

WITNESS
SEE IT **FILM IT**
CHANGE IT

QUICK GUIDE

TO VIDEO ARCHIVING

Developed as an integral part of the
VIDEO AS EVIDENCE
ENVIRONMENTAL DEFENSE GUIDE (2023)

QUICK GUIDE

TO VIDEO ARCHIVING

Digital archiving encompasses ongoing actions to care for valuable documentation and ensure its accessibility over time, including collecting, organizing, cataloging, storing, and long-term maintenance and preservation. Archiving protects against file corruption and loss, secures your collection from tampering, and enables authorized users to find authenticable videos and photos.

KEY STAGES

Archiving can be broken down into the following key stages. As you develop your archival workflows, document your decisions and steps so that you can follow them consistently while building your collection.



**Create and
Transfer**



**Collect and
Organize**



Catalog



Store



**Long-term
Preservation**

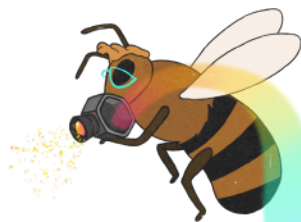
Create and Transfer

When capturing videos and photos, consider what additional information, or metadata, you need for future preservation and use.



Important metadata to capture or create:

- ☐ The source of the video or photo (the “who,” “where,” and “when”)
- ☐ Description of the recorded event (the “what”)
- ☐ Restrictions required for security and privacy
- ☐ Chain of custody (i.e., chronology of who has handled the video, starting with its creator)



Additional tips:

- ☐ When sharing or downloading, transfer files completely and without changes or additional compression
- ☐ When creating edited videos, export a high-resolution copy for preservation, even if you only need lower-resolution versions for use

Enhance Evidence of Authenticity

It may be helpful to demonstrate that your files are intact and unaltered, especially if you are using video for evidentiary purposes. Hashes, or checksums, are sequences of letters and numbers generated by running certain algorithms on your file. Hash values are unique to your file, so matching hashes show that files are exact copies, while mismatched hashes show that files are not exact copies. You can also check if a file has changed by running and keeping track of its hashes over time. SHA-1/MD5 are common hash algorithms for verifying file integrity.

 unknown.mp4	
 VID_20220301_230609880.mp4	
44f8621efd08b43865f49c6aa986c40d209d0c2a	unknown.mp4
44f8621efd08b43865f49c6aa986c40d209d0c2a	VID_20220301_230609880.mp4

The SHA-1 hashes of unknown.mp4 and VID_20220301_230609880.mp4 match, so they are exact copies of the same video.

 webrec.m4v	
 webrec(1).m4v	
dbfee0bbcb69a5194ce65ccaafe828123ccac65ac	webrec.m4v
44f8621efd08b43865f49c6aa986c40d209d0c2a	webrec(1).m4v

The SHA-1 hashes of webrec.m4v and webrec(1).m4v do not match, so they are not exact copies.

Hashing tips:

- ☐ Generate and record hashes as early in the video/photo lifecycle as possible, such as when you capture or download the video/photo from your camera for the first time. Use specialized documentation apps / hashing tools (see “Free and/or Open-Source Tools”)
- ☐ Check hashes periodically as part of collection maintenance, and whenever you need to demonstrate the integrity of your files



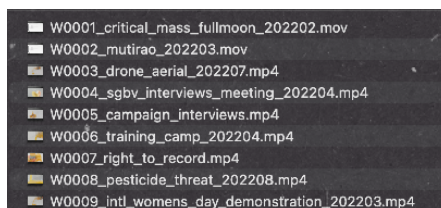
Collect and Organize

Organizing your collection involves arranging your files into a coherent directory or folder structure and clearly naming those directories. Good organization is needed to maintain the provenance and original order of your files and ensure they are not accidentally lost or overwritten. It is easier to find records in a well-organized collection.



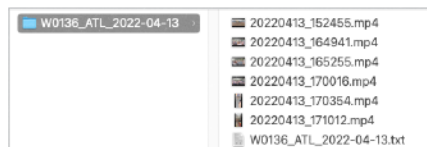
Tips:

- ☐ Do not rename file names assigned by the camera
- ☐ Name edited videos consistently and maintain your project files
- ☐ Create a naming template and use unique identifiers to help organize and distinguish your files

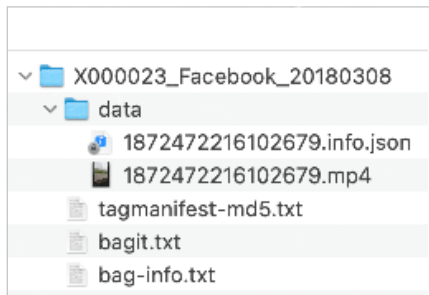


Example of file naming using unique identifiers.

- ☐ Do not use special characters such as @#\$\$%&*~|, diacritics, or spaces in folder or file names
- ☐ Put your video, or set of videos that belong together, into an “information package:” a self-describing container – usually a clearly and uniquely named folder or directory – that can also include any related documentation or metadata

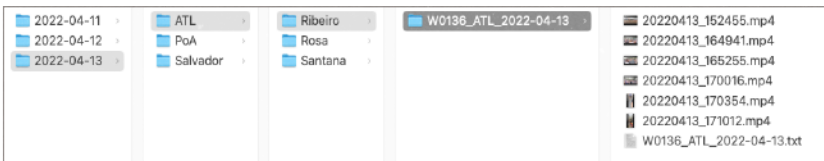


Example of a simple information package that includes videos and a descriptive text document.



Example of a more complex information package using the BagIt packaging format standard.

- ☐ When organizing your packages, keep their original context and relationships intact, such as organizing by date created and/or source



A package organized into a directory structure based on date, location, and filmer.

Catalog

Cataloging is important for creating and organizing descriptive information in a structured way so that records can be found, used, and understood.

To ensure future access, especially for larger collections, some sort of cataloging is critical. You can use a spreadsheet to make a simple catalog, or use a database / media management tool for a more complex catalog.



Tips on Cataloguing:

- ☐ Define a catalog structure, which can include descriptive, contextual, technical, and rights information; keywords; and other information
- ☐ Create fields/columns in the spreadsheet or table to divide your information into sufficiently granular pieces of data that enable easy sorting and searching (e.g. fields for File Name, Date, Duration, etc. to describe a video file)
- ☐ To avoid data redundancy that can lead to inconsistencies, each spreadsheet or table should only describe one type of entity (e.g. Video). Create multiple spreadsheets or tables if you need to describe multiple types of entities (e.g. Videos, Events, People). You can point to records in different tables using unique identifiers

- ☐ Give each record/row in the spreadsheet or table a unique identifier. Using unique identifiers ensures that each record/row can be properly referenced and distinguished from other records/rows, even if they have similar data

ID	First Name	Last Name
C001	Luis	Rodríguez
C002	Luis	García
C003	Daniel	Rodríguez

- ☐ Create a control list of preferred terms and definitions when multiple terms can describe the same thing (e.g. "deforestation" and "logging"), or when working in multiple languages

- ☐ Specify a preferred format for values such as dates (for example, yyyy-mm-dd rather than dd-mm-yyyy), and use it consistently

Date recorded
2022-08-04 
8/4/2022
Aug 4, 2022
4-Aug-2022

Different ways of representing dates – choose one format and use consistently.

- ☐ For more comprehensive and cohesive catalogs, you can make rules such as mandatory data entry fields to ensure that crucial information will be collected
- ☐ Using the same metadata scheme across your community or sector can help make your data more interoperable. For example, widely adopted standards such as Dublin Core can be used for describing digital resources

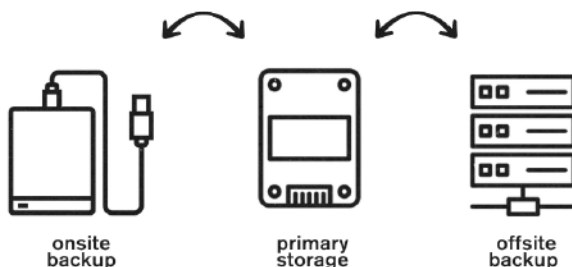
Store

Storage refers to the media and methods used to store and access your records. No matter what kind of media or device you use, none will last forever. The actual lifespan of storage media or hardware depends on many factors such as its environment and usage. Good storage practice includes choosing appropriate storage, backup, and active monitoring.



Tips:

- ☐ Use the 3-2-1 rule: keep 3 copies of your collection, on 2 different storage mediums/platforms (such as a portable hard drive and a cloud storage provider), with 1 copy geographically distant from the others



- ☐ For parts of your storage that are updated frequently, use backup software to perform incremental backups
- ☐ Control physical and electronic access to your collection to prevent accidental or deliberate tampering and deletion – also to protect the identities of those in high-risk situations or to respect privacy
- ☐ Consider your IT support capacity, the nature and size of your collection, and access requirements when choosing storage media and configurations. Remember that storage devices need to be maintained
- ☐ Check the temperature / relative humidity of your storage environment against the recommendations for your device. High humidity and temperature fluctuations are usually harmful to devices. For packaging, use barriers or layers that block the exchange of humidity and temperature, such as two boxes stored in a closet in a central room, without external walls. Pack items on a dry day



Tips on Storing:

- ☐ The failure rate of storage media increases over time. Consider updating/replacing storage media and devices approximately every 5 years to minimize risk
- ☐ Be aware of viruses or spyware if your storage devices are connected to a network
- ☐ Encrypting your devices or storage volumes is important, but it can be risky if you lose the encryption key
- ☐ Monitor your collection periodically. Pick one day a year to check/clean your files, such as an anniversary or important date such as Earth Day (April 22) or World Day for Audiovisual Heritage (October 27)

Long-term Preservation

Long-term Preservation requires a commitment to future actions.



Consider:

- ☐ Changes in capture or filming technology that may require new methods of collecting and managing videos and photos
- ☐ Changes in storage technology that affect the availability of certain media, devices, cables, or connectors; and the cost of media or services. This may require you to migrate media to different media types or storage services
- ☐ Changes in your users' needs (e.g. evidentiary requirements, their ability to understand the content, etc.) that may require you to update your collection or cataloging approaches
- ☐ File format obsolescence that may make formats in your collection difficult to open, play, or use. You may need to create copies of your videos and photos in new, usable formats
- ☐ Your ability/capacity to sustain the collection over time



MORE INFORMATION

For more information about archiving and preservation, we recommend the following resources:

- [Activists' Guide to Archiving Video guide](#) (WITNESS)
- [Community-Based Archiving YouTube playlist](#) (WITNESS)
- [Microthesauri](#) (HURIDOCS)
- [Plan for the Information You Need guide](#) (HURIDOCS)
- [Earth Defenders Toolkit](#) (Digital Democracy)
- [Tech Tools for Human Rights Documentation website](#) (Engine Room)
- [Should I Collect and Archive these Videos? tipsheet](#) (WITNESS)

FREE AND/OR OPEN SOURCE TOOLS

Filming / Metadata Capture

[Proofmode](#) (Android, iOS)

[Tella](#) (Android, iOS)

Hashing

[Hash Droid](#) (Android)

[MD5](#) (built-in Mac utility)

[QuickHash](#) (Linux, macOS, Windows)

File Copying/Migration

[Robocopy](#) (Windows utility)

[Rsync](#) (Linux, macOS)

[TeraCopy](#) (macOS, Windows)

[Save](#) (Android, macOS)

Packaging

[BagIt](#) (written specification)

[Bagger](#) (Windows, Linux, macOS)

[DART](#) (Windows, Linux, macOS)

File Metadata Read/Write

[Exiftool](#) (macOS, Windows)

[MediaInfo](#) (Linux, macOS, Windows)

Cataloging/Publishing

[Mukurtu](#) (Drupal)

[Omeka](#) (Linux or hosted)

[Uwazi](#) (Linux or hosted)

[Tainacan](#) (WordPress)

Reformatting

[Audacity](#) (Linux, macOS, Windows)

[FFMPEG](#) (Linux, macOS, Windows)

[Handbrake](#) (Linux, macOS, Windows)

