

Vendor Considerations for Digital Conversion of Audio Visual Time Based Media

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What to do with incoming TBM materials

Video and Audio tapes (magnetic media)

1. Keep dry and cool. *Humidity is the biggest enemy.* If you cannot keep them cool, at least keep them dry, RH not more than 30% if possible.
2. Store on an edge, like a book.
3. Don't be concerned about electrical wiring in the vicinity. The magnetic flux in the vicinity of building electrical wiring is far too low to be able to effect the magnetic media.

What to do with incoming TBM materials

Motion Picture Film (small gauge)

1. Unless you are properly equipped and certified, do not accept Nitrate film. Only 35mm film might possibly be nitrate. 8mm, Super 8mm and 16mm small gauge films were never produced on nitrate base.
2. Keep dry and cool. *Humidity is the biggest enemy.* If you cannot keep them cool, at least keep them dry, RH not more than 30% if possible.
3. Store flat, not on edge. Stacking is okay up to about 8 reels.

What to do with incoming TBM materials

Phonograph Records

1. Handle only by edge and center label.
2. Store on edge like books, not stacked.
3. To prevent warping, keep away from concentrated heat and sunlight.
4. Store at standard room temperature and humidity.

Vendor's Facility Considerations

- Vendor's facility is climate controlled.
- Vendor's facility has actively monitored smoke and fire detection.
- Vendor's facility is reasonably secure and/or occupied 24/7.
- Vendor can provide sufficient references for recently past work performance.
- Direct hand-to-hand delivery of source elements is better than shipping.

Vendor Technical Considerations

- The vendor does all work in-house without sub-contracting to a third party.
- Vendor's staff is qualified and trained to handle the format(s) you are entrusting to their care.
- Vendor has documented calibration and maintenance processes for motion picture, audio and video playback equipment.
- Vendor is capable of delivering digital files on the devices and in the formats that you specify.
- Vendor can gather and deliver provenance and non-imbedded technical metadata (e.g., gauge, length, run time, manufacture year, type, format, condition, etc.) for your source elements.
- Vendor has experience and necessary tools and supplies for repair of damaged source elements.
- Vendor can complete the digitization project within the time frame that your institution specifies.

What deliverables might you want?

Standard definition videotapes

Such as: 1/2-inch EIAJ open reel, 1-inch Type-C open reel
Betamax, VHS, VHS-C, 3/4-inch Umatic, Hi8

Preservation Master File:

- Wrapper: MOV or AVI
- Video: Uncompressed, 10-bit, 4:2:2 (or better) YUV
- Audio: 48kHz, 24-bit PCM

Mezzanine File:

- Wrapper: MOV or AVI
- Video format: DV50
- Audio format: 48kHz, 16-bit PCM

Access File:

- For local viewing: DVD video disc
- For streaming: H.264 MP4 video file @ 20Mbps

What deliverables might you want?

Audio tapes, wire recordings and phonograph records

Such as: Open reel audio tape, wire spool recordings, cassette, micro-cassette, 8-track tape, 33-1/3-rpm LP, 45-rpm, 78-rpm.

Preservation Master File:

- 96kHz sampling, 24-bit depth

Mezzanine File:

- 44.1kHz sampling, 16-bit depth

Access File:

- For local listening: Audio compact disc
- For streaming: MP3 @ 160kbps, monaural or joint stereo

What deliverables might you want?

Motion picture films, small gauge

Small gauge such as: Super 8mm, regular 8mm, 16mm, Super16mm, 9.5mm, sound or silent.

Preservation Master File (*numerous variations are possible*):

- Video type: Uncompressed AVI or MOV
- Resolution 1920 x 1080 pixel or better
- 8-bit or 10-bit color channel depth, YUV color space
- Chroma subsampling: 4:2:2 or better
- Scan type: Progressive
- Audio: 48kHz, 24-bit

Mezzanine File:

- Wrapper: MOV or AVI
- Video format: DV50
- Audio format: 48kHz, 16-bit PCM

Access File:

- For local viewing: DVD video disc
- For streaming: H.264 MP4 video file @ 20Mbps

How do you want your digital files delivered?

- External hard drive
- Thumbdrive (*NOT an archive storage device!*)
- Optical disc (BD-ROM, DVD-ROM or CD-ROM)
- Dropbox, Google Drive, etc.

Tip: Include MD5 checksum files to assure that downloaded files or additional copies are without errors.

How can you verify that your new digital files are what you asked for?

- MediaInfo, freeware – lists all media file parameters
<https://mediaarea.net/en/MediaInfo>
- QCTools, freeware – Rich suite of video inspection tools
<https://www.bavc.org/preserve-media/preservation-tools>

For more information

Bay Area Video Coalition, BAVC

<https://www.bavc.org/>

National Film Preservation Foundation

<http://www.filmpreservation.org/>

Association of Moving Image Archivists

<http://www.amianet.org>

The Library of Congress AV Preservation

<http://www.loc.gov/preservation/care/record.html>

Videotape Preservation Handbook by Jim Wheeler (AMIA)

<http://www.amianet.org/resources-and-publications/documents-publications>

Videotape Preservation Facts (AMIA)

<http://www.amianet.org/resources-and-publications/documents-publications>