

AIMING FOR PERFECT...BUT CONTENT WITH PRACTICAL! VIDEO PRESERVATION AT BUIOH

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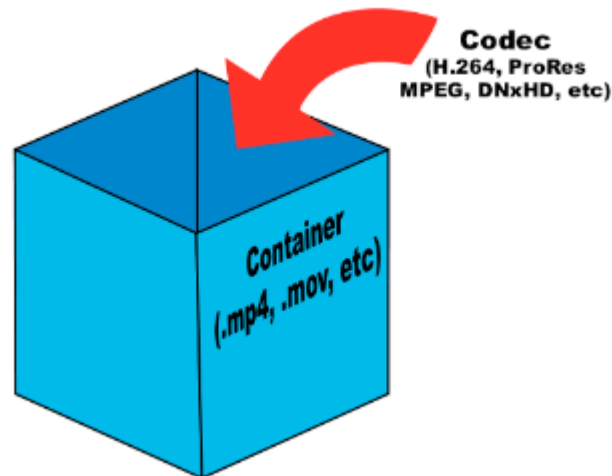
THE DECISION: AUDIO VS VIDEO

- ⊙ Is it Required?
- ⊙ What is the Impact?
- ⊙ Extra Personnel
- ⊙ Extra Equipment & Training
- ⊙ Extra Storage Footprint
 - ⊙ Audio hour = 1 GB or less,
 - ⊙ Video hour (HD) = 15-30 GB



VIDEO FORMATS

Video oral history records
consist of many formats,
compression schemes & codecs!

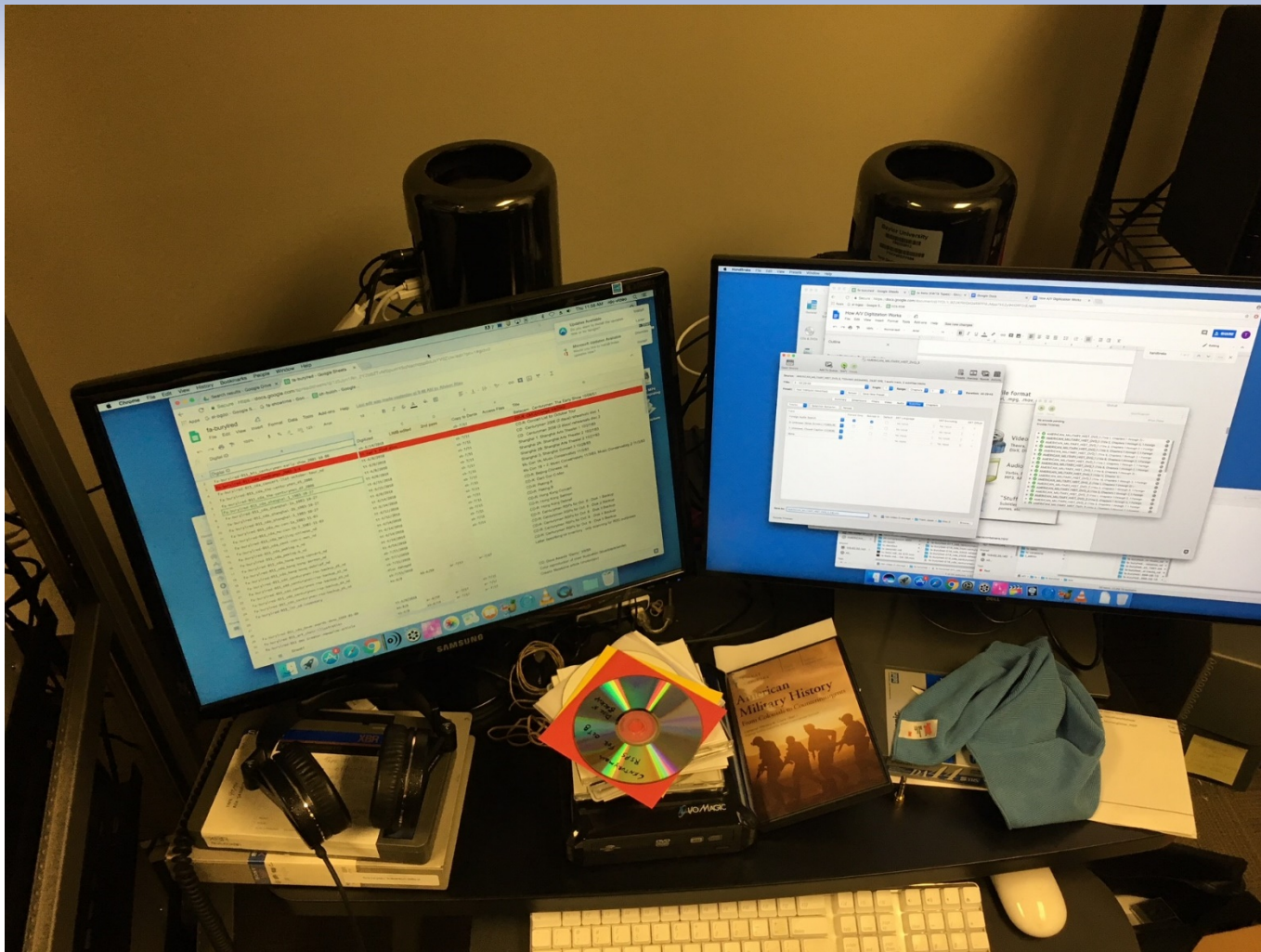




PC vs MAC ISSUE

- ◎ Containers - AVI (PC) vs MOV (Mac)
 - ◎ Video drifts toward Mac culture
 - ◎ AVI prioritized years ago by LoC
 - ◎ MOV proprietary, but agreeable in Macland + Quicktime (also Apple support)
 - ◎ Both systems represented in Baylor Digital Library & BUIOH, but Macs do the video work

MACPRO WORKHORSES



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PRESERVATION PRIORITIES



I. SIZE

File stats for 3 codecs, compared to uncompressed:

⊙	Uncompressed	100 GB/hour
⊙	ffv1	45 GB/hour
⊙	ProRes422	20 GB/hour
⊙	H.264 MP4	1 GB/hour

II. LOCATION



III. ACCESSIBILITY



IV. METADATA

hillwd20130621_t1_pres_2013-06-21 *

5 mn 10 mn 15 mn 20 mn 25 mn

2 s

6 s

Meta-data

RIFF BWF iXML AXML CART Extra ID3

Code	Name	Value
INAM	Name	Oral history interview with William Daniel Hillis by Stephen Sloan.
ISBJ	Subject	Baylor Senior Administrators
IENG	Engineer	
ICOP	Copyright	Baylor University 2013
IGNR	Genre	Oral History
IART	Artist	William Daniel Hillis; Stephen Sloan
IKEY	Keywords	
ISFT	Originator software	Marantz PMD Recorder
ICRD	Date	2013-06-21
ISRF	Original media	SD #70
ITCH	Technician	Callie Hyde
ICMT	Comments	
IARL	Archival location	Baylor University
ICMS	Commissioned	
ICRP	Cropped	
IPRD	Product	
ISRC	Source	
IMED	Dimension	

Use as default for new .wav files Load default Untitled Reset OK Cancel

Modes Ranges Anchors

I 0 s 30 mn x1: 288 Stereo

0 s

CURRENT BUIOH POLICY

BORN-DIGITAL VIDEO



WORKFLOW

1. Record in h.264 MP4 tracks (currently 1080p @ 35mbps)
2. Digital Library concatenates tracks into master
3. Optional MKV wrapper for metadata (submitted as Google Sheet fields)
4. Master placed on spinning disk
5. Optional automated MP4 access copy process

CURRENT BUIOH POLICY

DIGITIZED VIDEO

EXPERIMENTATION PHASE

ffmpeg -i *.mxf -vcodec ffv1 -level 3
-sliceCrc 1 -vsync 1 -f

UNCOMP → ffv1 (Dante)
UNCOMP → ProRes (iMac)
MXF → ProRes (ZDC-2)
MXF → Broken (GeorgeBlood/VLC)
(film) UNCOMP → ffv1 (Dante)

vid = pres [.prores.mov (25GB/hour) YUV 422
.ffv1.mkv (10GB/hour)
.h264.mkv (born-digital)

vid-pres = 1 to pointers (leg.) and 001- 001-01
all



EXPERIMENTATION PHASE

FFV1 codec + Matroska (MKV) Video wrapper

- ⊙ Metadata fields needed?
- ⊙ Worth the extra step?
- ⊙ Worth the extra size?



SHIFT TO PRORES 422

- ⦿ Best compression for the file size
- ⦿ Virtually lossless
- ⦿ Works well with Final Cut Pro
- ⦿ Able to keep it on spinning disk (1/2 the size)



WORKFLOW

1. Create uncompressed files through digitization
2. Transcode to Pro Res 422
3. Apply MOV wrapper w/ Name field MD only
4. Move to spinning disk
5. Delete raw files (LTO backup option)
6. Optional automated MP4 access copy process

...ANY QUESTIONS????

