

Long-term support for WASIp1

<https://github.com/WebAssembly/WASI/issues/595>

Context

- Host (runtime) not updatable, WASM code updatable
- Millions of devices with preview1 runtime
- Incremental runtime updates to preview2/3/.../WASI 1.0 will cause fragmentation across newer devices
- Requirement to use new WASM features (memory64, EH) with preview1

Solutions

- 1) Keep support for preview1 in WASI-libc/WASI-SDK/Rust
 - 1) CI to maintain correctness
 - 2) Support preview2+ folks with refactoring
 - 3) SLA to address CI problems
 - 4) Potential new targets (wasm64-wasip1-threads, ...)
- 2) preview2 → preview1 adapter
 - 1) Prototype: <https://github.com/loganek/wasi-snapshot-preview2-to-preview1-adapter>
 - 2) Can address memory allocation concerns
 - 3) Needs tooling to validate that no preview2 APIs are being called

Next steps

- Recommendation: progress with both approaches
 - Eventually deprecate wasip1* once the the adapter and tooling around it is stable and reliable.
- Gather people interested in maintaining WASIp1 and adapter
 - Embedded SIG?
 - Reach out to me (Marcin Kolny @ Zulip)