III Spectrum Finance



Improved Ergo explorer UX/UI

Ergohack VI proposal by Spectrum Labs team

1. Executive summary

The design of blockchain-based products must consider the needs and preferences of **different user segments**. One particular challenge for the Ergo ecosystem is presenting complex information in a way that is accessible and easy to understand for all users.

The visual representation of the UTxO (Unspent Transaction Output) model is a case in point. The model's complexity can make it difficult for the average user to understand, hindering their ability to access important information in a timely manner.

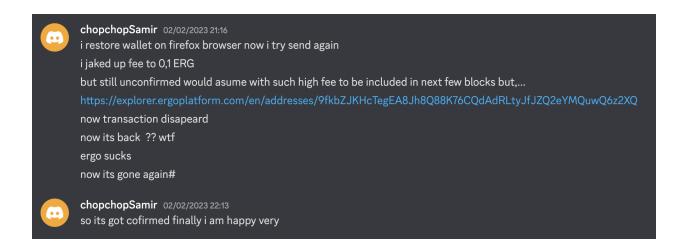
An average user is used to seeing account-based model transactions in their financial apps (aka. "from-to" representation). To address this challenge, it is necessary to simplify the visual representation of the UTxO model and present information clearly and concisely. This will make it easier for such users to quickly access the information they need, regardless of their level of expertise working with UTxO.

At the same time, we should not limit advanced users with access to the full visual representation of the UTxO model and add features for this segment to improve their user experience too.

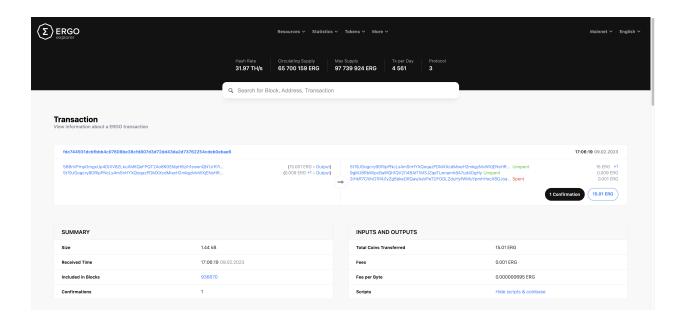
To reach greater adoption for the ecosystem, we developers should think not only about the technology itself but about the delivery and usability of our products and services. We must consider the previous experience of our users and their education in this or that financial/blockchain field. Simplifying the visual representation of the UTxO model and making it familiar to the average user is one step to greater ecosystem adoption.

2. Problem

The current user interface of Ergo explorer brings a poor user experience to the end user. Some users sometimes feel really upset using it. Here is a feedback example:



We also conducted 5 short interviews with Ethereum and banking app users to learn do they understand what is going on on the transaction page of Ergo explorer. The results show that no one understands what is represented in the following screenshot:



We concluded that the interface is not intuitive enough to onboard even Ethereum users.

3. Solution

To reach broader adoption all Ecosystem's products should be simplified to accommodate the average user segment. The product interface must meet two basic requirements a) Give quick feedback to the user and b) The feedback should look familiar and be entirely understandable to the average user.

So the UTxO model visual representation should be simplified to the familiar account base model but with the ability to render the UTxO model as is

For example this tx representation:



Can be simplified into this (!EXAMPLE, NOT THE FINAL IMPLEMENTATION):



4. Project Plan

4.1. March 2023

- 1. UX/UI research
- 2. Design system development

4.2. April 2023

- 1. Development of UX/UI explorer screens (use cases)
- 2. Consideration of corner cases
- 3. AT RISK: Mobile screen development. Two months may not be enough

5. Outputs

The output of the work will be addressed to the Ergo Foundation team. We have already agreed with Ergo's core developer that he is ready to implement a new frontend for the explorer.

The output will be represented as 2 Figma files:

- A design system that includes the following user interface components:
 - 1. Button
 - 2. Checkbox
 - 3. Radio
 - 4. Dropdown
 - 5. Select

- 6. Menu
- 7. Toggle
- 8. Table
- 9. Icons
- 10. Input
- 11. Charts
- 12. Tag
- 13. Tooltip
- 14. Notification
- 15. Accordion
- UX/UI of the following explorer screens:
 - 1. Main screen
 - 2. Single transaction screen
 - a. Transfer Tx
 - b. DEX
 - c. Mempool
 - 3. List of transactions:
 - a. Transfer Tx
 - b. DEX
 - c. Mempool
 - 4. Single address data
 - 5. List of blocks
 - 6. Single block
 - 7. Tokens list
 - 8. Single native token

6. Costs

	Month 1	Month 2
Senior UX/UI designer	\$4,000	\$4,000
UX/UI Researcher	\$1,500	\$1,500