

## Caring for your collections: Magnetic Media

Magnetic media refers to magnetised recording formats that store analogue or digital information. The format carrier or substrate is coated with a complex mixture of metal particles with other chemicals. This magnetic coating allows for information to be recorded and retrieved.

Examples of magnetic media include:

- Audiocassettes and reel-to-reel tapes
- Videotapes such as VHS, DVcam, Betacam
- Data-tapes such as LTO tapes
- Hard disk drives and floppy disks

Traditionally, analogue magnetic recording tape is used to record, store, and reproduce audio and instrumentation type signals. These signals are usually in a frequency band from very-low frequency (VLF) to 2.5 MHz.

There is also digital magnetic tape which is used to record, store, and reproduce computer programs and data. Its base material thickness is about 50 percent thicker than analog magnetic tape. This allows the digital tape to withstand the more strenuous starts and stops associated with digital magnetic recorder search, read, and write functions. Other types of magnetic media such as hard disk drive store information on the disk's magnetic material coating.

As magnetic media and their playback equipment become obsolete, it is essential to transfer the information from older formats as soon as possible. Some examples of at risk materials are floppy disks, Betamax tapes, open reel video tapes to name a few.

The following guides provide useful information on how to care for your magnetic media collection and include caring for other audiovisual formats:

- National Archives of Australia – Preserving Magnetic Media  
<https://www.naa.gov.au/information-management/store-and-preserve-information/preserving-information/preserving-magnetic-media>
- National Film and Sound Archive – Caring for Audio:  
<https://www.nfsa.gov.au/preservation/guide/home/caring-audio>, Caring for Video:  
<https://www.nfsa.gov.au/preservation/guide/home/caring-video>
- Council on Library and Information Resources (CLIR) – Ampex Guide to the Care and Handling of Magnetic Tape  
[http://www.clir.org/pubs/reports/pub54/care\\_and\\_handling.html](http://www.clir.org/pubs/reports/pub54/care_and_handling.html)
- CLIR – ARSC Guide to Audio Preservation: <https://www.clir.org/pubs/reports/pub164/>

- International Association of Sound and Audiovisual Archives (IASA) – Handling and Storage of Audio and Video Carriers, IASA-TC 05: <https://www.iasa-web.org/tc05/handling-storage-audio-video-carriers>

## Digitising or migrating your magnetic collection for access or preservation

You may decide to digitise or migrate your magnetic media collection due to factors such as lack of playback equipment, fragility of current physical media, and accessibility to content. Before starting, decide if you are digitising/migrating to only gain access to content, or if you would like to make a preservation master from the original items. This would affect the quality of your final digital delivery items.

### Digitisation Guides

Refer to the following websites for digitising guides:

- IASA TC-04, Guidelines on the Production and Preservation of Digital Audio Objects. <https://www.iasa-web.org/tc04/audio-preservation>
- IASA TC 06, Guidelines for the Preservation of Video Recordings. <https://www.iasa-web.org/tc06/guidelines-preservation-video-recordings>
- TAPE Digitisation workflow for analogue open reel tapes. Training for Audio-visual Preservation in Europe. <https://www.musiikkiarkisto.fi/audio/>

### Digitisation Vendors

#### Crystal Mastering

77 Newman Street, Thornbury, VIC 3071  
Ph: (03) 9484 8814  
Website: [www.crystalmastering.com.au](http://www.crystalmastering.com.au)

#### FATS Media Lab Pty Ltd

Unit 21, 39 Herbert Street,  
St Leonards, NSW 2065  
Ph: (02) 9417 8666  
Website: <http://www.fats.com.au>

#### DAMsmart

32 Essington Street, Mitchell, ACT 2911  
PO Box 81, Mitchell, ACT 2911  
Ph: (02) 6242 6456  
Website: <https://damsmart.com.au>

#### Nano Lab

PO Box 559, Daylesford, Vic 3460  
Ph: 0400 748 864  
Website: [www.nanolab.com.au](http://www.nanolab.com.au)

#### DVD Infinity

PO Box 102, Artarmon, NSW 1570  
Ph: 1300 850 383  
Website: [www.dvdinfinity.com.au](http://www.dvdinfinity.com.au)

NOTE: State Library of Queensland does not endorse any one supplier.

*The procedures described here have been used by State Library of Queensland in the care of its collections and are considered suitable by State Library as described; however, State Library will not be responsible for damage to your collections should damage result from the use of these procedures.*

### Need further information?

(07) 3840 7810 | <http://www.slq.qld.gov.au/preservation>



This guide is licensed under a Creative Commons Attribution 3.0 Australia licence. You are free to copy, communicate and adapt this work, so long as you attribute State Library of Queensland. For more information see <http://creativecommons.org/licenses/by/3.0/au>