Open-Source
Tools and Resources

Reto Kromer • AV Preservation by reto.ch

Summary School Digital Archives

Summer School Digital Archives

Filmuniversität Babelsberg Konrad Wolf
6–10 September 2021

File Transformations

ffmpeg (CLI)

➔ ffmpeg.org

FFmpeg Cookbook for Archivists

➔ avpres.net/FFmpeg/

ffmprovisr

➔ amiaopensource.github.io/ffmprovisr/

A GUI for FFmpeg

FFCommand Engine (GUI)

➔ github.com/ColorlabMD/FFCommand_Engine

version 0.6 for macOS via Homebrew:
```
brew tap avpres/formulae
brew install --HEAD ffcommand-engine
```

Metadata Extraction

MediaInfo (GUI, CLI)

➔ mediaarea.net/MediaInfo

ffprobe (CLI)

➔ ffmpeg.org

Media Players

VLC (GUI)
➜ www.videolan.org/vlc/

mpv (CLI)
➜ mpv.io

ffplay (CLI)
➜ ffmpeg.org

The Missing Piece of Software

RAWcooked (CLI)
➜ mediaarea.net/RAWcooked

RAWcooked

- encoding into Matroska (.mkv) using FFV1 video codec and FLAC audio codec
- all metadata preserved
- decoding with bit-by-bit reversibility
- possibility to embed sidecar files (e.g. MD5, LUT, XML)
- compatibility with media players

Reading

Reto Kromer: **Matroska and FFV1: One File Format for Film and Video Archiving?**, in «Journal of Film Preservation», n. 96 (April 2017), FIAF, Brussels, Belgium, p. 41–45

➜ https://retokromer.ch/publications/ JFP_96.html

Quality Control

QCTools (GUI), **qcli** (CLI)

➔ bavc.org/preserve-media/preservation-tools

QCTools Documentation

➔ bavc.github.io/qctools/

AV Artifact Atlas

➔ bavc.github.io/avaa/

Optical Sound Extraction

AEO-Light (GUI)

➔ usc-imi.github.io/aeo-light/

AEO-Light Manual

➔ github.com/usc-imi/aeo-light/releases/
download/v2.2-beta/
AEO-Light-2.2-beta-Manual.pdf

DCP Encoder (and Player)

DCP-o-matic (GUI)

➔ dcpomatic.com

DCP-o-matic users' manual

➔ dcpomatic.com/manual/html/

Create DCPs: DCP-o-matic

➔ avpres.net/training/DCP-o-matic.html

AMIA Open Source (1)

vrecord (CLI)

➔ github.com/amiaopensource/vrecord

audiorecorder (CLI)

➔ github.com/amiaopensource/audiorecorder

LTOpers (CLI)

➔ github.com/amiaopensource/ltopers

AMIA Open Source (2)

audioqc

→ github.com/amiaopensource/audioqc

AV Python Carpentry

→ github.com/amiaopensource/
av-python-carpentry

AMIA Open Source (3)

The Cable Bible

→ amiaopensource.github.io/cable-bible/

Open Workflows and Resources

→ github.com/amiaopensource/open-workflows

Time-Based Media Art Resources

→ github.com/amiaopensource/
time-based-media-art

AMIA Open Source (4)

Analog Inspection

→ github.com/amiaopensource/
analog-inspection

MediaArea

DVRescue

→ mediaarea.net/DVRescue

MediaConch

→ mediaarea.net/MediaConch

. . . and much more

FADGI

Federal Agencies Digital Guidelines Initiative (USA)

➜ digitizationguidelines.gov

IFI Irish Film Archive

IFI Scripts (by Kieran O'Leary)

➜ github.com/kieranjol/IFIscripts

AV Preservation by reto.ch

Bash Scripts for Audio-Visual Preservation

➜ avpres.net/Bash_AVpres/

Bash Scripting for Archivists

➜ avpres.net/Bash/

Hands-on

Exercise Files

Flash Suite 2
ZIP, 83 MB
MD5 = 34fbf38f6ecdd0c8b6c72560a6d2c755
→ avpres.net/pub/FlashSuite.zip

AV Preservation by reto.ch

zone industrielle Le Trési 3
1028 Préverenges
Switzerland

Web: reto.ch
Twitter: @retoch
Email: info@reto.ch