



Preserving the Archive

Technical Aspects of the Project

THEN: The current masters were saved digitally on Betacam SP video tapes

Developed in 1986, Betacam SP (Superior Performance) became the industry standard for most television production through the late 1990s. The Institute recorded the testimonies in its archive on Betacam SP master tapes; these tapes must be replaced by 2014 before they begin to deteriorate and testimony is lost. The goal of the Institute's preservation effort is to ensure continued access to the archive by creating new digital formats from the original Betacam SP tapes.

NOW: The original masters will be saved as Motion JPEG 2000 files

Motion JPEG 2000 is becoming the standard format for distributing and preserving digital video. The Digital Cinema Initiatives has chosen Motion JPEG 2000 as its distribution format to movie theaters, and the Library of Congress has decided to use this format to archive its video collections. By creating Motion JPEG 2000 files to replace its Betacam SP tapes, the Institute will preserve the quality of the original recordings and have the capability to make copies in any tape or digital file format.

In addition to a preservation copy of each testimony, additional copies are being made in a variety of formats for viewing on personal computers and television. This facilitates access to the testimonies by students, academics, and researchers around the world. These formats are:

- MPEG-1 at 3mbps
- MPEG-2 at 5mbps
- QuickTime at 1mbps
- Flash at 1mbps
- Windows Media Player at 1mbps

How will we make our 5-year target? Robot Technology.

The USC Shoah Foundation Institute utilizes advanced dual robot technology to digitize, preserve, and access the testimony in the archive. One robot digitizes the Institute's original testimonies into various file formats for preservation and access. Once digitized, the nearly 52,000 testimonies are transferred to a second robot, which serves as an online storage system for the Institute's archive.

Our Progress so far...



15,000 tapes out of 235,986 transferred



One of the robots used to import the video tapes to the server for digital processing



After the master tapes are digitized, the resulting Motion JPEG2000 files will be stored on the two Sun Storagetek servers pictured here. The digital files will also allow for easier access to the testimonies by students, researchers, and scholars worldwide.