

WebGPU spec: overview



185 PRs merged since Feb 2021 VF2F

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WebGPU spec: changes



- **More validation** (multisampling, render attachments, resource aliasing, bundle execution, pass compatibility, vertex data, interface matching rules, etc)
- **Refactor** (encoder state, map/list, namespaces as flags, and much more)
- **Echo from WGSL** (attribute syntax, address modes, errors, etc)
- **API:**
 - **additions** (*clearBuffer()*, fallback adapter, shader hint, color spaces)
 - **removals** (execution time, pipeline statistics, read-only storage textures)
 - **changes** (timestamps, depth clip control, rename of blend factors, texture usages, etc)
- **Functionality** (primitive clipping, rasterization, fragment stage, barycentric coords, implicit BGL compatibility, *copyExternalImageToTexture()*)

WebGPU spec: contributors



- Editors
- @Kangz (various validation and limits)
- @litherum (*fillBuffer()*, timestamp API, removing pipeline statistics)
- @Richard-Yunchao (validation for render bundles, passes, and textures)
- @haoxli (validation of queries)
- ... many others

WebGPU spec: TODO?



- More prose
- Other pipeline stages: fragment operations, compute
- Details:
 - Mapped ArrayBuffer semantics (postMessage, multithreading, device/buffer destroy)
 - Device destroy
 - OOM for canvas, mapping, etc.
- Trying to resolve design issues with:
 - Error model and ordering dependencies
 - Implicit pipeline layouts