

CathexisVision 2024 Archiving App-note (CathexisVision Archive Player)

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1. Introduction

This is a guide to archiving in CathexisVision.

Archiving is a facility that enables operators to select recordings and copy them to archiving media, such as a hard drive or USB. Archived recordings retain their authenticity, and can be verified as authentic (unaltered) on replay, making them suitable for use as forensic evidence.

Note: For more information about the operation of CathexisVision, refer to the *CathexisVision Operator's Manual*.



2. Archiving Video in CathexisVision

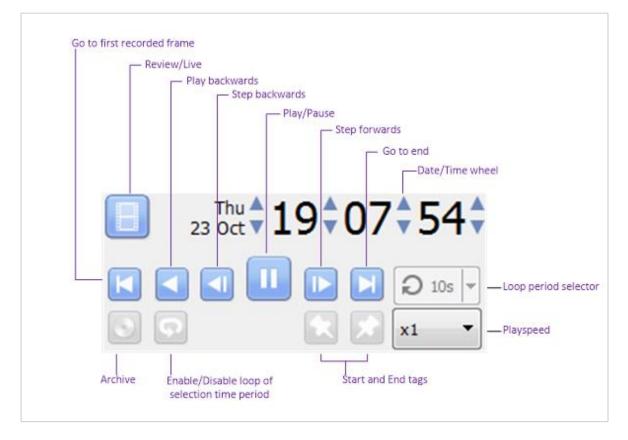
2.1 Review and Select Video

In order to create an archive, video needs to be reviewed and sections of it need to be selected for archiving.

This section deals with reviewing and selecting video for archiving in CathexisVision. There are two areas of the interface that are used to review recorded footage:

- 1. The Review Control Panel
- 2. The Timeline.

2.1.2 Review Control Panel



Note:

E,

Click this icon to enable review. It will change to the running-man icon.



Click this icon to return to live view.

2.1.2.1 Review Footage from a Certain Date

Using the Time/Date Wheel



- \rightarrow To go to a specific date, select the camera/s to review.
- → Click the arrows of the Date/Time wheel until settling on the correct date/time.

Using the Timeline

 \rightarrow 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 desired time/date.

2.1.2.2 Select a Period for Review

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

 \rightarrow Start by using the using the Date/Time wheel, to navigate to the desired beginning point.

- → Click this icon to tag the start of the selection. Then navigate to the end of the desired period.
- \rightarrow Click this icon to tag the **end** of the selection.



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



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

This icon means that the video will continue to play past the end of the selection.

2.1.3 Timeline

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

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

2.1.3.1 Live View Timeline

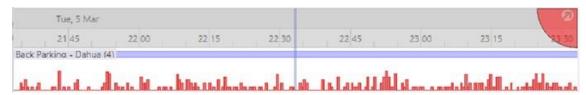
				Tue, 5 Mar
23 15 23 30 23 45 00 00 00 15 00 30	23 15 23 30 23 45 00 00 00 15 00 30	15 23 30	23 15	23 00

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



2.1.3.2 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 have been selected to review, they will appear stacked on the timeline.

19.45	20.00	20.15	20 30	20.45	21 00	21.15	22.00
13 43	20.00	60.13	20 30	20.40	2100	21 13	2124
iveway ANPR - A	lvic (1d)						
ick Parking - Dah					1		

Note: Although multiple cameras may be selected for review, if the timeline is docked only two will be visible at one time.



 \rightarrow To cycle between them, click this icon at the bottom right of the timeline.

 \rightarrow To view more than two cameras simultaneously without needing to cycle through them, **detach** the timeline. See below.

2.1.3.3 Detached Review Timeline

The detached review timeline allows review of more than two cameras at a time.

Timeline								
							Tue, 5 h	vlar 🖉
07 00	07	15	07 30	07 45	080	08:09:38 5	08 30	0045
Driveway ANF								
Back Parking	22.27	1000000						
Back Parking	 Vivote 	ek (3)						
Driveway ANF	PR - Axi	s (14)	17760	10441-000				
-			1 .				1	11



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

To reattach the timeline, click this icon, in the same place.



2.1.3.4 Synchronised/Independent Review

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

Start new review groupWhen already reviewing a camera, middle-click a camera's panel to see
the following options in the context menu.

Start new review group: This 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: This 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.

2.1.2.5 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 this icon.

Move the Timeline with the Mouse

Move backwards and forwards in time by left-click dragging the timeline to the left or right.

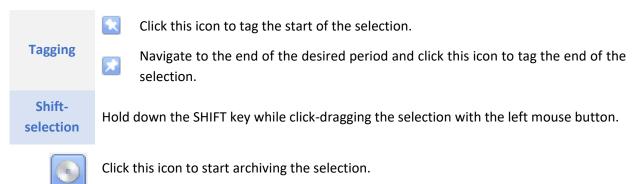
2.2 Archiving from Live/Review

Special Notes:

- A NetBSD GUI will only be able to output legacy archive files.
- A NetBSD GUI is unable to archive video from a Windows/Linux NVR.
- A Windows/Linux GUI can only output new archive files, but will be able to archive video from a NVR running any OS.
- **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**.

2.2.1 Select Video to Archive

There are two ways to select the period to archive: tagging or shift-selection.



2.2.2 Apply Archive Settings

2.2.2.1 Archive Tab

	C	
Archive	Settings	
Destination	Folder ~	
Output type	Archive ~	
Folder	C:/Users/Desktop/Archive Export	E
Filename	20240306-142558	.car
Password N	one V	otion
Size estima	lone	
	andom - Axis (14)	
Direction		
Direct		
Directa		
Ready		

- → Choose the **Destination** to archive to. Choose between Folder and Optical disc.
- → Select the **Output type.** Choose between **archive** (.car) and **media file** (mp4).
- \rightarrow Select a **Folder** for this specific archive.
- \rightarrow The **Filename** may be defined manually.
- \rightarrow Add a **Password**, if desired.

A Size estimate of the archive is provided.

→ Click **Set description** to give this specific archive a title.

CATHEXIS

2.2.2.2 Settings Tab

Archive Settings	Check or uncheck the box to make archives exportable or not exportable.
Copy archive viewer	Use the Copy archive viewer option when the archive will be viewed
Watermark profile None 🔻 🔞	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 site administrator.

2.2.2.3 Complete the Archive Process

Archive	Settings		ightarrow Click Start to archive the selections
Destination	Folder	~	made in the Archive and Settings tabs.
Output type	Archive	~	The green progress bar with show how
Folder	C:/Users/Desktop/Archive Export		far along the archive has progressed.
Filename	20240306-142558	.car	
Password N	lone v	Set description	
Size estimate	e 352 MB		
Drivewa	ay ANPR - Axis (14)		
Fetch and	write, 31.4 MB (10%)		
Rate 4.07 Mbp	25		
Archiving	Start	Cancel	
	Complete	\times	A prompt will confirm when the archiving is complete.
	Archive co	mplete	\rightarrow Click Close .
	Close		

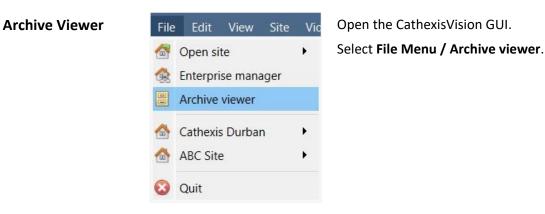


3. CathexisVision Archive Player



Archives can be reviewed from within the CathexisVision interface, or by double-clicking the **CathexisVision Archive Player** desktop icon.

3.1 Open the Archive Player/Viewer



3.2 Archive Player/Viewer Interface

This section details the interface of the Archive Viewer and the processes that are performed.

Archive Help	
	Archive 1 Image: Contract of the second s
PH, 27 Jan 12 30 12 45 13 00 13 15 5 13 30 13 45 14 00 14 15 Axis M1125 - Driveway	Camera to
K S D D D 105 • x1 • S C S 27 Jan ♥ 13 ♥ 21 ♥ 11	\$

1. Type Selection

Legacy archive

B Archive	
Archive	
Scheduled backup	From this

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.



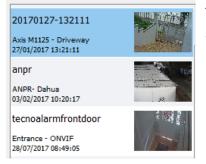
Click to browse folders in dialog window.



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



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 the location of the selected archive file.

3. Description



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	6
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 the gear 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.

Fri, 27 Jan	
12 30 12 45 13 00 13 15	13 30 13 45 14 00 14 15
	S S 27 Jan + 13 + 21 + 11 +

6. Archive Camera Panel

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

Right-Click Options

View transform Export snapshot... 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 the image and select **Export snapshot**. This will bring up the **Export snapshot** window, which presents the following options:



Print snapshot.



Save snapshot to folder.



Copy to system clipboard.



Copy to Cathexis clipboard.



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

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



Click once the snapshot has been exported.



3.3 Export Archive

Archives, or a selection of an archive, may be exported either as another archive, or as a media file. Follow the same procedures to select the period of video to archive and apply the archive settings as outlined in <u>2.2</u> <u>Archiving from Live/Review</u>.

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.

Archive			×
Archive	Settings		
Destination	Folder	~	
Output type	Archive	~	
Folder	Archive		
1 older	Media file		-
Filename	20240306-142558		.car
Password N	one 🗸	Set descrip	otion
Size estimate	352 MB		

- When exporting an archive, there is an additional **Output type** setting selection.
 - → To export the video as a media file, click the dropdown menu for Output Type, and select Media file.

3.4 Archive Security

CathexisVision 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.

For more information on CathexisVision cybersecurity, consult the following document: *CathexisVision Cybersecurity Overview*.



3.4.1 Inspect Archive

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

User ArchiveViewer Description	User	User will display the username of the operator who performed the archive.
Password Not set Watermark Not set Archive time 2023-04-11 19:42:14+02:00	Description	Description will show the description of the archive (if set).
	Password	Password will show Encrypted if a password is set, and Not set if not.
	Watermark	Watermark will show the watermark of the archive (if set).

3.4.2 Verify Archive

CathexisVision 2017 introduced a verification feature 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 (<u>support@cathexisvideo.com</u>).

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.

Inspect
Verify
Open file location

 \rightarrow Once the file location of the archive has been opened, right-click the relevant archive. Select **Verify.**

The software will then determine whether or not the archive is authentic by indicating an archive as **Archive Verified** of **Archive failed** verification.

Archive Verification Failed

Archive verification	×	Archive verification	×
General verification signature type: RSA (OK) - signature block valid (OK) - generated hash (OK) - hash matched (OK) - public key is valid (OK) Resources Camera 'Train Station Camera' Public key: U0JYQRAX(HOnCS6WiUNfw== Track ID: t_vide_82cfab06-8000-4915-819b-5a746d55cd10_default Source type: channel Signature validation: Valid signature		General verification - signature type: none (OK) - signature block valid (OK) - generated hash (OK) - hash matched (OK) - no signature expected for type, none present (OK) Resources Camera 'Train Station Camera' Public key: IU0jYQRAKjHOnC56WiUNfw== Track ID: t_video_62/cfab06-8000-4915-819b-5a746d55cd10_default Source type: arch2 Signature validation: Invalid signature	
Archive verified 🛛 🎸		Archive failed verification 💥	
Close		Close	

Note: Archive verification reports may be copied and emailed to support@cathexisvideo.com.

Archive Verified



4. Conclusion

Note: This app-note was designed to deal specifically with the archiving feature in CathexisVision.

For further information about the CathexisVision software, please consult the *CathexisVision Setup Manual* (<u>https://cathexisvideo.com/</u>).

For technical support, please contact support@cathexisvideo.com

USEFUL LINKS

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

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