FIN TECHNOLOGY

&

Blockchain

Table of Contents

FinStudio

DeFI, dAPPS & DEX

FinStudio is built to be able to connect to any market and handle any type of instruments. Similarly as we handled traditional markets, we will now concentrate more on crypto market and integrate the best from blockchain and cryptocurrencies industry.

FinStudio is able to connect to any provider whether it's futures & commodities broker, stocks & equities broker, currency & FX broker, asset management company, bank, pension fund or crypto exchange. Traditional market providers use industry standards and utilize many different protocols and API's so users can connect to them and trade.

Common Protocols:

FIX – Developed in 1992 and widely used by both the buy side (institutions) as well as the sell side (brokers/dealers) of the financial markets. Used by Bloomberg, J.P.Morgan, CME, CITY, HSBC, Morgan Stanley, Goldman Sachs, Nomura, Barclays, UBS, Fidelity and almost by all financial institutions. Couple crypto exchanges support FIX also.
FAST – Upgraded version of FIX, it is used to support high-throughput, low latency data communications between financial institutions. Used by NYSE, CME Group, ISE, Nasdaq, Eurex, Xetra, Bombay Stock Exchange, BATS, ICAP, OPRA, MOEX, SSE etc..
ITCH - Widely employed for dissemination of full-depth, order-level market data with near real-time latency characteristics. Many exchanges such as NASDAQ, JSE/NSX, LSE, Borsa Italiana, Turquoise and Oslo Børs have adapted the use of ITCH.

Common API's:

Websockets
REST API

dApps & DeFi Protocols

As we are able to utilize any of the protocols above covering connections to multiple markets and providers, we want to do the same for cryptocurrency markets. Besides integrating exchanges via their APIs, we want to offer the latest developments of the blockchain industry and make them accessible in our trading applications. We will be integrating different blockchain dApps and protocols to support various functionality these dApps and protocols offer. By integrating these dApps and protocols into our trading platform we will achieve a unique trading environment for all cryptocurrency users. Users will be able to purchase cryptocurrencies with Fiat and credit card, trade on centralized and decentralized exchanges, take advantage of liquidity aggregation, use different custody options and be able to lend and borrow.

Funds Custody

The crypto community has always been split between hardcore crypto users who despise any form of centralization and users who don't mind centralized solutions from 3rd party. Each has its advantages and disadvantages. CEX is simple to use, has everything that the user needs, is reliable, filters criminals, and has quite large liquidity. On the other hand, users have to rely on the exchange, store their funds on the exchange, and often tolerate practices such as manipulation or the possibility of internal failure and security breach.

	Centralized	Decentralized
Pros	User-friendly	No Hack Risk
	Reliable	Anonymous
	Liquidity	No Market Manipulation
	Regulated (KYC & AML)	Unregulated (No KYC & AML)
Con	Risk of Hack	Liquidity
	Manipulation	Not as Simple
	Custody	No Fiat Currencies
	System Fail and Disconnects	Rug Pull
	Flash Crash	Loss of Hardware Wallet / Seed

Compromise for both user types:

- custody solution by centralized exchanges
- deposit-less non-custodial trading

Custody Solution by Centralized Exchanges

Users can choose to trade on any connected centralized exchange. They have to open the account on the exchange, deposit funds, and create API keys. Users can login to the exchange via the secret keys.

Deposit-less non-custodial DEX trading

To trade on some exchange user has to deposit funds on the exchange to be able to execute the trade. To prevent this we will utilize several protocols so users can place a trade on the exchange, but don't have to create an account on the exchange, go thru the KYC & AML process, and deposit funds. Users can purchase cryptocurrencies and place them directly into the wallet of their choice.

Wallet Management

Wallets

Users can load balances of their accounts and wallets from centralized exchanges. After entering private keys, the user is able to fully connect to any centralized exchange account and wallet.

FinStudio will also support many popular crypto wallets. Users can connect their wallets to FinStudio and trade directly from the wallet. FinStudio will therefore allow decentralized non-custodial trading without users having to deposit their funds with 3rd party.

We will gradually increase the number of wallets we support, for now, we will work with the following wallets:

Software Wallets

Metamask, Exodus, Mycelium, Cobo, WalletConnect, TronLink, Phantom
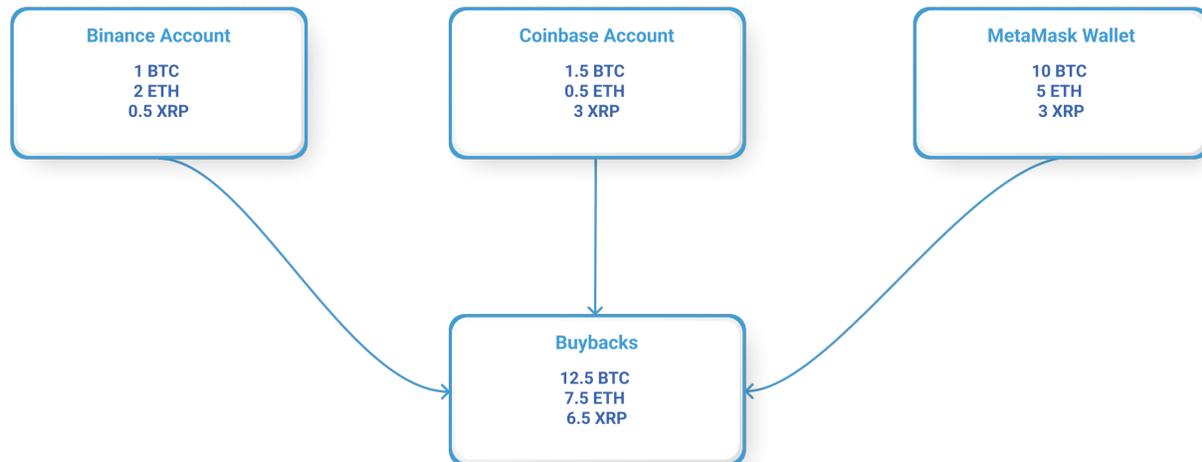
Hardware Wallets

Ledger, Trezor

Merged Wallet

With Merged Wallet users are able to merge different crypto wallets into one and create a virtual wallet.

With our proposed solution, users will be able to trade on different centralized and decentralized exchanges. If user uses our internal aggregation engine, they will be able to place different orders to different exchanges. In order to do this, the user needs to have an active account with each exchange. To be able to execute the trade on each exchange, users need to have funds and cryptocurrencies deposited on each exchange. If users use too many exchanges, it gets more and more complicated to manage them all and also monitor the net status of the wallets.

FinStudio is capable to create a virtual wallet that will create a merged wallet with merged values of all assets contained in all wallets. Users can have multiple wallets connected and monitor the net position and p/l of all connected wallets. Besides position monitoring, users can use our portfolio monitoring tools and analyze portfolio performance.

It is possible to create a virtual wallet from both – centralized exchange wallets and also the user's own wallets used by decentralized wallets.

Binance Account	Coinbase Account	MetaMask Wallet
1 BTC	1.5 BTC	10 BTC
2 ETH	0.5 ETH	5 ETH
0.5 XRP	3 XRP	3 XRP

Buybacks

12.5 BTC
7.5 ETH
6.5 XRP

We must note, the funds stay on each account or wallet. They are not physically moved into the virtual wallet. The virtual wallet only serves as aggregator allowing to view wallets under one.

Liquidity Aggregation

- direct trading platform integration
- deep liquidity pool with the best top of the book price and large liquidity available on all levels
- full transparency without feed and price manipulation
- large selection of available instruments available at one place

FinStudio Integration

As a trading platform provider, we plan to do a lot of integrations and give users the best from both - centralized and decentralized worlds bridging the crypto community via our trading platform FinStudio.

Connection to Exchanges

We plan to connect to the strongest centralized and decentralized crypto exchanges. Users who are trading via any of these exchanges are able to connect to any of them and trade via a single trading interface on desktop, web, and mobile.

As we will be connected to the multiple exchanges, we will aggregate the liquidity from both - centralized and decentralized exchanges. This will create a deep pool of almost unlimited liquidity. The higher liquidity the better for traders. Aggregating different providers leads to the best top-of-the-book prices - best bid and best ask with the tightest spread possible.

Transparency

The aggregation process is fully transparent, in our Order Book traders can clearly see what providers the quotes and orders are coming from. This prevents price manipulation and hidden spread markups. Traders get a pure raw spread - the best it's possible to get without any price manipulations. If a trader is using a single provider, there is no way to see what that provider is doing internally, often spreads are increased for higher profits, and the price is manipulated. With our liquidity, aggregating solution traders will get a more realistic view of the market.

If we connect centralized and decentralized exchanges' crypto trading volume, we will create a unique transparent network of providers and get a better idea about price and volume dynamics while having the best possible trading conditions and flawless order execution without excessive slippage paying fewer fees.

Immense Marketplace

By connecting multiple exchanges we will not only gain access to better liquidity and pricing but also automatic access to thousands of financial instruments. This also opens unlimited options to create synthetic instruments, pools, and other derivatives.

Aggregator of Aggregators

By integrating different protocols and exchanges that already aggregate volume we will already have access to a lot of liquidity. On top of that FinStudio will create a universal aggregation engine that will aggregate liquidity from centralized and decentralized exchanges and match user orders with the available liquidity.

Smart Order Routing System

Our system will monitor the balances of each asset in each wallet. As we will aggregate liquidity from different venues, we also need to have funds on each exchange so we are able to place orders on the exchange.

As the aggregation engine will aggregate the volume from different exchanges, the best bid or the best ask can come from any of the connected exchanges. Our system needs to know the balance of each asset on each exchange to evaluate whether it's possible to execute the requested volume size on the exchange and fully fill the order at the requested price. User will set tolerated slippage and our system will execute the order fully at one exchange with the best price. In case the balance is insufficient to fully execute the order at one exchange or the order is too big to be executed at one exchange, our system will fill the order partially and try to fully execute it at different exchanges.

Universal Aggregator

Universal Aggregator is an app integrating with several DEX aggregators and decentralized limit order protocols to allow its users to trade ETH / MATIC / BNB and ERC20 / BEP20 tokens using all liquidity sources available through those protocols. Ultimately, this project aims to combine a custom DEX aggregation protocol with a decentralized lending protocol to enable margin trading capabilities across the widest possible array of decentralized exchanges in Solana, Tron, Ethereum and several EVM-based blockchains and L2 networks.

The development process will occur in several stages, with the MVP stage focusing on DEX aggregation. In order to demonstrate the proof of concept, the MVP would combine 1inch and 0x DEX aggregation protocols, allowing the users to make swaps and place limit orders.

Since different DEX aggregator protocols may have non-overlapping liquidity sources, a part of a market order might be filled through protocol A at a price lower than the price available for filling that whole order through protocol B — even though the overall protocol B price might be lower than the overall protocol A price for the whole order. Thus, by splitting the initial order into two or more orders to be filled through different aggregation protocols, the overall execution price might be lowered compared to filling the orders in whole through a single protocol.

Calculating the optimal swap route must take into account the volume of liquidity available in each liquidity pool and the projected price impact of that swap, as well as the increased gas costs when filling an order in several swaps.
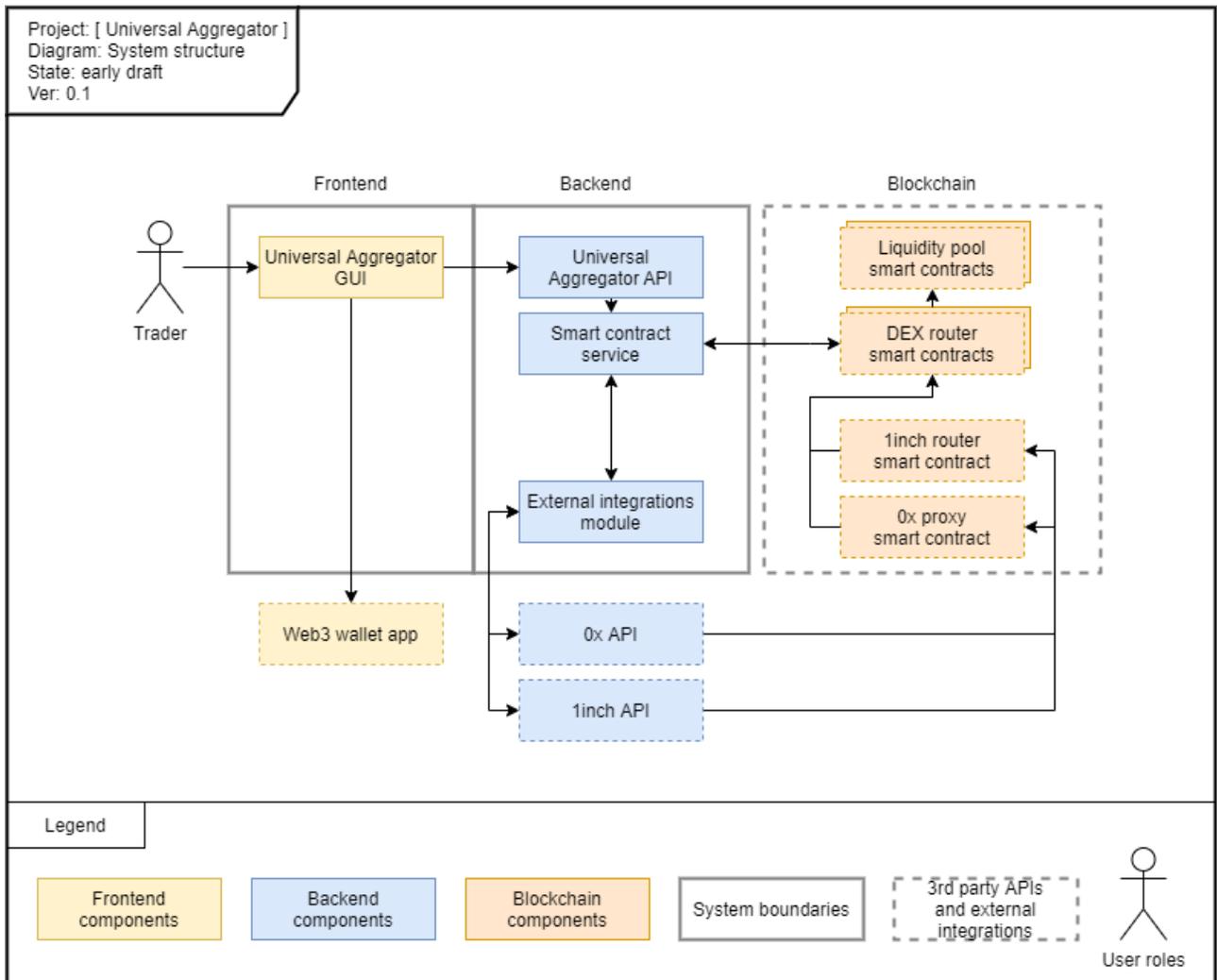
Once we have a working solution working using 1inch and 0x protocols we will move on to integration of other DEX liquidity aggregation protocols.

Order processing diagrams

Limit order processing flow
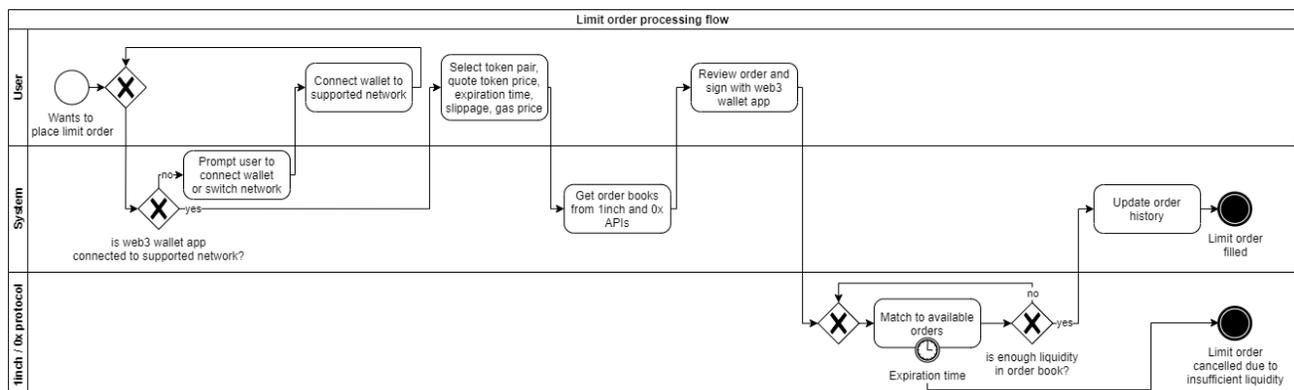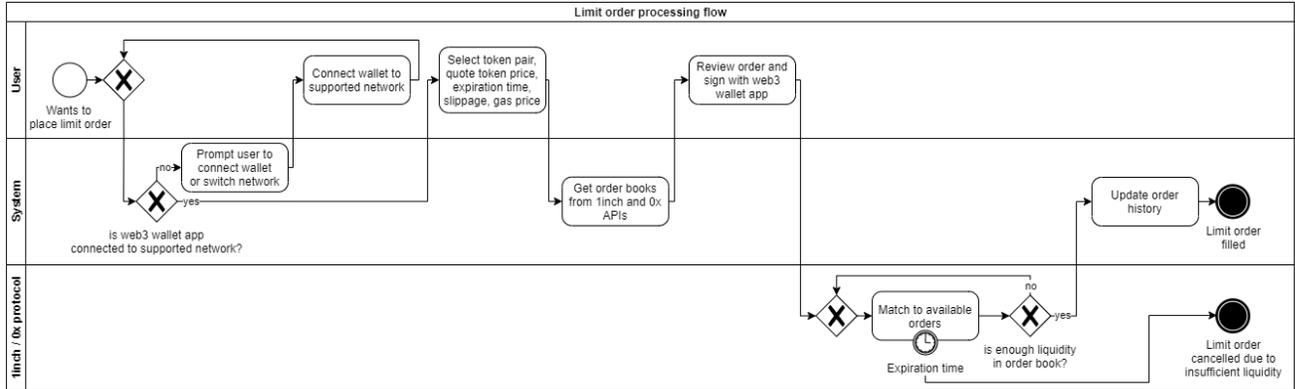
System structure diagram

Margin Trading

FinStudio plans to offer a margin trading option for DEX users as well. Margin trading allows users to open larger positions than they would normally be able to open with their available funds.

Margin Pool

FinStudio will create its own margin pool, which is basically a simple lending/borrowing liquidity pool. Users can become lenders so other users can borrow from the pool for their margin trading.

Lenders will receive interest on the amount they deposit, those who borrow will need to pay the interest.

Lenders will be paid the interest and if there is more capital in the pool than traders actually need, the money would not be needed and they would not make any return on their deposited funds. The pool will only accept a certain amount of funds from lenders. There will be a ratio that will measure the amount of margin that is requested by traders and the value of the total available margin in the pool.

Borrowers will need to pay a certain fee to be able to do margin trade. As per industry standards, there will be maker and taker fees. Also if trade lasts more than a certain time period, the user will also have to pay a rebalancing fee.

Funds in the margin pool will be locked and it will not be possible to use them for any other purpose than to fund margin trades.

Margin NFT's

When placing a new trade anyone who wants to do margin trade has to choose desired leverage. Once the leverage is selected, the system will send a request to see if the pool is able to provide the funds for a specific trade considering chosen leverage. This is instant and upon confirmation, trade can be executed. Once the order is sent, the margin pool will issue Margin NFT for the account confirming funds allocation. Once the platform confirms the NFT, the funds are then released from the margin pool to finance the trade. When the trade is closed, a profit or loss from the trade is added to the trader's wallet, and the borrowed amount is returned back to the margin pool.

FinSocially

Social Network

Profile
For each user that will decide to join our network, we will mint a unique NFT that will serve as his profile. This profile NFT will store all users' information. Any content that the user adds is stored in the profile NFT. The NFT is permissionless and non-custodial, users fully own their data.

Post
Users can post and add any content type such as text, pictures, or videos. Besides traditional content, we also natively support trading charts content. These can be images or live trading charts.

Sharing
Each post can be shared and receive rewards. The more is a post shared and the bigger exposure it reaches, the more rewards the post creator gets.

Commenting
As on traditional networks, users are free to comment and leave comments. Besides text, users can also respond with audio or video comments.

Connecting
Users can connect to the other users and link their profiles to stay in a closed circle.

Groups
Users are able to create their own communities as groups. The groups can be private or public. The group owner may decide to charge subscription fees for the group membership. There is a free tier, but also paid tiers which will give the group creators and members more options.

Gallery
Users are able to collect any content and add it to their gallery. As we fully support NFTs, the users can store NFT collections.

Market

FinSocially will have a fully featured digital content e-shop marketplace where users will be able to sell their products and also purchase them.

Some items will be limited and to acquire them users will be able to participate in a digital auction led by the product owner and be able to bid. Creators can also choose to sell their NFT in the auction only instead of listing it for sale directly.

NFT Addon Licensing

Besides traditional NFTs such as audio, video, 3D, or pictures, we fully support our FinScript files being turned into NFT. Art is the unique work of an individual, the creators hold the copyrights to the artworks they create. We consider code programmed by a programmer to be very similar. The resulting code can be in a form of an indicator, trading strategy, exit method, position sizing method, or any other script.

Freelancing

Users often have many trading ideas they want to automate or turn into working code, but often don't have programming skills. We will fully support freelancing so users can hire a programmer and also so programmers can offer their coding skills to the users. Users will post a job with a description of what they need to be done and freelancers react to the offer. Once the user selects the best candidate, the job can be started. To start the job, the user first needs to deposit the funds necessary to complete the job. This way money is deposited in escrow and the programmer can start work. This prevents users not paying for the job after the programmer spends time on the job. Funds are not released from the escrow until the programmer doesn't successfully prove the code works as it was intended to. Once both sides are satisfied, funds are released from escrow and sent to the programmer and the same way the completed files and code is sent to the user.

Escrow Smart Contract

We will be fully automating escrow to make things more simple. To automate our escrow service we will be using the decentralized escrow solution Escrow 3.0 from Smartlink.