Matroska

The **Matroska Multimedia Container** is a free, open-standard container format, a file format that can hold an unlimited number of video, audio, picture, or subtitle tracks in one file.[1] It is a universal format for storing common multimedia content, like movies or TV shows. Matroska is similar in concept to other containers like AVI, MP4, or Advanced Systems Format (ASF), but is entirely open in specification, with implementations consisting mostly of open source software. Matroska file extensions are *.mkv* for video (which may or may not include subtitles and audio), *.mk3d* for stereoscopic video, *.mka* for audio-only files, and *.mks* for subtitles only.[2]

"Matroska" is derived from *matryoshka* (Russian: матрёшка [mɐ ˈtrʲɵʂkə]), which refers to the hollow wooden Russian matryoshka doll which opens to expose another doll that in turn opens to expose another doll, and so on. That may be confusing for Russian speakers, as the Russian word "matroska" (Russian: матроска) actually refers to other things, e.g. it could refer to a sailor suit, or a sailor's wife, or a female sailor. The logo uses "Matroška", with the caron over the "s", as the letter š represents the "sh" sound (/ʂ/) in various languages.

Matroska	
{{ }} MKV	
Filename extension	.mkv .mk3d .mka .mks
Internet media type	video/x-matroska audio/x-matroska
Initial release	6 December 2002
Latest release	1.6.2 (2 August 2020)
Type of format	Container format
Container for	Multimedia
Extended from	MCF, EBML
Open format?	Yes
Website	matroska.org (https://matroska.org/)

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History

The project was announced on 6 December 2002[3] as a fork of the Multimedia Container Format (MCF), after disagreements between MCF lead developer Lasse Kärkkäinen and soon-to-be Matroska founder Steve Lhomme about the use of the Extensible Binary Meta Language (EBML) instead of a binary format.[4] This coincided with a 6-month coding break by the MCF's lead developer for his military service, during which most of the community quickly migrated to the new project.

In 2010, it was announced that the WebM audio/video format would be based on a profile of the Matroska container format together with VP8 video and Vorbis audio.[5]

On 31 October 2014, Microsoft confirmed that Windows 10 would support HEVC and Matroska out of the box, according to a statement from Gabriel Aul, the leader of Microsoft Operating Systems Group's Data and Fundamentals Team.[6][7] Windows 10 Technical Preview Build 9860 added platform level support for HEVC

and Matroska.[8][9]

Goals

The use of EBML allows extension for future format changes. The Matroska team has expressed some of their long-term goals on Doom9.org and Hydrogen Audio forums. Thus, the following are "goals", not necessarily existing features, of Matroska:[10]

- Creating a modern, flexible, extensible, cross-platform multimedia container format,
- Developing robust streaming support, (both this format and the WebM subset are streamable)[11]
- Developing a menu system similar to that of DVDs based on EBML, (as of July 2019, there is only a mostly empty draft)[12]
- Developing a set of tools for the creation and editing of Matroska files (MKVToolNix, for example)
- Developing libraries that can be used to allow developers to add Matroska support to their applications (made open source by Matroska developers)
- Working with hardware manufacturers to include Matroska support in embedded multimedia devices

In parentheses are the statuses of these design goals.

Development

Matroska is supported by a non-profit organization[13] in France (association loi 1901), and the specifications are open to everyone. The Matroska project is a royalty-free open standard that is free to use, and its technical specifications are available for private and commercial use. The Matroska development team licenses its libraries under the LGPL, with parsing and playback libraries available under BSD licenses.[10]

See also

- Comparison of container formats
- Open source codecs and containers
- MKVToolNix

References

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12. "Menu Specifications" (https://matroska.org/technical/menu/index.html). matroska.org. Retrieved 30 June 2019.

13. "Legal Aspect - Matroska" (https://matroska.org/legal.html). matroska.org.

External links

- Official website (https://matroska.org/) ✏