See summary of discussions and resolutions.

# WebPerf WG Agenda - TPAC 2016

Time, Place, Rough agenda...

Triage L2 blocker spec issues

Administrative work

New APIs and WIP proposals

Long Tasks API proposal (~1hr; panicker)

[Updated] First Paint / First Contentful Paint proposals (~2hr; panicker)

Declarative marks / [Updated] Hero Timing" (~1hr; igrigorik)

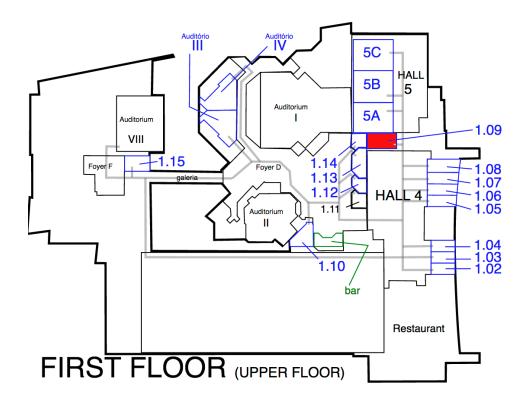
Time to Interactive (TTI) (~30m; paulirish)

Memory API (~30m; toddreif)

Chrome Reflector (~1hr; igrigorik)

Other topics

# Time, Place, Rough agenda...

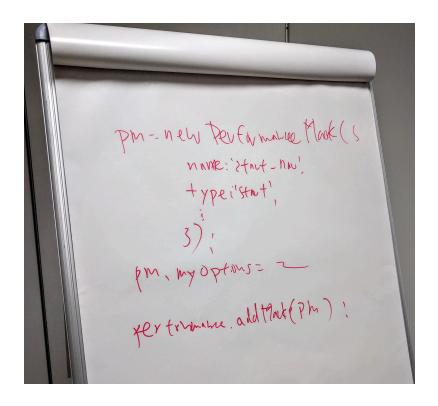


#### Webex / Remote participation:

https://www.w3.org/wiki/Web Performance/Call Information#TPAC 2016

### Sept 22 (Thursday): Room 1.09, First Floor - Observers allowed

- 9AM-12PM:
  - o <u>Triage blocker spec issues</u>
  - o Administrative work
- 12PM-2PM: lunch
- 2PM-5PM:
  - SPA apps and Perf APIs (shubhie@)
    - Al: invite Soasta folks to webperf call to talk about use cases and what they'd like to see from browsers.
    - **Idea 1:** define "fix>-{name-format}" thingy that allows apps to identify meaningful transitions, a la <a href="Iraceviewer's convention">Traceviewer's convention</a>
    - Idea 2: emit new event for push state / hashchange?
    - Idea 3: expose "new PerformanceEntry" constructor~



- Device properties?
  - We have NetInfo
    - AI: Pull in Rob Trace to talk about this
  - Battery status API
  - Hardware concurrency

#### Memory notification API

- Constraint: can't update it with high precision (privacy/security)
- https://github.com/mounirlamouri/memory-pressure-api/blob/master/explainer.md
  - $low \rightarrow high \rightarrow critical$
  - Expose navigator.memorypressure?
    - o E.g. emit hint on requests initiated by SW
  - Al: start discussion on WICG for next steps on Mounir's proposal
  - AI: someone should start "Device memory class" discussion on WICG (e.g. <u>FB</u>'s device class)
  - Al: could we report crashes?
    - E.g. Facebook uses localStorage to record if unload fired;
       if on next visit the bool is not there, then "app crashed".
- o If there is interest, updates on...

- Feature Policy
- L-next features:
  - https://github.com/w3c/resource-timing/milestone/3
  - https://github.com/w3c/performance-timeline/issues/56

#### Sept 23 (Friday): Room 1.09, First Floor - Observers allowed

- [\*NEW\*] <u>Summary of proposals</u> & discussions
- 9am-5pm:
  - Long Tasks API
    - CPU usage?
  - Scroll/input observer discussion
  - First Paint & First Contentful Paint
  - Time to Interactive
  - Declarative marks / Hero Timing
  - o Chrome reflector
  - Dependency trees (via RT)
- Al
- Get Rick to come talk about input

Floor plans + other group schedules.

# Triage L2 blocker spec issues

- 1. User Timing: SYNTAX ERR exception
- 2. Resource Timing: inconsistent implementation of Timing Allow Origin
- 3. Performance Timeline: case sensitivity
- 4. HR-Time: translating timestamps between globals
- 5. Beacon integration with Fetch API

### **Administrative work**

https://www.w3.org/2016/07/webperf#deliverables

- 1. L1 specs
  - a. Move Beacon to CR?
    - i. Land tests
    - ii. Fetch + keepAlive
    - iii. Should we drop sendBeacon on Workers?
  - b. Move requestIdleCallback
    - i. Address outstanding editorial feedback.

- ii. 2nd implementation? Firefox.
- iii. Dig into adoption stats?
- iv. Check if the tests are merged?
- c. Move Preload to CR?
  - i. Firefox is implementing; Webkit is underway.
  - ii. Test (Al: talk to Yoav)
- d. Move Resource Hints to CR?
  - i. Al: Search: what's the benefit, browser comparisons?
  - ii. We need some tests; tests may be manual.
  - iii. Al: Talk to Philippe about next steps.

#### 2. L2 specs

- a. Move Page Visibility
  - i. Al: land Chrome change for onunload case for 2nd implementation
    - 1. Then ship CR
  - ii. Tests are in good shape; no open issues.
- b. Move <u>User Timing</u> to CR?
  - i. Land new tests + 2 implementations
  - ii. Tests should consider Worker
- c. Move HR-Time L2 to CR?
  - i. Land translate stuff into L3
  - ii. Tests for L2: worker, sharedworker, serviceworker
    - 1. CR...
- d. Move Performance Timeline L2
  - i. Remove EntryFilterOptions; land case sensitive update
  - ii. Refactor queue entry to append to perf observer in timeline
    - 1. Update tests
- e. Move Navigation Timing L2 to CR?
  - i. Blocked on tests (and a 2nd implementation?)
- f. Move Resource Timing L2 to CR?

# **New APIs and WIP proposals**

# Long Tasks API proposal (~1hr; panicker)

- V1 use cases, developer feedback, experimental data
- Security and privacy.
- V2 roadmap: attribution
- **Discuss:** migrate to webperf WG?

# Measuring and improving scroll latency (~30m; rbyers)

- Measuring scroll latency: <a href="http://rbyers.net/scroll-latency.html">http://rbyers.net/scroll-latency.html</a>
  - This technique has been very useful for Facebook
- Intervention guidelines: <a href="https://github.com/WICG/interventions">https://github.com/WICG/interventions</a>
- Passive event listeners API: https://github.com/WICG/EventListenerOptions/blob/gh-pages/explainer.md
- Forced passive touch listener intervention: https://github.com/WICG/interventions/issues/18
- Al: Rick to get someone to propose a ScriptBlockingScrollTiming API

# First Paint / First Contentful Paint proposals (~2hr; panicker)

- PW Metrics Overview
- Why we need a set of paint metrics
- Discuss definitions of FP and FCP

### **Declarative marks** / Hero Timing" (~1hr; igrigorik)

• Use cases: scanned, parsed, vs. render

### Time to Interactive (TTI) (~30m; paulirish)

Use cases, experimental data, etc.

# Memory API (~30m; toddreif)

- Follow up on the F2F discussion in June.
- Anyone able to write it up?

# **Chrome Reflector (~1hr; igrigorik)**

• Use cases, motivation, open questions, feedback.

# Other topics

- Measuring Real Input Latency & SPA navigation timing
- Battery usage API?
- CPU usage API?