

Digital Preservation of WPT Moving Images

Project Summary

In 2011 Wisconsin Public Television began a dedicated long-term effort to migrate its analog content to digital preservation files by 2020. The emphasis of this AAPB NDSR project will be to continue working towards this goal by assisting in the management, in collaboration with the media archivist, of all facets of the workflow. The resident will learn how to reformat analog content to the specifications of our digital preservation format; make content accessible through various platforms; and create, enhance and normalize metadata. This will allow for collaboration with various departments including the Media Archives, Engineering, Web Services, IT and Operations. During the final stages of the project when the resident is familiar with the internal processes of our station, WPT would like the resident to identify inefficiencies in preservation workflows and recommend improvements, document best practices and propose an implementable approach to data migration.

Specific Project Goals and Objectives

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- Digitize analog materials and do quality control of ingested files
- Create, enhance, and normalize metadata in WPT Microsoft Access database
- Assist the Web Department in making proxy video of archived content available at <http://wpt.org/archives>
- Document preservation and metadata workflow and best practices
- Engage in prioritizing of analog assets for capture and ingest
- Identify workflow inefficiencies and implement improvements
- Experiment and test a plan for metadata aggregation from a variety of internal spreadsheets to a centralized repository
- Research data migration methodologies, timelines, and costs for LT07

Project Timeframe and Deliverables

Months 1-3: Orientation and Reformatting

- The residency will begin with an orientation to the facilities and WPT's current workflows for digital preservation, file management, and metadata creation and enhancement
- The resident will learn how a program goes from field acquisition to Avid for editing to Omneon for broadcast and to StorageDNA for archiving. Working with videographers the resident will learn how native files from the field are ingested into the NAS for editing in Avid and general access across the station. Using ffmpeg the digital media specialist will teach the resident how, when, and into which formats the files are transcoded to create different formats for proxy viewing, offline editing, production masters, and closed captioned broadcast masters. The resident will spend a day at our broadcast

facility in Madison to understand how programs are archived and broadcast using proprietary hardware and software.

- The resident will work with the media archivist to learn the preservation workflow for analog assets and legacy metadata. We will review how legacy metadata has been created before and after the AAPB Content Inventory Project, what standards were used to create it, where it exists in the institution and who creates it and when.
- Work with the Engineering department to learn digitizing software and hardware setup and begin creating digital files from analog media from 1-inch, U-matic (¾-inch), DVCPRO, Betacam SP videotape formats
- Use analog machines and video/audio routers to create appropriate signal connections between machines, monitors, and capture station
- Make proxy files of preservation content and collaborate with the Web (online) department to make proxies accessible at <http://wpt.org/archives>

Deliverables:

1. Independently digitize analog content from a variety of analog videotape formats using AJA **Control Room**™ capturing software
2. Conduct quality control (QC) review of media files and document problems, either with the file or during the transfer to LTO5 and web VOD storage
3. Digitized files will be accessible at <http://wpt.org/archives>

Months 4-6: Metadata

- Using the files created during the Orientation and Reformatting phase, the resident will enhance metadata in WPT's Access database including instantiation information and content descriptions.
- Depending on the resident's experience with PBCore, time will be dedicated to reading about and becoming familiar with PBCore 2.1
- At this point the resident will begin to see the variety of legacy metadata WPT has in spreadsheets, websites, and Microsoft Access. Many people created legacy metadata over the last 20 years. Metadata in these cases isn't consistent, standardized or normalized. Metadata was created by individuals for their specific purposes. The resident will begin to formulate a plan and a data map to aggregate metadata to the existing WPT Access database. We are exploring another data management solution. However, at this time our current solution is Access using PBCore and AACR2.
- Continue reformatting and digitizing analog videotape materials about 10-12 hours a week

Deliverables:

1. Identify inefficiencies and implement improvements (can any parts be streamlined or automated?) if necessary in the preservation and metadata workflow with the media archivist

2. Document workflow and best practices in writing and add to internal WPT Wiki.
3. Write rough draft of a plan to aggregate metadata
4. Continue to work on digitizing as time permits.

Months 7-10: Formulation, Testing, and Implementation

- The resident will test the migration of legacy metadata into our current Access database. The IT department will provide some guidance but because we haven't done this before we will count on the resident to take the lead, make suggestions, and guide the process.
- Currently we are using StorageDNA software and hardware with LTO5 for deep storage of digitized assets. The resident will research how WPT can migrate to LTO7 to include costs, methodology, and best practices in the archival field.

Deliverables

1. Report on how WPT can best implement LTO7
2. Summary of effort to aggregate metadata
3. Continue to work on digitizing as time permits.

Resources Required for Project

One resident

Two mentors

Computer (laptop or desktop) hardware and software

Work space

Engineering, Web, and IT staff

Project Context

Wisconsin Public Television signed on the air in May 3, 1954 as the first educational station in Wisconsin and the seventh in the United States. With singular dedication, WPT has been documenting its people, places and stories for 62years. Today it is the only station in Wisconsin to broadcast state-wide. We have received two American Archive for Public Broadcast grants and proudly participate in their work to make accessible publicly funded historical content made for public broadcasting.

We strive to be an essential community institution, dedicated to the public, providing non-commercial television and other communication services of high quality integrity and diversity. Our mission is to boldly enrich, educate and entertain diverse audiences of children and adults through the innovative use of television production and broadcasting, other communication technologies and community engagement. The organization and its employees will be recognized as leaders in researching and using new, user-focused content and technology that engage people in ideas, issues and our rich cultural heritage.

WPT is committed to preserving its historical assets and making them accessible to future generations. Our collections consist of approximately 30,000 items ranging from completed programs to raw footage captured in the field. In 2011, WPT's full-time archivist in collaboration with WPT Engineering, Web Services and Operations began a long-term project to reformat analog moving image content to digital formats for long-term archival preservation. The resident will work with WPT's media archivist to support and intensify this effort.

Required Knowledge and Skills for Residents

The successful resident will have a graduate degree in Library and Information Science from an ALA accredited institution and a special interest in moving image archives demonstrated through classwork, previous work experience or as part of a graduate school practicum requirement. The successful resident will have good communication skills, be organized and detail-oriented, a confident problem solver, and comfortable working independently and within a team of non-archivists. Knowledge of Microsoft Access databases will be necessary.

Preferred Knowledge and Experience of Residents

It is preferred that the resident have experience handling various analog videotape formats and possess a general knowledge of digital file formats. A highly successful resident will have a working knowledge of PBCore and experience with cataloging, AACR2, metadata mapping and XML.

Post-Residency Project Integration Plan

The projects the resident contributes to will have a lasting effect on WPT's commitment to preserving and providing access to its collections.

The resident's work digitizing the analog collection will help us make significant progress in the backlog. The real-time effort in this step is intensive, yet the benefit is immense. It will allow us in the future to migrate all our digital assets from LTO5 to LTO7 in the next biennium starting in 2017. Because preservation of digital files is such a critical component of any long-term archival endeavor, we will be able to use the resident's plan as we migrate to LTO9 and beyond.

Creating, enhancing and normalizing our metadata will allow us to provide deeper access to our holdings and make <http://wpt.org/archives/> more robust, comprehensive and engaging.

The resident will provide much needed documentation in metadata and workflow, allowing more consistency across the station. We will continue to build on this work.