FIFO Transaction export tool for Ethereum

Business Context

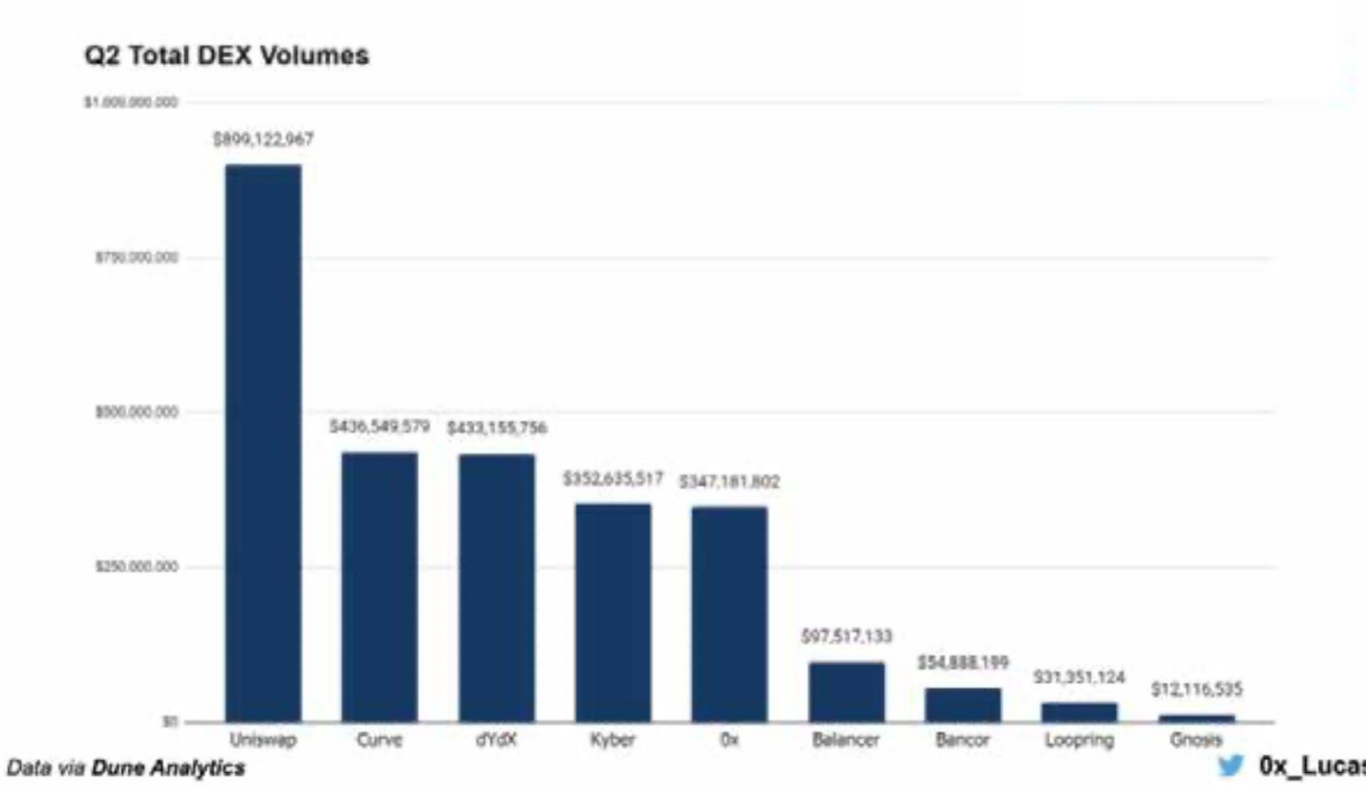
Residual currently has a partnership with Computis. We get paid PER user signup.

We are selling directly to exchanges so they if we sell deal with them we can tap into their users and they onboard users to the Compotis API and we get a per user signup fee. A great way to scale signing up users by using the exchanges user base.

But what about DEX exchanges?

Below is the top 10 fully Ethereum onChain Decentralized exchange protocols.

With that in mind, the top tokenized DEXs in terms of quarterly volume were Kyber and 0x as they accumulated $352M and $347M in Q2 volume, respectively.



We want to start with the top 10 DEX transactions for an ETH account in etherscan they are the biggest. So Given a list of ETH addresses we want to pull all transaction types for these top 10 DEXs

Also for Lending there are top 3 players we want to focus on when looking at the ETH addresses transaction history.

Also the following new Exchanges and Staking Ecosystems:

These three below should be implemented as well have alot of volume as well have all sort of crazy things going on that will be EXTREMELY difficult to unpack into clean transactions for a FIFO tax report!

https://balancer.exchange/

https://synthetix.exchange/#/
https://ygov.finance/
https://aave.com/

If we start with these top 10 exchanges and top 3 lending players and those 4 new DEFI “Exchange/staking/yield/Other” protocols, we may then be able to figure out a way in the future to run through ALL transactions for an ETH address and calculate those transaction types for ALL ETH contracts that include those transaction types indicated in this document.

Pull the transaction history in a format that can easily be integrated with the Computis API. It may even be a good thing to keep the naming convention very similar to the computis field names so because we can integrate with the computis Tax API as the next step in phase 1. They are our partner so this is ok.

The thinking is that if we provide this tool for DEFI/Fully onchain users, they could easily pull their appropriate transactions in a format that works for then importing to a Tax service like Computis (and we want to push users that direction because we get a % of revenue) to generate a FIFO Tax report, which is the first Tax report Computis is focusing on because it is the most straightforward and will suit the most users.

One this export tool has been created, we want to create the tool that uses this exported transaction data to then imports into computis for the transaction types below and generate the FIFO report via the Compoutis API.

Information on FIFO Tax Calulations

https://cryptotrader.tax/blog/cryptocurrency-tax-calculations-fifo-and-lifo-costing-methods-explained

Competitors and Info

https://help.cryptotrader.tax/en/articles/2584884-simple-format-manual-exchange-guide

If you play with these services you will see they just have basic import via interesting exchange api or manual csv upload!

https://app.cryptotrader.tax/

lukkatax

Computis Info

https://www.computis.io/

They do not have a way for individual users to sign up but I am talking to Sloane Tuesday to get individual user api access for myself to test with.

Marketing material

https://drive.google.com/file/d/1zcFcjqMm0rJQ7rDCWZqFHmku94yBNWbK/view?usp=sharing

API documentation

https://docs.google.com/document/d/14TmR6Rwn17pn5I6jIxJ6zvGmx745CFaE/edit

Phase 1 Task - Export Uniswap Transactions to CSV

We want to implement the following

Export transactions from Ethereum Blockchain using a user entered list of ETH addresses and export to CSV.

The lower level utility can be a python or JS component that can be called from the command line for now. Show meaningful and appropriate responses to the user for errors/success/status. Save the output as CSV. Then the later command to call to te computis API can happened in a subsequent command.

Follow and extract the following fields from etherscan.io or some similar onchain explorer to extract the data. If there is a better way please let us know! Chainanalytics? Dune analytics? I am not sure of the approach here offhand but the data is in etherscan for various smart contracts. [Here is where we spoke about using Enigma or Oasis to extract the information required to calculate gain/loss without revealing the eth addresses. We also spoke about permission-based sharing of information once processed to accountant or other approved party.]

We want to extract the data and create CSV that match the various transaction types supported by computis.

See this table of fields in that Computis integration document for details on the fields:

Transaction Types considerations

Note that the Computis integration document indicates the transactions types below and there are examples of what the data for each should look like. The challenging part is that for an ETH address and given the TOP 10 DEXs and Top 3 Lending Protocols, we need to get the transactions on each smart contract transaction where the trade was made and potential.

This list is large and some of these might not even be practical since an ETH address is NOT an exchange. So the question is what may not be covered here below versus covered below as a general exercise. Implement what we can and has a clear mapping as a starting point. Keep a copy of exchange documentation and not where the information came from which the mapping was based.

So once the raw data is extracted from the Ethereum blockchain you can call the computis API to sent the translate transaction data to their json and once that happens a report could be generated via another computis API call.(we are getting the actual Domain/endpoints for these calls for oth operations soon but example jsons are in their document to get started witht)

Do not move on to Phase 2 until Phase 1 is reviewed.

Phase 2 Task - Create UI Page/Site that allows you to enter your ETH addresses and it will generate the CSV for you.

Create a website on a server and create basic UI for entering ETH addresses and then search and find and allow user to download generated list of transactions in a CSV file.

Also create a REST API that wraps the utility created in phase one for other to integrate with.

Other Technical Requirements

All Code will be hosted in Residual Token Github. You may use your own cloud hosting but all configs should be codified clearly in our github.

There must be good test coverage for each transaction type. Can start with just ok test coverage for Phase 1 but at least show basic correctness and examples.