

Mar 7, 2024

[Link to Recording](#)
[Transcript](#)

- Demo of dfx GUI
- Discussion about events and notifications

Dec 7, 2023

[Link to recording](#)

- Demo of agent-js and Internet Identity in React Native environment and Expo (improved DX) working
- Not released yet, depends on new release of [noble curves](#)
- Preview of DFINITY SDK team roadmap for 2024

Nov 2, 2023

- Update on dfx GUI

Jun 1, 2023

[Link to recording](#)

dfx/replica under windows post mortem

- Dfx ships with full replica that is also used on mainnet IC, so lot's of assumptions about underlying host machine
- Wanted to use the WSL barrier to let replica run on Windows such that it feels natively
- Would create a gigantic maintenance burden to take that approach
- Potential replacement: Pocket IC emulator

Pocket IC

- Want to keep similar experience to remix, though the IC is much more complex than Ethereum
- Currently hard to spin up an IC testnet, lots of custom code required, and even if possible spinning up would take time -> not nice for testing
- Byron: I want to run an integration where I have lots of setup steps, e.g. Setting up lots of canisters, to do.
- Byron: For integration tests, I need the exact same errors under load that the real IC provides.
- Stefan: In my opinion, it's unfeasible to do load testing in a local/test environment
- Byron: What are the types of errors that one would receive in production that would not be reproducible locally?

A list like this would be beneficial as a forum post - especially for SNS preparing apps

- Adam Spofford : HTTPS Outcalls are an example
- Stefan: Many errors are not specified in the (Interface) Specification

Lightic

- Lightic available as npm package, works everywhere node.js works
- Debugging support
- Stefan: What's the largest heap state you've tested?
- Adam: Max 1 GB, haven't tested with really large canisters
- Stefan: How you manage stable memory
- Adam: Stable memory is also ephemeral
- Next steps
 - Unit testing with lightic on the official documentation
 - 100% test coverage to Interface Spec
 - Easify fetching 3rd party canisters

Apr 6, 2023

[Link to recording](#)

- Developer Experience Initiative
 - Making sure that DevX is thought of from the beginning on
 - First focus is main pain point and fear factor of devs: Canister upgrades
 - Internal WG has been formed to tag and prioritize tickets across the whole stack which touch DevX
 - Work in progress on a central feedback management system. File issues/feature requests and allow voting
 - Create a DevX checklist and follow Documentation Driven Development methodology
 - Cleanup of example projects
- Update on Light Replica
 - https://github.com/icopen/light_ic
 - Allowing simple integration tests and debugging of canisters
 - Extremely fast execution of tests
 - Inter-canister calls implemented
 - Next steps
 - Support proper rollback when canister traps
 - Management canister

Feb 2, 2023

[Link to Recording](#)

- Running multiple (different) subnets locally - who benefits from this? is there demand for this functionality?
- DFX on windows
 - Currently only working with WSL, but there's some cognitive overload

- Replica can't run natively on windows. So approach is having replica running on WSL in a way that the developer doesn't really notice
- Light replica ([Slides](#))
 - Can we replicate best practices from Ethereum developer tooling?
 - State of the art
 - DFX
 - Ic-repl
 - Ic-state-machine-tests
 - Is dfx without artificial delay fast enough for tests and CI/CD?
 - Mio: We need something to be scoped for each project
 - Idea to explore: being able to run a "light replica" in the browser

Jan 5, 2023

[Link to Recording](#)

GUI for dfx / Management tool

- Kyle presenting ideas about providing GUI for dfx
- Ownership (DFINITY-maintained, 3rd-party ownership or hybrid)
- Features
 - Command palette (inspired by [fig](#))
 - Wrap all CLI commands of dfx into visual representations
 - Fleet management (list canisters and their status)
 - CandidUI, making calls
 - Identity management
 - Using Internet Identity or NFID for authentication
- Further ideas
 - Including ic-repl
 - WebView with integrated ic-certification verification
 - Encrypted identities
- Starting work on MVP now

Other

- Backup/Restore is work in progress, but there are engineering challenges in the replica
- Q on timeline for dfx extensions: Q1 with SNS extension as the first trial
- StableBTreeMap with explicit max key/values is not very ergonomic.

Nov 3, 2022

[Link to Recording](#)

- Update from Jason on the SDK Roadmap
 - <https://internetcomputer.org/roadmap/> -> Developer Experience
- Jordan mentions the issue that port setting dfx.json has no effect in dfx 0.12.x

- Preview of next-gen Motoko Developer Experience using the Motoko Dev Server
- Discussion about the Motoko Dev server could be extended to Rust
 - Start a discussion on the forum
 - Paul shared <https://github.com/Psychedelic/ic-kit#fully-simulated-replica>
 - Byron mentions the need for a (local) Debugger (which Motoko VM would allow)
 - VM is a good idea, but folks don't want to omit type of information
 - The type of information can help guide the development process
 - Something like this doesn't exist for Rust
 - Local debugging is important to developers. VM can enable this
 - Distinguish tooling for testing vs tooling for "production / IC environment"
 - Local development vs Cloud based development
 - Local development is established, here to stay
 - Address local development environment issues first. E.g. wasm size limits
 - Top three things to fix
 - Wasm binary limit
 - Fixing cycles costs
 - DFX extensions

Oct 6, 2022

[Link to Recording](#)

Canister build environment metadata

- [Slides](#)
- [Related GitHub issue for dfx](#)
- Use case:
 - helping for build reproducibility, e.g. with Cover
- [lc-wasm](#) can add custom metadata today
- We need a standard or registry to define metadata community-wide
 - Potential to be an ICRC and should be namespaced

dfx Pull

- [Slides](#)

Sep 1, 2022

[Recording](#)

Updates from DFINITY on the SDK Roadmap

- Mainnet logging / Monitoring

- Input on logging
- How to bring in ideas? -> Probably best to start a forum thread
- Austin has questions about debugging the local replica
- Should probably start a forum post on this early on to share ideas and gather feedback
- Also: There's a Motoko VM/Repl that would allow stepping through code in the playground
- Locally Installing canister dependencies
- Complete node.js support
- React Native Support
 - 1. Starter Template
 - 2. Notification Manager
 - The current issue is BLS verification support because React Native does not support WASM import.
- DFX system-wide replica will be part of v0.12.0
- Cycles wallet deprecation -> cycles-ledger
- DFX telemetry
- Secure DFX identities
 - FR: Multiple identities based on one seed

Presentation on ic-kit

- [Slides](#)
- IC-Kit is a canister development kit written in Rust with the goal of providing a consistent development experience using high-level abstractions designed with canister interoperability in mind.
- [GitHub](#)