



CathexisVision 2018.4 Operator's Manual

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1 Introduction

This guide will detail the different operating procedures that the client in the control room may be expected to undertake, using the CathexisVision Client software. This does not include the setup's that take place, either in the setup tab, or via the menus. For this information please refer to the Setup Manual.¹

For example, this manual will deal with questions such as “how do I zoom in a PTZ camera?”, and “how do I review previously recorded footage?” The Setup Manual, on the other hand, will provide information on how one would add and setup a new camera, or add a motion detection algorithm to a camera.

a. Minimising the GUI

Windows

It is not recommended to minimise the CathexisVision GUI in Windows. If the application is minimised and an event occurs, a notification will popup only if there is no other active application running. The taskbar will flash indicating there is a message in CathexisVision, but the popup will not appear on top of other open applications.

This is because Microsoft Windows does not allow applications to interrupt what the user is currently doing.

Linux

In Linux, the event notification will appear on top of other applications.

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 Connect to a Site

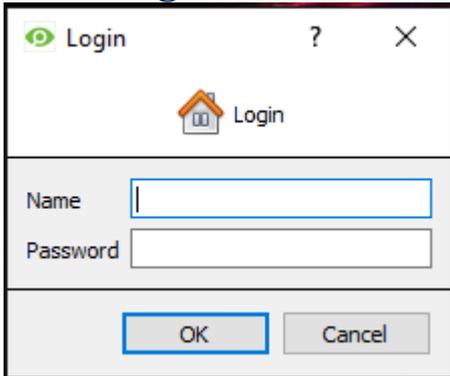
a. Open Connection

The CathexisVision Client is not tied to any particular Site, and as such, the user first has to open a connection to the Site they wish to view.



Clicking on **File** → **Open Site** will open a list of all Sites that have been added to the Viewing PC. Select the Site to view.

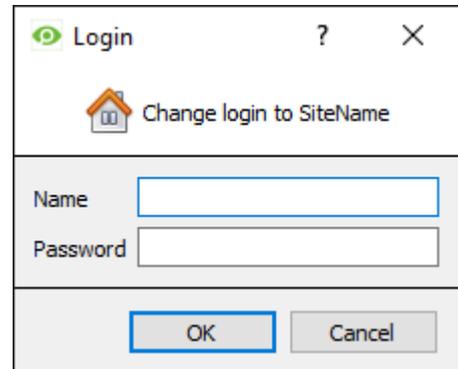
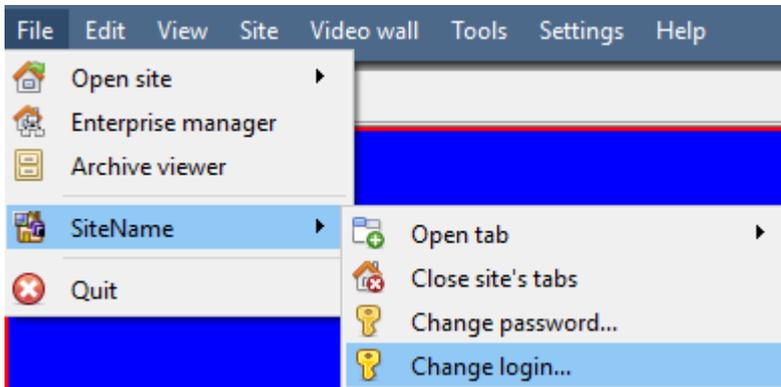
b. Login



After selecting the Site, there will be a prompt to enter login credentials.

c. Change Login

To change login, follow **Site** → **Change login...** and enter details.

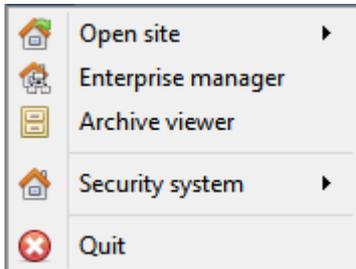


3 Menu Bar

File Edit View Site Video wall Tools Settings Help

This will detail the different options available to the user through the menu bar of the CathexisVision GUI.

a. File Menu



Open Site

The menu attached to this tag will be a list of the Sites that have been added to this unit.

Enterprise Manager

The enterprise manager is where all Site management occurs. Add/edit/remove Sites, as well as create Site folders.

The assignation of Resource Sites occurs in the Enterprise Manager as well.

Archive Viewer

This will open up the Archive Tab. Any archived video can be viewed here.

Open Site List

The names under **Archive Viewer** and above **Quit** represent the Sites that currently have connection tabs open in the GUI.

b. Edit Menu

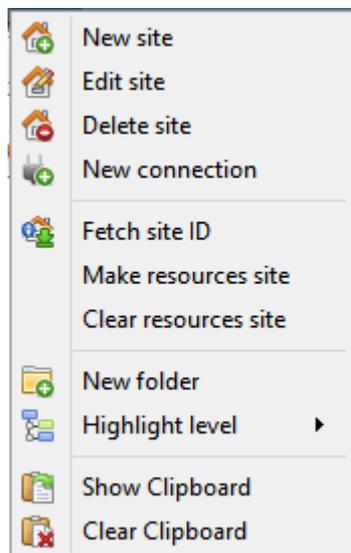
The edit menu, in general only displays the Show Clipboard, Clear Clipboard options. When the Enterprise Manager is open, a range of different options will be displayed.

General Edit Menu



The only information contained on the clipboard in question will be that captured by a screen grab from one of the cameras in the Cameras Tab.

Enterprise Manager Edit Menu



New/Edit/Delete Site will add a new Site; edit an existing Site, or delete an existing Site.

New Connection will add a unit connection to the selected Site.

Fetch Site ID gives a created Site an ID, which is essential for a Site to run. Perform this after creating the Site, and adding unit connections to it.

Make Resources Site will make a Site a Resources Site for this unit. This allows the unit to display a Video Wall, Alarm Management Gateway, and Maps Tab for this Site.

New Folder. One may organise Sites in the Site List into folders.

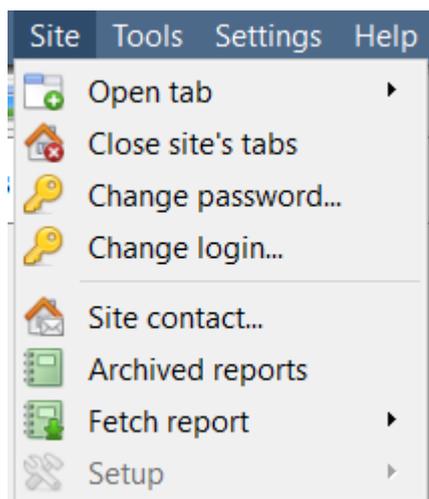
Highlight Level will highlight all Sites where X level is authorised.

c. View Menu

The only option available here is the option to change the GUI view to Full-screen.

d. Site Menu

The Site menu will relate to the Site whose tab is currently being viewed. To open a new Site, follow **File** → **Open Site** → **Site Name**. This same menu can be found from a list of all currently open Sites under the **File Menu**.



Open Tab will open any available tabs (Cameras, Database, Map).

Close Sites Tabs will close all open tabs for this Site.

Change Login will change the user who is logged in.

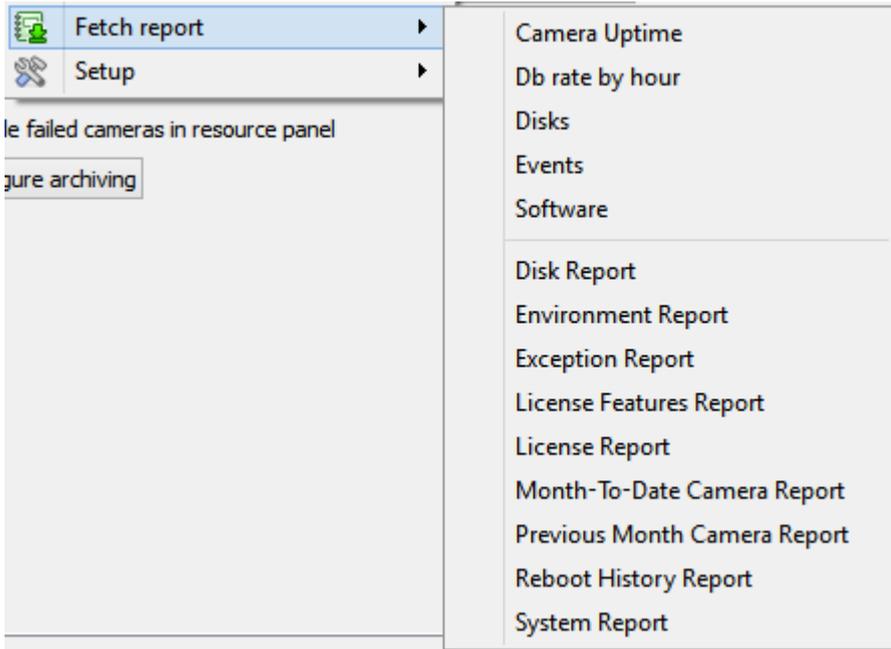
Site contact will show the name and details of the Contact person for the Site.

Archived Reports will display a list of previously archived reports.

Fetch Report will fetch a Site report.

Setup is greyed out unless logged in as an administrator.

Fetch Report

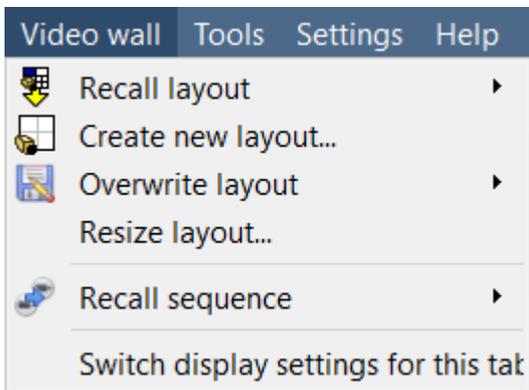


This menu allows one to pull a full report for the entire Site.

One may select to pull a **Template**, or pull up a quick report based on the list of variables below the border line.

Note: For individual unit reports, and a full description on the nature and details of reports see the **Setup Guide** → **Configure Servers** → **Setup Tab: Reports** section of the manual.

e. Video Wall Menu



A **Layout** defines how the cameras appear on the screen, in the **Cameras Tab**. Including which cameras are shown, and how much space they take up on the screen.

A **Sequence** is a cycle of individual cameras that will run, on a timer, in a single viewing panel, in the **Cameras Tab**.

The **Switch Display Settings** for this tab **will define the behaviour of the currently open Cameras Tab, when video information is sent to the Client Station with an alarm.**

Note: this menu option will only be present when a Cameras Tab is being viewed.

Recall a Layout

To bring up a list of existing Layouts, click on Recall and select the Layout name desired.

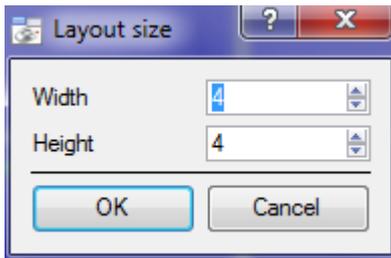
Create new Layout

To create a Layout, organise cameras on the screen as desired (double-left-click to expand; single-right-click to reduce). Then click on **Layouts** → **New**. Give the Layout a name, and click OK. **(Use Layouts created in the Cameras Tab in the Monitors Tab, and Vice Versa).**

Overwrite Layout

Clicking on **Overwrite**, and selecting one of the Layouts in the list, will overwrite that Layout with the current panel organisation.

Resize Layout



Clicking on **Resize layout...** provides the ability to change how many cameras are arranged on the screen. One may define how many cameras there are per row, and per column.

The maximum number of cameras allowed per screen will be an 8*8 matrix. This displays a Layout with 64 cameras. (This would require an incredibly large screen to be practical though).

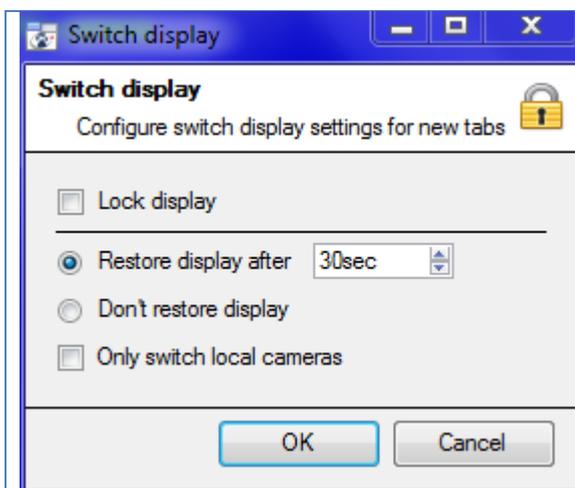
Recall Sequence

A **Sequence** is a cycle of individual cameras that will run, on a timer, in a single viewing panel.

To recall an existing sequence, click on **Recall sequence** to bring up a list of all existing sequences. Click on a specific sequence to run it.

Switch Display Settings For this Tab

Note: The Switch Display Settings set here are for the currently open tab only. To define the default Switch Display Settings for all tabs that are opened, navigate to **Settings Menu** → **Switch Display settings for new tabs...**



Lock Display

Will prevent the Cameras Tab from displaying any video feeds sent to it by the Event.

Restore display after

Will define how long after switching to the Event Cameras the Cameras Tab will return to the original display settings.

Don't restore display

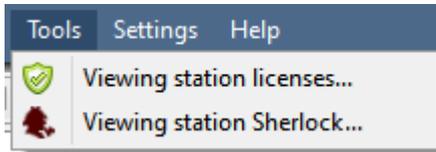
Will leave the Cameras Tab on the Event Cameras until an operator, or administrator, resets the display.

Only Switch Local Cameras

Will only switch to Event cameras originating from a local Site.

Note: One may also either lock , or unlock , the currently opened Cameras Tab by clicking on the little lock located at the bottom of the resource panel in the Camera Tab (Only appears when mouse hovers over it.)

f. Tools Menu

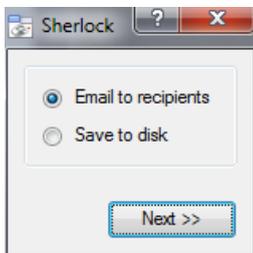


A client PC it will say Viewing Station licenses. The server will read "Local server licenses". One may also retrieve the server licenses from Site, or units, by entering the Setup → Configure Servers→ and right-clicking on the unit.

Licenses

This will allow one to add a license to the Base Station being worked on, not to any of the Recording Servers on the Site.

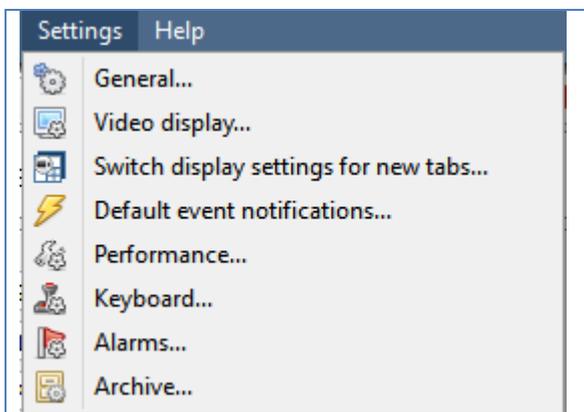
Sherlocks



Sherlock files are a diagnostic tool, used by the Support Desk. The normal procedure is to email the Sherlock file to the Support Desk, with a description of the problem, but one may also save it to disk.

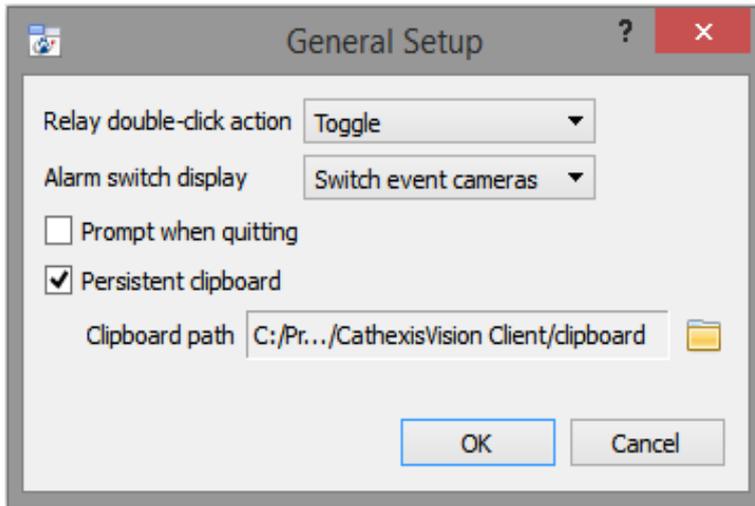
Note: clicking on Email to Recipients, will open up the Operating Systems default email client. Save to Disk will allow the Sherlock files to be saved to any storage attached to the workstation.

g. Settings Menu



This section deals with the General Settings Menu.

General

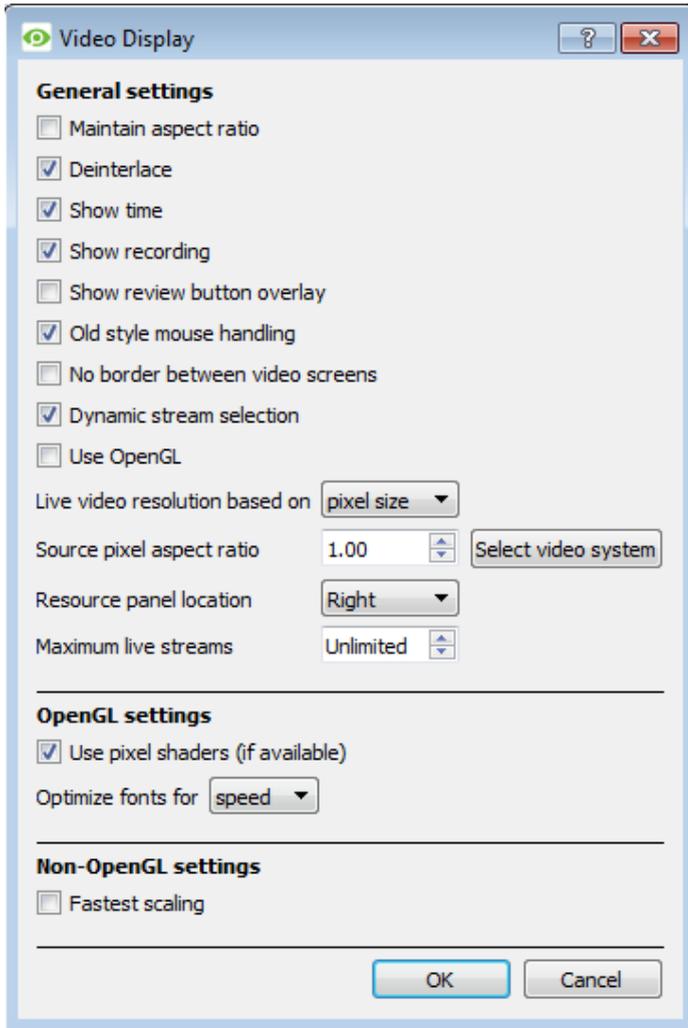


Relay Double-click Action will set whether or not a relay in the Resources Panel, will be changed from its current state, or set to pulse.

Alarm Switch Display defines the GUI behaviour for when a user is handling an Event Alarm. It defines whether or not the display will switch to show the cameras attached to that Alarm.

Prompt When Quitting will send a prompt every time CathexisVision is quit. The prompt will be about whether or not one wants the current tabs to be reopened when the program is started. Persistent clipboard will persist after closing CathexisVision.

Video Display



OpenGL: A Graphics library...a cross-platform API for writing applications for 2D and 3D graphics. The graphics card utilises the OpenGL, and thus the load will be passed on to the GPU, freeing the load on the CPU.

Pixel shaders: Similar to OpenGL.

Fastest scaling: When the CPU has to be utilised to handle the load, this option helps optimise the instructions for the CPU.

Maintain aspect ratio: The ratio between the width and the length will be kept constant as the video size changes.

Deinterlacing: A process of converting interlaced video (like analogue) to a non-interlaced form.

Show time: Shows the time on the video.

Show recording: indicates when, with a red dot, when the video feed in a panel is currently being recorded.

Show review button overlay: will overlay buttons for review, on mouse-over, on a camera panel when it's video feed is being reviewed.

Old style mouse handling: Use pre-2017.2 mouse handling.

No border between video screens: Check to remove borders between video screens.

Use OpenGL: Check to use. See below for info.

Dynamic stream selection is enabled by default. This will dynamically select the stream based on the display resolution.

Live video resolution: Based on either panel size or pixel size.

Source pixel aspect ratio: Will conform the video source's correct aspect ratio, making the object look more real-world. For example, when a video of a perfect circle appears oval on the screen, it is an indication that the aspect ratio might be different from the original source.

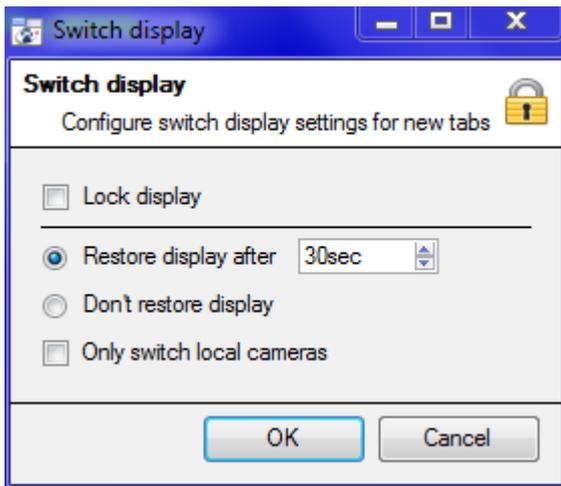
Resource Panel Location: Resource Panel can be configured for left or right of video screen.

Maximum Live Streams. An option to limit the number of live video streams in the CathexisVision camera tab. The limit is a global limit and applies across all screens. (On an NVR/DVR this setting is only accessible to an administrator).

[Switch Display Settings for New Tabs](#)

This will define how the Cameras Tab responds when there is an event on the Site that sends video and information to the Cameras Tab of the viewing client.

Note: The settings here will apply to any new Cameras Tabs, opened after the settings are changed.



Lock Display

Will prevent the Cameras Tab from displaying any video feeds sent to it by the Event.

Restore display after

Will define how long after switching to the Event Cameras the Cameras Tab will return to the original display settings.

Don't restore display

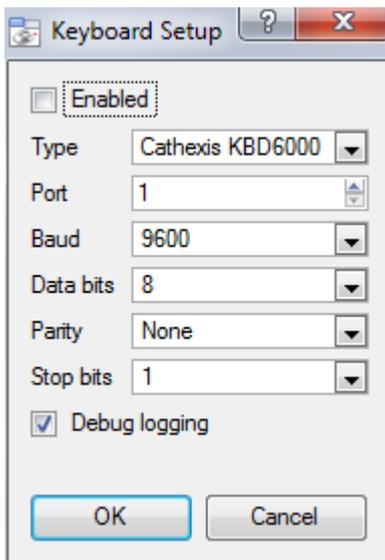
Will leave the Cameras Tab on the Event Cameras until an operator, or administrator, resets the display.

Only Switch Local Cameras

Will only switch to Event cameras originating from a local Site.

Note: One may also lock , or unlock , the currently opened Cameras Tab by clicking on the little lock located at the end of the Timeline on the Review Controls.

Keyboard



This option is for when one is adding a keyboard to a **Base Station**. If one is adding a Keyboard to a Recording Server, do so via **Site→Open Tab→Setup→ Configure Servers → Keyboard**.

Enter in the details relevant to the keyboard.

Alarms

Enter an IP address for a technical alarm server, or gateway, for the viewing software to send alarms to.

Archive Guide	Will launch a quick guide on archiving.
Local server stats"/"Viewing station stats	Are the statistics for the local server if it's an NVR, or for the Viewing Station? Depending on which unit is on.
Enable Support User	Note: this will only appear on NVR units. This will enable/disable a special user added for support purposes, when CathexisVision NVR is installed.
About	Will provide information about the License, the Release version, and the email address for Support.

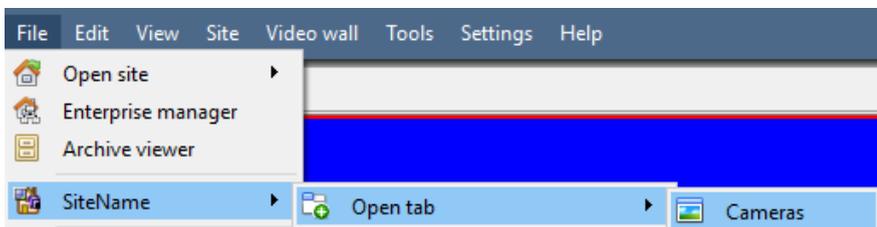
4 Cameras Tab

This section will deal with the Cameras Tab, which is the tab through which the operator will view live footage, as well as review recorded footage.

a. Open the Cameras Tab

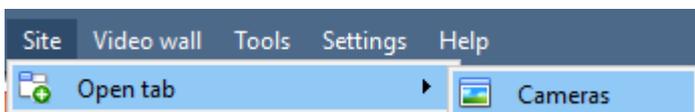
After opening a connection to the desired Site, as described above the operator must open the Camera Tab. There are three ways to do this:

Option 1



File → SiteName → Open tab → Cameras Tab

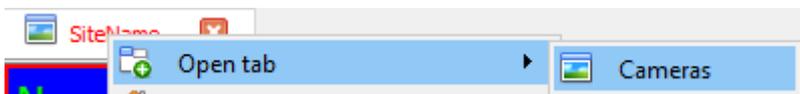
Option 2



Site → Open tab → Cameras Tab

Option 3

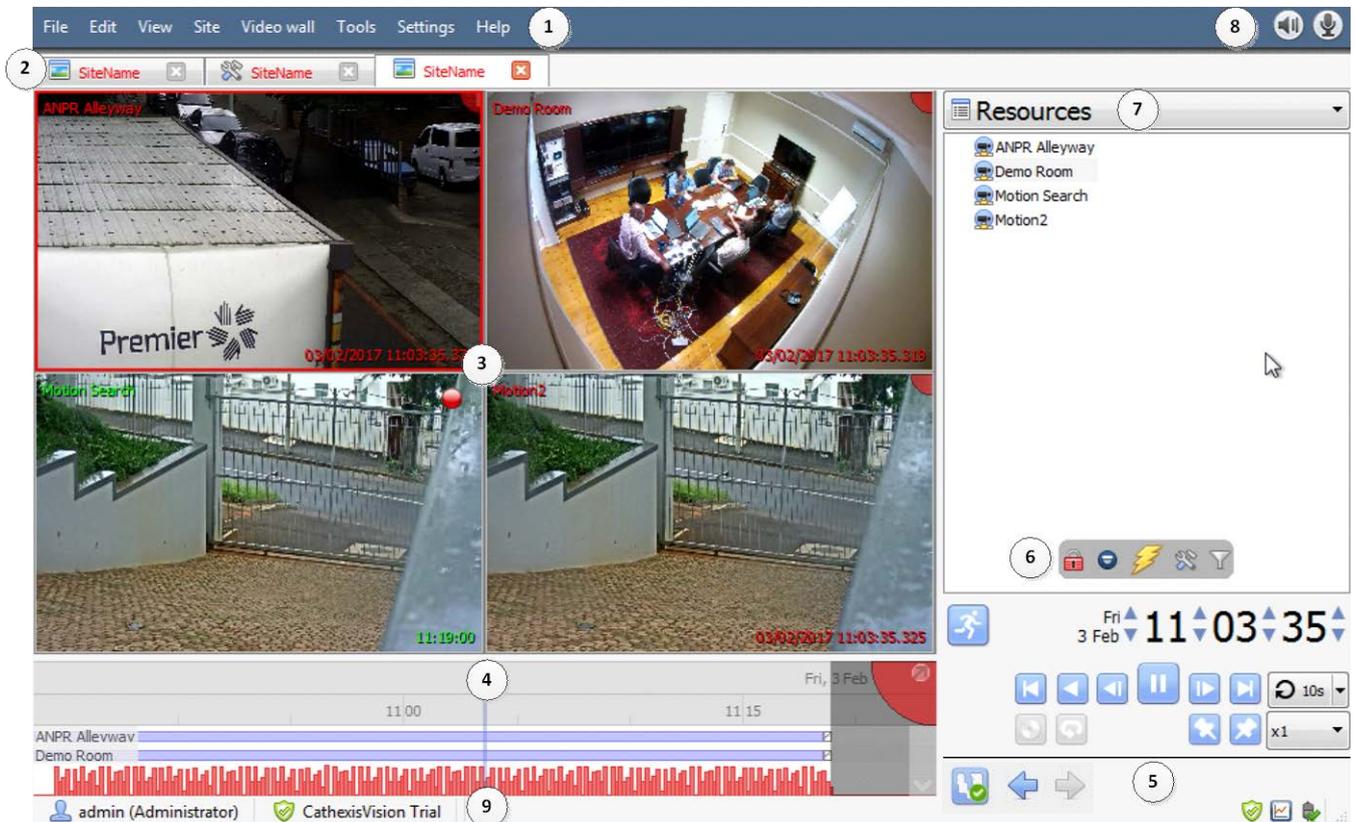
Site must already be open for this option.



Right-click on SiteName tab → Open tab → Cameras Tab

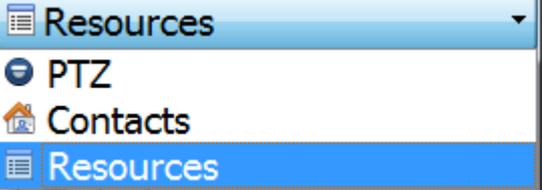
b. Main Screen Areas

The following presents a brief introduction to the various features of the Cameras Tab, which will each be dealt with in deeper detail, further on in the document.



One may configure areas 5, 6, and 7 to appear on the left or the right-hand side of the screen. Follow **Settings Menu** → **Video Display** → **Resource Panel Location**.

1	<p>The menu bar provides menu options for the current desktop, and shows access rights. These menu options change on a tab-by-tab basis.</p>								
2	<p>These are the various tabs (camera, database, and setup) for one or multiple Sites.</p>  <p>The colour of the text in the tab indicates its connection status:</p> <table border="1" data-bbox="247 1668 654 1814"> <tr> <td></td> <td>Red: Online</td> </tr> <tr> <td></td> <td>Black: Offline</td> </tr> <tr> <td></td> <td>Blue: Connecting</td> </tr> <tr> <td></td> <td>Green: Online But not Current</td> </tr> </table> <p>Each Site can be custom-configured to automatically load certain tabs, when a connection is made to the Site (this is configured from File → Enterprise Manager → Right-click Site → Properties). To close a tab, click on .</p>		Red: Online		Black: Offline		Blue: Connecting		Green: Online But not Current
	Red: Online								
	Black: Offline								
	Blue: Connecting								
	Green: Online But not Current								
3	<p>The cameras panel contains the individual panels on in which cameras are viewed. Selected cameras are outlined in red; unselected cameras have no outline.</p>								

4	<p>The timeline will show the current time of the selected panel/s. The white area indicates time that has passed; the grey area indicates time approaching; the point between them indicates the present time.</p>
5	<p>The review controls panel holds the tools used in reviewing, archiving, recorded footage, and Activity Trails; for one or multiple cameras.</p>
6	<p>The resource panels mouse-over options include:</p> <ul style="list-style-type: none">  Lock display. Some CathexisVision events will be setup to switch the camera panel to view cameras related to the event. Clicking on this lock will enable/disable this feature. An unlocked display () will switch; a locked display won't.  PTZ Controls. This will pull up a basic PTZ control menu. For a detailed menu, see the note on Number 7 (below).  Event Notifications.  Configure Resource Panel.  Resource Panel Filter.
7	<p>The panel selector is a dropdown bar for selecting from a variety of panels:</p>  <p>Note: One may configure areas 5, 6, and 7 to appear on the left or the right-hand side of the screen. Follow Settings Menu → Video Display → Resource Panel Location.</p>
8	<p> The Local Resources bar (top right) shows the status of local hardware resources:</p> <ul style="list-style-type: none">  Local default audio input (e.g. microphone)  Local default audio output (e.g. speakers)  Local monitor <p>When active, these resources display bright green, and when inactive they are grey. Run the cursor over an active resource, and a “tooltip” will provide information on the activity. For example, mouse-over a green monitor to see the camera displaying to the monitor. If there are many local resources, they will be arranged in a scrolling area, with left and right scroll arrows.</p>
9	<p>The status bar, at the bottom on the interface provides relevant information about the status of the software and its various components. See below.</p>

Status Bar Icon Descriptions

Notification Icon	Notification Description
dvs (Administrator)	The username , and their access level.
CathexisVision Premium	This represents the main license of the unit.
Supplied to Documentation by Cathexis Internal	The distributor of the license.
	The cameras notification will only create an alert when cameras are down. Clicking on it allows one to see which cameras these are.
	The licensing notification will be permanently present, but will change colour depending on licencing status.
	Green indicates a healthy licensing status.
	Orange indicates that there are demo licenses that are due to expire.
	Red means either missing or expired licenses.
	The performance monitor notification is permanently present, and allows one to view performance statistics. See the Appendix of this document for a full explanation.
	The connection status icon is permanently present, and indicates the status of the connection to the current Site.
	Video Analytics notification. Warns the user when an error has occurred which involves one or more of the video feeds on a Site.
	Failover notification will provide information about the status of existing failover servers.

c. Camera Panels and Context Menu

This section will cover the different overlays that are visible on each panel, and the options available in the context menu.

Overlays

- **Live**



Green text shows that the stream is live.

The text in the top left (Highway 1 here) is the camera's given **name**.

The **timestamp** is seen on the bottom right.

A present in the top right-hand corner of the panel indicates that the camera is currently recording to one of the databases.

- **Review**



Red text indicates that the video in this panel is being reviewed, from previously recorded footage.

The text in the top left (Highway 1 here) is the camera's given **name**.

The **date**, and, **timestamp** is seen on the bottom right.

Video feed Options Panel

When the mouse is hovered over a camera's panel, there will be a little black- arrow icon on the left- middle of the panel. Clicking on this icon will expand the menu, as seen below:

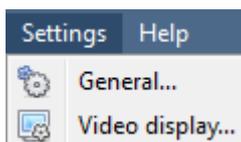


Click on  to select available overlays (if configured and enabled).

Click on  to select between available video feeds for the selected camera. This is very useful when wanting to view a camera over a slower link and the camera provides a lower format/resolution feed.

Note: When reviewing video, the database icon  will appear in the list. This allows one to select which database to review video from. This is useful if this camera records to multiple databases.

- **Review Button Overlay**



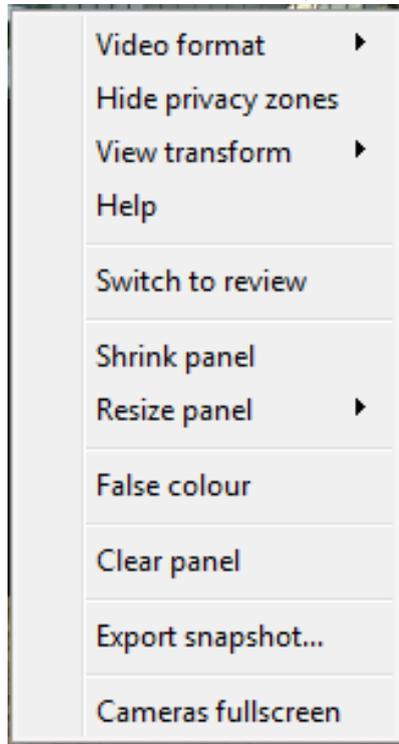
Under **Settings** → **Video Display** there is an option that reads **Show review button overlay**.

When checked, the following overlay will be displayed when hovering the mouse over a camera panel where the video is currently being reviewed:



Live Context Menu

To see the context menu, middle-click the mouse on the camera panel of choice.



Video format: Allows the user to select which of the camera's 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 one to transform images for cameras with special lenses. (E.g. 360-degree cameras).

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

Export Snapshot...: Opens a window which enables one 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.

Shrink panel: Reduces the size of the camera panel.

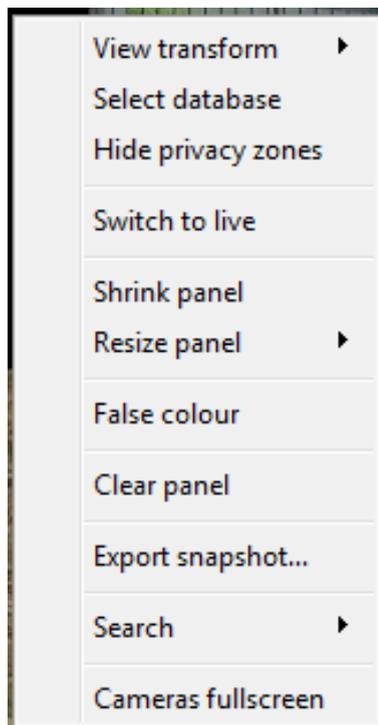
Resize panel: Provides more resizing options.

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

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

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

Select database: If multiple databases are set up, one 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 switching back and forth between live and review footage.

Export snapshot...: Opens a window which lets one 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.

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, which allows the user 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.

Select, or Move, Cameras

1. To **select a single camera**, left-click on it.
2. To **select multiple cameras**, hold down CTRL while left-clicking on the cameras desired for selection.
3. To **move a camera**, from one panel to another, right-click-and-hold the camera and drag it to the new panel.
4. CTRL-A will **select all cameras** in the Cameras Tab.

Digital Zoom

One can zoom in digitally on cameras that have no physical PTZ capability. This is done by selecting the specific camera in the Cameras Panel and doing the following:

- **Zoom in/out**

Scroll the mouse wheel.

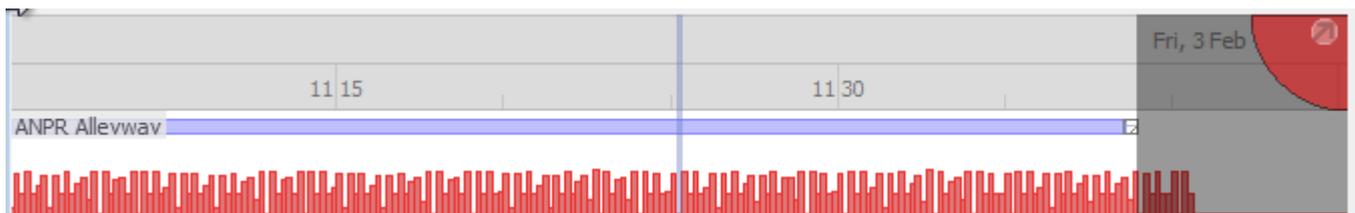
- **Zoom to area**

While holding the shift key, drag-select an area using the left mouse button

- **Pan**

Pan the image using the left mouse-button. This is done by holding down the left mouse button, while moving the mouse.

d. Timeline



The timeline at the bottom of the GUI indicates where in time the currently selected cameras are.

Note: while legacy video in CathexisVision 2015 and onwards may be reviewed (recordings made on pre 2015 systems), the timeline will remain blank.

Basic Description

The following will describe the basic function of the timeline. Continue in this section for more details.

Recordings



This indicates there are recordings for this camera. A white area indicates no recordings.

Actions:

- Click anywhere to go to a time in recording, or drag the timeline to the desired location.
- Hover mouse over recording area to display thumbnail preview image of recording.

Motion Analytics



This indicates that this camera has a **motion database**, and that there has been activity in the area.

Actions:

- Click anywhere to go to a time in recording, or drag the timeline to the desired location

Popout



Click this to pop the timeline out into a detached mode. Click the arrow again to dock it.

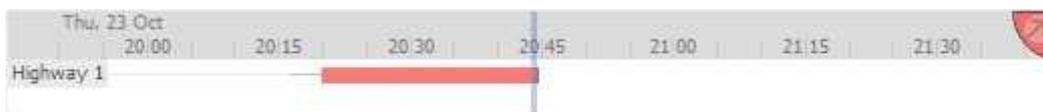
Timeline View Types

- **Live View Timeline**

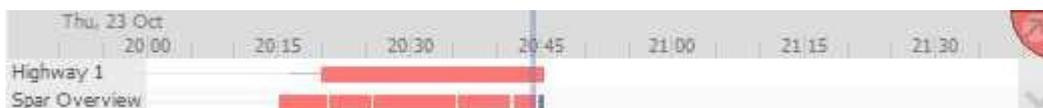


The live view timeline simply shows the current time at the intersection between white and grey.

- **Single and Multiple Camera Review Timeline**



When reviewing a camera's recorded video, the timeline will change to show red blocks. These blocks on the timeline represent recorded events.

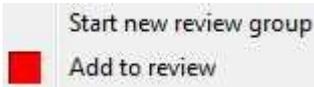


If multiple cameras are selected to review, they will appear stacked on the timeline.

- **Synchronised/Independent Review**

When multiple cameras are selected for review, all reviews are synchronised by default. It is possible to review cameras independently.

When already reviewing a camera, middle click on a camera's panel to see the following options in the context menu.



Start new review group will add this camera to a separate group of review cameras, which will be asynchronous to the original review group. The new review group is indicated by the tag on the top-right of the video. Each review group will get its own colour.

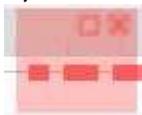
Add to review will add this camera to the already existing review group. As review groups are added, the number of options here will increase as a result.

Timeline Actions

- **Zoom in on Timeline**

There are two ways to zoom in on a section of the timeline.

1. By mousing over the timeline (during review) and rolling the mouse-wheel forwards. To zoom out, roll it backwards.
2. By shift-selecting a section of the time line.



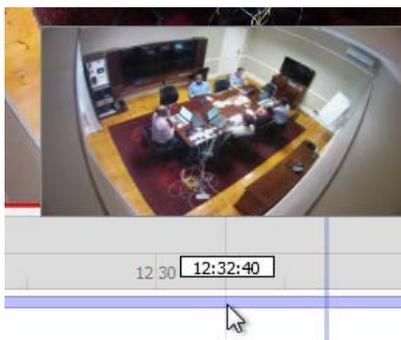
This is done by holding down the SHIFT key, while click-dragging the selection with the left mouse button. The selection will look like the image to the left.

To **zoom in** on this selection, click on the  icon.

- **Move the Timeline with the Mouse**

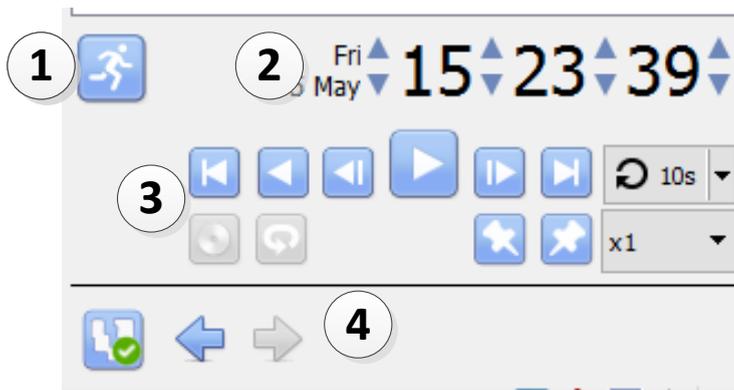
Move backwards and forwards in time, by left-click dragging the timeline in the direction of travel.

- **Hover over Timeline**



If a camera has recordings, hover over the timeline to display a thumbnail preview image of the recording at the selected time.

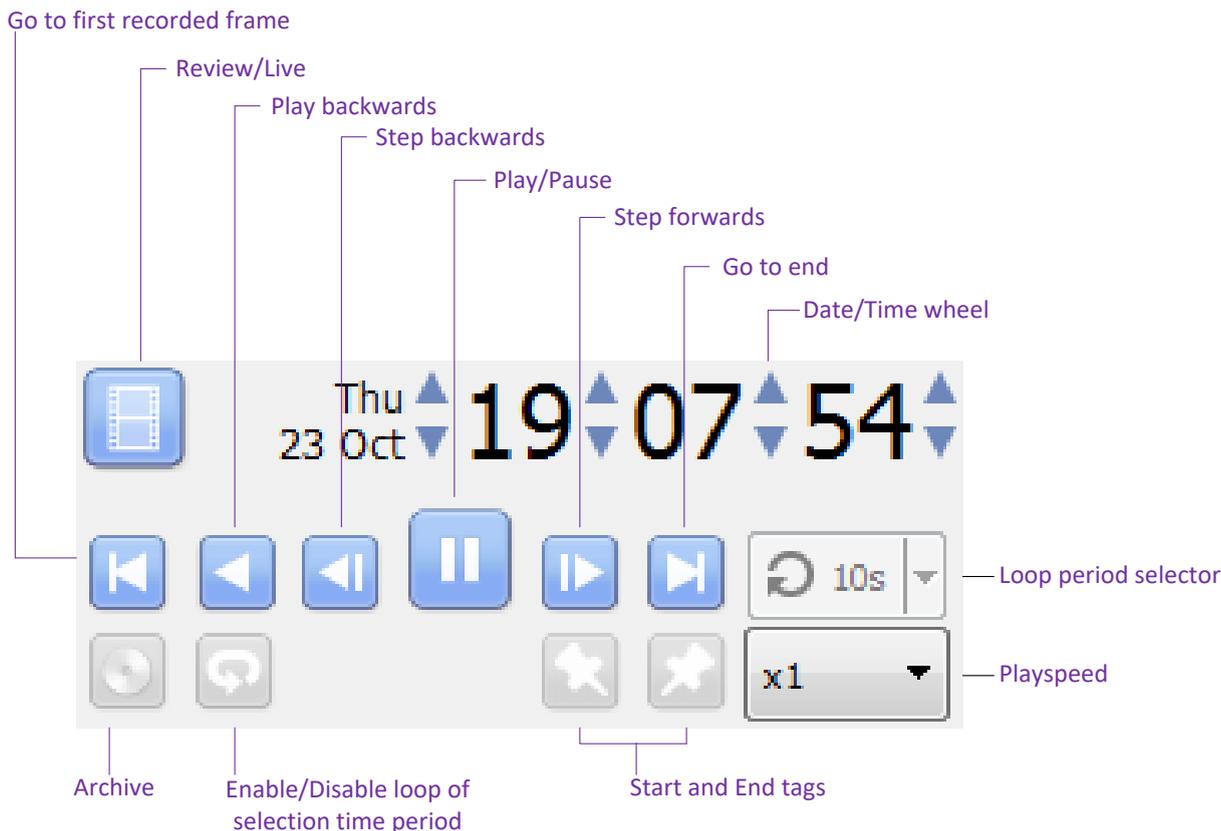
e. Review Control Panel



<p>1</p>	<p>Toggle Live/Review mode. Note: Click the  icon, to enable review, it will change to an  icon, and vice versa.</p>
<p>2</p>	<p>Go to time.</p>
<p>3</p>	<p>Review Controls</p>
<p>4</p>	<p> Toggle Activity Trails on/off. See section f. for instructions.  Look backward/forward. See section f. for instructions.</p>

When a camera is put into review mode, and another camera is selected for the same panel, that camera will retain the review time of the original camera.

Review Controls



Playback Speed

Select a **Playspeed** up to x16 from the **Playspeed options**. Then click either **Play**, to play forwards at the selected **Playspeed**, or **Play Backwards** to rewind at the selected **Playspeed**.

- **Selecting a Period for Review**

After finding something of interest, one may loop through the recorded footage around that event. (This can also be useful when selecting footage for archive). Move the timeline around by left-click- dragging it.

There are two ways to select the period for review.

1. **Tagging:** Click on the icon to tag the start of the selection. Then navigate to the end of the desired period, and click on the icon, to tag the end of the selection.
2. **Shift-selection:** This is done by holding down the SHIFT key, while click-dragging the selection with the left-mouse button. The selection will look like the image below.



The selected areas will appear as illustrated to the left. By default, it will be set to loop. This can be seen when looking at the loop icon.

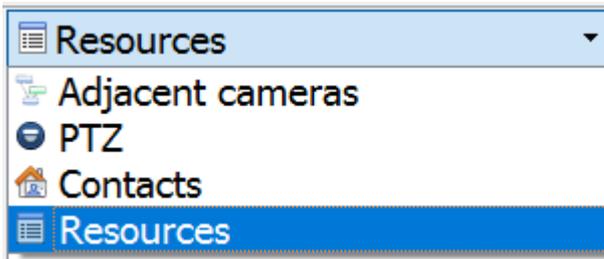


Means that it will loop, to the beginning of the selection, as it gets to the end of the selection.



Means that the video will continue to play past the end of the selection.

f. Panel Selector

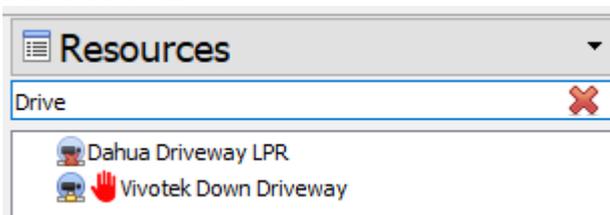


Clicking on the drop-down menu of the Panel Selector will display four options: **Adjacent Cameras, PTZ Controls, Contacts, and Resources**. The Contacts are special Site contacts, setup by an administrator. The Resources are the Site resources, such as Cameras, Relays etc.

Resources Panel

When the Resources option is selected from the dropdown menu, the panel will populate with all Site resources that have been made available on the Site.

Filter Resources



In the Resources panel, resources may be filtered by typing in part/s of the resource name.

Click the  to clear the search.

- *Select a Camera*

The resources panel is where one selects cameras to view in the Cameras Panel. There are a few ways to do this.

Double-click a camera in the Resources panel



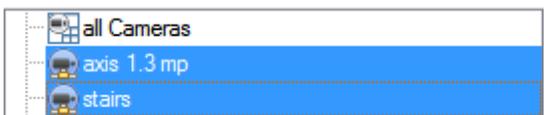
Double-click a camera in the Resources panel to load it Live into the camera panel that currently has focus (is selected).

Drag a camera from the Resources panel



Left-click on a camera, holding down the mouse button, and drag a camera from the Resources panel (first drag the camera horizontally left, and then to the panel to view it in).

Drag a group of cameras from the Resources panel

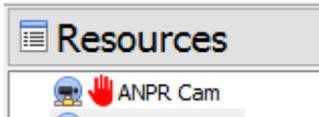


From release 5042c2, January 2011, one can select a group of cameras from the resource panel and drag them onto the camera display (for camera tab or multiSite tab). This is a quick and convenient way to populate a screen with cameras.

This is achieved by selecting cameras while holding down the CTRL button on the keyboard, then dragging them across.

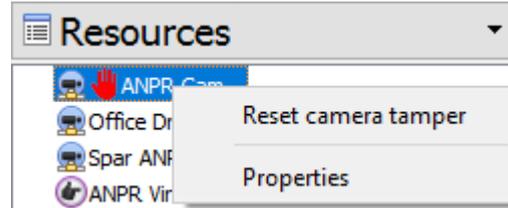
- *Reset Camera Tamper*

Depending on one's access rights, one may be able to reset a camera tamper if it is being tampered with. In some cases, a camera will remain in a tamper state until the camera has been restored to its normal state; this may include the physical removal of the tamper such as refocusing the camera lens or correcting the camera's position. However, when necessary, one may need to clear the tamper state from within the software.



In the **Resources Panel**, a camera tamper icon (red hand) will appear in front of a camera that has been/is being tampered.

Right-click the tampered camera and select **Reset camera tamper**.



- **Mouse-Over Options**

When the mouse is hovered over the Resources Panel, the following option set will appear:



Lock Display

Lock display. Some CathexisVision events will be setup to switch the camera panel to view cameras related to the event. Clicking on this lock will enable/disable this feature. An unlocked display () will switch; a locked display won't.

PTZ Controls

To bring up the PTZ panel, click on the  icon in the Mouse Hover Options, in the Resources Panel. Alternatively, select the PTZ option from the Panel Selector.

With a PTZ camera an operator can manipulate the camera's direction, zoom, focal distance, and amount of light. A PTZ camera is indicated in the Resources panel with an  icon. The operator can also control pre-configured camera views called "Presets".



This panel provides controls for camera presets, and a software joystick for interactive control of the camera. The Presets controls enable one to set presets and go to presets. The curved grey buttons surrounding the joystick enable zooming in and out, focusing closer or farther away, and iris control – lightening or darkening the camera image. The **Manual button** is for manual override of the dome (to override automated patterns, local tours, etc.). The **Auto button** relinquishes manual control, to let the system regain its automated configuration.

Note: The green text on one of these buttons. This indicates which mode currently applies. **Manual or Auto**. In the example at left, the system can function automatically. The screen may change unexpectedly as it runs patterns, tours, etc.

PTZ Panel

<p>To go to a preset from the PTZ panel Select the preset from the dropdown, and then click GO. The camera view will change to the preset.</p>	<p>To set a preset from the PTZ panel</p> <ol style="list-style-type: none"> 1. Select the preset from the dropdown. 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.
<p>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.</p>	<p>Pause a PTZ Tour PTZ tours can be paused/restarted, per camera. This is achieved by right-clicking on the camera in the resource panel and selecting the "Pause/restart PTZ tours" option.</p>
<p>To lighten/darken the live camera view from the PTZ panel Watch the live camera as and press the iris+, or iris – button. The image will lighten or darken.</p>	<p>To gain manual control of the dome / PTZ camera from the PTZ panel (This applies if the system runs remote tours automatically, or switches display based on events) Either click manual, or simply move the software joystick.</p>

Individual Camera Panel Zoom Options

Note: If the camera supports any of the above, then one can switch between digital and PTZ control using the icons on the bottom-left of the camera panel.



<p>Zoom In/Out Scroll the mouse wheel. Holding down the shift key while scrolling the mouse wheel will do an accelerated zoom.</p>	<p>Zoom to Area Holding the shift key, select an area using the left mouse button.</p>
<p>Zoom out completely Press the Z key or; hold the left mouse-button down, for half a second, and select the zoom out menu option.</p>	<p>Center on Point Holding the shift key, press the left mouse button; or hold the left mouse-button down, for half a second, and select the center on point menu option.</p>

Event Notifications

If an administrator has set up **Event Notifications** for this unit, then notifications will be received based on these setups.



1 A Message Notification

- An audio notification. This is a sound clip that gets played when the event triggers.
- A message notification. This is a message that gets displayed in the notification area of the resource panel. It's meant as an unobtrusive feed of events.

Note: To show the notifications area, click the icon at the bottom of the resource panel. (This can be resized.) If an event has camera resources associated with it, then the notification can be double-clicked and the cameras will be shown in the camera view.



2 A Popup Notification

- A popup notification. This is a popup message that is shown when the event triggers.



Clicking on the database icon in the notifications panel, will open that camera in the cameras panel at the point in the database, where the event occurred.



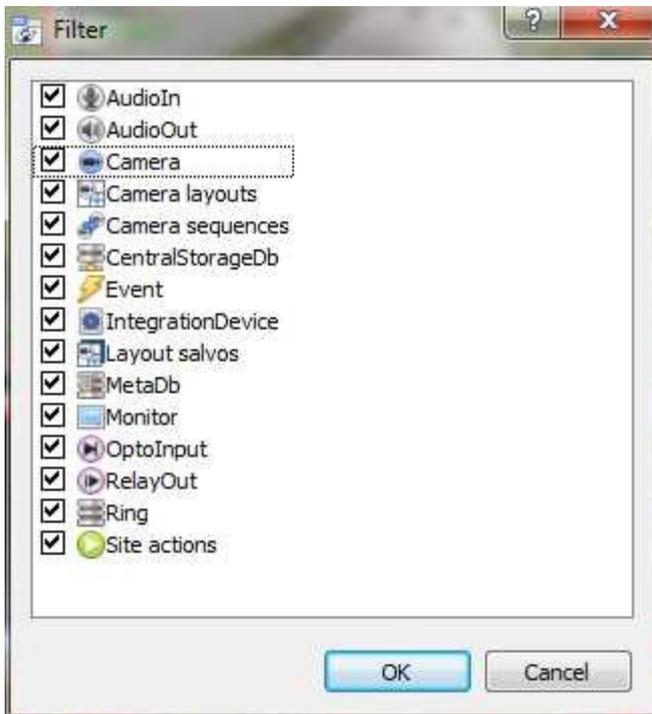
Clicking on the recycle icon will either clear the notification (click on the recycle icon attached to the notification); or clear all notifications (click on the one at the top of the Notifications panel).

Configure Resource Panel

This section allows the administrator to set up the various resources that are pulled through into the resources panel. These include the **Unit Resources, Camera Layouts, Camera Sequences, Layout Salvos, and Site Actions.**

Note: Since this is part of the Site Configuration, it has been dealt with in the full Setup Manual. For further information, refer to this manual.

Resource Panel Filter



Clicking on the resource filter icon will bring up the filter options.

The checked items will appear in the resources panel; the unchecked items will not appear.

This is useful in Sites that have many resources that the user may want to filter when looking for something specific.

g. Snap-Search

While in review mode, one can search the database recordings for frames which match the current still-image on the screen.

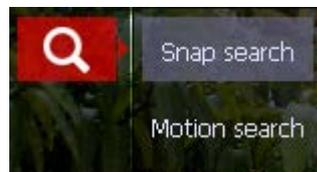
Open Snap Search Window

To perform a snap search, the **camera must be in review mode**. There are two ways of opening Snap Search: via the **Video Feed Options Panel Search Tools**, and the **Context Menu**.

- **Video Feed Options Panel Search Tools**



Open the Video Feed Options Panel by hovering near the left of the panel and clicking the arrow that appears.



Click the **Search Tools** icon and select **Snap Search**.

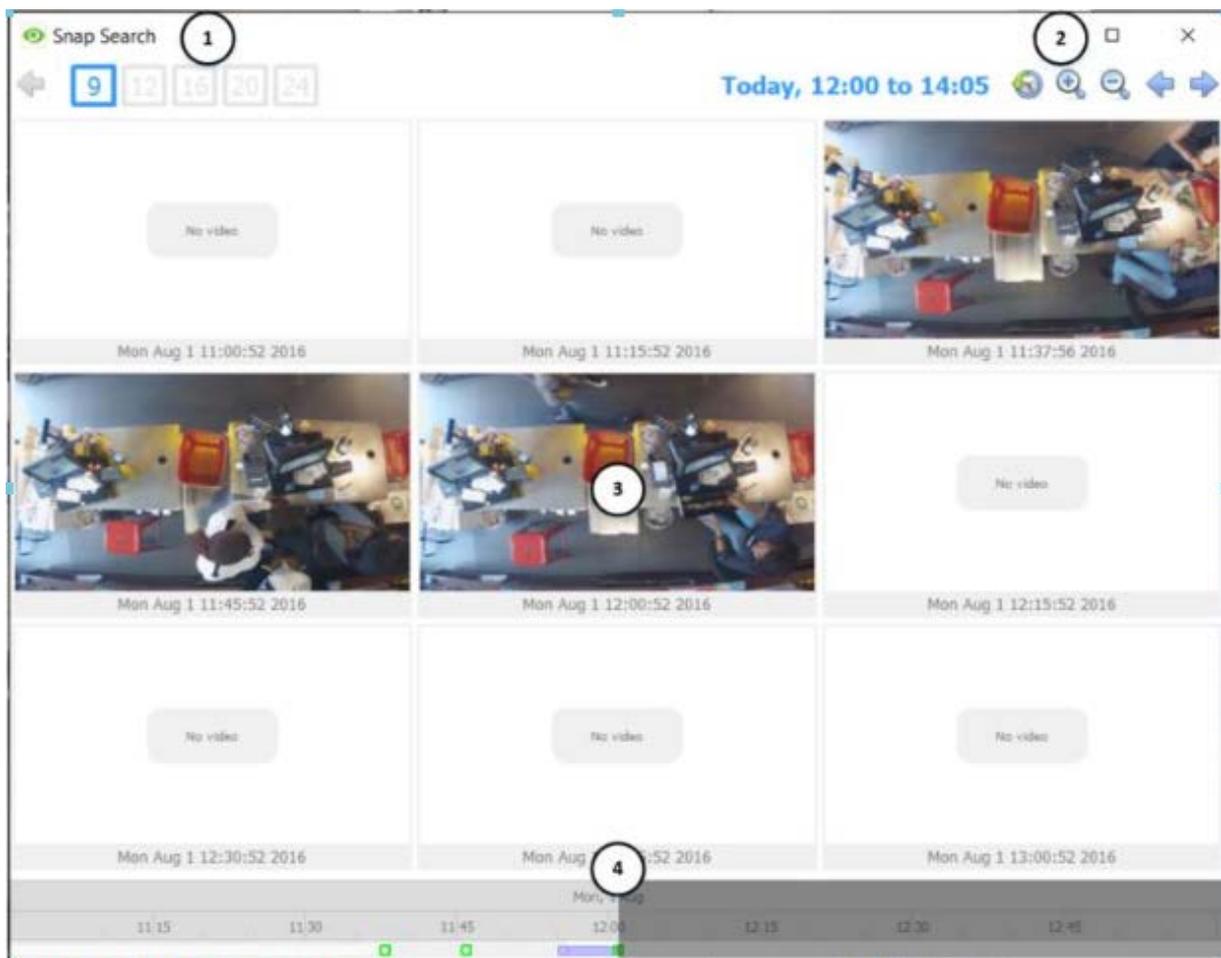
- *Context Menu*



Open up the context menu by middle-clicking on the camera image and selecting **Search → Snap search**.

This will bring up the Snap Search window below, in which all frames matching the current image are displayed.

Snap Search Window



- 1 **Frame Display.** Choose how many frames to display on the page.
- 2 **Time Range Control.** Set the time range of the search, zoom in/zoom out to narrow or widen the time range, or go back and forwards between time periods.
- 3 **Frame Area.** All frames which are similar to the image used to search, will be displayed in this area.
- 4 **Timeline.** Use this timeline to navigate between relevant frames.

- **Time Range Control**

Today, 09:50 to 13:20     

See the table below for an explanation of the time range control buttons.

Today, 09:50 to 13:20



The current time range in which frames are being viewed. If the time range is changed, it will reflect here.

Set the time range. Clicking this icon will bring up the window below, in which the range may be set.

Start		End	
Mon 1 Aug	09:50:58	Mon 1 Aug	13:17:31
		✓ ✗	

Set a Start and End time range.



to **Accept**.



to **Cancel**.



Zoom in to narrow the time range, zoom out to widen the time range.

Go next/previous time periods. Depending on what the time range is set to on the clock icon above, one can navigate between time range periods using these buttons. The length of the period is determined by how narrow/wide the time range has been set to.

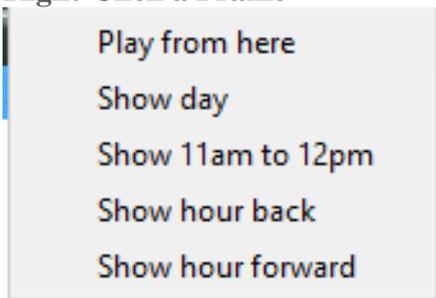
- **Frame Area Controls**

In the frame area, a number of controls are available. These are:

Double-click a frame

Double-clicking on a thumbnail will start playback from that frame in the CathexisVision GUI review, but the Snap Search Window remains open.

Right-Click a Frame



Play from here will open an embedded video player and start playback of the recording from the frame selected.

Show day will display frames from that day over 24-hours (midnight to midnight).

Show 11am to 12pm: This shows frames from the hour of the selected frame. Thus, this time range will change according to the time of the specific frame right-clicked on.

Show hour back will move the time range an hour back and display the relevant frames.

Show hour forward will move the time range an hour forwards and display the relevant frames.

Search Between Frames

Search time periods between specific frames on the page by clicking-and-dragging.



Click on the frame desired to start the search with, and drag to the frame desired to end the search.

A blue line will visualise this, and the time between the two frames will be displayed.

A negative (-) or positive (+) sign indicates whether the time difference is ahead or behind the selected frame.



Search between any frames, in any direction.

- **Timeline**



The snap search timeline functions in the same way as the CathexisVision GUI timeline. Click anywhere on the timeline to go to that time. An archive can be saved from the embedded player.



Indicates there are recordings during the highlighted time period.



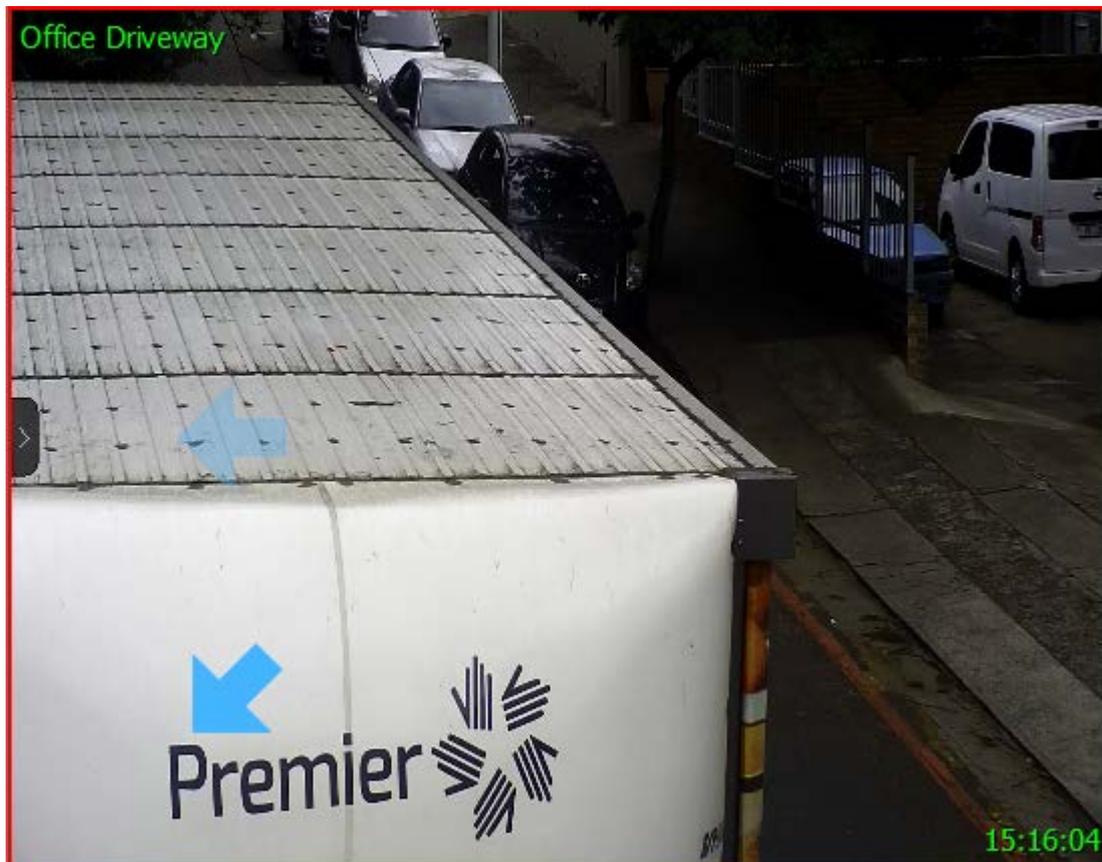
The green square on the timeline indicates the position of matching frames. Click on it to display.

Once a frame is selected in the frame area, the corresponding green square will turn orange. 

h. Adjacent Cameras

As an operator, one can navigate between adjacent cameras (cameras that are physically next to each other) from live and review mode, provided an administrator has set up adjacent camera mapping.

This feature is beneficial as one can follow a person in real time using linked cameras using blue direction arrows, which appear over the camera image as overlays.



Navigate

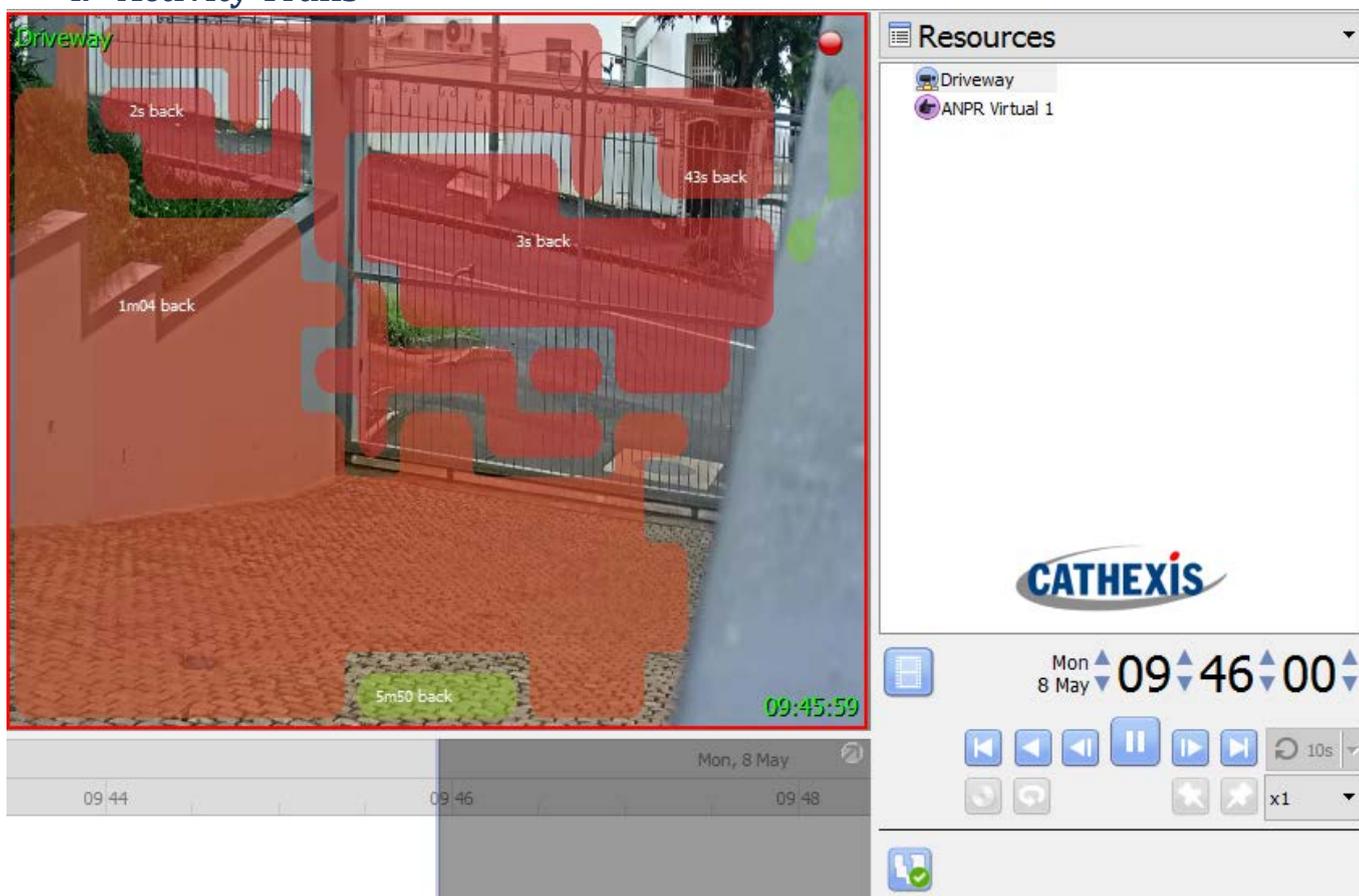
Click the blue arrows to navigate to cameras to the **Right/Left/Up/Down direction** of the current camera. As one navigates, the relevant camera will be highlighted from the Resources list. Double-click on a camera name from the Resources list to switch to it.

- **View Camera Thumbnails**



To view thumbnails of the cameras in live/review mode instead of the camera names, click the **Resources dropdown menu** and select **Adjacent cameras**.

i. Activity Trails



The Activity Trail feature will indicate where and when activity happened in an area by displaying an overlay over the camera feed. The movement of a person or object will be recorded as an activity trail and is represented in this overlay with the colour of the overlay indicating how recently the activity took place. The overlay is interactive, and clicking on a certain activity area will navigate to the time that activity occurred.

The information below pertains to the elements of the Activity Trails feature which apply to both Live and Review mode. Below this, there are dedicated sections for both Live and Review, which deal with the options specific to each mode.

When attempting to enable Activity Trails on a camera that is not being recorded in the motion database, a warning notification is displayed.

Note:

- Cameras must have recording setup in order for all features to work.
- The Activity Trails feature uses metadata from the Motion Search analytics database. To view Activity Trails in review mode, cameras must have Motion Search analytics configured.

- **Toggle Activity Trails On/Off**



Click the button to turn Activity Trails on/off:



Activity Trails **off**.



Activity Trails **on**.

- **Activity Trail Overlays**

The time that activity occurred in the area is indicated by the **colour of overlays** and by **Activity Time** (in minutes and seconds displayed on top of the overlay).

Note: In live mode, the overlay will show the most recent activity in an area provided that activity occurred in the last 15 minutes. In review mode, the overlay is able to show activity up to an hour before and an hour after the current review time.

Overlay Colours

Overlays, which range along a spectrum from green to red, are coloured according to when activity occurred in an area. The greener an overlay, the further back in time the activity in that area occurred; the redder an overlay, the more recent the activity in that area is.



Past Activity



Recent Activity

Activity Time



Time of activity in the area is also indicated by the actual time in minutes and seconds, which is displayed on top of the overlay.

Go to Time of Activity

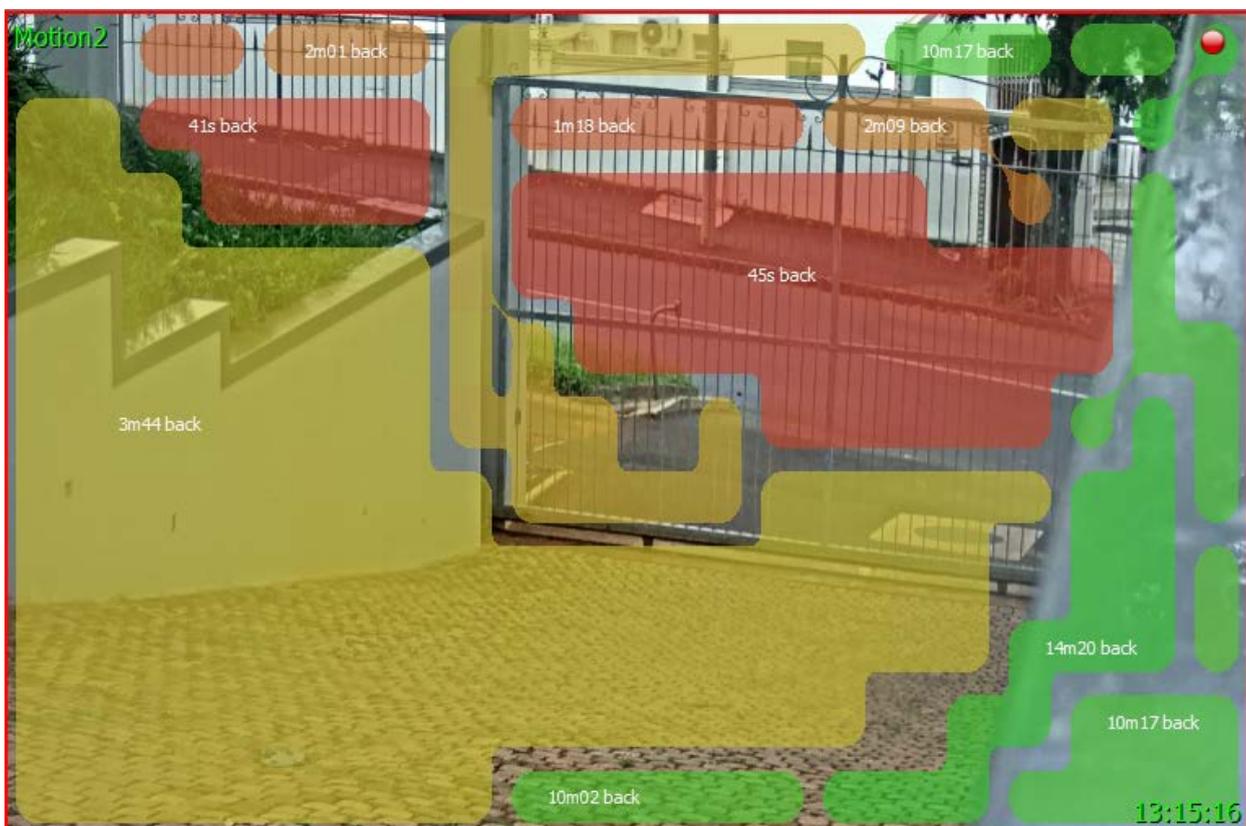
Double-click on one of the activity areas (highlighted by the overlay) to go to the time of that particular activity in the recordings. If in Live mode, this option switches to review mode.

Note: This option is dependent on recording being set up on the camera.

Live Mode

When in live mode, and Activity Trails is toggled on, the activity overlays will appear. The time that activity occurred in an area is indicated both by the colour of the overlay and by the activity time (displayed in minutes and seconds), which appears on the overlay.

In live mode, the overlay will only show activity which has occurred in the last 15 minutes.



- Clicking on an activity area will switch to review mode.
- In Live mode, motion is displayed along the timeline.

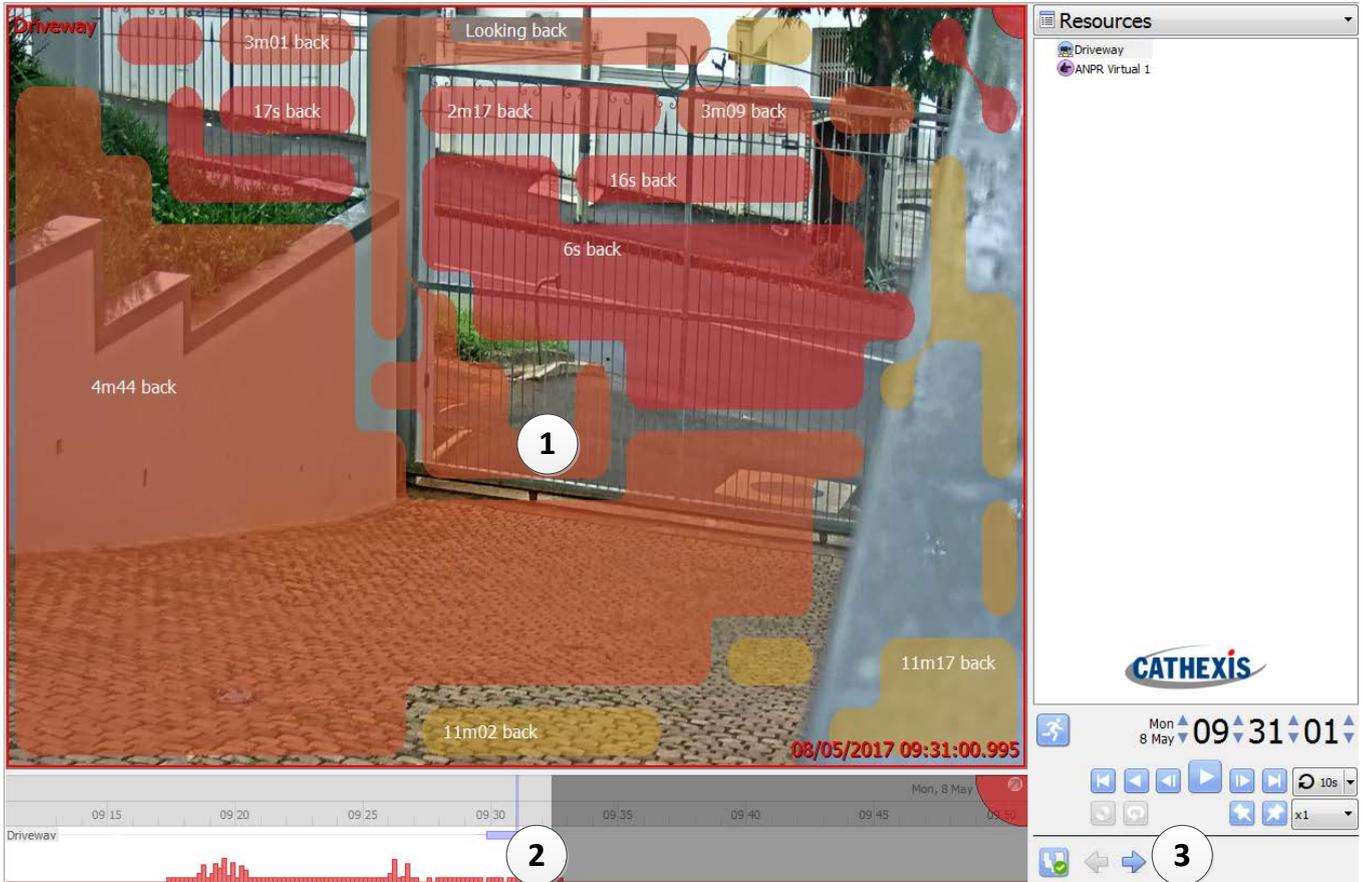
Review Mode

If an activity area to review is double-clicked, or review is on, the activity overlays and the timeline will differ slightly from live mode.

Note:

- In review mode, the overlay is able to highlight activity up to 60 minutes ahead or behind the current review time.

- The Activity Trails feature uses metadata from the Motion Search analytics database. To view Activity Trails in review mode, cameras must have Motion Search analytics configured.



<p>1</p>	<p>Overlay and Activity Time</p>	<p>The overlays will change colour and the activity time will decrease/increase depending on how recent the activity is.</p> <p>When activity is 'Active', it means that activity occurs at that point in the recording.</p> <p>When looking forwards, the activity time counts down to the time that activity occurs (instead of counting the time after activity occurred).</p>
<p>2</p>	<p>Activity level on Timeline</p>	<p>This indicates that this camera has Motion Search analytics enabled, and that there has been activity at the points indicated along the timeline. The higher the motion spikes, the more activity in the area at that point.</p> <p>Activity levels on the timeline are enabled by default when Motion Search analytics is configured on a camera.</p>
<p>3</p>	<p>Look Back/Ahead</p>	<p>These buttons let one look back/ahead 60 minutes in the activity data.</p>

j. Motion Search



In review mode, the **Motion Search** function lets one select certain areas of the camera image to search for recent motion in the selected area.

This feature is not connected to Activity Trails.

Note: When attempting to perform a Motion Search on a camera that is not being recorded in the motion database, a popup will be displayed. See notes below.

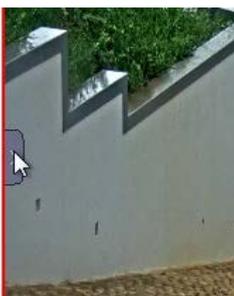
Note:

- **Camera must be in review for Motion Search to work.**
- Motion Search uses metadata from the Motion Search analytics database. To perform a motion search, cameras must have Motion Search analytics **configured (Setup Tab → Configure Servers → Video Analytics → Motion Database).**
- Motion search data is gathered in real time; this means that there won't be any search data available for periods when Motion Search was not configured.

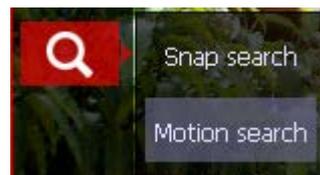
Perform New Motion Search

To perform a motion, the **camera must be in review mode**. There are two ways of opening Motion Search: via the **Video Feed Options Panel Search Tools**, and the **Context Menu**.

- **Video Feed Options Panel Search Tools**



Open the Video Feed Options Panel by hovering near the left of the panel and clicking the arrow that appears.



Click the **Search Tools** icon and select **Snap Search**.

- **Context Menu**



Open up the context menu by middle-clicking on the camera image and selecting Smart Search → Motion Search.

This will bring up the Motion Search feature.

- **Select Region to Search**



With the left mouse-button, click and drag to select an area on the camera.

Click  to search for motion in the selection region.

Motion will be displayed on the timeline:



Click  to exit Motion Search.

5 Archiving

Archiving is a facility that enables selecting recordings and copying them to archiving media, such as USB key, hard drive, or CD/DVD. Archived recordings retain their authenticity and can be verified as authentic (unaltered) on replay.

Creating an archive is done from within the Cameras Tab; reviewing and exporting an archive all occurs in the Archive viewer tab, or the CathexisVision Archive Player.

Note:

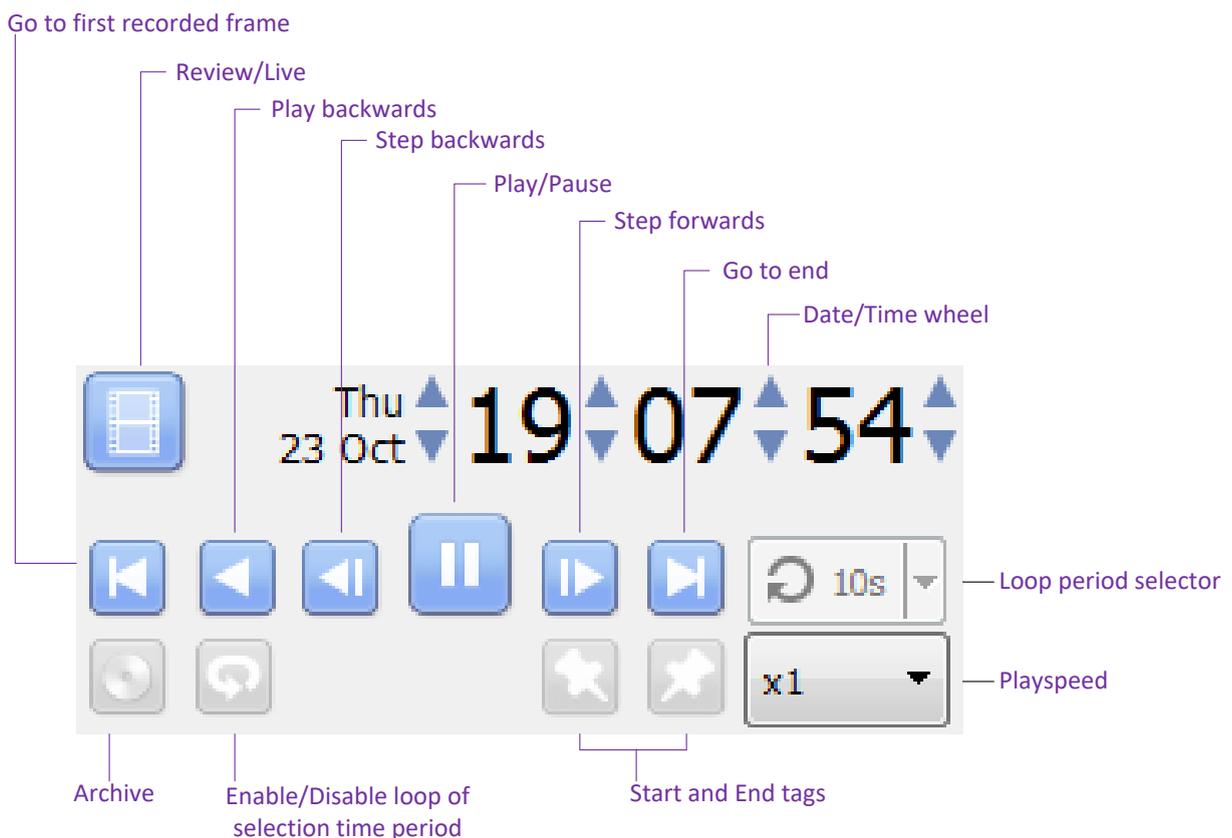
When archiving a video stream, which has **Privacy Zones**, the archive file will have the zones included only if the feed is set to “Show privacy zones” at the time of archiving.

This section details the procedures for reviewing video and selecting portions of the video to be archived.

a. Review Controls (Timeline and Review Controls Panel)

This section will deal with reviewing video in CathexisVision. There are two sections that may be used to review recorded footage. The **Review Control Panel**, and the **Timeline**.

Review Control Panel



Note: When one clicks the icon, to enable review, it will change to an icon. Clicking the running-man icon will return to live view.

- *To Review Footage from a Certain Date*

Using the Time/Date Wheel



To go to a specific date, select the camera/s for review, and click on the arrows of the Date/Time wheel until the correct date/time is settled on.

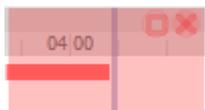
Using the Timeline

To move to a date and time, using the timeline, simply left-click and hold anywhere on the timeline, and drag the timeline to the time/date desired.

- *Selecting a Period for Review*

After finding something of interest, one may wish to loop through the recorded footage around that event. (This can also be useful when selecting footage for archive).

Start by using the using the Date/Time wheel, to navigate to the desired beginning point. Once this is done, click on the icon, which will tag the start of the selection. Then navigate to the end of the desired period, and click on the icon, to tag the end of the selection.



The selected areas will appear as illustrated to the left. By default, it will be set to loop. This can be seen when looking at the loop icon



means that it will loop, to the beginning of the selection, as it gets to the end of the selection.



Means that the video will continue to play past the end of the selection.

Timeline

The timeline at the bottom of the GUI indicates where in time the currently selected cameras are.

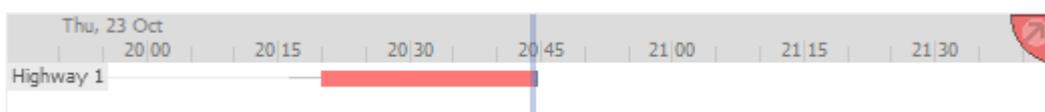
Note: While legacy video may be reviewed in CathexisVision 2015 and onwards (recordings made on pre 2015 systems), the timeline will remain blank.

- *Live View Timeline*

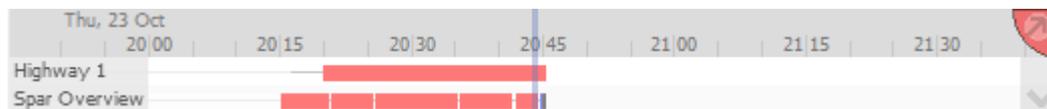


The live view timeline simply show the current time at the intersection between white and grey.

- *Single, and Multiple, Camera Review Timeline*



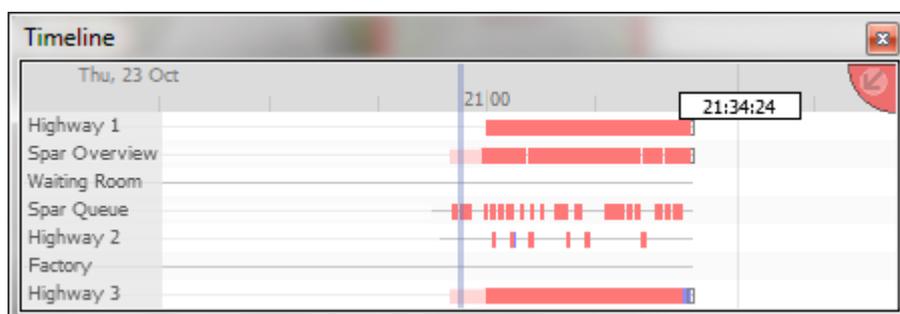
When reviewing a camera's recorded video, the timeline changes to show red blocks. These blocks on the timeline represent recorded events.



If multiple cameras are selected to review, they will appear stacked on the timeline.

Note: One may only view two cameras' timelines at once. To cycle between them, click on the  icon at the bottom right of the timeline. If one wishes to see more, detach the timeline from the GUI. This is described below.

- **Detached Review Timeline**

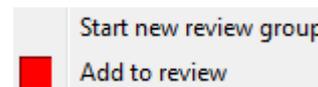


To detach the timeline from the GUI click on the  icon, at the top right of the timeline. To reattach the timeline, click on the  icon.

- **Synchronised/Independent Review**

By default, all reviews are synchronised, when multiple cameras are selected for review. It is possible to review cameras independently.

When already reviewing a camera, middle click on a camera's panel to see the following options in the context menu.



Start new review group will add this camera to a separate group of review cameras, which will be asynchronous to the original review group. The new review group is indicated by the tag on the top-right of the video. Each review group will get its own colour.

Add to review will add this camera to the already existing review group. As review groups are added, the number of options here will increase as a result.

- **Timeline Actions**

Zoom in on Timeline

There are two ways to zoom in on a section of the timeline.

1. By mousing over the timeline (during review) and rolling the mouse-wheel forwards. To zoom out, roll it backwards.
2. By shift-selecting a section of the timeline.



This is done by holding down the SHIFT key, while click-dragging the selection with the left mouse button. The selection will look like the image to the left. To **zoom in** on this selection click on the  icon.

Move the Timeline with the Mouse

Move backwards and forwards in time, by left-click dragging the timeline in the direction of travel.

b. Archiving Video

Once the video has been selected, it may be archived, for review later.

Special Notes

1. A NetBSD GUI will only be able to output legacy archive files.
2. A NetBSD GUI is unable to archive video from a Windows/Linux NVR
3. A Windows/Linux GUI can only output new archive files, but will be able to archive video from a VR running any OS.
4. Do not format, or configure, the newly inserted CD/DVD. Windows presents an option to configure the disk as CD/DVD, or drive. This must not be done!

Archiving from Live/Review

The Archive system has changed both the creation, and review, processes for archiving.

- **Select Video to Archive**



There are two ways to select the period for archive.

1. **Tagging:** Click on the  icon to tag the start of the selection. Then navigate to the end of the desired period, and click on the  icon, to tag the end of the selection.
2. **Shift-selection:** This is done by holding down the SHIFT key, while click-dragging the selection with the left mouse button. The selection will look like the image to the left.

Click on the  icon to start archiving selection.

Apply Archive Settings

Archive Tab



Choose the **Folder** to which to archive. Select a **subfolder** for this specific archive. The default folder name will be the current date, but one can rename this to something more descriptive.

The **filename** may be defined manually.

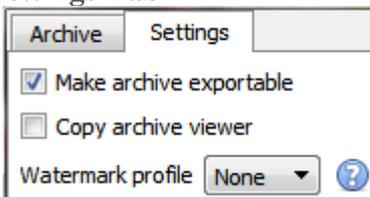
Add a **Password**, if needed.

A **Size estimate** of the archive is provided.

Clicking on **Set description** will allow one to give this specific archive a title.

Click on **Start** to archive the selection with these settings.

Settings Tab

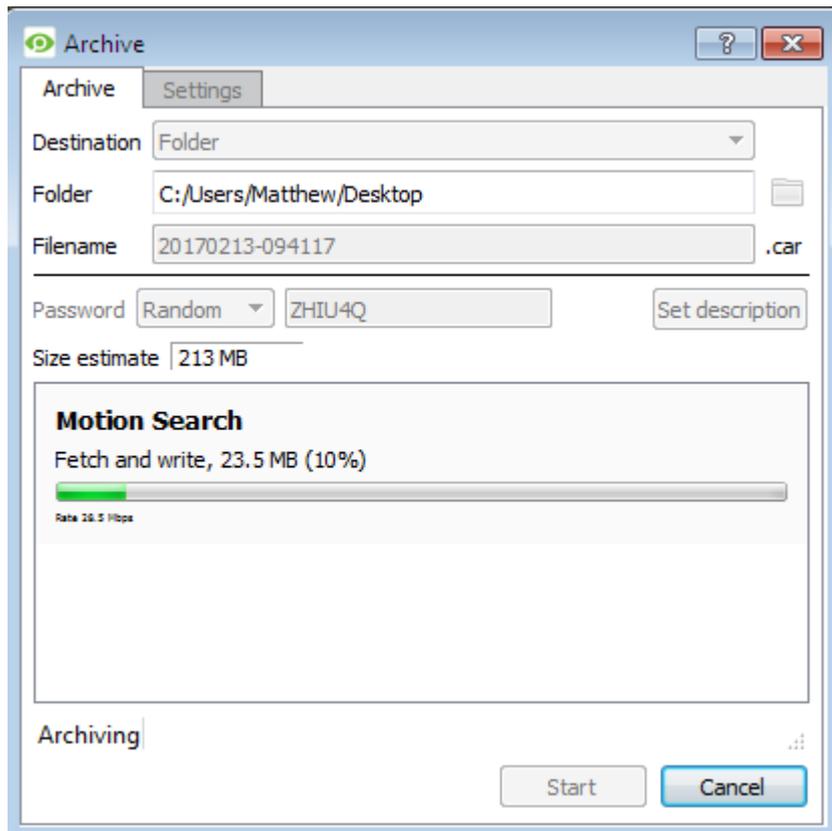


Archives can be made exportable or not exportable, by checking the box.

Use the **Copy archive viewer** option when the archive will be viewed on a computer that does not have the CathexisVision interface installed.

Note: The option to setup **Watermark profiles** is configured in **Setup Tab → General Site Setup → Configure archiving**. This setting is controlled by the administrator of the Site.

- **Complete the Archive process**



While archiving, the interface will display moving progress bars to indicate the progress of the archiving process.

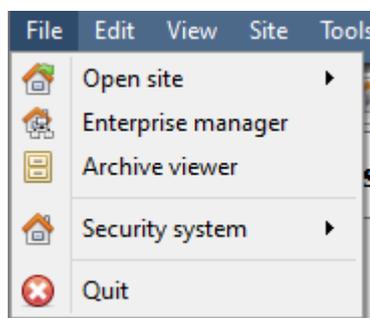
c. Reviewing Archived Video

Archives can either be reviewed from within the CathexisVision software using the Archive Viewer, or from the standalone Archive Player software, which is installed with the CathexisVision software. The interfaces for both are exactly the same.

Note: 'Maintain aspect ratio' is enabled by default and can be toggled on/off in **Settings Menu → Video Display → Maintain Aspect Ratio**.

Open Archive Viewer/Player

Archive Viewer



Open the CathexisVision GUI, and select File Menu → **Archive viewer**.

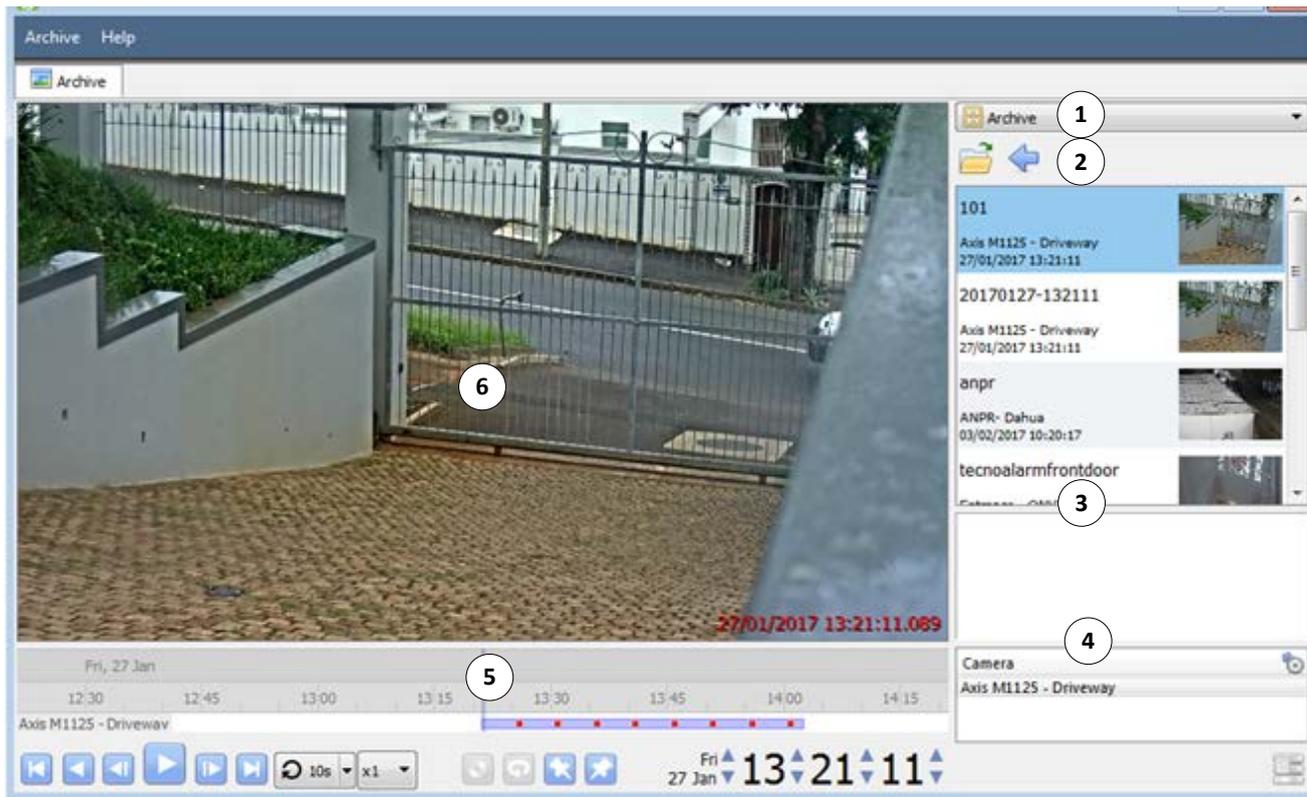
Archive Player



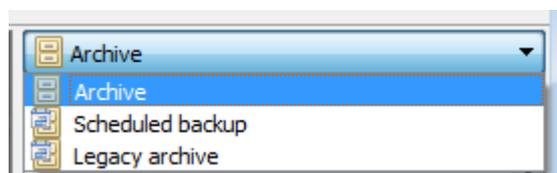
Double-click the **Archive Player shortcut** that is automatically created when the CathexisVision software is installed.

Archive Viewer/Player Interface

This section details the interface of the archive viewer/player, and the processes that are performed in each.



1 Type Selection



From this drop-down menu, select the type of archive to view.

2 Folder Navigation and Archive File List

Navigate folders on the computer containing archive files in order to find and view them.



Click to browse folders in the dialog window.



Click to go back to previous folder.

Once the folder containing the archive is selected/opened, all appropriate archive files will be populated in the archive file list.

Note: Individual archive files will not be visible when searching through folders. Archive files are only visible in the archive file list, once the general folder containing the archive files has been selected.

File Information

20170127-132111 Axis M1125 - Driveway 27/01/2017 13:21:11	
anpr ANPR- Dahua 03/02/2017 10:20:17	
tecnoalarmfrontdoor Entrance - ONVIF 28/07/2017 08:49:05	

The archive file list displays information about the archives in the selected folder. This information includes:

- Archive file name.
 - Where no name is given at time of archive, date of archive is used instead.
- Name of camera from which archive originated.
- Date and time of archive.

Right-Click Options

Right-clicking on an archive in the archive file list will present the following options:

Inspect...

Verify...

Open file location

Inspect will display the meta-information of the archive. See the Archive Security section.

Verify will confirm whether the archive is authentic or not. See the Archive Security Section.

Open file location will open up the location of the selected archive file.

3

Description

Axis M1125 - Driveway 27/01/2017 13:21:11	
Suspect Arriving Axis M1125 - Driveway 27/01/2017 13:21:11	
Suspect Leaving 	

video footage of suspect entering premises via front gate

If a description for the archive was set during the archive process, it will appear in the field beneath the archive file list, when the relevant archive file is selected.

4

Archive Properties

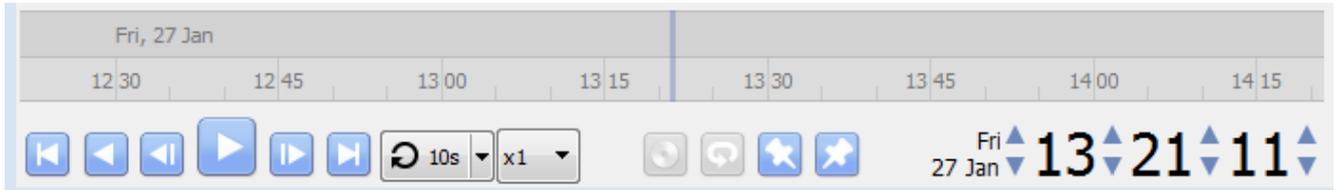
Camera	Start	End	
Axis M1125 - Driveway	20170127-132111	20170127-133905	

When an archive is selected, its properties will be listed in the Archive Properties field.

Column view may be changed by clicking on the icon.

5 Timeline Controls

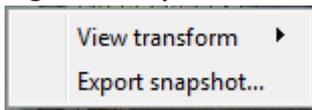
The timeline controls of the Archive interface are the same as those described in the **Cameras Tab** section, of this document. On the timeline itself, the blue line indicates an event/recorded video. The red dots  indicate the point that an event was triggered.



6 Archive Camera Panel

The selected archive will be available to view from within the camera panel.

Right-Click Options

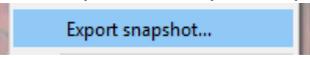


Select View Transform to transform the video.

Select Export snapshot to export a snapshot from the archived video. See below.

Export Snapshot

When reviewing archived video, video snapshots may be exported.

Right-click on the image and select .

This will bring up the **Export snapshot** window, which provides the following options:



Print snapshot.

Save snapshot to folder

Copy to system clipboard.

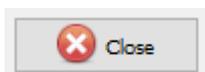
Copy to Cathexis clipboard.

Overlay camera name

This will overlay the name of the camera in the top-left corner of the camera image.

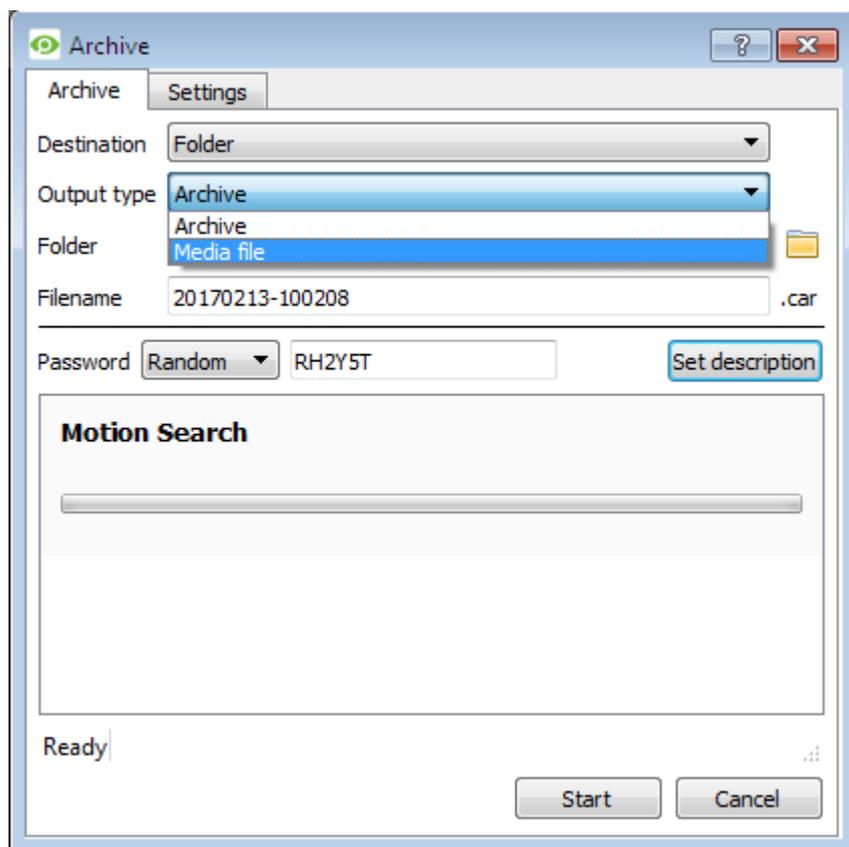
Overlay time

This will overlay the time of the recording in the bottom-right corner of the camera.



Click once the snapshot is exported as desired.

Export Archive



Archives, or a selection of an archive, may be exported either as another archive, or as a media file.

To export the video as a media file, click on the dropdown menu for **Output Type**, and select **Media file**.

d. Archive Security

CathesisVision includes the following measures to ensure archive security:

- The overall signature of the archive is retained, linking it to the source NVR.
- Critical portions of video/audio can be independently signed and explicitly linked to the source NVR.
- Clients sourcing data from an NVR for archive are audit logged.
- Archives can be encrypted with a password during archiving process.
- Watermarks can be embedded in archive during archiving process.
- Archives can be inspected to reveal archive meta-data.
- Archives can be verified in order to determine the authenticity of an archive.

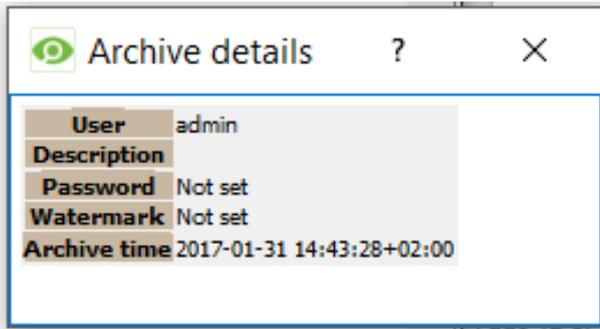
This section demonstrates how to inspect the meta-data of an archive, and how to verify the authenticity of an archive.

Inspect Archive

To inspect an archive for its meta-information, right-click on the archive in the archive file list and select inspect. This will bring up the window below:

User will display the username of the operator who performed the archive.

Description will show the description of the archive (if set).



Password will show **Encrypted** if a password is set, and Not set if not.

Watermark will show the watermark of the archive (if set).

Archive time will show the time and date that the archive was performed.

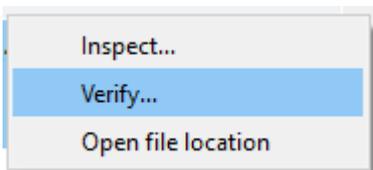
Verify Archive

From CathexisVision 2017, a new verification feature has been introduced which provides a report on the authenticity of an archive for security reasons. Archives may be verified from the archive viewer in CathexisVision or from within the CathexisVision Archive Player.

Should there be a query regarding the verification, operators may copy the verification result and email it to Cathexis support for help.

Please note:

Sub-archives (archives of archives) do not contain any signatures generated by the original NVR that sourced the video data. The authenticity of these archives cannot be verified by Cathexis.



Once the file location of the archive is open, in either the archive viewer or the CathexisVision Archive Player, right-click on the relevant archive. Select **Verify**.

Once Verify is clicked, the software will determine whether or not the archive is authentic by indicating an archive as **Archive Verified** or **Archive failed verification**.

Archive verified

Archive verification ×

```
--- General verification ---
- signature type: RSA (OK)
- signature block valid (OK)
- generated hash (OK)
- hash matched (OK)
- public key is valid (OK)
- signature verified (OK)

--- Resources ---
-- Camera 'Axis M3005 - Demo Room' --
Public key: 7FPWlmiAKIpH9/bKGMPdRQ==
Track ID: t_video_50618173-6000-4bf1-9409-99bedcbd804b_default
Source type: channel
Signature validation: Valid signature
```

Archive verified

Archive failed verification

Archive verification ×

```
--- General verification ---
- signature type: RSA (OK)
- signature block valid (OK)
- failed to generate hash (!!!)

--- Resources ---
-- Camera 'Long Horn Pin hole' --
Public key: 7FPWlmiAKIpH9/bKGMPdRQ==
Track ID: t_video_50618173-6000-4be7-8409-99bedcbd804b_default
Source type: channel
Signature validation: Valid signature
```

Archive failed verification

Note: Archive verification reports may be copied and emailed to support@cat.co.za.

6 System Alerts and Alarms

Technical alarms and alerts, will be received either to the Alarm Gateway (see Alarm Management Gateway Document) and/or to the main CathesisVision interface in the event that there is a system error.

This section details the kinds of technical alarms and alerts that may be received, and an explanation of what a sample alarm looks like in the interface.

Note: This does **not** deal with receiving alarms to the Alarm Gateway. Please consult the Alarm Management Gateway Document for information on this aspect of technical alarms.

a. Types of Technical Alarms

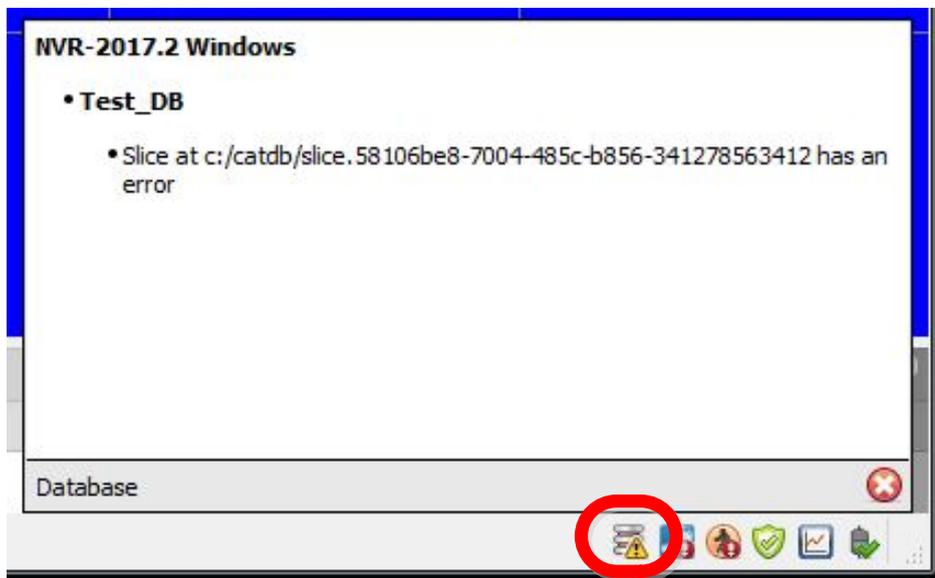
A single **Technical Alarm** can send on multiple different errors. The table below provides some examples of the kinds of errors that will send a technical alarm:

Technical Alarm	Error/s
Test	Triggers an alarm at a set frequency. This is intended to test the system, to see if it will receive alarms.
Camera Faults	Will generate based on cameras being up for a certain percent of the time, or cameras failing a certain number of times in a given period.
Frame-Grabber	Will generate if a frame-grabber has a problem, such as frame-grabber reboot, card stalled.
Scheduled Archive	Will generate if a scheduled archive encounters a problem, such as the archive destination not being accessible.
Disk	Will generate when disk errors occur.
Environment	Will generate if environment warnings are received, such as high CPU temperature, fans running at low RPM. (NetBSD only)
Software Failure	Will generate if a software module fails.
Database	Will generate if the database encounters an error, such as failing to write data to the database.
File-System	Will generate if file-systems become full (NetBSD only).
Metadatabase	Will generate if the metadatabase (typically used in integrations) encounters a problem, such as running out of disk space.
Base-Station Alarms	Will generate if a base-station has been configured to send alarms via a capture station. The base-station can generate alarms such as software failures.
Reboots	Will generate if a unit reboots frequently, or has a watchdog, or hard-reboots (configurable, NetBSD only).
Server Monitoring	Will generate if a unit on the Site goes down.
Recording failure	Will generate if a recording should be taking place, but for some reason isn't.
Recording Period	Will generate if a database stops recording before its predefined period is complete. E.g. if a database is set to record for 30 days, but it only records for 25.
Gateway alarm	Only applies to gateway systems , and triggers when the gateway experiences a problem, such as an error connecting to the alarm database.
Integration Database	Will generate if the integration database is down.
Network I/O	Will generate if an <u>EIO</u> is down.
Failover	Will generate if any of the failover servers are down.

b. Example: Database Technical Alarm

This is an example of the way a database technical alarm looks in the software, as well as in when an email is sent and/or a base-station is called.

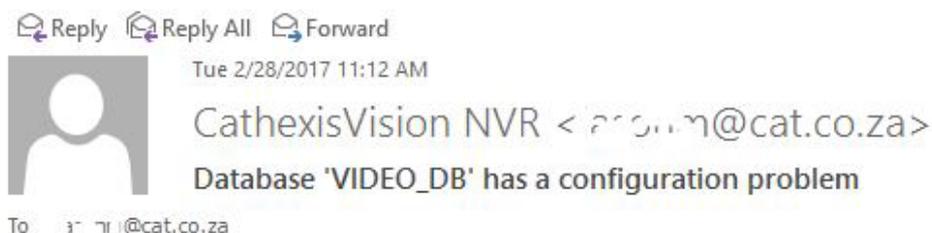
Notification Icon



If a database technical alarm is sent, a database error icon will appear in the Status Bar at the bottom of the interface.

Click on the icon to display information about the error.

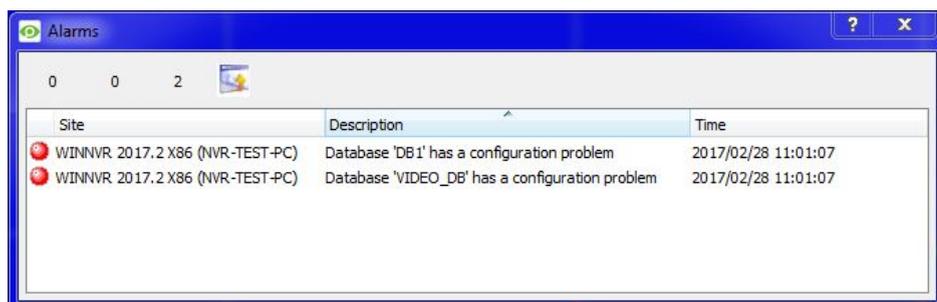
Send Email



If an email address has been set up to receive an email when a database technical alarm is sent, this is an example of what will be received.

Alarm name: Database Error
 Alarm time: 2017/02/28 11:11:40
 Server: NVR-TEST-PC

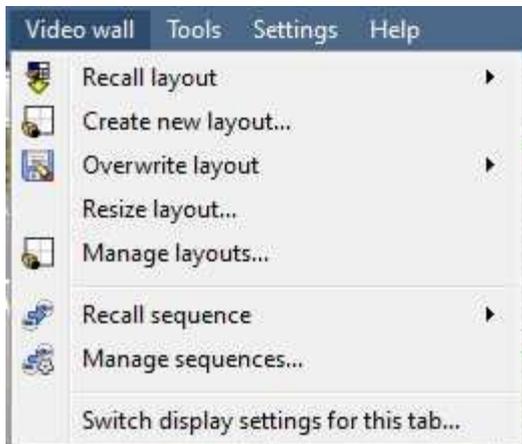
Call Base-Station



If the unit has been configured as a base-station, and a database technical alarm is sent to it, an alarm window will open.

7 Layouts and Sequences (Video Wall Menu)

a. Video Wall



In pre-5403b software this menu was titled the Layout Menu, and only contained setup information for Layouts.

A **Layout** defines how the cameras appear on the screen, in the Cameras Tab. This includes which cameras are shown, and how much space they take up on the screen.

A **Sequence** is a cycle of individual cameras that will run, on a timer, in a single viewing panel, in the Cameras Tab.

The **Switch Display Settings for this tab** will define the behaviour of the currently open Cameras Tab, when video information is sent to the Client Station with an alarm

Note: This menu option will only be present when viewing a Cameras Tab.

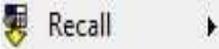
Layout

A **Layout** defines how the cameras appear on the screen, in the Cameras Tab. Including which cameras are shown, and how much space they take up on the screen.

• *Create new Layout*

To create a Layout, organise the cameras on the screen as desired (double-left-click to expand; single-right-click to reduce). Then click on  → **New**. Give the Layout a name, and click OK (use Layouts created in the Cameras Tab in the Monitors Tab, and Vice Versa.)

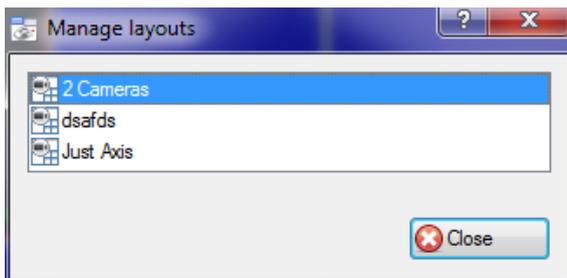
• *Recall a Layout*

To bring up a list of existing Layouts, click on  and select the Layout name.

• *Overwrite Layout*

Clicking on , and selecting one of the Layouts in the list, will overwrite that Layout with the current panel organisation.

• Manage *Layouts*



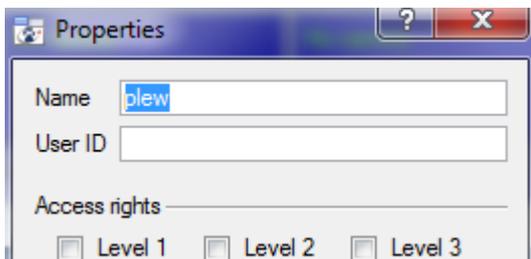
Clicking on  **Manage** will bring up the list of existing Layouts to manage.

From the management list, either delete the Layout or enter the **Layout Properties** window.

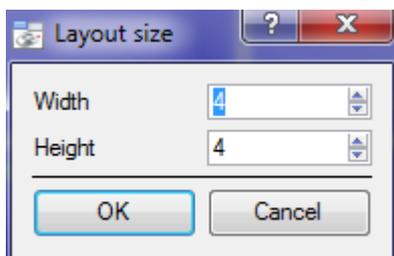
These are both done by right-clicking on the Layout in the list.

In the **Layout Properties** window, change the Name, and User ID of the Layout, as well as the User Access Level required to view, or edit, the Layout.

Note: With limited access rights, these settings can't be changed.



• Resize *Layout*



Clicking on **Resize layout...** grants the ability to change how many cameras are arranged on the screen.

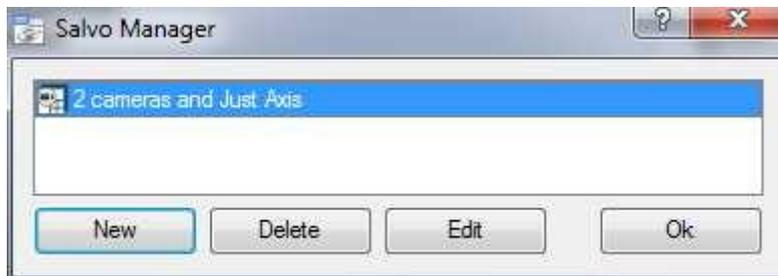
One may define how many cameras there are per row, and per column.

The maximum number of cameras allowed per screen will be an 8*8 matrix. This is a possible 64 cameras per Layout. (This would require an incredibly large screen to be practical, though.)

Sequence

A **Sequence** is a cycle of individual cameras that will run, on a timer, in a single viewing panel.

• Sequence *Manager*

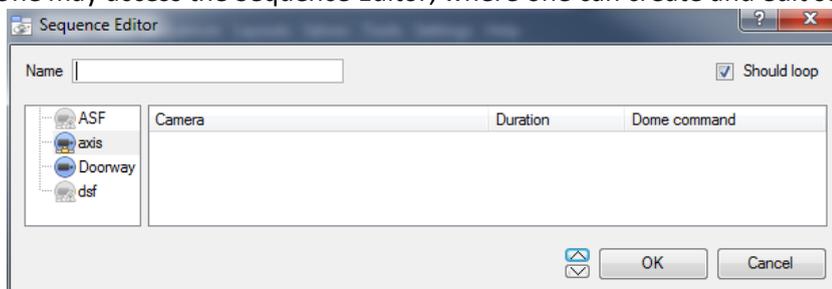


Clicking on the  icon will bring up the Sequence Manager.

To edit a Sequence, select the existing Sequence and click Edit. To create a new Sequence, click on New. This will bring up the Sequence Editor.

• Sequence *Editor*

One may access the Sequence Editor, where one can create and edit sequences, via the Sequence Manager.



Name the Sequence Appropriately.

The left-hand panel will hold a list of available cameras.

The right-hand panel will hold a list of cameras that are included in the Sequence.

Sequence Editor Procedures	
Add a camera to a Sequence	-Double-click on a camera in the list of available cameras. -Or click-drag one, or multiple cameras, across into the Sequence list.
Remove a camera	Right-click on the camera and select Delete.
Set the duration of a camera for each loop of the Sequence	-Right-click, and select Set Duration. -Enter the duration in seconds, and click OK.
Looping	If the <input checked="" type="checkbox"/> Should loop option is checked the Sequence will run indefinitely, if it is unchecked the Sequence will run once.
Change the order	Select a camera and use the   arrows to move that camera up or down the order.

• Recall *Sequence*

To recall an existing sequence, click on  **Recall sequence** to bring up a list of all existing sequences. Click on a sequence to run it.

Switch Display Settings

This will define how the Cameras Tab responds when there is an event on the Site that sends video and information to the Cameras Tab of the viewing client.

Note: The Switch Display Settings here are for the currently open tab only.



Lock Display

Will prevent the Cameras Tab from displaying any video feeds sent to it by the Event.

Restore display after

Will define how long after switching to the Event Cameras the Cameras Tab will return to the original display settings.

Don't restore display

Will leave the Cameras Tab on the Event Cameras until an operator, or administrator, resets the display.

Only switch local cameras

Will only switch to Event Cameras originating from a local Site.

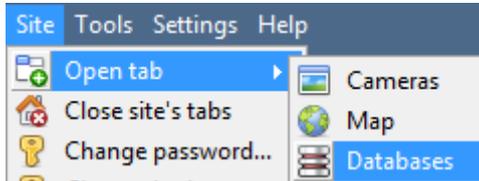
Note: Lock  , or unlock  , the currently opened Cameras Tab by clicking on the little lock located at the end of the Timeline on the Review Controls.

8 Database Tab

In the database tab, one may view both the general databases, and the integration/metadatabases.

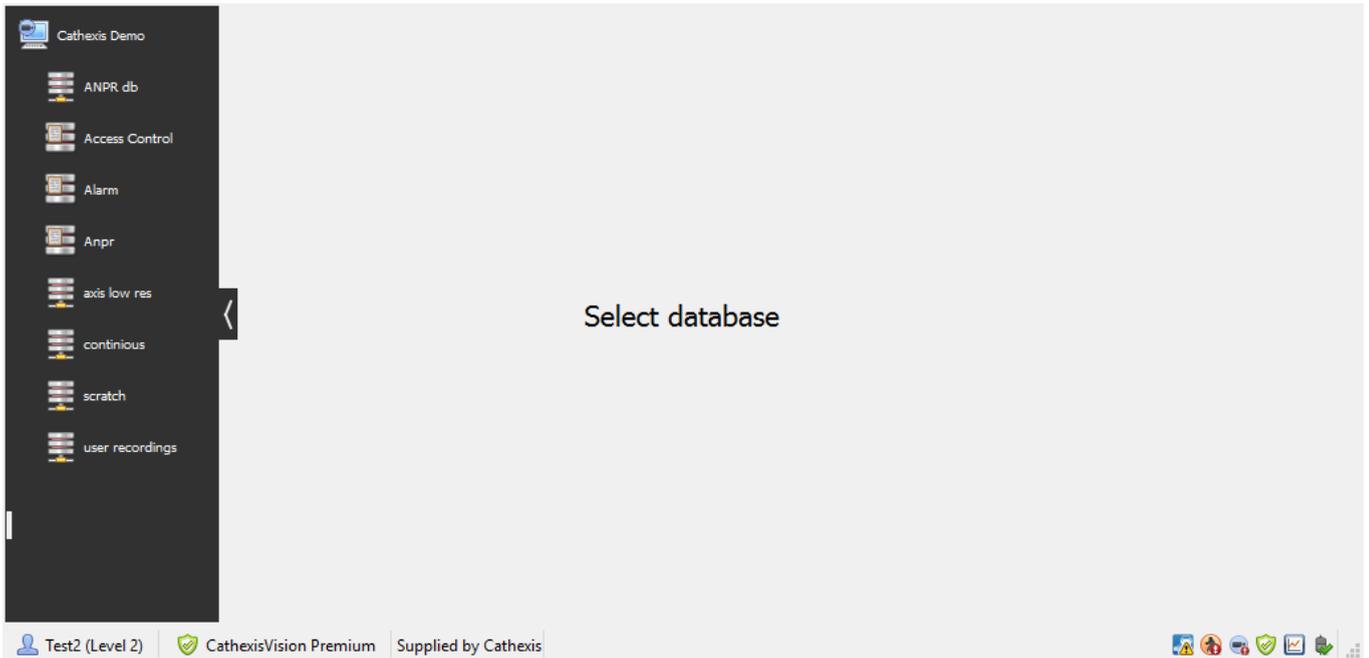
Note: Only users with correct access rights will be able to view database entries.

a. Navigate to Database Tab



To open the CathexisVision Database Tab select **Site**→**Open Tab** → **Databases**

Once the tab is open, select a database to view.



b. General Database

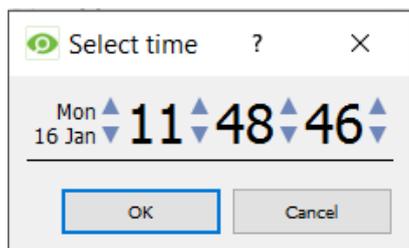
Select one of the general databases to view entries.

If a Cathexis Events Database has been created, it will have the same interface as below.

Time	Event
2017/01/16 11:25:51	Axis Q1931-E - Perimeter acti
2017/01/16 11:26:04	ANPR Dahua
2017/01/16 11:26:22	Axis Q1931-E - Perimeter acti
2017/01/16 11:26:23	ANPR Dahua
2017/01/16 11:26:36	sunel motion
2017/01/16 11:26:40	sunel motion
2017/01/16 11:26:56	Axis Q1931-E - Perimeter acti
2017/01/16 11:26:57	Back Parking After Hours
2017/01/16 11:27:07	Axis Q1931-E - Perimeter acti
2017/01/16 11:28:18	demo room motion
2017/01/16 11:28:29	demo room motion
2017/01/16 11:28:43	ANPR Dahua
2017/01/16 11:28:46	ANPR Dahua
2017/01/16 11:28:52	Axis Q1931-E - Perimeter acti
2017/01/16 11:29:43	Back-door Exit - Dankang7082P timer
2017/01/16 11:29:50	ANPR Dahua
2017/01/16 11:30:12	Axis Q1931-E - Perimeter acti
2017/01/16 11:30:19	ANPR Dahua
2017/01/16 11:30:21	Back Parking After Hours
2017/01/16 11:30:37	Front PTZ - Truvision timer
2017/01/16 11:30:37	Axis F41 timer
2017/01/16 11:30:37	Entrance timer
2017/01/16 11:30:38	Vivotek 8332 Parking Cat timer
2017/01/16 11:30:38	Back parking - Vivotek timer

Entrance

Locate an Entry



- a. In the Database Tab, click on the icon, located in the bottom right hand corner.
- b. Select the date and time:

The list of database entries will have been pared down: beginning with the event closest to the time selected, and a few subsequent entries.

Replay an Associated Recording

CathexisVision is capable of associating video footage and other data with database entries. When reviewing associated footage there are two options. The user may review the video clip associated, or they may view the video frame at the point that the event was triggered.

- **Review Trigger Frame**



To review the trigger frame, left-click on an entry, and if the icon is present in the panel below, double-click on it. This will bring up the dialogue to the left.

Motion will show where the motion occurred in the image.

Mask will show what areas of the image are covered by the algorithm, which triggered the database entry.

- **Review Event Video**

To review the video associated with a database entry, either double-click on that entry, or on the  icon in the entry's details.

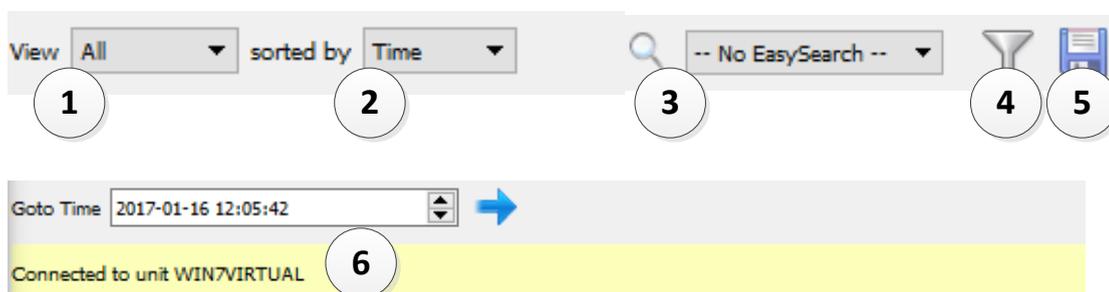
- **CathexisVision Controls**

CathexisVision database review uses the same control schema as the timeline review used in the **Cameras Tab** → **Review Controls** section.

c. Integration/Metadatabase

Select the relevant integration/Metadatabase.

Interface



① View	The user may change the way that the database is presented. Some integration databases have multiple view options.
② Sorted By	Events can only be sorted by certain parameters.
③ Easy Search	The easy search option lets the user quickly search the database.
④ Filter 	<p>Filter offers a more advanced manner of sorting information in the Integration Database table.</p> <p>Once the filters dialogue is open, the following filter options are available:</p> <ol style="list-style-type: none"> 1. To enable filters check this box: <input checked="" type="checkbox"/> Enable filters. 2. To add a new filter click on . 3. To delete an added filter click on . <p>It is possible to filter the same parameters more than once.</p> <p>To change a filter, click on the blue hyperlinked text. (For example, click on Timestamp to change the filter from Timestamp, to any of the other available options).</p> <p>The filter options in this integration are:</p>

	<p>Transaction</p> <ul style="list-style-type: none"> Time Event Type Object ID Object Name Notification <p>Note:</p> <ol style="list-style-type: none"> 1. Multiple filters may be run simultaneously. 2. The filter icon will change to when filters are active.
<p>5 Export</p>	<p>Generate metadatabase reports in PDF or CSV format. See below.</p>
<p>6 Go to Time</p>	<p>This navigates to a specific point in time, down to the second. To navigate to a timestamp, set the time using the time and date boxes, and then click on the icon.</p>

- *Generate Metadatabase Reports*

Click the icon to open the Export window.

The screenshot shows the 'Export' dialog box with the title 'Export'. Under the heading 'Select the period to export', there are four radio button options:

- Preset**: A dropdown menu is set to 'Quarter to date'.
- Specific**: This option is selected. It includes 'From' and 'to' fields. The 'From' field is set to '1 January 2017 00:00:00' and the 'to' field is set to '1 April 2017 00:00:00'.
- Previous**: A dropdown menu is set to 'Hours'.
- Period of**: A dropdown menu is set to 'Hours', followed by 'from' and a time field set to '00h00', and another dropdown menu set to '16 January 2017'.

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

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

Click **Next**.

The screenshot shows the 'Export' dialog box with the title 'Export'. Under the heading 'Configure the report', there are two fields:

- Format**: A dropdown menu is set to 'CSV'.
- Filename**: A text box contains the path 'C:/Program Files/CathexisVision Client/report.csv' with a folder icon to its right.

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

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

See below for the two options.

Export CSV

Configure the report

Format:

Filename:

Select CSV **Format**.

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

Export PDF

Configure the report

Format:

Heading:

Orientation:

Filename:

Select PDF **Format**.

Give the PDF a **Heading**.

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

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

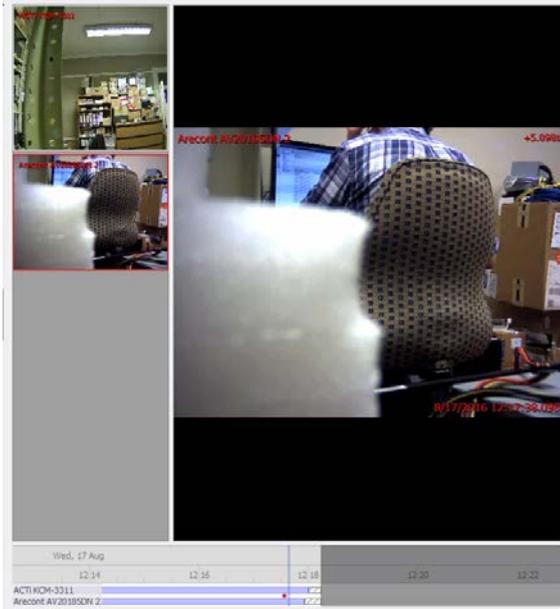
Viewing an Entry's Associated Recording

This integration uses the new video option, where the video player is embedded in the database view. This player uses the same timeline features as the CathexisVision Cameras Tab.

To view an associated recording, simply left-click on a database entry which has the icon in the **Links** column. Then click play in the video player.

Timestamp	Device Name	Event Type	Door Name	User Name	Links
2017-01-13 07:48:08	DBN_Access AP Lite	Allowed Normal In	Front Entry	Jason Marshall	
2017-01-13 07:54:32	DBN_Access AP Lite	Allowed Normal In	Front Entry	Linda David	
2017-01-13 08:03:43	DBN_Access AP Lite	Allowed Normal In	Front Entry	Gregory Jones	
2017-01-13 08:05:18	DBN_Access AP Lite	Allowed Normal In	Front Entry	Nicole David	
2017-01-13 08:09:12	DBN_Access AP Lite	Allowed Normal Out	Front Exit	Gregory Jones	
2017-01-13 08:13:05	DBN_Access AP Lite	Allowed Normal In	Front Entry	Gregory Jones	
2017-01-13 08:38:14	DBN_Access AP Lite	Allowed Normal In	Front Entry	Selvan Nadoo	
2017-01-13 10:11:31	DBN_Access AP Lite	RTE	Front Entry		
2017-01-13 10:22:12	DBN_Access AP Lite	RTE	Front Entry		
2017-01-13 11:03:06	DBN_Access AP Lite	Allowed Normal In	Front Entry	Nicole David	
2017-01-13 11:03:15	DBN_Access AP Lite	RTE	Front Entry		
2017-01-13 12:03:59	DBN_Access AP Lite	Allowed Normal Out	Front Exit	Rachel Solomon	
2017-01-13 12:14:23	DBN_Access AP Lite	Allowed Normal In	Front Entry	Rachel Solomon	
2017-01-13 12:25:29	DBN_Access AP Lite	Allowed Normal Out	Front Exit	Jason Marshall	
2017-01-13 12:26:18	DBN_Access AP Lite	Allowed Normal In	Front Entry	Selvan Nadoo	
2017-01-13 12:39:52	DBN_Access AP Lite	Allowed Normal In	Front Entry	Daryl B	
2017-01-13 14:08:05	DBN_Access AP Lite	RTE	Front Entry		
2017-01-13 14:24:11	DBN_Access AP Lite	Allowed Normal Out	Front Exit	Linda David	
2017-01-16 07:54:49	DBN_Access AP Lite	Allowed Normal In	Front Entry	Pratik Thavir	
2017-01-16 07:58:05	DBN_Access AP Lite	Allowed Normal In	Front Entry	Bral du Plessis	
2017-01-16 07:52:17	DBN_Access AP Lite	Allowed Normal In	Front Entry	Rose Joughin	
2017-01-16 07:29:26	DBN_Access AP Lite	Allowed Normal In	Front Entry	Lauren Hanning	
2017-01-16 07:46:46	DBN_Access AP Lite	Allowed Normal Out	Front Exit	Patricia Rice	
2017-01-16 07:49:38	DBN_Access AP Lite	Allowed Normal In	Front Entry	Gregory Jones	
2017-01-16 07:57:04	DBN_Access AP Lite	Allowed Normal In	Front Entry	Linda David	
2017-01-16 08:10:21	DBN_Access AP Lite	Allowed Normal In	Front Entry	Nicole David	
2017-01-16 08:17:56	DBN_Access AP Lite	Allowed Normal In	Front Entry	Jason Marshall	
2017-01-16 08:20:22	DBN_Access AP Lite	Allowed Normal In	Front Entry	Ian McRobb	
2017-01-16 08:26:54	DBN_Access AP Lite	Allowed Normal In	Front Entry	Selvan Nadoo	
2017-01-16 08:27:55	DBN_Access AP Lite	Allowed Normal In	Front Entry	Matthew Fincham	
2017-01-16 11:02:12	DBN_Access AP Lite	Allowed Normal Out	Front Exit	Nicole David	
2017-01-16 11:13:50	DBN_Access AP Lite	Allowed Normal In	Front Entry	Nicole David	
2017-01-16 11:13:53	DBN_Access AP Lite	Allowed Normal In	Front Entry	Nicole David	
2017-01-16 12:06:19	DBN_Access AP Lite	Unit Power up	Rear Entry		
2017-01-16 12:06:19	DBN_Access AP Lite	Unit Power up	Rear Exit		
2017-01-16 12:06:19	DBN_Access AP Lite	Unit Power up	Front Entry		
2017-01-16 12:06:19	DBN_Access AP Lite	Unit Power up	Front Exit		
2017-01-16 12:12:46	DBN_Access AP Lite	Allowed Normal Out	Rear Exit	Rachel Solomon	
2017-01-16 12:12:49	DBN_Access AP Lite	Allowed Normal In	Rear Entry	Rachel Solomon	

- *Reviewing Multiple Cameras*



If multiple cameras were added to the recorded object during the integration setup, these are displayed on the left of the video player screen as thumbnails.

Select a camera thumbnail to review it.

- *Device Event Metadata*

When an integration database entry is selected, its event information will be displayed on the right of the video player:

Timestamp	2017-01-13 12:14:23
Event Type	Allowed Normal In
Door Name	Front Entry
User Name	Rachel Solomon

Archive Selected Database Recordings

Archiving video from the database follows the same process described above, in the **Archiving** section of this document. Note, however, that when in the database tab, the archive button icon changes:  .

Note: When archiving a video feed that has **Privacy Zones** enabled, the privacy zones will appear/not appear in the archived video, depending on whether they are enabled in the feed at the time of archiving. (They may be enabled/disabled by right-clicking on the feed of video being reviewed via the database tab.)

d. Pre-2015 Databases

Pre-2015 databases will allow for filtering when viewed from later CathexisVision clients. There are three major filter types: **Filters**, **Field Constraints**, and **Time Constraints**.

Filters

Note: All filtering is based on AND/OR options.

AND If applying Filter A AND Filter B, the result will contain only those Events in which both Filter A and Filter B are true.

OR If applying Filter A OR Filter B, the result will contain any Event in which Filter A is true, plus any Event in which Filter B is true.

Note: Within a single filter, one cannot use both functions. One cannot apply “Filter A AND Filter B OR Filter C”. (It must either be all AND filters or all OR filters.)

- *Add/Remove a Filter*

Click on  to add a filter. Click on  to remove a filter.

- *Enable a Filter*

Filters Field constraints Time constraints In order to have any of the Filters active, check the relevant filter box at the bottom of the filters dialogue.

Note: Further constrain results, by making **Filters** and **Field Constraints** AND/OR dependent. For example, one may have a search that requires that the Event must match filters or field constraints, or it may be set so that the Event must match filters and field constraints.

- **Filters Tab**

<p>If event has camera</p>	<p>These are the primary sorting lists. The blue underlined style indicates that they are options. Click to see a pop-up list of the options. Choose from the following:</p> <p>Has camera > (then choose camera from the Camera Name dropdown list)</p> <p>Has audio > (then choose audio input from the Audio Input Name drop-down list) Is tagged</p>
<p>and</p>	<p>This is a logical parameter for multiple filters. It may be “and” or “or”. It only appears if there is more than one filter. By default, it is “and”.</p> <p>The filter results must match <i>all</i> of the filters. For example, if</p> <p> If event <u>is tagged</u> <u>and</u></p> <p> If event <u>has camera</u> <u>Cat Tech Sliding (Zone 7&8)</u> <u>and</u></p> <p> If event <u>has audio</u> <u>Cat Tech Sliding (Zone 7&8)</u></p> <p>Then the result is only those Events that are Tagged, that also include Camera 5 content, and that also include Audio Input 3 content – probably a short list.</p>
<p>Or</p>	<p>The filter results must match <i>any</i> of the filters. For example,</p> <p> If event <u>has camera</u> <u>Cat Tech Sliding (Zone 7&8)</u> <u>or</u></p> <p> If event <u>is tagged</u> <u>or</u></p> <p> If event <u>has audio</u> <u>Cat Tech Sliding (Zone 7&8)</u></p> <p>Then the result is all events with Camera 5 content plus all Events that are tagged plus all events that have Audio Input 3 content – probably a long list</p>

- **Field Constraints Tab**

This tab is only visible if a streaming text data application is installed, in which case these text data field filters are visible. They include the fields that have been identified in the text data streaming setup. i.e. on this tab, the fields customised for the text data application will be displayed.

Examples of text data are the data streamed from till transactions (transaction number, purchase amount, time, number of purchased items, etc.), and data streamed from Access Control applications (name, time, employee number, etc.). This data is stored as different “fields”. It is possible to constrain filtered results based on various decisions with these fields.

The principle remains the same as the Filters tab, where one creates a filter and then changes its parameters, using drop-down options (see above). The nature of these parameters depends entirely on the custom application.

- **Time Constraint Tab**

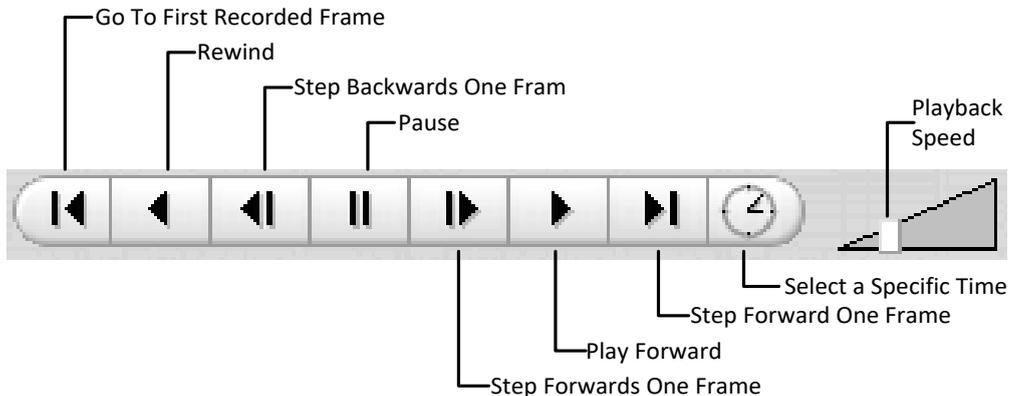
There are a number of different ways to constrain the time these are:

- equal to
- greater than
- greater than or equal to
- less than
- less than or equal to
- between (inclusive)
- between (exclusive)

Note: To modify the times click on the Date/Time hyperlink and enter in parameters in the dialogue that pops up.

Pre-2015 Playback Controls

When reviewing video from pre-CathexisVision 2015 Sites, the controls will be as follows:

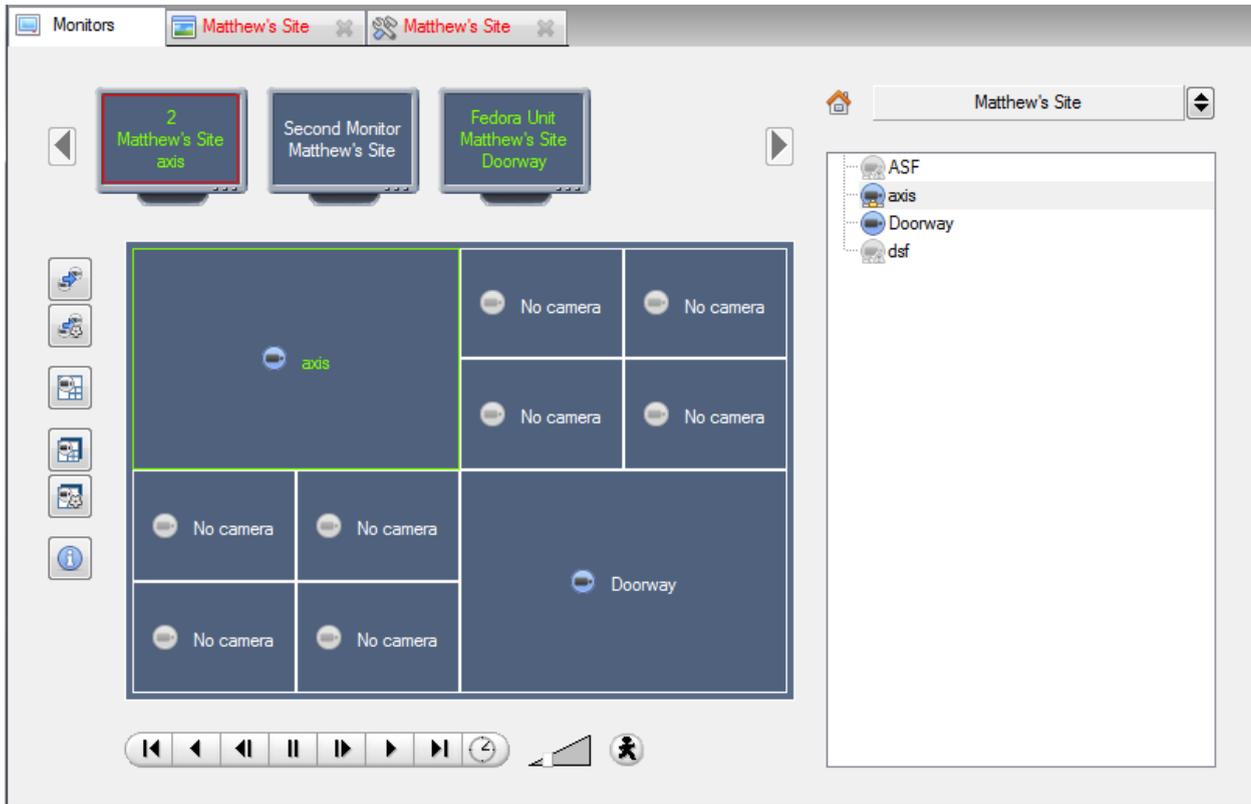


9 Monitors Tab

The monitors tab provides full control over the Video Wall. Here, change the Layout, and define camera Sequences, and salvos.

Because this tab deals only with the configuration of the Video Wall, there won't be video playing on the interface. One will see the names of cameras where they are placed in the Layout.

The next section deals with the Video Wall Software, in which the settings configured here will be reflected.

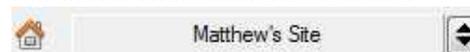


Open a Site on a Screen

The list of monitors will be representative of the number of monitors that have been added to servers on the Site.



To open a monitor from a Site, select one of the available Monitors. Then click the Sites list:



Then select the Site.

The Monitor with a red border will be the Monitor whose camera Layout is displayed below it.

Layout

A Layout defines how the cameras appear on the screen. This includes which cameras are present, to how much of the screen an individual camera takes up.

Recall a Layout

To bring up a particular Layout on a screen, click on the  icon, and select the Layout name desired.

Sequence

A Sequence will run a set of cameras, in single camera panel.

Run a Sequence - Click on a camera panel.

- Click on 
- Select the relevant Sequence from the drop-down menu.

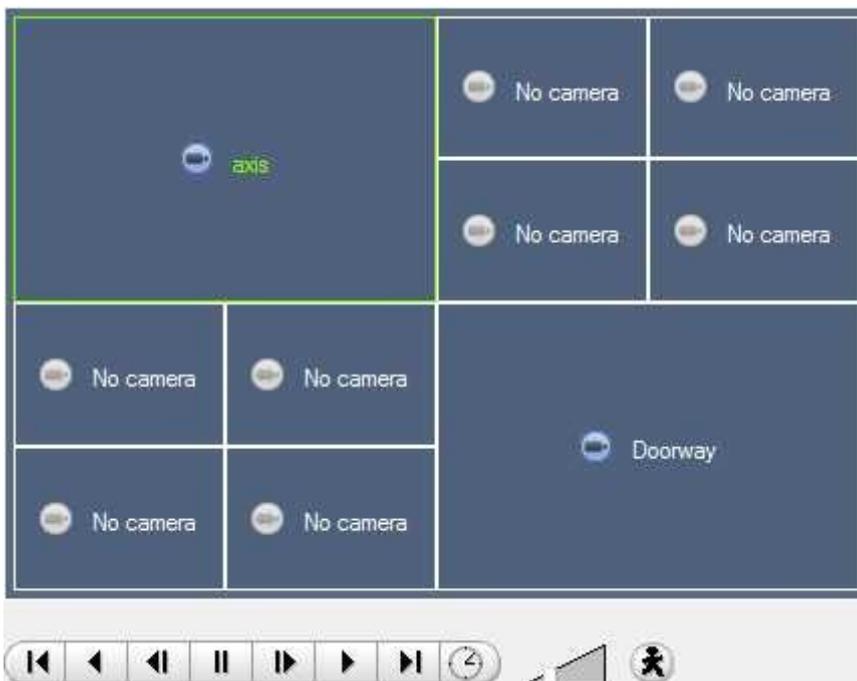
Salvo

A Salvo is a set of Layouts. This means that the Layout of cameras on the monitor will change, running through a set order, using the pre-defined Layouts.

Run a Salvo - Click on a Layout panel.

- Click on 
- Select the relevant Salvo from the drop-down menu.

Virtual Cameras interface



The virtual cameras interface is the interface where one can:

- See the Layout that the cameras will take on the Monitor selected.
- See what cameras are in which panels.
- May control the overlays on each camera.
- And use the Playback controls to review video on the Monitor.



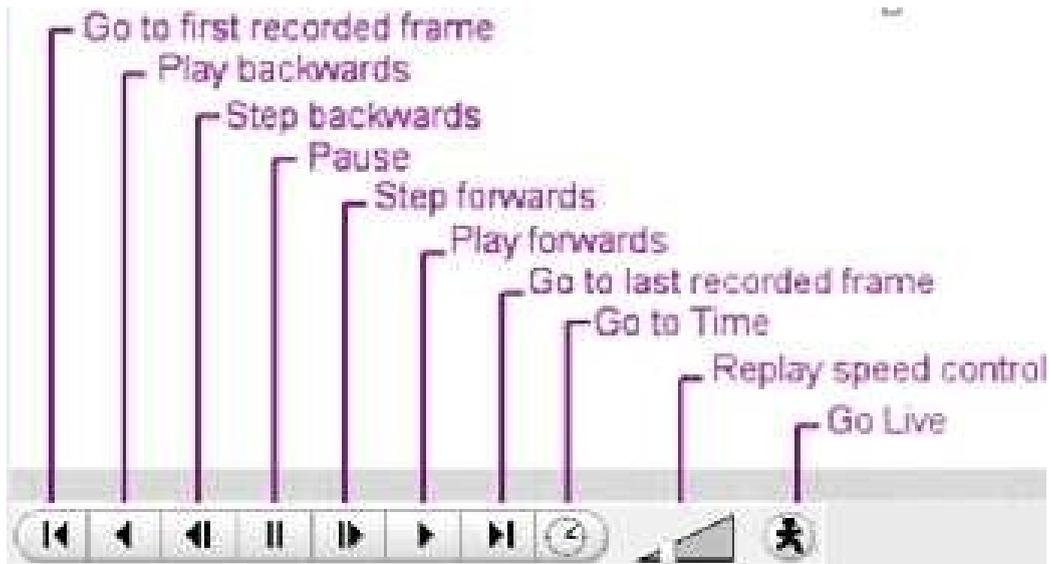
Note: When a camera has been selected, its border, and camera name, will become Green.

- *Individual Panel Settings*

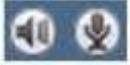
To change the settings of an individual panel middle-click on the panel, this will bring up the following menu:

Set no camera	Set No Camera will make this panel blank.
Review camera	This will bring up the recordings of the selected camera. For information on reviewing the camera see the section below, on Review Controls.
Next video format	This will cycle through the available video feeds available on the selected camera.

- *Review Controls*



10 Audio procedures



A microphone and speaker on the menu bar (at the top right of the screen) represent two local audio hardware resources: local audio input and local audio output.

These two icons represent the state of the local microphone and speaker - when a resource is being used, its icon is bright green in colour, and when the resource is inactive, and its icon is grey.

Look at these icons to see the current state of audio interaction, and run the mouse cursor over a green icon for information on the activity. However, the actual control of audio is from icons in the Resource Panel and Live remote cameras:

- *To Listen to a Remote Site by Means of the Resource Panel*

Open the Resource panel for the remote Site, and double-click a remote microphone to listen to it. The local speaker goes green, indicating that listening is in progress. If the cursor is moved over the speaker, a tool-tip will pop-up describing the remote audio input that is being listened to. There will be a sound from the remote Site.

- *To Stop Listening to a Remote Site by Means of the Resource Panel*

Right-click the local speaker, and choose **Stop**.

The local speaker goes grey, indicating that listening is no longer in progress.

- *To Listen to Remote Live MPEG by Means of the Middle-click Camera Menu*

A Live remote MPEG camera with audio will display a small microphone icon before the name on the camera display:

Middle-click the camera image, and select **Listen** from the menu.

The icon will change from grey to green, to indicate activity. One should also hear sound on the local speaker.

- *To Stop Listening to Remote Live MPEG by Means of the Middle-click Camera Menu*

Middle-click the camera image, and select **Stop listening** from the menu.

The icon will change from green to grey, to indicate inactivity. Sound should stop on the local speaker.

- *To Speak to a Remote Site*

Open the Resource panel for the remote Site, and double-click the remote speaker to speak through.

The local microphone goes green, indicating that speaking is in progress.

- *To Stop Speaking to a Remote Site*

Right-click the local microphone, and choose **Stop call**.

The local microphone goes grey, indicating that speaking is no longer in progress.

11 Other procedures

To Switch a Relay Output (e.g. unlock a door, activate a siren)

Relay outputs can also be switched from the Map (**right-click>Set Output / Clear Output**).

The action performed when double-clicking a relay in the CathexisVision resource panel is configurable. The setting is in **CathexisVision menu->Settings->General**.

- 1  Left double-click to toggle the relay between set and clear, **or** Right-click the relay.
 - A popup menu offers the choice of Set output (activate it) or Pulse Output.
 - Select an option and click OK.
 - The relay changes state, and the output changes colour . While active, the play/pause image in the middle of the Output icon will change from black to white.
- 2 To clear a set relay, left double-click or right-click >Clear output

To Pulse a Relay Output (e.g. unlock a door for a defined 4-second period)

Relay outputs can also be pulsed from the Map (right-click>Pulse Output).  Right-click the output and select **Pulse output**.

> This pulses the output for the time that has been set at the unit. While the output is pulsed, the play/pause image in the middle of the Output icon will change from black to white, when it resets it will return to black.

• *To Manually Trigger a Site Action*



Right-click the Site Action in the Resources Panel and then click Execute.

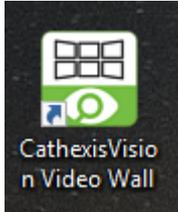
Note: This requires 1) Site action setup 2) Assignment of Site action to resources panel 3) Appropriate access rights.

12 Video Wall (Software)

The Video Wall software is automatically installed when installing CathexisVision. A shortcut to the Video Wall is created by default on the desktop.

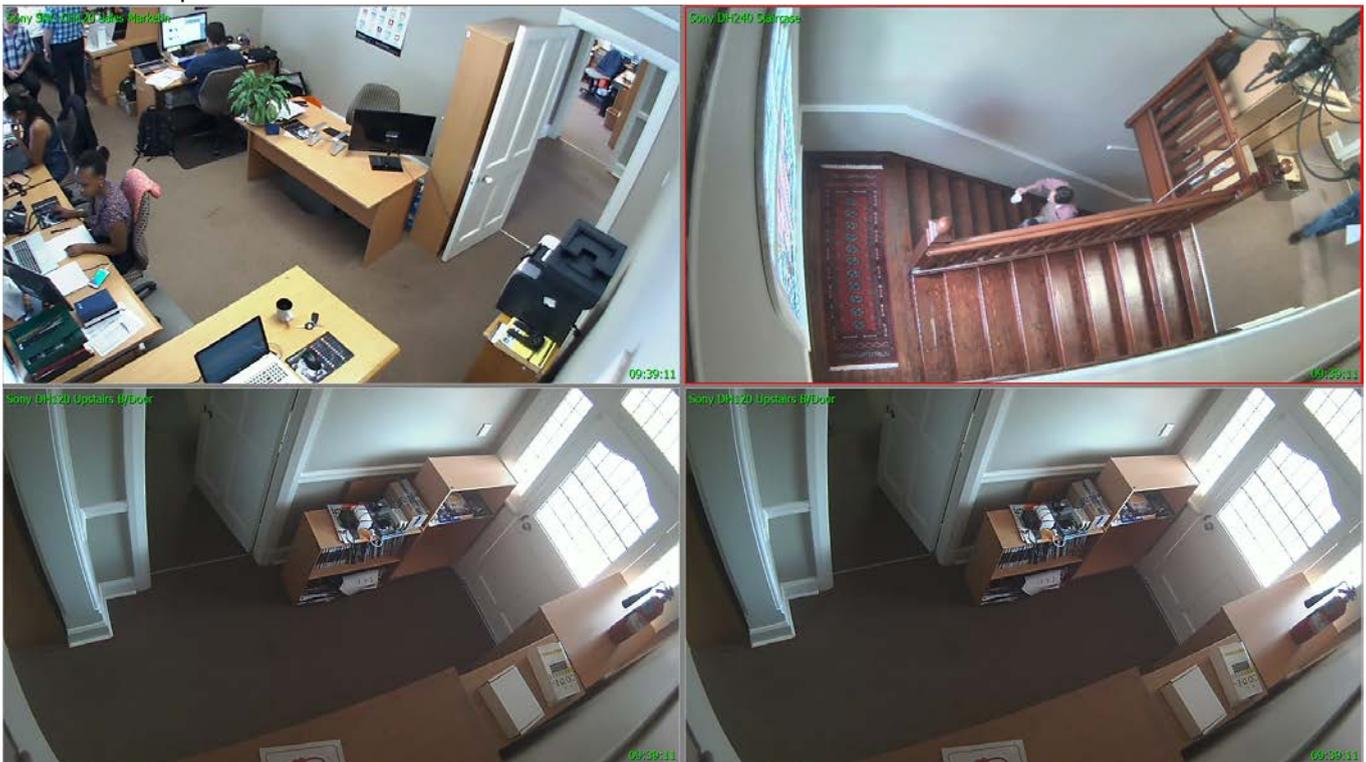
a. Open Video Wall

To open the Video Wall, double-click the Video Wall shortcut.



b. Interface

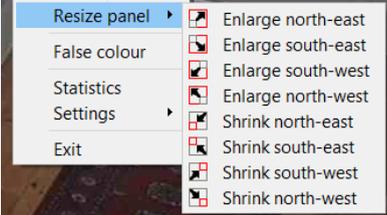
Panels configured in the Monitors Tab of CathexisVision (above section), will be immediately visible when the Video Wall is opened:



c. Right-Click

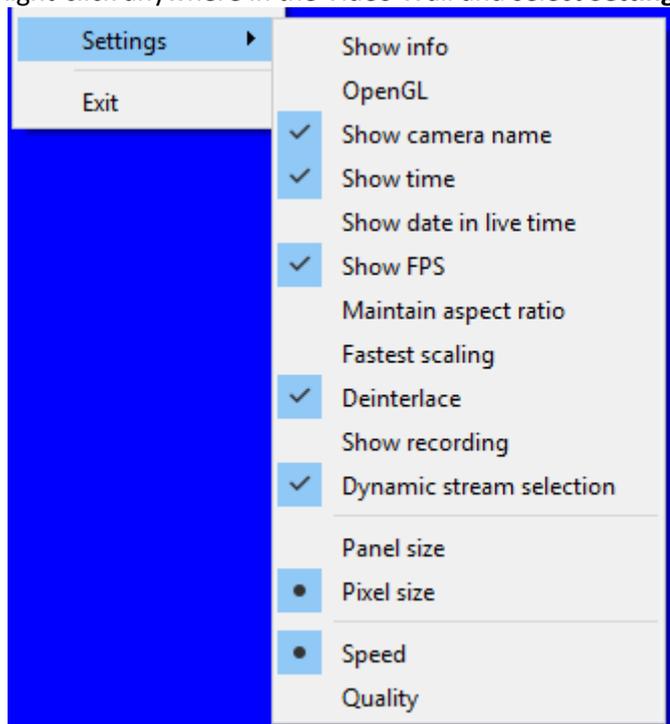
Right-clicking anywhere in the Video Wall will bring up the menu below.

	Video format →	Select video format for camera in selected panel.
	View transform →	Transform video for camera in selected panel.
	Overlays →	Select overlay to display from available overlays, enable default overlays, or disable overlays for the selected panel.

<ul style="list-style-type: none"> Video format ▶ View transform▶ Overlays ▶ Help Enlarge panel Maximise panel Shrink panel Resize panel ▶ False colour Statistics Settings ▶ Exit 	Help	Display help screen for basic camera controls.
	Enlarge panel	Enlarge selected panel by one panel size.
	Maximise panel	Make selected panel fullscreen.
	Shrink panel	Shrink selected panel by one panel size.
	Resize panel →	Depending on current size of panel, resize and orientate the selected panel: 
	False colour	Enable false colour on selected panel.
	Statistics	View overall statistics for Video Wall.
	Settings →	Configure settings for all panels on Video Wall. See below for details.
	Exit	Close the Video Wall.

Settings

Right-click anywhere in the Video Wall and select **Settings**.



Show info	Will display information about all panels as an Overlay.
OpenGL	Uses OpenGL.
Show camera name	Displays camera names for all panels.
Show time	Displays time for all panels.
Show date in live time	Includes the date when time is displayed on live video.
Show FPS	Displays frames per second for all panels.
Maintain aspect ratio	Keeps aspect ratio of cameras for all panels.
Fastest scaling	Uses fastest scaling for all panels (non-OpenGL setting).
Deinterlace	Uses deinterlace for all panels.
Show recording	Shows recording icon in panel for all cameras which are recording.
Dynamic stream selection	Enabled by default. This selects the correct stream based on the display size/resolution when a camera has multiple streams.
Panel size	Select whether live video resolution is based on Panel size
Pixel size	or Pixel size .
Speed	Select whether OpenGL settings should optimize fonts for Speed
Quality	or Quality .

Note: The Video Wall Control tab supports both old and new style mouse handling to make the Layout and menu control consistent with the Cameras Tab.

13 Conclusion

Please remember that this manual was designed to deal specifically with this aspect of CathexisVision. For further information about the CathexisVision software please consult the main manual (<http://cathexisvideo.com/>).

For support please contact support@cat.co.za