W3C Media & Entertainment Interest Group Meeting

5 November 2024

Agenda

Date and time
5 November 2024, 15:00-16:00 UTC

IRC
https://irc.w3.org/?channels=#me

IRC Guide
https://www.w3.org/wiki/IRC

Code of Conduct
https://www.w3.org/policies/code-of-conduct/

Agenda

- Welcome

- TPAC review and next steps

    - Next-Generation Audio and Video codecs
    - Media WG Updates: Audio Session, WebCodecs, MSE and Text Tracks
    - Multi-Device Timing and Sync on the Web
    - Content Authenticity
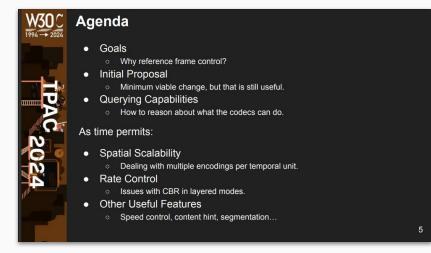   - Next CTA WAVE meeting: MSE issues

- AOB

Next Generation Audio and Video Codecs

- NGA proposal presented at TPAC
- Outcomes:
  - Develop gap analysis for audio
  - Also consider video

Media Working Group update

- Audio Session API
  - Agreed to publish First Public Working Draft
  - Feedback welcome at https://github.com/w3c/audio-session

- WebCodecs
  - Camera effects (e.g., background blur)
  - Reference frame control, spatial scalability, rate control, etc
  - VideoFrame orientation metadata

- Text Tracks in MSE
  - Support for timed text carried in media container files (MP4 boxes) or in the video bitstream (SEI NAL units)

Multi-Device Timing

- Timing Object specification: https://webtiming.github.io/timingobject/
  - TPAC 2016 minutes: https://www.w3.org/2016/09/22-sync-minutes.html
  - Pointed to potential improvements in HTMLMediaElement currentTime, playbackRate, seek (implementation more than spec level?)
  - Native browser support vs client library?
  - Multi-Device Timing CG is proposed to be closed

- Media Session Coordinator proposal from Apple
  - Discussed at TPAC 2023 Media WG meeting: https://www.w3.org/2023/09/11-mediawg-minutes.html#t13
  - Use case: co-viewing with people in different locations
  - Requirement isn't for frame level synchronisation accuracy

- Next steps? Is there interest to continue work on these use cases?

TPAC Breakout: Sync on the Web

- Synchronisation of media with timed events (e.g., MIDI)
  - Minutes: https://www.w3.org/2024/09/25-sync-on-web-minutes.html
  - Input event synchronisation: Gamepad API, Web USB, Web MIDI
  - Control and Sync of Digital Twins (Smart City use cases?)
  - Related use cases in Cloud Gaming (Web & Networks IG?)
  - Sub-millisecond sync of real time audio is possible - see https://www.webaudioconf.com/proceedings
- Next steps?

Content Authenticity

- MEIG discussed C2PA in the 20 August 2024 meeting
  - https://www.w3.org/2024/08/20-me-minutes.html

- TPAC 2024 breakouts
  - Originator Profile: https://www.w3.org/2024/09/25-trust-origin-minutes.html
  - Content Authenticity and the Web:
    https://www.w3.org/2024/09/25-authentic-web-minutes.html

- Next steps?
  - To be decided. Potentially, a workshop. Or discuss in Credible Web CG
  - Is there interest to continue discussion in MEIG?

CTA WAVE Collaboration

- CTA WAVE Streaming Media Test Suite - Devices discussed in [3 Sep 2024 MEIG](#) meeting and at [TPAC](#)

- Plan for follow up MEIG / WAVE joint meeting. Some potential topics in the [DASH-IF GitHub](#):
  - API to request buffer capacity to overcome QUOTA_EXCEEDED error. Currently, players need to try and error.
  - A media player should be able to register for specific ISOBMFF boxes and get a notification with the box payload. Potential candidates: EMSG, PRFT, ELST. Avoid mp4 box parsing in JavaScript. Potential implications for low latency streaming with CTE.
  - Read the current codec string from the SourceBuffer based on the initialization value or the last value that was provided via changeType()
  - Related to MPD insertion / interstitials: Internally, one buffer shall be used. Overwriting/overlapping segments/content in the buffer, shifting segments. As an alternative, have multiple buffers per type.
  - In some browsers/platforms, it is not possible to remove buffer and create a new one (on the same MSE object). Check if this is a bug on the platform or if it is intended that way.

- Date to be confirmed. Additional agenda topics?

Thank you!