

- RAWcooked Project (to compress DPX to FFV1 and revert without losing any metadata)
<https://avpres.net/RAWcooked/>
- Conferences of the FFV1/Matroska Community
<https://mediaarea.net/MediaConch/notimetowait.html>
<https://mediaarea.net/MediaConch/notimetowait2.html>

Fact Sheet Matroska/FFV1 for Decision-Makers



WHAT IS MATROSKA/FFV1?

It is a lossless video file format for archival purposes!

EXECUTIVE SUMMARY

What about profit?

- Costs no money, no license fee!
- Reduces expenses! Reduces storage costs by compression compared to DPX. The data compression ratio is typically between 1.7 and 2.3. Comes with very high processing speed, can be highly parallelized

What about pleasure?

- Included in FFmpeg, that is everywhere! Concentrate on archival work instead to invest in product specific knowledge
- It just works!
- Use it – instead to manage licenses
- Many tools available! Most of them are free and open-source.

What about power?

- Hey, it is open-source! There is no vendor lock-in!
- Free and well documented standardization process (IEETF)! No paywalls (as with ISO and SMPTE).
- Very friendly community!

What about prestige?

- Archives should preserve knowledge, should they not share knowledge?
- You may be the first to develop new tools!
- You can be the first to evolve it for special workflows!
- You can use a **real** archival file format!
- You can participate in the community and increase your visibility!

Use cases

- Normalization to reduce format diversity in the archive
- Archival file format for retro-digitization of film (linear, 16 bit) or video
- File format to exchange and work with it
- Comes with integrated checksum information
- Reduce storage and transfer cost
- Replacement of lossy mezzanine video files for editing

FAQ - FREQUENTLY ASKED QUESTIONS

What are the general requirements for archival file formats?

Each file format should be

- ✓ Open specified
- ✓ Very popular
- ✓ Robust

- ✓ Self-documented
- ✓ Validatable

- ✓ Tidy and concise

Matroska/FFV1 fulfills these requirements.

What means lossless?

It means there is no information loss. The original source can be fully reconstructed. This also means that migrations can be tested automatically!

Who use it?

There are a lot of institutions. For example:

- Filmarchiv Austria
- Österreichische Mediathek
- City of Vancouver Archives
- SMIDAK Filmproduktion
- Irish Film Institute
- RTV Slovakia
- AV Preservation by reto.ch
- The National Archives (United Kingdom)
- Indiana University
- New York Public Library
- NOA-Archive <http://noa-archive.com>

Matroska/FFV1 is also recommended and examined by

- Federal Agencies Digital Guidelines Initiatives (FADGI)

- http://www.digitizationguidelines.gov/guidelines/video_reformatting_compare.html
- nestor AG AV-Medien, “nestor materialien 19 – Leitfaden für die digitale Langzeitarchivierung audiovisueller Medien”
<http://nbn-resolving.org/urn:nbn:de:0008-2016102107>

- PACKED vzw: Centre of Expertise in Digital Heritage, “A short guide to choosing a digital format for video archiving masters”
<https://www.scart.be/?q=en/content/short-guide-choosing-digital-format-video-archiving-masters>

- “Memoriav Recommendations: Digital Archiving of Film and Video: Principles and Guidance”
http://memoriav.ch/wp-content/uploads/2017/09/Empfehlungen_Digitale-Archivierung_Version1.1_EN.pdf

- IANUS, “IT-Empfehlungen für den nachhaltigen Umgang mit digitalen Daten in den Altertumswissenschaften”
<https://www.ianus-fdz.de/it-empfehlungen/video>

ADDITIONAL RESOURCES

- FFmpeg
<https://ffmpeg.org>
- Wikipedia page on FFV1
<https://en.wikipedia.org/wiki/FFV1>
- “Codec Encoding for LossLess Archiving and Realttime transmission” (Cellar), standardization working group of the IETF
<https://tools.ietf.org/wg/cellar/>
- Preforma-Project
<http://www.preforma-project.eu/>
- FAQ “FFV1 at the Österreichische Mediathek”
<https://www.mediathek.at/digitalisierung/ffv1-at-the-mediathek-eng/>