

Blockchain (2) Commons

Advocating for the Creation of Open, Interoperable, Secure, and Compassionate Digital Infrastructure

Blockchain Commons #ZeWIF Meeting 2025-01-24



What is Blockchain Commons?

- We are a community interested in self-sovereign control of digital assets.
- We bring together stakeholders to collaboratively develop interoperable infrastructure.
- We have experience working with Bitcoin, Ethereum & Tezos
- Our interop standards can help all digital assets!
- We're thrilled to be working with Zcash.



The Gordian Principles

- Independence.
 - Improve user freedom from involuntary oversight and external control.
- Privacy.
 - Protect against coercion with non-correlation, privacy, and pseudonymity.
- Resilience.
 - Decrease the likelihood of users losing their funds via any means.
- Openness.
 - Support open infrastructure to allow developers to create their own applications.

Thank you Zcash Community Grants for Sponsoring this Work!



Become a sponsor! Mail us at team@blockchaincommons.com



The Goals of the ZeWIF Project

ZeWIF, an extensible wallet interchange format for Zcash, is intended to:

- 1. Support zcashd deprecation
- 2. Empower users to move among wallets
- 3. Recover lost funds from older wallets

We're not trying to encode *all* data in the core format, just the *core* data, with others incorporated as *attachments*.

See https://tinyurl.com/zewif-grant for the whole proposal.



More than Just zcashd

Though zcashd was the impetus of this project ...

- Our intent is much bigger
- The format is extensible so that it can become a tool for the future
- We don't want to lock in *legacy* data
- We want to support an ecosystem where moving among wallets is EASY
- It's about Openness & Independence for users!
- Plus some Privacy & Resilience too!



Our Progess So Far

- We're closing out a survey of major wallets (Dorian)
 - https://github.com/dorianvp/zcash-wallet-formats/
- We're starting to spreadsheet data in common (Shannon)
 - https://tinyurl.com/zewif-spreadsheet
- Next up will be a specification (Wolf)
- We need your help to ensure the ZeWIF format works for everyone



Our Goals Today

- What is the 20% of data that will get you 80% of the value?
- What data might we be missing?
- What key-value matches should be updated for the format?

But what's our data looking like so far? (With another week of work to go ...)



Looking at the Major Categories

- Jump in if you have thoughts!
- Seeds, Keys, Addresses, Transactions, State, Config, Auth



Seeds

- HD Seeds
- Fingerprints
- Mnemonic Phrases
- Chain Codes



Keys

- Orchard, Sapling, Sprout, Transparent, Unified
- Spending Keys, Viewing Keys, Public Keys, Private Keys
- But also metadata!
 - Key Types
 - Key Paths
 - Seed Fingerprints
 - Creation Times



Addresses

- Again, metadata is going to be the challenge
 - Names
 - Descriptions



Transactions

- The challenge is here what's not recreatable?
 - Prices
 - Addresses
 - Recipients
 - Scripts
 - Full Viewing Keys
 - Notes
- And is there recreatable data that we want anyway?



State, Config & Auth

- State: commitment trees, block info, prices, precalculations
- Config: wallet, version, wallet variables
- Auth: wallet keys, encryption keys



Summing Up

- Again:
 - What's the 20% that gets you 80% of what you need?
 - What are we likely missing?
 - Other thoughts on ZeWIF



Closing Out Initial Stage Next Week

- Give Us Your Thoughts!
- Here's the data:



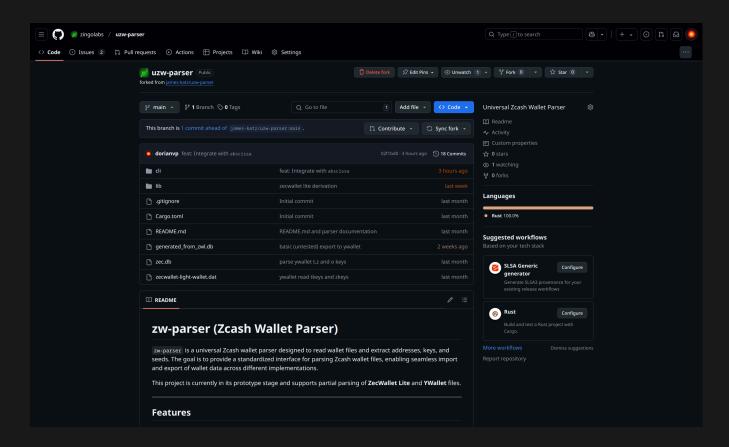
- Use Issues or comment the spreadsheet
- Or email shannon.appelcline@gmail.com



ZExCavator

- ZeWIF is just one element of the project
- Zingo Labs is Building ZExCavator on top of ZeWIF
- Recovers buried ZEC from old zecwallets
- Dorian has more!

ZExCavator

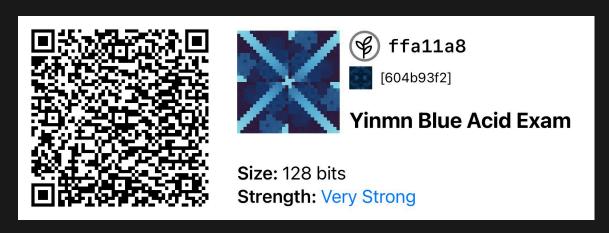


- https://github.com/zingolabs/uzw-parser
- @james-katz has been helping us a lot!



The Next Step: Seed Standardization

- We Hope to Do More in the Future
- Starting With Helping to Standardize Seeds



- This is our "Object Identity Block"
- https://developer.blockchaincommons.com/seed-128/
- https://developer.blockchaincommons.com/oib/



More Interoperable Specs

- Animated QRs
 - for airgapping large amounts of data
- SSKR
 - sharding of seeds
- CSR
- collaborative seed recovery with SSKR
- We hope to discuss these more at a future meeting!



www.BlockchainCommons.com



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