



# Preservation Stations

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# Preservation Stations

Preservation of documents, pictures, recordings, digital content, etc., is a major aspect of libraries, however because of all the different mediums, it can seem an overwhelming task.

The basic station consists of a PC that becomes the 'media manager', taking an input medium then converting/editing and saving it to another medium, usually in a format that is widely accepted. A quick example would be using a Cassette player that has a headphone port, connecting the headphone port to the microphone port of the PC and using an audio recording software (such as [Audacity](#)) to record the audio. Once completed, saving the recording as a MP3 file on a USB drive.

There are some hardware devices, that can bypass the PC and take, for example, a Cassette, convert the audio to MP3 and save it to a USB drive.

Most Audio/Video conversions are at a speed of 1:1, sometimes it can take longer than the length of the original work. For a VHS that is 30 minutes in length, the conversion from VHS (analogue) to uncompressed (also known as lossless) will take 30 minutes. Compression of the MP4 to a more consumer friendly size for storage on a USB drive can take a further 5-15 minutes.

Document and Photograph scanners are rated in Pixels Per Inch (PPI), or Dots Per Inch (DPI). The larger the PPI, the higher the quality of the scanned image. SLQ recommends a minimum of 700 PPI for flat objects and 2700 PPI for slides.

It is also recommended that once you have converted the work from its previous medium to a more useable digital format, that it is stored on at least 3 different sources for protection, 1 of these being an offsite location, which could be cloud storage such as Google Drive/iCloud. Digital devices do not last forever and eventually fail, the physical size can also be an issue of being misplaced!

Below we have some lists of file formats you may come across and what they are, the recommended file formats to save work, conversion and editing software as well as hardware.

If you do come across a format and would like help in how to convert it, send an email to the [RLQ email list](#).

## Copyright

Copyright does apply to work if it is not work you legally own. For more information around copyright visit [Understanding Copyright](#) or [Australian Copyright Council](#).

## File Formats

### Lossy and Lossless

Digital formats come in 2 varieties, the one you choose is dependant on what the final result is to be used for. Some Digital formats support both varieties, using the software to select how much, if any, compression (lossy) to use as the output.

## Lossy

Lossy compresses data by removing fine details in order to reduce the storage space required. Once compressed, the data that is discarded cannot be recovered. Lossy formats are the most common and generally fine to use in most applications.

One common Lossy format used is JPEG images, the more compress that is used, the more you start to see 'artifacts' within the image.

## Lossless

Lossless does not remove any of the original data/information and is best for archival as the result is the best possible quality. The downside to this format is it typically requires 10x the amount of storage space, compared to Lossy files.

Name	Used for	Type	Details
AIFF	Audio	Lossless	Used typically in Apple environments for audio storage
FLAC	Audio	Lossless	The standard format for Lossless audio. While being a Lossless format, FLAC can compress audio without losing any of the original data
<b>MP3 (recommended)</b>	Audio	Lossy	A standard and widely supported format in digital devices
WAV	Audio	Both	Typically used on Windows PCs, playback compatibility can be an issue with some devices
GIF	Image	Lossy	Used in flat coloured images on the internet, this format is not recommended for preservation due to poor photograph compression quality
JPG	Image	Lossy	Mainly used for photographs, its offers a good quality to file size comparison
<b>TIFF (recommended)</b>	Image	Lossless	TIFF is the standard for image preservation due to its ability to store images in high resolutions without loss of data
AVI	Video	Both	Like WAV, AVI is the common video format on Windows PCs
MOV	Video	Both	A format typically on Apple Macs. This format can have playback issues outside of the Apple environment
<b>MP4 (recommended)</b>	Video	Both	MP4 is the recommended video format due to its wide platform support. By default, lossy compression is applied, however this can be disabled in conversion software

## Software

*Note that some hardware devices comes with converters and editors*

- [Audacity](#) - Audio converter and editor (free)
- [FFmpeg Batch AV Converter](#) - Audio/Video converter (free)
- [HandBrake](#) - Video converter (free)

## Hardware

- [Cassette to USB Drive Converter](#) - Converts a cassette to MP3, saving the file directly on a USB drive
- [Record to USB Drive Converter](#) - Converts a Record to MP3, saving the file directly on a USB drive
- [RCA/S-Video to USB Adapter](#) - RCA/S-Video to USB using CyberLink PowerDirector Software (included). Use the output of VCR, Beta-Max players to record to a digital format on a PC

## Links

### General

- [NSLA Personal Digital Archive Toolkit](#)
- [Digitising Collections](#)

### Sunshine Coast Libraries

- [Sunshine Coast Library Photo Preservation](#)
- [Sunshine Coast Movie & Music Preservation](#)