michalis | W3F

michalis | W3F

mikchang created this room.

This is the start of export of **michalis | W3F**. Exported by **mikchang!** (@mikchang:matrix.org) at 11/30/2023.

Mon, Nov 27, 2023

12:00 mikchang joined the room
12:00 mikchang made the room invite-only.
12:00 mikchang made future room history visible to all room members.
12:00 mikchang has allowed guests to join the room.

12:00

Encryption enabled
Messages here are and is end-to-end encrypted. Verify michalis | W3F in their profile - tap on their profile picture.

12:00 mikchang invited michalis | W3F

mikchang
12:01 Hello Michalis
Can you please confirm that these are the two account you would like to see traces/account reference for?

```
14MLAat6uQJNHaboXnqtLhzwiQLqRbzueJdaHWLjeZi2nHuS
14aGJvQ54XfeDe3rzLnkZCCXH2Za9n3ZGit8jJFJsktfcdFx
```

(edited)
12:54 we are trying out a different/targeted approach to tackle the account reference problem and would like to use your accounts as test cases. But I kinda lost track what accounts I should be testing with 😅

Tue, Nov 28, 2023

michalis | W3F joined the room

michalis | W3F
10:07 Hi Michael. Yeah, those two accounts can be used for testing, although we know what has happened there.

Another account I shared with Soumith is this one:
14mY9eUFJT615yWr2G7x4NP53svJVXvTzdpWDsmaXFAN7uYN

For this particular one we are instrested in the reserved amounts. There's a lot of it and we're trying to help the user figure out where it comes from. Here's the dashboard for it:
https://analytics.polkaholic.io/superset/dashboard/682?native_filters_key=z_oI1gGypmFyIBPvcfW-xiaw4UC9mDxBQXmHNMAp8ovQRfjdKGy_GR6ifDMdMjJVK

10:08 The first two tables throw this error:

```
1
<html><head>
<meta http-equiv="content-type" content="text/html;charset=utf-8">
<title>502 Server Error</title>
</head>
<body text=#000000 bgcolor=#ffffff>
<h1>Error: Server Error</h1>
<h2>The server encountered a temporary error and could not complete your request.<p>Please try again in 30 seconds.</h2>
<h2></h2>
</body></html>
```

The Account Reference Tracer table used to load changes from Sep 14 until today but now it loads only a few of them (until Sep 19).
10:09 For this account we are interested in the full history so we can track the addition and removal of reserves, and thus figure out where the current reserves are coming from. (edited)

mikchang
10:12 Hello Michalis,

Given your specific use case—focusing solely on a particular account over an extended period—we have developed an alternative approach. This involves performing a binary search on the system.account state at the block_number level, and then fetching all relevant traces from OnFinality once the changes have been detected. In addition, we will introduce a separate dashboard specifically for targeted account analysis (same UI, but the dataset will only contain the targeted account), which should enable both cost-effective and fast deep account analysis.

We are currently in the process of streamlining the above and will keep you updated. Regarding the 502 error you are encountering: it should be resolved if you force refresh the chart.

mikchang
10:16 In reply to this message

10:32 https://docs.google.com/spreadsheets/d/1ar9lW62N9qJ8Pj33Aq5o9_pIGZuPSSRpfL7tLSIz8U/edit?pli=1#gid=1304485804

mikchang
11:16 can you please check again? I have shared the same result with you in a google sheet just in case you are still seeing the 502 errors.
11:18 The dashboard you are using has 90 day traces window for **all accounts**. Since 14mY9eUFJT615yWr2G7x4NP53svJVXvTzdpWDsmaXFAN7uYN is only active starting 2023-09-19. I believe all the reference changes are covered ^

michalis | W3F
11:22 Thanks Michael. The 502 error was resolved after a hard refresh. However, the account has a much longer history than 90 days:
https://polkaholic.io/xcm/extrinsic/14mY9eUFJT615yWr2G7x4NP53svJVXvTzdpWDsmaXFAN7uYN?module:allfalse,all:allfalse,ts0:allfalse,ts1:allfalse,signedOnlyChecked:signedFilt20only&page=2&startDate=&endDate=&startBlock=&endBlock=&timeType=date&version=9433#&tabId

It wouldn't make sense for the account to start with a reserved balance, right?🤔

mikchang
11:31 okay will use that as a test case for our targeted dashboard. thanks

mikchang
11:54 https://analytics.polkaholic.io/superset/dashboard/89?native_filters_key=y3qEHqNuNHZjvwwdbqvQSHkjvOFbNiIJ7iXZ4cc1Yx2IoCqHTKAMHkR-qj-iNw_6
11:54 @michalis | W3F : can you take a look for the targeted account trace 14mY9eUFJT615yWr2G7x4NP53svJVXvTzdpWDsmaXFAN7uYN?

12:06 I see some reserved changes on 2023-08-17, 2022-09-16, 2022-09-09, 2021-11-08, 2021-03-11, 2021-03-05 . I don't know what does that mean to you 🤔

Wed, Nov 29, 2023

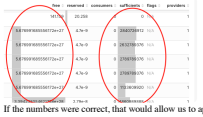
michalis | W3F
01:00 Thanks Michael! This helps a lot! However, the data doesn't seem to be quite right. For example, in the first screenshot, the first two entries are for the same extrinsic. They show some very small amount changes for reserved (0-> 4.7e-9 -> 2.79e-9) when in fact what happens is that 100 DOT is reserved:
https://polkaholic.io/tx/0xa5a27e38595e2b6ada0b0f60a17bad92180c0a102a6a5a0f59f9df8c8e6a04024

In the second screenshot (from the reference tracer table) reserved is zero, but in the extrinsic 17915655-2 ~20 DOT was reserved for identity:
https://polkaholic.io/tx/0x1740b3e32756d157a0d6ac3ae045e99faa588c52800fa38e1b4cf0455f31dc

Also, the numbers in all columns don't make sense for some entries and they change inexplicably (third and fourth screenshot). I think eth is off in the way you digest the data. (edited)

01:21

01:31

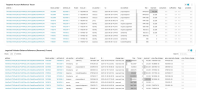
01:51 

01:56 If the numbers were correct, that would allow us to apply the following methodology to determine where the current reserves come from:

1. See when the reserve increases and add the extrinsic and amount to a table
2. When it decreases, match the unreserve to a previous reserve based on amount and extrinsic
3. What's left should account for the current reserves

mikchang
09:40 the incorrect value has something to do with polkadot runtime update and so have to decode ancient trace from 2021 using old metadata
09:40 (this is not an easy problem. but let me work on it)

mikchang
10:32 @michalis | W3F : can you please check again?



10:34

michalis | W3F
10:45 I'll have a look tomorrow. Thanks Michael!

Thu, Nov 30, 2023

mikchang
07:54 Does the targeted dashboard allow for inspecting the account following the methodology you have laid out:

- See when the reserve increases and add the extrinsic and amount to a table
- When it decreases, match the unreserve to a previous reserve based on amount and extrinsic
- What's left should account for the current reserves

mikchang
08:32 @michalis | W3F : Milestone 1 and Milestone 2 have been delayed for more than a month and we would like to have it considered delivered so we can go back to other substrate problems. With your consent, we plan to include our chat history as part of our response to Takahser in the

GitHub thread.

Considering Takahser (the reviewer) was not present in the original polkadot alliance chat room and our grant proposal is heavily data-oriented (with data published to big query and later used in superset), we believe it may not be practical for him to redeploy the Polkaholic repository as a means of evaluation