#NoTimeToWait 19 July 2016
Preservation working group meeting notes

End-of-day shareout (tl;dr):

- Heterogeneous group, desire for more specs, people wondering how to implement, and people with an open mind to learn
- Interest in broadcast, art collections, film-film
- How to jump from something perceived still as experimental? How to convince IT staff that market solutions isn't always the best? Investing in open source is a long-lasting
- Open source doesn't mean it's free. It's an investment that brings you and the community further.
- Orgs that want to keep their mistakes secret vs sharing the mistakes/questions and all that you don't know publicly to move further.
- Overview of benefits of ffv1, tools that currently help
- Kieran O'Leary will 100% definitely write a blog post about this
- Three main topics subdivided: workflows (how do you bring these open formats to existing workflows, tools/skills needed, esp. For film digitization, and FUNDING!)
- PREFORMA has helped with this, but what other sources of funding can we drill into to have the energy/time/resources/tools to get people into this?

Roundtable

1. Abu Kaynar – documentary film institute > digitisation analog film, open source
2. Dave Rice

- CUNY TV used to use Quicktime to digitise, then switched to FFV1 via Blackmagic dev kit

3. Kar.. > Dusseldorf > video digitisation, advise to

- Digital arts & culture archive Düsseldorf - advising for city's institutes

4. Reto kromer > film digitisation company, open source

5. Kieran O'Leary - irish film institute > film digitisation, funding development

6. Markus muller - landesarchiv berlin > film/video digitisation, introduction to mkv/ffv1: learn, recommend

7. Alessandra - national av archive luxemburg > introduction to mkv/ffv1, independence from broadcast industry, funding development

If we give big companies money, why couldn't we invest in open projects?

Now using lossy compression format

8. Heidi - indiana university > community building around mkv/ffv1, funding new development

Product owner for HydraDAM2 preservation repository. Who else is committing to this format?

9. Martha Mundschin - conservationist museum communication bern >

Chose matroska over Quicktime bc of PC support

10. Ranggi Arohmansani - Indonesian film center > digitisation analog film/tape, introduction ffv1

11. Michelle Lindlar - german library of technology TIB > introduction MKV/ffv1

12. Jonas Svatos - Czech national film archive - film digitisation DPX, introduction to FFV1

Setting up digitisation facility

Limits of film? Not for resolution, bit depth in YUV does have a limit (16 bit)

Handling DCPs, DCDMs

13. Sophie Bunz - MA university Bern

Research project on preservation of video codecs

14. - university Bern restoration -

15. Justine Engelberg - conservator

16. - Emilie Magnin conservator Swiss Dance Dance archives - storage issues

Storing … 10 bit uncompressed, now storage issues

Need to find proper tools for an efficient workflow

Dave: “Few years ago critique was no standard. Next complaint is there’s no tools.”

> Some Adobe developers, listserv responses. Interested in ffmpeg-use, advised but could not work on (open source). Brendon Bose developed VP8 & WebM plug-in.

> Less so with Apple. > different politics - some interest but minor. Talks from ISO perspective to adhere closer to standards.

> Workaround for premiere on Windows

> Some budget for developing open source projects - what's missing is a capable developer to put everything together.

> Windows 10 support is encouraging.

Kieran: workaround shotcut editing tool using ffmpeg to transcode uncompressed to ffv1

17. David Pfluger - chemist - media preservationist - Memoriav > cooperation between archives and developers, required in-house expertise in archives to use FFV1

Archive / developer communications - close the communications gap

What skills do archivists need? How to get on top of lingo? Programming?

EBML > users don't need to think about it too much. But in the specification work it's highly valid.

> Natron: Source clone from Nuke (cf Janos Svatos)

Kieran: Idea to review ffv1 support in editing software blog post

18. Povilas Šivickis - Lithuanian state archive film department > scanning analog film to dpx < considering replacing DPX by MKV/FFV1, saving storage space, use of FFV1 in film restoration

FFV1 can save grayscale format - can save space for storage, but would need a lot of testing. Reto use full RGB for grayscale - gives you more capability for restoration. Sound and Vision uses grayscale only

19. Bert Lemmens - center of expertise PACKED, advising GLAMs. On everything.

Problem not knowing what to recommend to institutions. Then met Riskarkivet (Sweden) who planned to build validation software for PDF/A - Commission asked to broaden scope and then PREFORMA started.

Excited to see so much film digitisation interest.

Ideas for new projects?

20. Erwin Verbruggen - Netherlands Institute for Sound and Vision

Got into new series of question open source, using MXF > who is recommending what and why? Choosing between open source and market conformity/industry standard.

How to implement this in my organisation? How to reconsider decisions made in my organisation years ago. How to move direction of the train you are on.

21. Kieran Kunhya - work on FFmpeg & open source

Promoting open source in production environment

Streaming & transmission - second focus for us but important in specification

Recap main issues:

- WORKFLOWS: Workflows for making capturing, and producing access and editing copies
    - Reviewing software
    - Documenting & sharing cases
- DEVELOPMENT: Funding development for open source tools
    - Contributing to existing projects
    -
- FILM: Limits and missing features for digitisation of film in FFV1
    - Bit depth support

Workflows

Integration FFV1 in MKV requires some processing power > how to improve this?

Not a lot of standard production tools for them. Kieran has python scripts, Dave uses bash scripts.

Kieran worked on proof-of-concept. First Avanti tests on Windows were terrible. People at IFI now know how to run scripts. Might be easy to knock something up.

Lack of user interfaces to could make creation of file easier/fool-proof

At Reto everyone in the company can knock up a bash script. It's a good way to work for archives because they know what archives they set and why. Gag version of all the possibilities.

shout out http://amiaopensource.github.io/ffmprovisr/

"As an archivist, you need to have some understanding of computers and coding. If not, you're in the wrong job."

"I wouldn't have started coding if Dave hadn't tweeted back to an answer I posted about a blog he wrote."

"Archivists are so happy to help."

Best to ask questions openly. Have to adapt some skills to survive in our work.

Hub for workflows - Digital libraries have one - http://www.libraryworkflowexchange.org/

Collection department is sometimes just one person who is responsible for all collection management tasks.

Change in public institutions is very slow.

Archivist have to learn how to write scripts, but also IT staff have to learn to understand what an archive is.

“Learning how to code is the first step into freeing you from vendors.”

Monoliths are opposite to the solution of open formats.

Arguments for open development.

Development

Fund development of new, better, improved tools?

Wikipedia page FFV1 has a nice overview of supporting tools.

Film

Limits and missing features for digitisation of film in FFV1

Who scans what? Mostly 10, some 16 bit (but no 16-bit monitor)

> For FFV1, adding 16-bit support would require more rewriting than 12 and 14-bit.

Preserving raw scans? Nobody does. (Aside from Reto Kromer)

LIN or LOG? How can you find out how it’s been scanned?

> CINEON spec was very open, DPX 1 and 2 less, DPX 3 proposal is on the way

> Check with Kate

Using Alpha channel for infrared

Where to host e.g. discussion on RGB in FFV1 at the cellar list?

> A bit of history: FFV1 v3 has interlacement info that didn’t exist before - there’s work to be done

> LibAV recently switched to FFV1.3 as current profile

Wishlist for film preservation in film

1. 16 bit support

2. Second wish would be adding Bayer filter to save raw scans (Reto now saves to OpenEXR instead of DPX).

Technical arguments for or against converting DPX files to single file or packing singular FFV1s in Matroska? Currently IFI & Reto save every DPX as FFV1 in 1 MKV wrapper.

Arguments for or against using ## FFV1 frames in production

> classical editing software is designed for single frame

NFA planning to use preservation manager Archivematica > rules for creating AIPs

> Archivematica is one of the early adopters of Matroska/FFV1 > integrating work on MediaConch in Archivematica. Uses FFmpeg for transcoding (so no problems, unlike with some shitty transcoders for MKV that exist)

Digitisation & workflows

Preservation copy for file-based video art - heterogeneous file collections

FFV1 in Quicktime used to be possible in PERIAN, but project stopped development after Apple went to 64-bit. Now AV Foundation instead of QT kit, which has no documentation. Older QT environment is not supported.

Andrew Berger > transcodes WMV to FFV1 but keeps original to prevent preservation risk

Archivematica > lots of experience there!

One more topic: licenses!