Video Data Management
Archive & Retrieval

• Advances in Data Acquisition and Management for Storage and Retrieval
• Challenges Ahead
• Legacy Data Rescue and Catalog

• What are your needs?
  • Old Video, New Video, Annotated video, Hi-def
• How can we add value?
  • Search function, Online downloads, Community science, E & O

Scott White, University of South Carolina, DESSC data advocate
smw@sc.edu
Video Data Management -- Advances

- extension of real time event logging to the Alvin system, and impending replacement of Jason event logger/Virtual Van with SeaLog
  - Potential as tool for video annotation
- web-based event logger
- next year: legacy Virtual Van data migrates to new system and hosting on a WHOI server
- new 4K video systems are pushing NDSF into the big data world, and challenging our recording, processing, archiving, and retrieval systems
2016 Video Workshop

• Pre-workshop Community survey
  • > 130 participants
• Held at URI in June 2016
  • ~70 participants
• Workshop Report:
  • https://goo.gl/Sqpn6d
• Ongoing concerns about video on at-risk media

WORKSHOP REPORT:

Establishing Community Standards for Underwater Video Acquisition, Tagging, Archiving, and Access

1 | Introduction & Motivation

Video imagery is an integral part of underwater operations conducted with ROVs, HOVs, and AUVs. These data are critical for sampling, exploration, and observation activities during seafloor operations and are key records for immediate post-dive and post-cruise research by the shipboard participants. In addition, video imagery is essential to subsea engineering activities including operations and maintenance of seafloor infrastructure for documenting and developing training materials. Video archives have the potential to provide broad significant data acquisition and have tremendous potential for research.

Video content on a variety of platforms (e.g., VHS, Beta, and Digital) has become mainstream (e.g., within consumer electronics), and the oceanographic research community has directly benefited from these technologies. While some individuals and groups in the community have successfully addressed aspects of archiving video, there has not been a coordinated effort to establish standards or training regarding the entire video data life cycle. Even though considerable progress has been made, there remain significant challenges now in order to develop procedures that allow full and immediate availability of data.
Legacy Video Data Rescue

• Assess cost of digitizing at-risk legacy video content

• Deal with acquisition issues
  • Media recorded 1980 – 2007
  • >250 hours footage
  • Jason, Argo II, Alvin
  • 8 media types

• Assess utility of digitized content for data analysis

• Gathering data to inform a potential larger-scale digitization effort

Vicki Ferrini, Lamont-Doherty Earth Observatory
ferrini@ldeo.columbia.edu
Status and Next Steps...

- Digitization completed summer 2018
- 3 Copies of digital content delivered:
  - 1 @ LDEO
  - 2 @ WHOI
- Content upload to YouTube
  - OceanVideoLab Channel (133 videos)
  - Publicly accessible
- Content registered in Ocean Video Lab
  - Citizen Scientist Tagging
  - Scientific Annotation
- Assessment of tags and annotations in progress
- Community invited to explore!

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ferrini@ldeo.columbia.edu
Ocean Video Lab

oceanvideolab.org

• Underwater video exploration & annotation
  – Web browser based
  – Merged with navigation
  – Export capabilities
• Citizen Scientist Interface
• Available for use (go try it?)

Friday! U51A-01
Citizen Science Panel