

BitShares hackathon

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Overview

- explore the blockchain
 - what is BitShares?
 - wallets / block explorers / network status
- develop for the blockchain
 - backend development
 - frontend development
 - feed scripts
 - trading bots
- get paid by the blockchain!

Exploring the blockchain



What is BitShares? - history

- Protoshares: the theory of sharedrop and social contract
- BitSharesX: first DAC by Daniel Larimer implementing a decentralized exchange of market-pegged and user-issued assets
- BitShares 2.0: lessons learnt, full rewrite of the base framework which implements an efficient blockchain toolkit that anyone can use: Graphene is born

<https://github.com/bitshares/bitshares-core>

<https://github.com/bitshares/bitshares-ui>



BitShares technology

- easy to remember user names
- hierarchical, multi-sig access control
- market-pegged assets aka Smartcoins: BitUSD, BitBTC, etc.
- user-issued assets
- decentralized asset exchange
- It's fast! 3s block time, 3'000 tx / sec

<https://docs.bitshares.org/>

Actors, roles and responsibilities

- **witnesses:** block producers and feed publishers
 - DPoS based, ~25 witnesses (dynamic)
 - feed publishing act as oracle for MPAs on the blockchain
- **committee members**
 - vote on blockchain parameters (block size, fees, etc.)
- **workers**
 - propose some work to be done, get voted on
- **proxies**
 - users can vote through a proxy to alleviate voter apathy

BitShares binaries / clients

- **witness_node** daemon: main server, communicates using JSON-RPC over WebSockets
- **cli_wallet** client: command-line interface that also offers a more user-oriented JSON-RPC API over HTTP, thin layer that communicates with the witness_node
- **web wallets / light wallets / mobile wallets:** graphical user interfaces that communicate with witness_node, usually remote

Wallets - web wallets

- <https://bitshares.org/wallet/>
- <https://wallet.bitshares.eu/>
- <https://openledger.io/>
- <https://market.rudex.org/>
- <https://bit.btsabc.org>
- <https://www.hellobts.com/>
- <https://crypto-bridge.org/>
- <https://www.freedomledger.com/>
- <https://btsgo.net>
- <https://trade.1001ico.com>

Wallets - light wallets

- <https://bitshares.org/download/>
- <https://github.com/bitshares/bitshares-ui/releases>
- <https://github.com/blckchnd/rudex-ui/releases>

Wallets - mobile wallets

- Smartcoins wallet (@kencode)
 - <https://play.google.com/store/apps/details?id=de.bitsharesmunich.smartcoinswallet&hl=en>
- BitShares wallet (BitUniverse)
 - <https://play.google.com/store/apps/details?id=com.bitshares.bitshareswallet>
- <https://www.magicw.net>
- <https://door.one/en/>



Block explorers

- <http://cryptofresh.com> (@roadscape)
 - main block explorer
- <https://bitshares.org/wallet> and other web/light wallets
 - cog icon > explore
- <http://bitshares-explorer.io/> (@oxarbitrage)
 - WIP, open-source alternative to cryptofresh



Network status

- <http://stats.bitshares.eu> (@xeroc)
 - network speed and congestion monitor
- <http://status.bitsharesnodes.com> (@wackou)
 - curated list of public seed nodes
- <http://seeds.quisquis.de/bitshares.html> (@pc)
 - dynamically crawled list of network nodes

Developing for the blockchain



Backend development

- PyBitShares (@xeroc) <http://docs.pybitshares.com/>
<https://github.com/xeroc/python-bitshares/>
 - http and ws calls
 - wallet management
 - transaction building and signing
- Uptick (@xeroc) <http://uptick.rocks>
 - user-friendly command line tools
- bts_tools (@wackou) https://github.com/wackou/bts_tools
 - monitoring tools for witnesses and seed/api nodes
 - feed publishing
 - notification via email and Telegram

Frontend development

- <https://github.com/bitshares/bitshares-ui>
- <https://github.com/bitshares/bitsharesjs>
- <https://github.com/bitshares/bitsharesjs-ws>
 - official wallet and corresponding base JS libraries
- <https://github.com/Agorise/graphenej> (@kencode)
 - Android development

Feed scripts

- <https://github.com/xeroc/bitshares-pricefeed> (@xeroc)
- https://github.com/wackou/bts_tools (@wackou)
- <https://pypi.python.org/pypi/btsprice> (alt)

Trading bots

- <https://github.com/xeroc/stakemachine> (@xeroc)
- <https://github.com/pch957/pybtsbots-2015> (@alt)
- <https://github.com/bitcrab/transbot> (@bitcrab)
- <https://steemit.com/bitshares/@linouxis9/liqbot-0>
(@linouxis9)

Getting paid by the blockchain!



The prize!

- Best project gets a prize of 1111 BitUSD
- Funded by the blockchain itself via @roelandp's proposal
- Present your project on Friday 2pm at Lisbon Secret Spot, Montes Claros

“Type a quote here.”

–Johnny Appleseed

Thanks, and happy hacking!

Slides available at:

https://github.com/wackou/slides/blob/master/steemfest2_hackathon.pdf

