ViPIRS Video Survey Instructions

To begin data entry, click on “new input record” button in database’s start window. Begin survey.

> Media Type: Select media type.

> Collection: Enter the collection which holds the item.

> Unique ID: Enter any unique identifier used for the item.

> Barcode:
  – Using duplicate barcodes, apply two on the item as follows:
    o Place one barcode on the upper left hand corner of the front of the tape container making sure that the barcode does not cover any labeling.
    o Place second barcode in the space below the cassette label making sure that the barcode does not cover the window or any labeling.

• Close container and scan the barcode located on the container.

(You may find it more efficient to barcode batches of video cassettes in advance)

VISUAL INSPECTION

Start Visual Survey: Click on “start visual survey” button. Timing begins.

> Biological contamination: If present, select type of biological contamination.
  • Fungal: Check the interior of the container and the edges of the tape for patterned black, brown, or mustard colored contamination and for fuzzy or thread-like growths.
• **Pest:** Check for evidence of pest (insect, rodent, etc.) infestation such as sightings of the pests themselves, insect/rodent droppings, urine stains, tracks, and gnawing damage.

**NOTE:** When inspecting a tape container and tape that show evidence of fungal contamination, such as mold, **immediately stop the inspection and consult with your supervisor**. Quarantine the tape in an appropriate storage location and prepare to have item sent off to an outside lab for professional mold removal and cleaning.

> **“Waxy” or “dirty socks” odor:** Select yes or no.

  – Open tape storage box to inspect enclosed tape.
  – Hold up opened tape container with one hand a slight distance away from your nose.
  – With your other hand, make a couple of quick fanning gestures over the opened tape container towards your nose.
  – Don’t breathe in too deeply, but quickly observe whether tape is emitting a "waxy" odor, "dirty socks" odor, or "astringent/pungent" odor.
  – These odors are indicative of a condition called binder hydrolysis or more commonly known as “sticky shed syndrome.”

> **Container:** Select container type.

An archival quality container:
  – Is constructed of acid-free paper or preferably, inert, flame-retardant plastic
  – Has hub support
  – Protects the tape from contamination
  – Is in sound physical condition and free of damage

**CONTAINER REHOUSING:** If a tape is in a damaged container (or does not have one), rehouse the tape in an archival quality container. If the original container has important labeling information on it, return it to archive so that information can be retained for cataloging purposes. Currently there are no archival U-matic containers being manufactured. Mark U-matic tapes as having “archival quality” container unless the container is missing or severely damaged.

> **Tape Format:** Select tape format.

> **Manufacturer:** Record company name of tape manufacturer.

> **Stock Type:** Record stock type of tape.
> **Batch Number:** Record batch number of tape.
  - **U-matic tape:** batch number can usually be found on the back of the cassette.
  - **VHS tape:** batch number can usually be found on left top surface corner of the cassette.

![U-matic tape batch number](image1) ![VHS tape batch number](image2)

> **Record Date:** Record date as documented on item as MM/DD/YYYY. If there is more than one, record the earliest date. If the date is non-specific, enter it as the 1st of the nearest month (06/01/1995 for “Summer ‘95” or “June ’95”). For a date given as only a year, enter January 1st of that year (01/01/1995 for “1995”). If date is not documented on item, leave blank.

> **Known Running Time:** Record running time documented on item in minutes. If seconds documented on item are less than 30, round down to preceding minute (e.g., 15:29 = 15 minutes). If seconds documented on item equal or exceed 30, round up to next minute (e.g., 15:30 = 16 minutes). If running time is not indicated on container or cassette, leave blank.

> **Stock Length:** Record stock length of tape.

![U-matic tape stock length of 20 min.](image3) ![VHS tape stock length of 30 min.](image4)

> **Recording Standard:** Select recording standard. If the item is not clearly marked and there is no evidence that it could possibly be PAL or SECAM, default to NTSC until the playback process discerns otherwise.

> **Tape speed:** Select tape speed.
> **Particulate contamination:** If present, select type of particulate contamination.

  – Check for evidence of particulate contamination such as dust, dirt, or any foreign objects that can potentially cause damage to the item.

> **Liquid contamination:** If present, select type of liquid contamination.

> **Shell damage:** Select yes or no.

Signs of damage could include:

  – Cracked cassette
  – Cracked or missing cassette window
  – Broken flanges (the plastic discs on either side of the tape pack) or other broken internal mechanisms.
  – To test for internal damage, rock the cassette back and forth very gently (do not shake) and listen for rattling
  – Stripped hubs
  – Hubs do not turn.
  – To test for hub movement on ¾” U-matic, insert fingers into the hub and slowly turn clockwise (in the direction of the arrow).
  – To test for hub movement on VHS, release the hub lock (see directions in the post buildup inspection below), insert finger into the hub and gently turn the hub outwards.
  – Do not force the hubs if they do not easily turn.

**REMOVE RECORD PROTECTION TAB ON VIDEOCASSETTE:** Please check to see if record protection tab has been removed from each videocassette. If not, please remove record protection tab now.
-- For ¾” U-matic tapes: Remove the circular red button that is located on the underside of the tape cartridge. Make a note with date and initials in the Visual Survey Notes field if tab is removed ("record tabs removed 07/11/2007 jmr).

-- For VHS tapes: Break off the plastic tab located on the left top surface corner of the tape cassette. Make a note with date and initials in the Visual Survey Notes field if tab is removed (eg. "record tabs removed 07/11/2007 JMR").

> General chemical breakdown: Select type of general chemical breakdown.

-- Check for white powder and crystalline residue on the edges of the tape. Examine tape for brittleness and inspect tape for signs of buildup on posts.

-- Inspecting posts for signs of buildup is done as follows:

  ➔ Put on lint-free cotton gloves,

  VHS
  ➔ Release tape door lock using lever found on the left side of the door.
→ Carefully lift door up.

→ Prop door open using an appropriately sized block (2” x 5” x ½”) made of soft wood (hard wood, metal, plastic, and rubber will not work).
→ Release hub lock by depressing the pressure plate contained within the small hole between the two hubs. Pressure plate should be depressed using a piece of appropriately sized flexible plastic piping. Piping should be smaller than the opening of the hole, but not much smaller (we are using 1/4" OD x .170 ID vinyl tubing cut in 2 ½” length pieces).

→ Carefully turn hubs inward using your index finger so that the tape is loosened (not too much).

→ Using your index finger, carefully pull tape up and away from the post.
→ Inspect the inside of the right-sided post (which faces the left hub) for signs of buildup. There are two kinds of buildup: 1) black, which can be an indication of binder hydrolysis; 2) white, which can be an indication of chemical decomposition and is a sign that the tape should be professionally cleaned.

→ After inspection, carefully turn hub outward using your index finger to tighten the tape. Turn only until you meet first resistance of tape, and make sure that you are guiding the tape along so that the wind stays straight.

→ Slowly close tape door.
**U-matic**

With the writing end of a pen, carefully release tape door lock by pressing down on the lever found next to the door.

Carefully lift door up. Do not put a lot of pressure on the door or open it beyond a 90° angle – if you push it too hard, you will deform the spring.

U-matic tapes do not have hub locks. Carefully loosen the tape using the right hand hub (move in the opposite direction of the arrow).
→ Using your index finger, carefully pull tape up and away from the post.

→ There are three posts altogether, one post above the left hub and two posts above the right hub. Inspect the post above the left hub. On the right hub, concentrate your inspection on the innermost post. You may need to look more closely at these posts than you do with VHS.
Innermost post on the right hub

→ After inspection, carefully move right-hand hub in the direction of the arrow using your finger to tighten the tape. Turn only until you meet first resistance, and make sure that you are guiding the tape along so that the wind stays straight.

→ Slowly close tape door.
→ Engage tape door lock again using lever found next to the door.

If buildup is found on the posts, do not clean or playback the tape! The tape's backing will be stripped.
VHS tape showing evidence of white powder

> Tape deformation: If present, select type of tape deformation.

- **Breakage** is a cut, tear or missing portion of the tape
- **Cinching (or Folds)** are sections of the tape within the pack that have wrinkled or folded onto itself causing buckling and in severe cases can give the appearance of “accordion-like” creases
- **Cupping** occurs when the tape curves into itself creating a U-shaped deformation
- **Edge damage** is a physical distortion of the top or bottom edge of the magnetic tape which is usually caused by an uneven pack wind
- **Gapping (or “Windowing”)** is a buckling of some strands of tape that appears as gaps or “windows” in the tape pack resulting from major tension loss within the tape pack
- **Stretching** is a form of deformation in which the tape is elongated either in width and/or length usually caused by an improper wind or from use on faulty recording and playback decks.
> **Oxide flaking**: Select yes or no.

Oxide flaking can be evidence of binder/base adhesion failure. The binder is the portion of the tape which affixes the magnetic particles responsible for the capture of the analog signal to the substrate.

- Binder/base adhesion failure is identified by sections of the tape that appear to be flaking.

![VHS tape exhibiting oxide flaking](image)

**Visual Survey Notes**: Only record information that is essential in further identifying visual inspection condition issues associated with the tape that has not already been recorded (e.g., document date of record protection tab removal, if applicable).

**Stop Visual Survey**: Click on “stop visual survey” button. Timing ends.

**Set Visual Rating**: Click on “set visual rating” button. Visual rating will appear.

**Name of inspector**: Enter the name of the person conducting visual inspection.

Observe the visual inspection ratings. If the rating is 1, 2 or 3, the item has passed visual inspection; proceed to cleaning and playback inspection. If the rating is 4 or 5, the item has failed visual inspection; DO NOT perform playback inspection.

1 = Excellent/no risk: Eligible for playback inspection.
2 = Good/small risk: Eligible for playback inspection.
3 = Fair/some risk: Eligible for playback inspection
4 = Poor/severe risk: Ineligible for playback inspection.
5 = Failed/extreme risk: Ineligible for playback inspection.
PLAYBACK INSPECTION

PREPPING FOR PLAYBACK: Make sure that a qualified person frequently cleans the tape heads and tape transport components (e.g., capstans and pinch rollers, etc.) of the playback deck in order to prevent playback errors and possible tape damage.

ADVICE REGARDING USE OF PLAYBACK DECKS: It is recommended that prior to working on the playback inspection process, the surveyor should become familiar with the decks that will be used. Operate decks a few times prior to the assessment in order to become knowledgeable with the equipment. In addition to this, surveyor should become familiar with the specific characteristics of the decks, such as operational behavior (e.g., Does the deck make a particular sound during transport? Does this sound occur each time it is in rewind, fast-forward, or play modes?). Identifying such characteristics can be potentially helpful when assessing playback condition because the surveyor may be able to ascertain the difference between a distortion in the tape and the idiosyncrasies of the playback equipment.

Start Playback Survey: Click on “start playback survey” button. Timing begins.

PLAYBACK INSTRUCTIONS:

1. Load tape into playback deck. Tape should be wound to the head (beginning) of the tape.

2. If tape is wound to the head, press “play” on the deck.

3. If tape is not wound to the head, press “fast-forward” and have tape wind to the end. Ideally, tape should be wound on a deck that is serviced to rewind and fast-forward at a low (gentle) speed.
   3a. Once tape has been fast-forwarded to the end, press “stop” on the deck.
   3b. Let playback deck rest for a few seconds, then press “rewind.” Let tape rewind to the head.
   3c. Once tape has rewound to the head, press “stop” on the deck.
   3d. Let playback deck rest for a few seconds, then press “play.”

4. Let tape play for 1 minute. This will be the first segment of playback. If tape begins with color bars, black, or title screen, begin timing of minute once the main content has started. At some point in the playback process, remove headphones or lower volume and listen for a moment to the sound of the tape transport in the machine. Tape transport findings will be recorded after the second playback segment.
   – However, if tape transport begins to slow down or there are any signs of strain in playback, IMMEDIATELY PRESS “STOP” on the deck. Let deck rest for a few seconds and carefully eject tape from playback deck. Return tape to its container.
   – If tape plays back normally for 1 minute of playback time, press “stop” on the deck.

5. Record findings from the first segment of playback in the database.

6. Return to the deck and press “fast-forward.”

7. Let tape fast-forward to the approximate middle of the content running time. Over exercising the tape should be avoided. If the running time is unknown there are three options for selecting the second segment:
- If the content has a time code (but not the entire tape) the counter on the playback deck will stop at the out point. Use this to determine the middle of the running time

- If the running time is unknown the second segment should be selected by assessing the content and stock length for how long the running time could possibly be. Is it a short film? Is it a long meeting or conference recording? Is it an interview? Upon initial inspection, was the tape found to have been stopped at some midpoint and not rewound? Based on the stock length and estimate of possible running time, fast-forward to a potential middle point. If an estimate is not possible, fast-forward a quarter to halfway into the tape and begin the second segment there.

8. Once tape has fast-forwarded to the approximate middle of the content, press “stop” on the deck.

9. Let playback deck rest for a few seconds, then press “play.”

10. Let tape play for 1 minute. This will be the second segment of playback. At some point in the playback process, remove headphones or lower volume and listen for a moment to the sound of the tape transport in the machine. Record tape transport findings in the database.
   a. However, if tape transport begins to slow down or there are any signs of strain in playback, IMMEDIATELY PRESS “STOP” on the deck. Let deck rest for a few seconds and carefully eject tape from playback deck. Return tape to its container.
   b. If tape plays back normally for 1 minute of playback time, press “stop” on the deck.

11. Record findings from the second segment of playback in the database.

12. Return to the deck and press “fast-forward and have tape wind to the end.”

13. Once tape has been fast-forwarded to the end, press “stop” on the deck.

14. Let playback deck rest for a few seconds, then press “rewind.” Let tape rewind to the head.

15. Once tape has rewound to the head, carefully eject tape from playback deck and return tape to its container.

> Tape transport: Select condition of tape transport.

- Smooth tape transport is evidenced when tape advances and rewinds properly in deck without slowing down or stopping.
- Some difficulty in tape transport is evidenced when proper tape advancement and rewinding are slowed down due to tape deformation/degradation causing tape head clogging or other tape problems that can impede playback.
- Will not advance/rewind refers to instances when proper tape advancement and rewinding are completely stopped due to tape deformation/degradation. These conditions may cause tape head clogging or other tape problems that can impede playback.

> Tape distortion: If present, select type of tape distortion. If you select an issue by error, double click on the button to remove it.
- **Dropout**: identified as black or white spots/streaks, audible loss or squealing, “snowy” image, appearing in the video monitor. Dropouts often occur at the beginning and the end of a tape.

- **Time-based/alignment error** occurs when synchronization of video and audio signals are misaligned at the time of recording and/or playback due to the inherent nature of mechanical equipment which is typically incapable of running at an exact constant speed. Types of timing/alignment errors are:
  
  - Control track error: identified as an unstable or “jerky” picture
  - Time code error: identified as vertical or slanted roll running through the picture
  - Tracking error: identified as scrolling horizontal lines running through the picture or as breakup of picture

> **Playback Survey Notes**: Only record information that is essential in further identifying playback inspection condition issues associated with the tape that has not already been recorded. If the Recording Standard and/or Tape Speed were not recorded on the item but are then displayed by the playback machine, record the correct information in this note field.

**Stop Playback Survey**: Click on “stop playback survey” button. Timing ends.

**Name of inspector**: Enter the name of the person conducting visual inspection.

**Set Playback Rating**: Click on “set playback rating” button. Playback rating will appear.

Observe the playback inspection rating. Refer to the playback inspection ratings rankings to determine the playback condition of the tape.

1 = Excellent/no risk  
2 = Good/small risk  
3 = Fair/some risk  
4 = Poor/severe risk  
5 = Failed/extreme risk

**Set Overall Rating**: Click on “set overall rating” button. Overall rating will appear.

Observe the overall rating. Refer to the overall ratings rankings to determine what preservation actions are recommended for the tape based on overall survey findings.

1 = Excellent/no risk. This item does not require attention at this time.  
2 = Good/small risk. This item may require moderate collection care in order to safeguard its viability.  
3 = Fair/some risk. This item may require significant collection care in order to safeguard its viability.  
4 = Poor/severe risk. This item requires prompt attention from a conservation professional in order to safeguard its viability.  
5 = Failed/extreme risk. This item requires immediate action from a conservation professional if it is to be saved.

To start a new survey, click on “new record” button in survey input form window.
To end data entry, click on “close form” button and database’s start window will appear. Click on “quit database” button in database’s start window to exit the database.