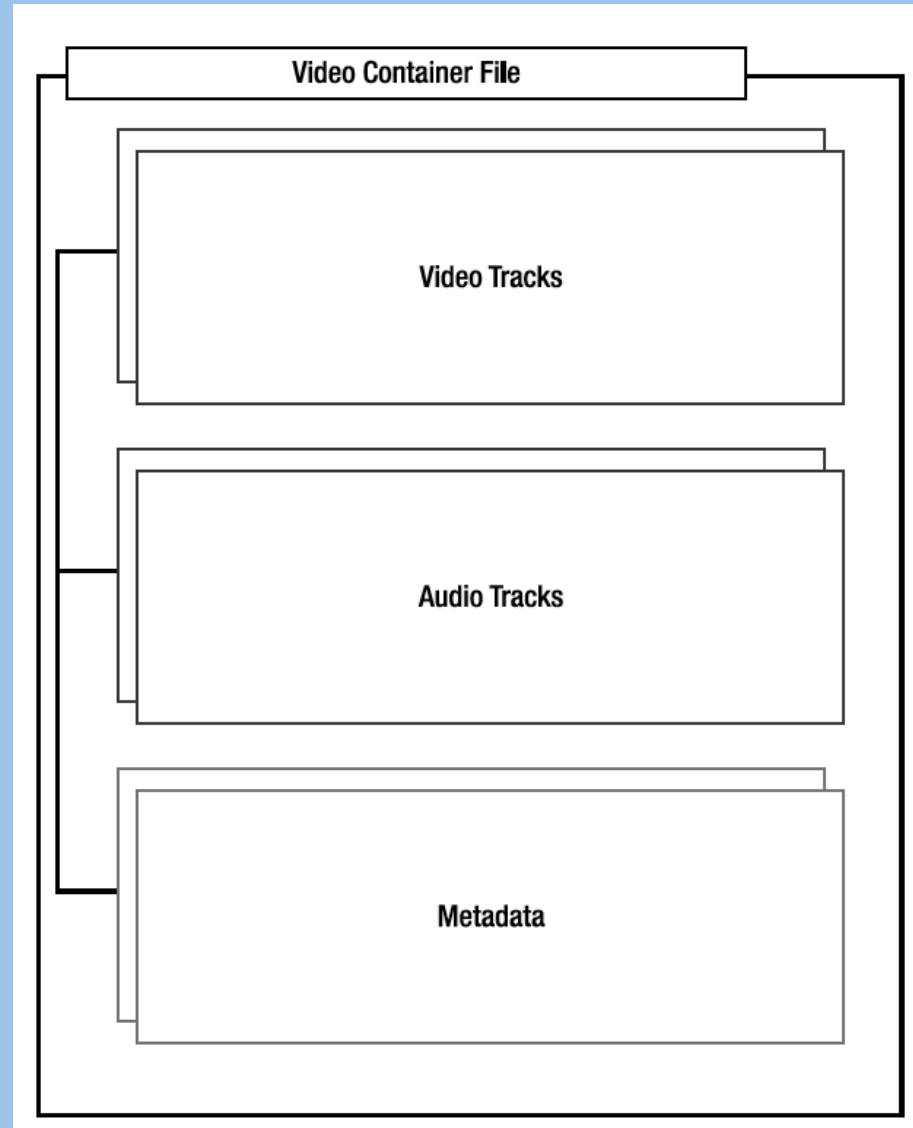# HTML5 Audio/Video

Video Containers

Popular Video Formats

- Audio Video Interleave (.avi)
- Flash Video (.flv)
- MPEG 4 (.mp4)
- Matroska (.mkv)
- Ogg (.ogv)

Audio & Video Codecs

- Audio and video coders/decoders (codecs) are algorithms used to encode and decode a particular audio or video stream so that they can be played back.

- Popular Audio Codecs:
  - AAC
  - MPEG-3
  - Ogg Vorbis

- Popular Video Codecs:
  - H.264
  - VP8
  - Ogg Theora

Restrictions

- **Media is restricted by HTTP cross-origin resource sharing.**

- **Full-screen video is not scriptable**

- **Accessibility for audio and video elements is not fully specified yet.**

Browser Support

Browser	Details	Codec, Container Support
Chrome	Version 3.0 and greater	Theora and Vorbis, Ogg Container H.264 and AAC, MPEG 4
Firefox	Version 3.5 and greater	Theora and Vorbis, Ogg Container
Internet Explorer	Not supported	N/A
Opera	Version 10.5 and greater	Theora and Vorbis, Ogg Container (10.5 and greater) VP8 and Vorbis, WebM Format (10.6 and greater)
Safari	Version 3.2 and greater	H.264 and AAC, MPEG 4 Container

Checking Browser Support

var hasVideo = !!(document.createElement('video').canPlayType);

- <video src="video.ogg" controls>
  Your browser does not support HTML5 video.
  </video>

Media Types

Type	Attribute Value
Theora video and Vorbis audio in an Ogg container	type='video/ogg; codecs="theora, vorbis"'
Vorbis audio in an Ogg container	type='audio/ogg; codecs=vorbis'
Simple baseline H.264 video and low complexity AAC audio in an MP4 container	type='video/mp4; codecs="avc1.42E01E, mp4a.40.2"'
MPEG-4 visual simple profile and low complexity AAC audio in an MP4 container	type='video/mp4; codecs="mp4v.20.8, mp4a.40.2"'

Control

Function	Behavior
load()	Loads the media file and prepares it for playback. Normally does not need to be called unless the element itself is dynamically created. Useful for loading in advance of actual playback.
play()	Loads (if necessary) and plays the media file. Plays from the beginning unless the media is already paused at another position.
pause()	Pauses playback if currently active.
canPlayType(type)	Tests to see whether the video element can play a hypothetical file of the given MIME type.

Read Only Attributes

Read-only attribute	Value
duration	The duration of the full media clip, in seconds. If the full duration is not known, NaN is returned.
paused	Returns true if the media clip is currently paused. Defaults to true if the clip has not started playing.
ended	Returns true if the media clip has finished playing.
startTime	Returns the earliest possible value for playback start time. This will usually be 0.0 unless the media clip is streamed and earlier content has left the buffer.
error	An error code, if an error has occurred.
currentSrc	Returns the string representing the file that is currently being displayed or loaded. This will match the source element selected by the browser.

Scriptable Attributes

Attribute	Value
autoplay	Sets the media clip to play upon creation or query whether it is set to autoplay.
loop	Returns true if the clip will restart upon ending or sets the clip to loop (or not loop).
currentTime	Returns the current time in seconds that has elapsed since the beginning of the playback. Sets currentTime to seek to a specific position in the clip playback.
controls	Shows or hides the user controls, or queries whether they are currently visible.
volume	Sets the audio volume to a relative value between 0.0 and 1.0, or queries the value of the same.
muted	Mutes or unmutes the audio, or determines the current mute state.
autobuffer	Tells the player whether or not to attempt to load the media file before playback is initiated. If the media is set for auto-playback, this attribute is ignored.