The Challenge of Archival Film: An Islandora Solution for Big Video

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In the cultural heritage preservation community, digital preservation of film originals presents challenges daunting enough that many archives have abandoned open architectures in favor of proprietary systems for digital asset management (DAMs). Preservation surrogates of film originals are big, unwieldy, and impossible to view on standard desk-top equipment. Even a modest video preservation effort entails major investments in digital storage. Preservation masters are so large that they cannot be used as internal work files, let alone as web access files--a fact that necessitates tiered systems with multiple media copies for preservation, intermediate use and streaming access. The smallest of these files--the streaming access copy--is large compared to preservation masters for most still image collections. To make matters worse, there are significant issues related to metadata, particularly for moving images produced outside the sphere of commercial feature filmmaking. For the foreseeable future, users will discover moving images by searching text-based, human-supplied, descriptive metadata. In turn, curators will grapple with the fundamental problem of allocating resources to describe time-based media.

This paper presents the MIRC Digital Video Repository (MIRC-DVR, http://mirc.sc.edu), an Islandora solution to the problem of "big video" planned and implemented by Moving Image Research Collections at the University of South Carolina in collaboration with Discovery Garden. We will sketch the decision-making process that led us to adopt an open repository solution, chart the development of the current MIRC-DVR content model and user interface(s), and discuss how the repository accommodates the complex workflows of a major film archive.

The MIRC-DVR content model is tiered for preservation, media production and streaming web access, and is extensible to related materials from MIRC's holdings, including manuscripts, still images and standalone audio. We will explain the rationale behind our decision to incorporate multiple metadata standards (DC, PBCore, MODS), and will describe current practices for preservation, mezzanine and access file creation.

Finally, we will discuss user interface design. A front-end user interface features extensible searching, faceted browsing and streaming playback on a variety of devices, while a back-end administrative interface serves digital asset management functions, facilitating MIRC's reference, public outreach and licensing activities. Access to the backend is controlled by XACML policies designed to protect early metadata versioning for materials that cannot be described until they are available to cataloging staff in a digital environment. The backend is synced to a Filemaker database that bolsters metadata versioning while also supporting complex workflow tracking, from inspection of the film original to digitization and transcoding.

The MIRC-DVR was developed at a larger public university during a period of fiscal austerity. No budget for the endeavor existed at its inception. Throughout the presentation, the authors will highlight lessons learned from past missteps as well as successes. We will conclude with plans for future development.