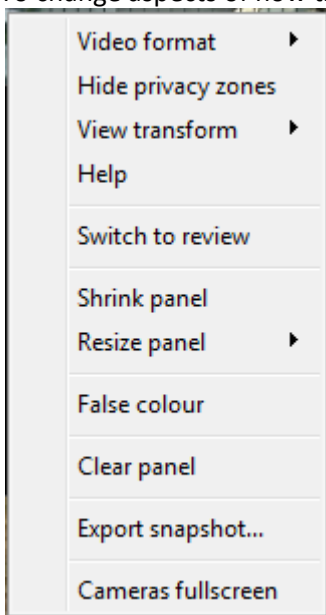


File → Your_Sites_Name → Open Tab → Cameras.

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 you to transform images for cameras with special lenses. (E.g. 360 degree cameras.)

Overlays: Allows you to view 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 you to switch back and forth between live and review footage.

Shrink panel: Reduces the size of the camera panel.

Resize panel: Gives you more resizing options.

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

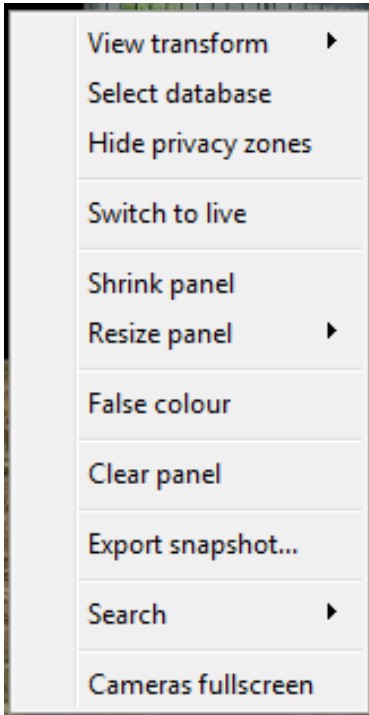
Clear panel: Removes the camera/s from the currently selected panel/s.

Export Snapshot...: Opens a window which lets you print snapshot, save to

folder, copy to system clipboard, or copy to CathesisVision clipboard. You may 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 you to transform images for cameras with special lenses. (E.g. 360 degree cameras.)

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

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

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

Shrink panel: Reduces the size of the camera panel.

Resize panel: Gives you more resizing options.

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

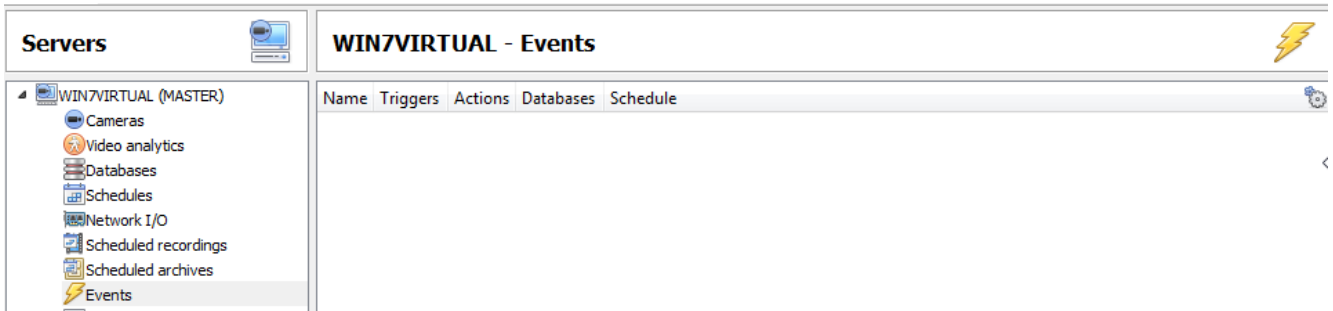
Clear panel: Removes the camera/s from the currently selected panel/s.

Export snapshot...: Opens a window which lets you print snapshot, save to folder, copy to system clipboard, or copy to CathesisVision clipboard. You 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.

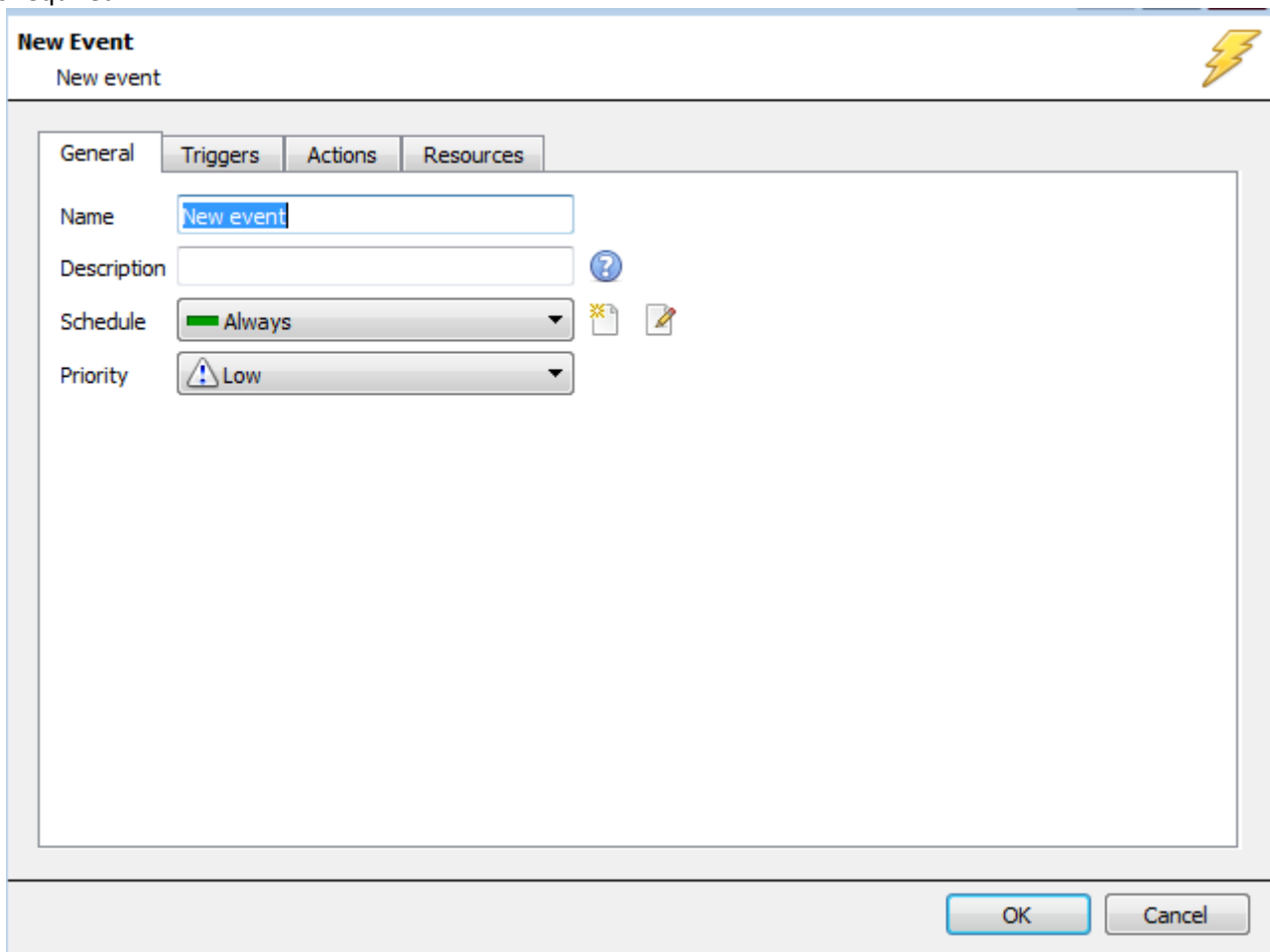
7 Events



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

When 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 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

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.

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