UTXO LENSES

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Introduction

Unspent Transaction Outputs (UTXO)

- Discrete Piece of Cryptocurrency
- Output of a transaction that exists until it is used as an input in a subsequent transaction
- Users reference unspent outputs (UTXOs) from previous transactions as their inputs
How it Works

Previous Transaction

Output: 2.5

Output: 2.8

X uses both UTXOs as inputs

X’s UTXOs

Y’s UTXOs

X’s Transaction to Y

Output: 2.5

Output: 2.8

Output: 3.5

Output: 1.0

0.8 for Transaction Fees

X sends an output of worth 3.5 and creates another output worth 1.0 which it sends to itself
PROJECT GOAL

Building a Visualization Tool for ResilientDB apps (i.e, ResVault) that utilize the concept of UTXOs or token transactions.
Tools

- Postman
- NodeJS
- ReactJS
- Python
- ThreeJS
- ngrok
- Github Pages
Features

1. 2D Visualization
2. 3D Visualizations
Using ResilientDB

Utilized the ResDriver to generate about 5,000 transactions involving 50 users. Throughout this process, we maintained consistency with the ResVault schema.
Generate Transactions and Push to ResDB

ResDriver

ResilientDB

PullData (Time Delta)

Transform

End Point Calls

UI/UX

Front-End

Json Caching

Backend
Future Work

- Improve the Visualization (i.e., User Interface)
- Develop our tool as an SDK or package to enable other wallets seamlessly integrate with the tool.
- Make the tool Schema agonistic
Thank you