




# GPAC / mp4box.js

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# GPAC

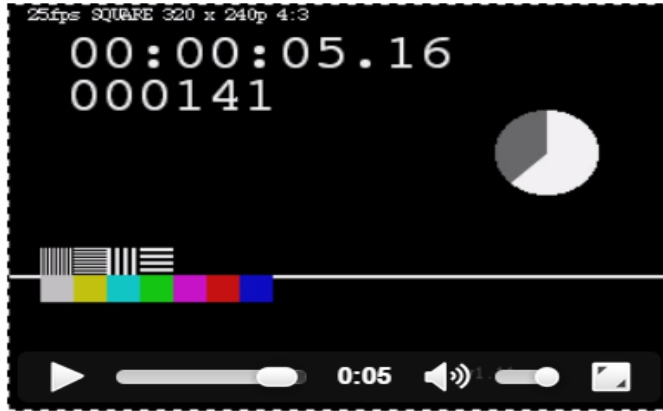
- Multimedia OSS around MPEG4 since 2003:
  - MP4Box (packager) + MP4Client (player)
  - MPEG #HEVC #DASH #SHVC #CENC + IETF + W3C
  - Story: IBC 2014 EBU OSS talk  GPAC Licensing
  - Future: FOSDEM 2015 talk
- mp4box.js:
  - <https://github.com/gpac/mp4box.js>

# mp4box.js

- JavaScript library to process MP4 files:
  - BSD-3 licensed
  - Modular
- Environments:
  - Browsers (Firefox, Chrome, IE)
  - Node.js
- Applications:
  - MP4 Player
  - MP4 Analyzer
  - MP4 Data extractor
  - MP4 Remuxer: On-the-fly fragmentation

# HTML Media Source Extensions (MSE)

- <http://html5-demos.appspot.com/static/media-source.html>



```
mediaSource readyState: open
num chunks:5
chunkSize:43890, totalSize:219448
appending chunk:0
appending chunk:1
appending chunk:2
appending chunk:3
appending chunk:4
```

```
var ms = new MediaSource();

var video = document.querySelector('video');
video.src = window.URL.createObjectURL(ms);

ms.addEventListener('sourceopen', function(e) {
  ...
  var sourceBuffer = ms.addSourceBuffer('video/webm; codecs="vorbis, vp8"');
  sourceBuffer.appendBuffer(oneVideoWebMChunk);
  ....
}, false);
```

# mp4box.js : architecture

Application	(calls to <b>MSE</b> )
MP4Box.js API	append() / setExtractOptions() / flush() / ...
<b>MP4Box.js</b>	ISOFile: API
	MPEG-4 'esd' Parsing   Box R&W   Sample management
	DataView or DataStream or MultiByte Stream
Data	ArrayBuffer
Network (controlled by the Application)	Protocol independent: <b>XHR</b> , WebRTC DataChannel, File, Stream API



Thank you  
Time for demos!

GPAC

#industry #mp4box #osmo4 #broadcast #mpeg #mp4  
#dash #hevc

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# Demos

- Player: <http://download.tsi.telecom-paristech.fr/gpac/mp4box.js/>
- File analyzer: <http://download.tsi.telecom-paristech.fr/gpac/mp4box.js/filereader.html>
- HEVC image viewer: <http://download.tsi.telecom-paristech.fr/gpac/mp4box.js/hevcimageviewer/>