



How open source can help to decrease the cost of basic tasks

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MDN workshop 2020

Basic tasks

Not all is the core of your business

No added value (no monetization) to keep such code for yourself

You could share the development cost of this code (and its maintenance)

You could buy a non open source software, sure, but...

You are no more tied to only one vendor

- YOU decide of the new features
If you don't like anymore what your supplier does, just change, YOU decide
- For small projects usually one developer, but YOU can fork if it does not go as you want; or just contribute
- For bigger projects, YOU may decide between different competitors for new development or support.

Reusability of existing solutions

- Free choice of (local) support/suppliers
- No black-box
- Common tools/codebase = larger userbase
- Less "forced" upgrades

Support

Open source does not mean lack of professional support:

- Support contracts
- Paid installation/integration
- Developers can be hired

Quality of tools

- Chicken and egg: if everyone waits, nothing happens
- We start with needs easy to handle and we create dedicated open source tools
- Tools become bigger, step by step, when more people join
- YOU can decide about participating in lowering the overall cost, for all so for you

Benefits of paying for open source software

- Better support/updates
- Pooling resources
- Designed for your use-cases
- Overall better cost-effectiveness

Funding

- Driven by user requests
- Most of tools were funded after a need is detected by users
- Why paying for something you don't control? (is your current choice future proof?)
- Everyone (you included) can develop or sponsor a development
- You can propose your own version if you think you have a better idea than others

Availability

Not all is available off the shelf.

You can start a project for yourself then probe if some other entities are interested in it

Some examples of open source software

Linux

Well... Do we need to present it?

Replaced HP-UX, Solaris... Everywhere

No more tied to an unique vendor, which control who can get it and how = you are now able to buy cheaper hardware

FFmpeg

Tool for manipulating A/V files

Very versatile

Lot of formats supported

Lot of possibilities to manipulate A/V files

Lot of developers can be hired for this software

<https://ffmpeg.org/>

ffmprovisr

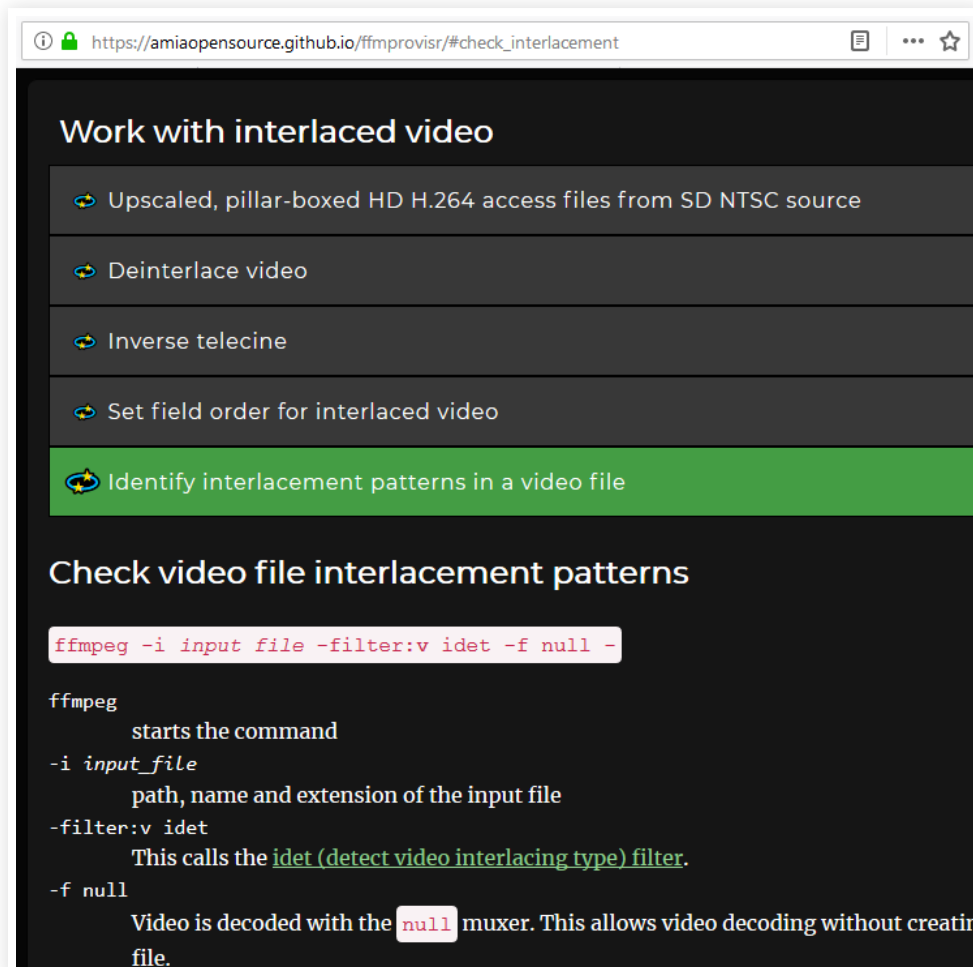
FFmpeg has a steep learning curve

ffmprovisr helps users through the command generation process so that more people can reap the benefits of FFmpeg

Maintained by users like you

<https://amiaopensource.github.io/ffmprovisr/>

ffmpegprovizr



The screenshot shows a web browser window with the URL `https://amiaopensource.github.io/ffmpegprovizr/#check_interlacement`. The page content is as follows:

Work with interlaced video

- Upscaled, pillar-boxed HD H.264 access files from SD NTSC source
- Deinterlace video
- Inverse telecine
- Set field order for interlaced video
- Identify interlacement patterns in a video file**

Check video file interlacement patterns

```
ffmpeg -i input_file -filter:v idet -f null -
```

`ffmpeg`
starts the command

`-i input_file`
path, name and extension of the input file

`-filter:v idet`
This calls the [idet \(detect video interlacing type\) filter](#).

`-f null`
Video is decoded with the `null` muxer. This allows video decoding without creating a file.

VLC

Multimedia player and framework that plays most A/V files

Very versatile

Lot of formats supported

<https://www.videolan.org/vlc>

Netflix Open Source Software Center

Lot of different libraries about big data, build and delivery tools, content encoding, security...

They don't do it for giving you cheap solutions

They expect community feedback and improvements

Also a way to hire the best developers ;-)

<https://netflix.github.io/>

MediaInfo

Convenient unified display of the most relevant technical and tag data for video and audio files.

Graphical interface or command line or software library

<https://MediaArea.net/MediaInfo>



MediaInfo and new features

EBUCore output was needed, let's go, just another output format; was done by the main developer, but could have chosen someone else if the main developer was not willing to do it

Can extract information from old (DV?) to newest formats (HEVC, AC-4, MPEG-H 3D Audio...)

Development sponsored by users (individual or companies), format supporters...

MediaConch

Implementation checking on FFV1, Matroska, LPCM (due to sponsoring source)

Policy checking on lot of formats

Based on MediaInfo

Not yet adapted to broadcasters, but what if adaptation of this tool is cheaper than bigger non open source products? (looking for sponsors for a MXF implementation checker)

<https://MediaArea.net/MediaConch>



BWF MetaEdit

Embedding, validating, and exporting of metadata in Broadcast WAVE Format (BWF) files

Supports the FADGI Broadcast WAVE Metadata Embedding Guidelines

Initial sponsoring by the Library of Congress

Further sponsoring by users, for a small cost

<https://MediaArea.net/BWFMetaEdit>

BWF MetaEdit

Technical Metadata Core Metadata Rules File management

Select which standards and rule sets to follow during use of BWF MetaEdit. Selection of rule sets will constrained the allowed data entry and may add a See documentation on BWF MetaEdit Rules within the Help documentation.

- BWF (EBU Tech 3285) requirements
- BWF (EBU Tech 3285) recommendations
- BWF CodingHistory (EBU Tech R98-1999) recommendations
- BWF OriginatorReference (EBU R99-1999) recommendations
- INFO (Microsoft definition) requirements
- INFO (Microsoft definition) recommendations
- Federal Agencies Digitization Guidelines Initiative recommendations

QCTools

Helps users analyze and understand their digitized video files through use of audiovisual analytics and filtering

Based on FFmpeg

Not yet adapted to broadcasters, but what if adaptation of this tool is cheaper than bigger non open source products?

<https://mediaarea.net/QCTools>

RAWcooked

Encodes RAW audio-visual data (DPX/TIFF) into a losslessly compressed file (no more unplayable TAR!)

Metadata accompanying the RAW data are preserved (reversibility)

Sidecar files, like MD5, LUT or XML, are in container attachments

<https://MediaArea.net/RAWcooked>

RAWcooked

Developed by MediaArea

<https://MediaArea.net>

With financial support from:

- AV Preservation by reto.ch
- CNA (National Audiovisual Centre of Luxembourg)
- Nasjonalbiblioteket (National Library of Norway)
- IFI (Irish Film Institute)
- British Film Institute
- New-York Public Library
- Elements.tv (new sponsor, EXR support + speedup)
- And more, see <https://MediaArea.net/RAWcooked>

DVRescue

DV tapes are dying

Transferring from DV tapes to LTO is not so easy (lot of DV dump errors)

No satisfactory solution found (cost of the offer, adaptation to the need...)

Not only 1 entity needed that

Sponsoring found, project started

<https://MediaArea.net/DVRescue>

MediaArea

Open source software company focused on digital media analysis. We work (different levels of involvement) on:

- **MediaInfo**

Convenient unified display of the most relevant technical and tag data for video and audio files

- **MediaConch**

Implementation checker, policy checker, & reporter

- **QCTools**

Helps users analyze and understand their digitized video files through use of audiovisual analytics and filtering

- **BWF MetaEdit, AVI MetaEdit, MOV MetaEdit**

Embedding, validating, and exporting of metadata

- **DVRescue**

Checking presence of technical errors in DV captures



Stay in touch

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Slides: <https://MediaArea.net/Events>

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