

# Digitizing Audio at Small Archival Repositories



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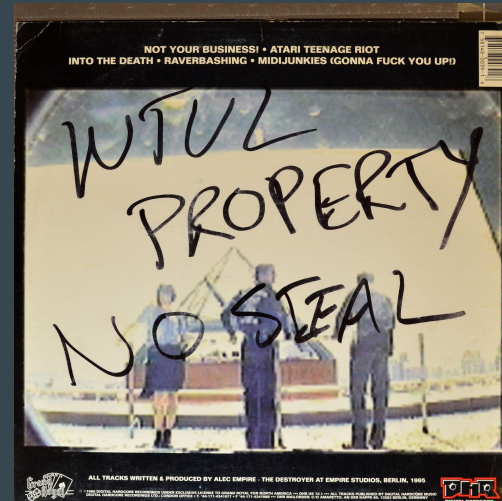
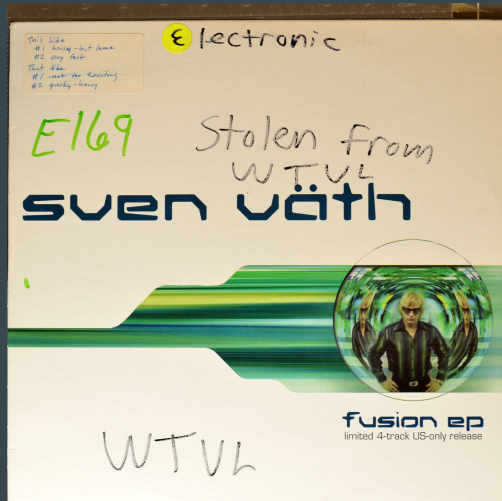
# WTUL's Story

- WTUL New Orleans
  - 28,000 LPs in 2005
  - Stored in temporary office due to University Center renovations
  - Story: [wtulneworleans.org/about.aspx](http://wtulneworleans.org/about.aspx)



# WTUL's Story

- But the records were saved
- So they set about digitizing their archives
- Two years later, everything's digital



# Why Digitize Audio?

- Preservation
  - Less handling of the original
  - Longevity
    - Tape and vinyl media have a lifespan measured in decades
    - But only if you are prepared to migrate digitized materials from one generation of technology to the next
    - Standards and metadata are important!
- Access
  - Collections receive greater exposure
  - Provides access to those unable to physically visit repository

# Before Digitizing: Practicality

- Is this type of project a priority?
  - Evaluate user needs and repository goals
- What would the scope of the project be?
  - Define goals and requirements of the project; duration
- Is this feasible with our budget and available space?
  - Costs of equipment, software, training, staffing
  - Space for equipment and storage space
- Is it sustainable?
  - Long-term management and maintenance of images and metadata

# Before Digitizing: Organize

- Arrange and describe your collection
  - This will help with naming digital files and locating materials in the future
  - Think in terms of metadata fields
    - Author/artist, date, comments, etc.
- What materials will be digitized?
  - Selection criteria
    - Refer to project goals
    - Popular items or collections
    - Promotional use
  - Consider audience and repository mission
  - Permissions

# Before Digitizing: Permissions

- Ensure that you have the right to copy/distribute the image before you put it online!
  - Check your donor/deed or gift form. In addition to a transfer of ownership statement, it should include a copyright release/transfer of intellectual property rights statement.
  - You may also wish to include a line in your form outlining other formats your repository can transfer the materials into (e.g. electronic format)
  - Transfer of copyright can only be done by the creator
- Is the content in the public domain? If so, state that it is. If not, include a disclaimer.



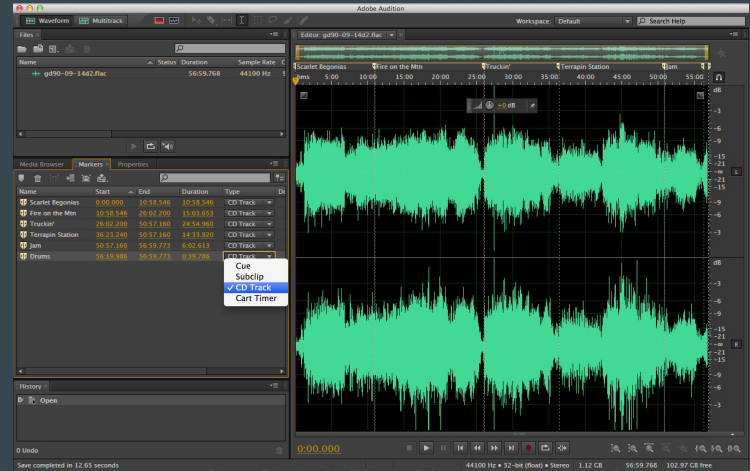
# Hardware

- Cassette deck, reel-to-reel player, etc. - \$500 ea.
  - Including professional servicing
  - Most new cassette decks have poor specs
  - Avoid:
    - Dual-well decks, autoreverse, high wow/flutter (>0.15%)
  - Consider multiple units for larger archives (1,000+)
- Computers - \$800
  - Recording computer, editing workstation
- Storage - \$500
  - 3x 4TB hard drives
- Sound card - \$200
- Copy stand, lights - \$200
- Camera/scanner - \$300



# Software

- Audio editor
  - Audacity (free)
  - Adobe Audition (\$20/mo.)
- Format
  - 16-bit, 44.1 kHz (CD quality)
  - Master unedited copy: (.wav)
  - Smaller access copy if desired (.mp3)
- Image
  - 600-dpi, 24-bit color (RGB) .tiff format
- Sufficient and safe storage space
  - At least two master copies (unedited) stored in different buildings
  - Cloud storage works as a backup, but can be expensive for larger collections
- Establish file naming conventions
  - CollectionNumber\_BoxNumber\_FolderNumber\_ItemName (e.g. 012\_03\_07\_ajohnson)



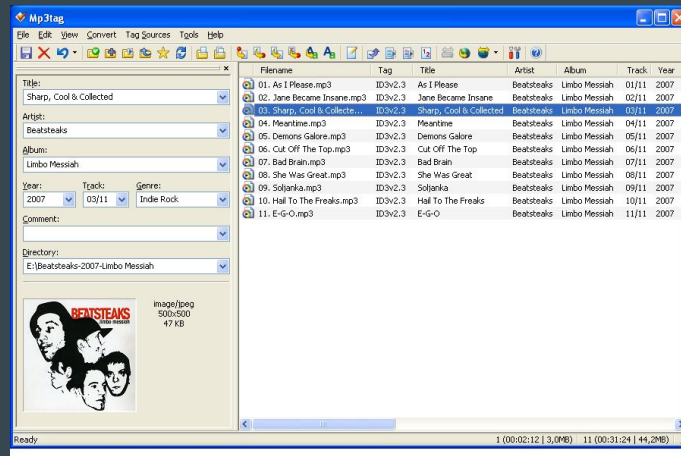
# Recording

- Hardware connections
- Audio capture
  - Single-track - Audacity recommended
  - Multitrack - Adobe Audition recommended
- Image capture
  - Open-source - DigiCamControl (Nikon DSLRs)
- Storage
  - 3/2/1 backup rule!
- Repair/restoration
  - Get ready with the razor, tape and jeweler's screwdrivers!



# Processing

- Trimming
  - Eliminate silence from raw recordings
- Noise reduction
  - Be conservative, never edit master copy directly
- Tracking (optional)
  - Separate parts or segments of recorded audio
- Tagging (metadata)
  - Date, subject, etc.
  - mp3tag recommended ([www.mp3tag.de](http://www.mp3tag.de))
- Integration
  - Host/publish? (Anastasia)
- Archival
  - On-site PLUS offsite/cloud backup (3/2/1 rule)



# Metadata

- Metadata is “data about data”
  - Information used to describe, locate, and retrieve your materials.
- Examples of metadata include: file size, date of creation, file name, file type, creator, and description
- Be consistent! Remember that using **standardized metadata conventions** (i.e. formats and vocabularies) helps ensure you include the best information for researchers to find and **access** your materials and makes your digital collection **shareable** with central repositories in the future, such as the Digital Public Library of America (DPLA)
- Recommended format standard: Dublin Core Metadata Initiative:
  - <http://dublincore.org/>

# In-house vs outsourcing

- Speed
  - 1-4 players vs 10-20
  - 5-20/day vs 50-100; 100-400/month vs 1,000-2,000
- Cost
  - Hardware
    - ~\$2,000
  - Payroll / volunteer time
    - ~1 hour per 2 items
    - \$5/item at \$10/hr.
  - Development cost
    - Nobody said this was easy!
- Quality
  - Cassette deck/R2R player
  - A/D hardware
  - Noise reduction process



# A little plug...

- What we can do for you
  - Ameryn Media is an end-to-end solution
  - We handle the project from start to finish and have developed custom scripting solutions to automate the tedious parts of the process.
  - At Ameryn, we combine careful item intake with hi-fi playback and custom-built track detection and file tagging software, combined with a brief manual review for each and every recording.
  - Experience, professional hardware and manpower to do it right the first time.
  - Contact us!
    - [www.ameryn.com](http://www.ameryn.com)
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    - (844) AMERYN-1



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