



dash.js – Priorities 2023

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Relevant links

- dash.js Github: <https://github.com/Dash-Industry-Forum/dash.js>
- dash.js landing page (**new, thanks to Deniz**): <https://dashjs.org/>
- Reference Client: <https://reference.dashif.org/dash.js/nightly/samples/dash-if-reference-player/index.html> , **new: now also hosted on Akamai thanks to Will**
- Feedback thread to collect items for 2023: <https://github.com/Dash-Industry-Forum/dash.js/discussions/4111>

General strategy

- Move towards a new **major release 5.0.0** with features such as
 - Reworked XML parsing
 - Reworked ABR and throughput logic including support for SupplementalProperty “urn:mpeg:dash:adaptation-set-switching:2016”
 - New reference UI
- Work on **version 4.x** in parallel
 - CMSD
 - Content Steering
 - Improved functional test suite based on Karma and Selenium Grid
 - Fix Typescript definition file
 - Support for forced subtitles
 - Parsing of ARI track
 - PRFT box parsing
 - Support for preload (HbbTV ad-insertion)

Priorities 1/3 (updated)

Rank	Item	Description	Effort	Type	Release
In Progress	<ul style="list-style-type: none">Improved functional test suite based on Karma and Selenium Grid	<ul style="list-style-type: none">Run functional tests that cover most of the features of the sample section automatically on “real” devicesSmall testlab to avoid regression before releases<ul style="list-style-type: none">Windows, Mac LinuxAndroidSamsungTV	Medium/High, but lots of work already done	Improvement	4.x
Done	<ul style="list-style-type: none">Preload functionality for ad-insertion on platforms that only provide a single decoder	<ul style="list-style-type: none">Prebuffer segments into virtual buffer to allow smooth transition between broadcast and broadband	Medium	New feature	4.x
1	<ul style="list-style-type: none">Reworked ABR and throughput logic including support for SupplementalProperty “urn:mpeg:dash:adaptation-set-switching:2016”	<ul style="list-style-type: none">Additional throughput estimation optionsAddition of new APIs such as Resource Timing APIProbably large benefits for existing ABR algorithms and research of future ABR algorithmsChange of ABR rules interface, operate not only on a single AdaptationSetPossibly change DRM logic to blacklist AS with security levels that are not supported	High	New feature / Improvement	5.0

Priorities 2/3 (updated)

Rank	Item	Description	Effort	Type	Release
2	<ul style="list-style-type: none">Content Steering	<ul style="list-style-type: none">Initial implementation is in placeAdd support for latest/final version of the spec	Medium	New Feature	4.x
3	<ul style="list-style-type: none">Common Media Server Data	<ul style="list-style-type: none">Add support for the final version of the specDiscussing internally which parameters should be supported natively and which values should be dispatched to the app for further progressing	Medium	New Feature	4.x
4	<ul style="list-style-type: none">Fix typescript file (In progress)	<ul style="list-style-type: none">Lots of dash.js users use Typescript and need an up-to-date definition file to access all methods and attributes	Medium	Improvement	4.x
5	<ul style="list-style-type: none">Support for dashif:Authzurl	<ul style="list-style-type: none">Included in V.5 Content Protection Guidelines to receive authorization tokens that may be required for requesting a license from a license server	Medium	New Feature	4.x
6	<ul style="list-style-type: none">Support for forced-subtitles	<ul style="list-style-type: none">Should be activated automatically once no other subtitle is selected	Medium	New Feature	4.x

Priorities 3/3

Rank	Item	Description	Effort	Type	Release
7	<ul style="list-style-type: none">Support for mediaPresentationInsertion	<ul style="list-style-type: none">Useful for preroll ad-insertionAmd1 5th Edition	Medium	Feature	4.x/5.x
8	<ul style="list-style-type: none">New reference UI	<ul style="list-style-type: none">Implement a new reference UI for dash.jsUpdated design and export settings feature similar to current UIPotential student project	Medium/High	Improvement	5.x
9	<ul style="list-style-type: none">Improved XML parsing (already started)	<ul style="list-style-type: none">Different parsing library to speed up parsing especially on low-end devices	Medium/High	New Feature	5.0
10	<ul style="list-style-type: none">PRFT box parsing	<ul style="list-style-type: none">Extract prft boxes and dispatch to app	Low	New Feature	4.x
11	<ul style="list-style-type: none">Improved developer documentation	<ul style="list-style-type: none">Explanation of algorithms and sequence diagramsCurrent draft: https://github.com/dsilhavy/dashjs-jekyll-documentation	Medium	Improvement	5.0
12	<ul style="list-style-type: none">ARI track	<ul style="list-style-type: none">Parse track information and dispatch via event	Low	New feature	4.x

Backlog

Rank	Item	Description	Effort	Type	Release
X	<ul style="list-style-type: none">New controlbars that can be included as a module	<ul style="list-style-type: none">Export as a moduleReact, Vue?Integration of Mux MediaChrome project, web component based UI can be used with dash.js	Medium	New Feature	X
X	<ul style="list-style-type: none">MSE in webworker	<ul style="list-style-type: none">Reduce load in main thread by using MSE in webworkersProbably requires moving a lot of the dash.js logic to the worker threadStudent projects failed	Medium/High	Improvement	X
X	<ul style="list-style-type: none">xLink onRequest		Medium/High (difficult timing model)	New Feature	X
X	<ul style="list-style-type: none">Texttrack optimizations	<ul style="list-style-type: none">See talk by Dan from DemuxedOnly one track object instead of maintaining multiple tracks with most of them being inactive	Medium	Improvement	X

Open Questions

- Missing items from IOP v.5 and ISO/IEC 23009-1 5th edition?
- Missing items for which there is demand from the industry & users
- dash.js sponsoring
 - <https://github.com/sponsors>
 - <https://www.gofundme.com/de-de>
 - Any contribution should go to DASH-IF
 - Sponsor specific dash.js features
 - Sponsor content creation and DASH-IF Livesim2
- Synergy with DASH-IF Livesim2