

0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816

October 9, 2022

```
[ ]: import pandas as pd
from ethtx import EthTx, EthTxConfig
from ethtx.models.decoded_model import DecodedTransaction
from typing import List
```

```
[ ]: ethtx_config = EthTxConfig(
    mongo_connection_string="mongomock://localhost/ethtx",  ##MongoDB
    ↪connection_string,
    etherscan_api_key="VQXUYMB6T6I2E9SF67JPKP6YCYFW5P645A",  ##Etherscan API
    ↪key,
    web3nodes={
        "mainnet": {
            "hook": "https://api.archivenode.io/
            ↪58db800c-c787-41c1-96d5-ed35e126eb35",  # multiple nodes supported, separate
            ↪them with comma
            "poa": False
        }
    },
    default_chain="mainnet",
    etherscan_urls={"mainnet": "https://api.etherscan.io/api", },
)

ethtx = EthTx.initialize(ethtx_config)
""" decoded_transaction: DecodedTransaction = ethtx.decoders.decode_transaction(
    '0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816')

print(decoded_transaction) """
```

```
[ ]: " decoded_transaction: DecodedTransaction = ethtx.decoders.decode_transaction(\n
'0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816')\n\nprint(d
ecoded_transaction) "
```

```
[ ]: web3provider = ethtx.providers.web3provider

from ethtx.models.w3_model import W3Transaction, W3Block, W3Receipt, W3CallTree
```

```

# read raw transaction data directly from the node
w3transaction: W3Transaction = web3provider.get_transaction(
    '0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816')
w3block: W3Block = web3provider.get_block(w3transaction.blockNumber)
w3receipt: W3Receipt = web3provider.get_receipt(w3transaction.hash.hex())
w3calls: W3CallTree = web3provider.get_calls(w3transaction.hash.hex())

```

```

[ ]: from ethtx.models.decoded_model import (
    DecodedTransfer,
    DecodedBalance,
    DecodedEvent, DecodedCall,
)
from ethtx.models.objects_model import Transaction, Event, Block, Call

# read the raw transaction from the node
transaction = Transaction.from_raw(
    w3transaction=w3transaction, w3receipt=w3receipt, w3calltree=w3calls
)

# get proxies used in the transaction
proxies = ethtx.decoders.get_proxies(transaction.root_call, "mainnet")

block: Block = Block.from_raw(
    w3block=web3provider.get_block(transaction.metadata.block_number),
    chain_id="mainnet",
)

# decode transaction components
abi_decoded_events: List[Event] = ethtx.decoders.abi_decoder.decode_events(
    transaction.events, block.metadata, transaction.metadata
)
abi_decoded_calls: DecodedCall = ethtx.decoders.abi_decoder.decode_calls(
    transaction.root_call, block.metadata, transaction.metadata, proxies
)
abi_decoded_transfers: List[
    DecodedTransfer
] = ethtx.decoders.abi_decoder.decode_transfers(abi_decoded_calls,
↪abi_decoded_events)
abi_decoded_balances: List[DecodedBalance] = ethtx.decoders.abi_decoder.
↪decode_balances(
    abi_decoded_transfers
)

print(abi_decoded_calls)
print(abi_decoded_transfers)
print(abi_decoded_balances)
print(abi_decoded_events)

```



```

timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1', call_type='call',
from_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), value=0.0,
function_signature='0x2636f7f8', function_name='callBytes',
arguments=[Argument(name='arg_0', type='address',
value='0xc143790f399351c25a906bb3fb15630828f8e75e'), Argument(name='arg_1',
type='bytes', value='0x0000000000')], outputs=[], gas_used=503483, error=None,
status=True, indent=1, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0000', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), value=0.0,
function_signature='0xeb5625d9', function_name='safeApprove',
arguments=[Argument(name='arg_0', type='address',
value='0xdac17f958d2ee523a2206206994597c13d831ec7'), Argument(name='arg_1',
type='address', value='0xba1222222228d8ba445958a75a0704d566bf2c8'),
Argument(name='arg_2', type='uint256', value=206805330013)], outputs=[],
gas_used=26419, error=None, status=True, indent=2,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0000_0000', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), value=0.0, function_signature='0x095ea7b3',
function_name='approve', arguments=[Argument(name='_spender', type='address',
value='0xba1222222228d8ba445958a75a0704d566bf2c8'), Argument(name='_value',
type='uint256', value=206805330013)], outputs=[], gas_used=24953, error=None,
status=True, indent=3, subcalls=[], function_guessed=False)],
function_guessed=True), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None), value=0.0, function_signature='0x945bcec9',
function_name='batchSwap', arguments=[Argument(name='kind', type='uint8',
value=0), Argument(name='swaps', type='tuple[]', value=[[Argument(name='arg_1',
type='unknown',

```

[illegible]

[illegible]

[illegible]

[illegible]

```

value=['0xdac17f958d2ee523a2206206994597c13d831ec7',
'0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c',
'0x9210f1204b5a24742eba12f710636d76240df3d0',
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48']], Argument(name='funds',
type='tuple', value=[Argument(name='sender', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='fromInternalBalance', type='bool', value='False'),
Argument(name='recipient', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='toInternalBalance', type='bool', value='False')]),
Argument(name='limits', type='int256[]', value=[57896044618658097711785492504343
953926634992332820282019728792003956564819967, 0, 0, -204751351361]),
Argument(name='deadline', type='uint256', value=1665413905)],
outputs=[Argument(name='assetDeltas', type='int256[]', value=[206805330013, 0,
0, -206819546142])], gas_used=285946, error=None, status=True, indent=2,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0000', call_type='call',
from_address=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None),
to_address=AddressInfo(address='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c',
name='AaveLinearPool', badge=None), value=0.0, function_signature='0x01ec954a',
function_name='onSwap', arguments=[Argument(name='request', type='tuple',
value=[Argument(name='kind', type='uint8', value=0), Argument(name='tokenIn',
type='address', value='0xdac17f958d2ee523a2206206994597c13d831ec7'),
Argument(name='tokenOut', type='address',
value='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c'), Argument(name='amount',
type='uint256', value=206805330013), Argument(name='poolId', type='bytes32',
value='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c000000000000000000000000fd'),
Argument(name='lastChangeBlock', type='uint256', value=15711263),
Argument(name='from', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='to',
type='address', value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='userData', type='bytes', value='0x')]), Argument(name='balances',
type='uint256[]', value=[5192296839447818989433937389970455, 6454165457447,
11820181401568]), Argument(name='indexIn', type='uint256', value=1),
Argument(name='indexOut', type='uint256', value=0)], outputs=[Argument(name='',
type='uint256', value=203666116031336081757331)], gas_used=25723, error=None,
status=True, indent=3, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0000_0000', call_type='staticcall',
from_address=AddressInfo(address='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c',
name='AaveLinearPool', badge=None),
to_address=AddressInfo(address='0x7d2768de32b0b80b7a3454c06bdac94a69ddc7a9',
name='InitializableImmutableAdminUpgradeabilityProxy', badge=None), value=0.0,
function_signature='0xd15e0053', function_name='getReserveNormalizedIncome',

```

```

arguments=[Argument(name='asset', type='address',
value='0xdac17f958d2ee523a2206206994597c13d831ec7')], outputs=[Argument(name='',
type='uint256', value=1093641539056167633751820766)], gas_used=12856,
error=None, status=True, indent=4, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0000_0000_0000', call_type='delegatecall',
from_address=AddressInfo(address='0x7d2768de32b0b80b7a3454c06bdac94a69ddc7a9',
name='InitializableImmutableAdminUpgradeabilityProxy', badge=None),
to_address=AddressInfo(address='0xc6845a5c768bf8d7681249f8927877efda425baf',
name='LendingPool', badge=None), value=0.0, function_signature='0xd15e0053',
function_name='getReserveNormalizedIncome', arguments=[Argument(name='asset',
type='address', value='0xdac17f958d2ee523a2206206994597c13d831ec7')],
outputs=[Argument(name='', type='uint256', value=1093641539056167633751820766)],
gas_used=7745, error=None, status=True, indent=5, subcalls=[],
function_guessed=False)], function_guessed=False)], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0001', call_type='call',
from_address=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None),
to_address=AddressInfo(address='0x7b50775383d3d6f0215a8f290f2c9e2eebbeceb2',
name='StablePhantomPool', badge=None), value=0.0,
function_signature='0x01ec954a', function_name='onSwap',
arguments=[Argument(name='swapRequest', type='tuple',
value=[Argument(name='kind', type='uint8', value=0), Argument(name='tokenIn',
type='address', value='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c'),
Argument(name='tokenOut', type='address',
value='0x9210f1204b5a24742eba12f710636d76240df3d0'), Argument(name='amount',
type='uint256', value=203666116031336081757331), Argument(name='poolId',
type='bytes32',
value='0x7b50775383d3d6f0215a8f290f2c9e2eebbeceb20000000000000000000000fe'),
Argument(name='lastChangeBlock', type='uint256', value=15711263),
Argument(name='from', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='to',
type='address', value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='userData', type='bytes', value='0x')]), Argument(name='balances',
type='uint256[]', value=[19086951398764703899584644,
5192296796466977327168910881498791, 21407105879414517191755119,
21741468841235565329823364]), Argument(name='indexIn', type='uint256', value=0),
Argument(name='indexOut', type='uint256', value=3)], outputs=[Argument(name='',
type='uint256', value=204656404650254161241746)], gas_used=68269, error=None,
status=True, indent=3, subcalls=[], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0002', call_type='call',

```

```

from_address=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None),
to_address=AddressInfo(address='0x9210f1204b5a24742eba12f710636d76240df3d0',
name='AaveLinearPool', badge=None), value=0.0, function_signature='0x01ec954a',
function_name='onSwap', arguments=[Argument(name='request', type='tuple',
value=[Argument(name='kind', type='uint8', value=0), Argument(name='tokenIn',
type='address', value='0x9210f1204b5a24742eba12f710636d76240df3d0'),
Argument(name='tokenOut', type='address',
value='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48'), Argument(name='amount',
type='uint256', value=204656404650254161241746), Argument(name='poolId',
type='bytes32',
value='0x9210f1204b5a24742eba12f710636d76240df3d0000000000000000000000000fc'),
Argument(name='lastChangeBlock', type='uint256', value=15711263),
Argument(name='from', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='to',
type='address', value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='userData', type='bytes', value='0x')]), Argument(name='balances',
type='uint256[]', value=[5192296836793207384407866826424575, 3105456645935,
17502492955792]), Argument(name='indexIn', type='uint256', value=0),
Argument(name='indexOut', type='uint256', value=1)], outputs=[Argument(name='',
type='uint256', value=206819546142)], gas_used=19287, error=None, status=True,
indent=3, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0002_0000', call_type='staticcall',
from_address=AddressInfo(address='0x9210f1204b5a24742eba12f710636d76240df3d0',
name='AaveLinearPool', badge=None),
to_address=AddressInfo(address='0x7d2768de32b0b80b7a3454c06bdac94a69ddc7a9',
name='InitializableImmutableAdminUpgradeabilityProxy', badge=None), value=0.0,
function_signature='0xd15e0053', function_name='getReserveNormalizedIncome',
arguments=[Argument(name='asset', type='address',
value='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48')]), outputs=[Argument(name='',
type='uint256', value=1077903209590781548765506574)], gas_used=8356, error=None,
status=True, indent=4, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0002_0000_0000', call_type='delegatecall',
from_address=AddressInfo(address='0x7d2768de32b0b80b7a3454c06bdac94a69ddc7a9',
name='InitializableImmutableAdminUpgradeabilityProxy', badge=None),
to_address=AddressInfo(address='0xc6845a5c768bf8d7681249f8927877efda425baf',
name='LendingPool', badge=None), value=0.0, function_signature='0xd15e0053',
function_name='getReserveNormalizedIncome', arguments=[Argument(name='asset',
type='address', value='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48')]),
outputs=[Argument(name='', type='uint256', value=1077903209590781548765506574)],
gas_used=7745, error=None, status=True, indent=5, subcalls=[],
function_guessed=False)], function_guessed=False)], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),

```


[illegible]

```

call_id='1_0002_0001_0000', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), value=0.0, function_signature='0x095ea7b3',
function_name='approve', arguments=[Argument(name='_spender', type='address',
value='0xc9f93163c99695c6526b799ebca2207fdf7d61ad'), Argument(name='_value',
type='uint256', value=733218897323)], outputs=[], gas_used=24953, error=None,
status=True, indent=4, subcalls=[], function_guessed=False)],
function_guessed=True), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None), value=0.0, function_signature='0x8dae7333',
function_name='sellBaseToken', arguments=[Argument(name='amount',
type='uint256', value=733218897323), Argument(name='minReceiveQuote',
type='uint256', value=725914109474), Argument(name='data', type='bytes',
value='0x')], outputs=[Argument(name='', type='uint256', value=733246575229)],
gas_used=108583, error=None, status=True, indent=3,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xf6a8e47daeaddc297e7541523e27df2f167bf3',
name='DODO', badge=None), value=0.0, function_signature='0x8dae7333',
function_name='sellBaseToken', arguments=[Argument(name='amount',
type='uint256', value=733218897323), Argument(name='minReceiveQuote',
type='uint256', value=725914109474), Argument(name='data', type='bytes',
value='0x')], outputs=[Argument(name='', type='uint256', value=733246575229)],
gas_used=105893, error=None, status=True, indent=4,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0000', call_type='staticcall',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xab291a45818bdaa1aaf18e128e134da797d3dc3f',
name='ConstOracle', badge=None), value=0.0, function_signature='0x98d5fda',
function_name='getPrice', arguments=[], outputs=[Argument(name='',
type='uint256', value=1000000000000000000)], gas_used=2328, error=None,
status=True, indent=5, subcalls=[], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),

```



```

tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0001', call_type='staticcall',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xab291a45818bdaa1aaf18e128e134da797d3dc3f',
name='ConstOracle', badge=None), value=0.0, function_signature='0x98d5fdca',
function_name='getPrice', arguments=[], outputs=[Argument(name='',
type='uint256', value=1000000000000000000)], gas_used=328, error=None,
status=True, indent=5, subcalls=[], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0002', call_type='call',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='value',
type='uint256', value=733246575229)], outputs=[Argument(name='', type='bool',
value='True')], gas_used=11617, error=None, status=True, indent=5,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0002_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938febf5fec13bacfb16ae10ecbc4cbdcf',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='value',
type='uint256', value=733246575229)], outputs=[Argument(name='', type='bool',
value='True')], gas_used=10828, error=None, status=True, indent=6, subcalls=[],
function_guessed=False)], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0003', call_type='call',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), value=0.0, function_signature='0x23b872dd',
function_name='transferFrom', arguments=[Argument(name='_from', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='_to',
type='address', value='0xc9f93163c99695c6526b799ebca2207fdf7d61ad'),
Argument(name='_value', type='uint256', value=733218897323)], outputs=[],
gas_used=10124, error=None, status=True, indent=5, subcalls=[],
function_guessed=False), DecodedCall(chain_id='mainnet',

```

[illegible]

[illegible]

[illegible]

```

type='uint256', value=940066121371)], gas_used=529, error=None, status=True,
indent=4, subcalls=[], function_guessed=False)], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0004_0001', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value='0x111111254fb6c44bac0bed2854e76f90643097d'), Argument(name='value',
type='uint256', value=940066121371)], outputs=[Argument(name='', type='bool',
value='True')], gas_used=28717, error=None, status=True, indent=3,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0004_0001_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938febf5fec13bacfb16ae10ecbc4cbdcf',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value='0x111111254fb6c44bac0bed2854e76f90643097d'), Argument(name='value',
type='uint256', value=940066121371)], outputs=[Argument(name='', type='bool',
value='True')], gas_used=27928, error=None, status=True, indent=4, subcalls=[],
function_guessed=False)], function_guessed=False)], function_guessed=False)],
function_guessed=True), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='2', call_type='staticcall',
from_address=AddressInfo(address='0x111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge=None),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0x70a08231',
function_name='balanceOf', arguments=[Argument(name='account', type='address',
value='0x111111254fb6c44bac0bed2854e76f90643097d')], outputs=[Argument(name='',
type='uint256', value=940066121371)], gas_used=1315, error=None, status=True,
indent=1, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='2_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938febf5fec13bacfb16ae10ecbc4cbdcf',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0x70a08231',
function_name='balanceOf', arguments=[Argument(name='account', type='address',
value='0x111111254fb6c44bac0bed2854e76f90643097d')], outputs=[Argument(name='',

```

```

type='uint256', value=940066121371)], gas_used=529, error=None, status=True,
indent=2, subcalls=[], function_guessed=False)], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='3', call_type='call',
from_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge=None),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value='0xc143790f399351c25a906bb3fb15630828f8e75e'), Argument(name='value',
type='uint256', value=940066121371)], outputs=[Argument(name='', type='bool',
value='True')], gas_used=28717, error=None, status=True, indent=1,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='3_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938febf5fec13bacfb16ae10ecbc4cbdcf',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value='0xc143790f399351c25a906bb3fb15630828f8e75e'), Argument(name='value',
type='uint256', value=940066121371)], outputs=[Argument(name='', type='bool',
value='True')], gas_used=27928, error=None, status=True, indent=2, subcalls=[],
function_guessed=False)], function_guessed=False)] function_guessed=False
[DecodedTransfer(from_address=AddressInfo(address='0xc143790f399351c25a906bb3fb1
5630828f8e75e', name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
token_address='0xdac17f958d2ee523a2206206994597c13d831ec7',
token_symbol='TetherToken', token_standard='ERC20', value=9.40024227336e-07), De
codedTransfer(from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7f
cde2b1b8a8', name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None),
token_address='0xdac17f958d2ee523a2206206994597c13d831ec7',
token_symbol='TetherToken', token_standard='ERC20', value=2.06805330013e-07), De
codedTransfer(from_address=AddressInfo(address='0xba1222222228d8ba445958a75a070
4d566bf2c8', name='Vault', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), token_address='0
xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=206819546142#inventory',
token_symbol='USDC 206819...42', token_standard=None, value=1.0), DecodedTransfe
r(from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',

```

```

name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), token_address='0
xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=733246575229#inventory',
token_symbol='USDC 733246...29', token_standard=None, value=1.0), DecodedTransfe
r(from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
token_address='0xdac17f958d2ee523a2206206994597c13d831ec7',
token_symbol='TetherToken', token_standard='ERC20', value=7.33218897323e-07), De
codedTransfer(from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca220
7fdf7d61ad', name='DODO', badge=None),
to_address=AddressInfo(address='0x95c4f5b83aa70810d4f142d58e5f7242bd891cb0',
name='Proxy', badge=None),
token_address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=14665224#inventory',
token_symbol='USDC 14665224', token_standard=None, value=1.0), DecodedTransfer(f
rom_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0x111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge=None), token_address='0xa0b86991c6218b36c1d19d
4a2e9eb0ce3606eb48?a=940066121371#inventory', token_symbol='USDC 940066...71',
token_standard=None, value=1.0), DecodedTransfer(from_address=AddressInfo(address
s='0x111111254fb6c44bac0bed2854e76f90643097d', name='AggregationRouterV4',
badge=None),
to_address=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge=None), token_address='0
xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=940066121371#inventory',
token_symbol='USDC 940066...71', token_standard=None, value=1.0)]
[DecodedBalance(holder=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828
f8e75e', name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge=None),
tokens=[{'token_address': '0xdac17f958d2ee523a2206206994597c13d831ec7',
'token_symbol': 'TetherToken', 'token_standard': 'ERC20', 'balance':
-9.40024227336e-07}, {'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=940066121371#inventory',
'token_symbol': 'USDC 940066...71', 'token_standard': None, 'balance': 1.0}]), D
ecodedBalance(holder=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1
b8a8', name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
tokens=[{'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=206819546142#inventory',
'token_symbol': 'USDC 206819...42', 'token_standard': None, 'balance': 1.0},
{'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=733246575229#inventory',
'token_symbol': 'USDC 733246...29', 'token_standard': None, 'balance': 1.0},
{'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=940066121371#inventory',
'token_symbol': 'USDC 940066...71', 'token_standard': None, 'balance': -1.0}]),
DecodedBalance(holder=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566
bf2c8', name='Vault', badge=None), tokens=[{'token_address':
'0xdac17f958d2ee523a2206206994597c13d831ec7', 'token_symbol': 'TetherToken',

```

```

'token_standard': 'ERC20', 'balance': 2.06805330013e-07}, {'token_address':
'Oxa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=206819546142#inventory',
'token_symbol': 'USDC 206819...42', 'token_standard': None, 'balance': -1.0}]],
DecodedBalance(holder=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7
d61ad', name='DOD0', badge=None), tokens=[{'token_address':
'Oxa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=733246575229#inventory',
'token_symbol': 'USDC 733246...29', 'token_standard': None, 'balance': -1.0},
{'token_address': '0xdac17f958d2ee523a2206206994597c13d831ec7', 'token_symbol':
'TetherToken', 'token_standard': 'ERC20', 'balance': 7.33218897323e-07},
{'token_address':
'Oxa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=14665224#inventory',
'token_symbol': 'USDC 14665224', 'token_standard': None, 'balance': -1.0}]], Dec
odedBalance(holder=AddressInfo(address='0x95c4f5b83aa70810d4f142d58e5f7242bd891c
b0', name='Proxy', badge=None), tokens=[{'token_address':
'Oxa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=14665224#inventory',
'token_symbol': 'USDC 14665224', 'token_standard': None, 'balance': 1.0}]]])
[DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), index=148, call_id=None, event_signature='0xddf
252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef',
event_name='Transfer', parameters=[Argument(name='from', type='address',
value='0xc143790f399351c25a906bb3fb15630828f8e75e'), Argument(name='to',
type='address', value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='value', type='uint256', value=940024227336)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), index=149, call_id=None, event_signature='0x8c5
be1e5ebec7d5bd14f71427d1e84f3dd0314c0f7b2291e5b200ac8c7c3b925',
event_name='Approval', parameters=[Argument(name='owner', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='spender',
type='address', value='0xba1222222228d8ba445958a75a0704d566bf2c8'),
Argument(name='value', type='uint256', value=206805330013)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None), index=150, call_id=None, event_signature='0x2170c741c
41531aec20e7c107c24eecd15e69c9bb0a8dd37b1840b9e0b207b', event_name='Swap',
parameters=[Argument(name='poolId', type='bytes32',
value='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c00000000000000000000fd'),
Argument(name='tokenIn', type='address',
value='0xdac17f958d2ee523a2206206994597c13d831ec7'), Argument(name='tokenOut',
type='address', value='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c'),
Argument(name='amountIn', type='uint256', value=206805330013),

```



```

Argument(name='amountOut', type='uint256', value=203666116031336081757331)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0x7b50775383d3d6f0215a8f290f2c9e2eebbeceb2',
name='StablePhantomPool', badge=None), index=151, call_id=None, event_signature=
'0x1d2422d87bc31f46211cfdfe158c5eccb86547546c7a4fff6be15a0a944c84b2',
event_name='DueProtocolFeeIncreased', parameters=[Argument(name='bptAmount',
type='uint256', value=1018750470343243455)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None), index=152, call_id=None, event_signature='0x2170c741c
41531aec20e7c107c24eecfdd15e69c9bb0a8dd37b1840b9e0b207b', event_name='Swap',
parameters=[Argument(name='poolId', type='bytes32',
value='0x7b50775383d3d6f0215a8f290f2c9e2eebbeceb20000000000000000000000fe'),
Argument(name='tokenIn', type='address',
value='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c'), Argument(name='tokenOut',
type='address', value='0x9210f1204b5a24742eba12f710636d76240df3d0'),
Argument(name='amountIn', type='uint256', value=203666116031336081757331),
Argument(name='amountOut', type='uint256', value=204656404650254161241746)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None), index=153, call_id=None, event_signature='0x2170c741c
41531aec20e7c107c24eecfdd15e69c9bb0a8dd37b1840b9e0b207b', event_name='Swap',
parameters=[Argument(name='poolId', type='bytes32',
value='0x9210f1204b5a24742eba12f710636d76240df3d00000000000000000000000fc'),
Argument(name='tokenIn', type='address',
value='0x9210f1204b5a24742eba12f710636d76240df3d0'), Argument(name='tokenOut',
type='address', value='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48'),
Argument(name='amountIn', type='uint256', value=204656404650254161241746),
Argument(name='amountOut', type='uint256', value=206819546142)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), index=154, call_id=None, event_signature='0xddf
252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef',
event_name='Transfer', parameters=[Argument(name='from', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='to',
type='address', value='0xba12222222228d8ba445958a75a0704d566bf2c8'),
Argument(name='value', type='uint256', value=206805330013)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),

```

```

contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=155, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value='0xba1222222228d8ba445958a75a0704d566bf2c8'), Argument(name='dst',
type='address', value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='value', type='uint256', value=206819546142)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), index=156, call_id=None, event_signature='0x8c5
be1e5ebec7d5bd14f71427d1e84f3dd0314c0f7b2291e5b200ac8c7c3b925',
event_name='Approval', parameters=[Argument(name='owner', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='spender',
type='address', value='0xc9f93163c99695c6526b799ebca2207fdf7d61ad'),
Argument(name='value', type='uint256', value=733218897323)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=157, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value='0xc9f93163c99695c6526b799ebca2207fdf7d61ad'), Argument(name='dst',
type='address', value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='value', type='uint256', value=733246575229)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), index=158, call_id=None, event_signature='0xddf
252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef',
event_name='Transfer', parameters=[Argument(name='from', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='to',
type='address', value='0xc9f93163c99695c6526b799ebca2207fdf7d61ad'),
Argument(name='value', type='uint256', value=733218897323)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=159, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value='0xc9f93163c99695c6526b799ebca2207fdf7d61ad'), Argument(name='dst',
type='address', value='0x95c4f5b83aa70810d4f142d58e5f7242bd891cb0'),
Argument(name='value', type='uint256', value=14665224)], event_guessed=False),
DecodedEvent(chain_id='mainnet',

```

```

tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None), index=160, call_id=None, event_signature='0xe4fed5362e
2669c70e5da5a18942d1e617d8917f6adc0164d9668bd3a6d0cebe',
event_name='ChargeMaintainerFee', parameters=[Argument(name='maintainer',
type='address', value='0x95c4f5b83aa70810d4f142d58e5f7242bd891cb0'),
Argument(name='isBaseToken', type='bool', value='False'),
Argument(name='amount', type='uint256', value=14665224)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None), index=161, call_id=None, event_signature='0xa259c93818
139b6bc90fb80e8feb75122b42edaae49560f81392cf4e1946726e', event_name='Donate',
parameters=[Argument(name='amount', type='uint256', value=0),
Argument(name='isBaseToken', type='bool', value='False')], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None), index=162, call_id=None, event_signature='0xd8648b6ac5
4162763c86fd54bf2005af8ecd2f9cb273a5775921fd7f91e17b2d',
event_name='SellBaseToken', parameters=[Argument(name='seller', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='payBase',
type='uint256', value=733218897323), Argument(name='receiveQuote',
type='uint256', value=733246575229)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=163, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'), Argument(name='dst',
type='address', value='0x1111111254fb6c44bac0bed2854e76f90643097d'),
Argument(name='value', type='uint256', value=940066121371)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=164, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value='0x1111111254fb6c44bac0bed2854e76f90643097d'), Argument(name='dst',
type='address', value='0xc143790f399351c25a906bb3fb15630828f8e75e'),
Argument(name='value', type='uint256', value=940066121371)],
event_guessed=False)]

```

```
[ ]: # decode a single event
raw_event: Event = transaction.events[0]
abi_decoded_event: DecodedEvent = ethtx.decoders.abi_decoder.decode_event(
    raw_event, block.metadata, transaction.metadata
)

# decode a single call
raw_call: Call = transaction.root_call.subcalls[0]
abi_decoded_call: DecodedCall = ethtx.decoders.abi_decoder.decode_call(
    raw_call, block.metadata, transaction.metadata, proxies
)

print(abi_decoded_event)
print(abi_decoded_call)

chain_id='mainnet'
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816'
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47)
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None) index=148 call_id=None event_signature='0xddf252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef'
event_name='Transfer' parameters=[Argument(name='from', type='address',
value='0xc143790f399351c25a906bb3fb15630828f8e75e'), Argument(name='to',
type='address', value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='value', type='uint256', value=940024227336)] event_guessed=False
chain_id='mainnet' timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47)
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816'
call_id='' call_type='call'
from_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge=None)
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None) value=0.0 function_signature='0x23b872dd'
function_name='transferFrom' arguments=[Argument(name='_from', type='address',
value='0xc143790f399351c25a906bb3fb15630828f8e75e'), Argument(name='_to',
type='address', value='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8'),
Argument(name='_value', type='uint256', value=940024227336)] outputs=[]
gas_used=43630 error=None status=True indent=0 subcalls=[]
function_guessed=False
```

```
[ ]: from ethtx.models.decoded_model import DecodedTransactionMetadata

# semantically decode transaction components
decoded_metadata: DecodedTransactionMetadata = (
    ethtx.decoders.semantic_decoder.decode_metadata(
        block.metadata, transaction.metadata, "mainnet"
    )
)
```

```

decoded_events: List[DecodedEvent] = ethtx.decoders.semantic_decoder.
    ↪ decode_events(
        abi_decoded_events, decoded_metadata, proxies
    )

decoded_calls: Call = ethtx.decoders.semantic_decoder.decode_calls(
    abi_decoded_calls, decoded_metadata, proxies
)
decoded_transfers: List[
    DecodedTransfer
] = ethtx.decoders.semantic_decoder.decode_transfers(
    abi_decoded_transfers, decoded_metadata
)
decoded_balances: List[
    DecodedBalance
] = ethtx.decoders.semantic_decoder.decode_balances(
    abi_decoded_balances, decoded_metadata
)

print(decoded_metadata)
print(decoded_events)
print(decoded_calls)
print(decoded_transfers)
print(decoded_balances)

```

```

chain_id='mainnet'
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816'
block_number=15711284
block_hash='0xa26f2f370839c3c6871db8bedd1762349334a66aaf9c66841d8bf131f31e0c17'
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47) gas_price=24
from_address=None to_address=None
sender=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender')
receiver=AddressInfo(address='0x111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver') tx_index=76 tx_value=0
gas_limit=746017 gas_used=538662 success=True
[DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), index=148, call_id=None, event_signature='0xddf
252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef',
event_name='Transfer', parameters=[Argument(name='from', type='address',
value=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender'))),
Argument(name='to', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',

```

```

name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='value', type='uint256', value=9.40024227336e-07)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), index=149, call_id=None, event_signature='0x8c5
be1e5ebec7d5bd14f71427d1e84f3dd0314c0f7b2291e5b200ac8c7c3b925',
event_name='Approval', parameters=[Argument(name='owner', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='spender', type='address',
value=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None)), Argument(name='value', type='uint256',
value=2.06805330013e-07)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None), index=150, call_id=None, event_signature='0x2170c741c
41531aec20e7c107c24eecfdd15e69c9bb0a8dd37b1840b9e0b207b', event_name='Swap',
parameters=[Argument(name='poolId', type='bytes32',
value='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c000000000000000000000fd'),
Argument(name='tokenIn', type='address',
value=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None)), Argument(name='tokenOut', type='address',
value=AddressInfo(address='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c',
name='AaveLinearPool', badge=None)), Argument(name='amountIn', type='uint256',
value=206805330013), Argument(name='amountOut', type='uint256',
value=203666116031336081757331)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0x7b50775383d3d6f0215a8f290f2c9e2eebbeceb2',
name='StablePhantomPool', badge=None), index=151, call_id=None, event_signature=
'0x1d2422d87bc31f46211cfdfe158c5eccb86547546c7a4fff6be15a0a944c84b2',
event_name='DueProtocolFeeIncreased', parameters=[Argument(name='bptAmount',
type='uint256', value=1018750470343243455)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None), index=152, call_id=None, event_signature='0x2170c741c
41531aec20e7c107c24eecfdd15e69c9bb0a8dd37b1840b9e0b207b', event_name='Swap',
parameters=[Argument(name='poolId', type='bytes32',
value='0x7b50775383d3d6f0215a8f290f2c9e2eebbeceb20000000000000000000000fe'),
Argument(name='tokenIn', type='address',
value=AddressInfo(address='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c',

```

```

name='AaveLinearPool', badge=None)), Argument(name='tokenOut', type='address',
value=AddressInfo(address='0x9210f1204b5a24742eba12f710636d76240df3d0',
name='AaveLinearPool', badge=None)), Argument(name='amountIn', type='uint256',
value=203666116031336081757331), Argument(name='amountOut', type='uint256',
value=204656404650254161241746)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None), index=153, call_id=None, event_signature='0x2170c741c
41531aec20e7c107c24eecd15e69c9bb0a8dd37b1840b9e0b207b', event_name='Swap',
parameters=[Argument(name='poolId', type='bytes32',
value='0x9210f1204b5a24742eba12f710636d76240df3d0000000000000000000000000fc'),
Argument(name='tokenIn', type='address',
value=AddressInfo(address='0x9210f1204b5a24742eba12f710636d76240df3d0',
name='AaveLinearPool', badge=None)), Argument(name='tokenOut', type='address',
value=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None)), Argument(name='amountIn', type='uint256',
value=204656404650254161241746), Argument(name='amountOut', type='uint256',
value=206819546142)], event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), index=154, call_id=None, event_signature='0xddf
252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef',
event_name='Transfer', parameters=[Argument(name='from', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='to', type='address',
value=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None)), Argument(name='value', type='uint256',
value=2.06805330013e-07)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=155, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None)), Argument(name='dst', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='value', type='uint256', value=206819.546142)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',

```

```

name='TetherToken', badge=None), index=156, call_id=None, event_signature='0x8c5
be1e5ebec7d5bd14f71427d1e84f3dd0314c0f7b2291e5b200ac8c7c3b925',
event_name='Approval', parameters=[Argument(name='owner', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='spender', type='address',
value=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None)), Argument(name='value', type='uint256',
value=7.33218897323e-07)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=157, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None)), Argument(name='dst', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='value', type='uint256', value=733246.575229)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), index=158, call_id=None, event_signature='0xddf
252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef',
event_name='Transfer', parameters=[Argument(name='from', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='to', type='address',
value=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None)), Argument(name='value', type='uint256',
value=7.33218897323e-07)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=159, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None)), Argument(name='dst', type='address',
value=AddressInfo(address='0x95c4f5b83aa70810d4f142d58e5f7242bd891cb0',
name='Proxy', badge=None)), Argument(name='value', type='uint256',
value=14.665224)], event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),

```



```

contract=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None), index=160, call_id=None, event_signature='0xe4fed5362e
2669c70e5da5a18942d1e617d8917f6adc0164d9668bd3a6d0cebe',
event_name='ChargeMaintainerFee', parameters=[Argument(name='maintainer',
type='address',
value=AddressInfo(address='0x95c4f5b83aa70810d4f142d58e5f7242bd891cb0',
name='Proxy', badge=None)), Argument(name='isBaseToken', type='bool',
value='False'), Argument(name='amount', type='uint256', value=14665224)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None), index=161, call_id=None, event_signature='0xa259c93818
139b6bc90fb80e8feb75122b42edaae49560f81392cf4e1946726e', event_name='Donate',
parameters=[Argument(name='amount', type='uint256', value=0),
Argument(name='isBaseToken', type='bool', value='False')], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None), index=162, call_id=None, event_signature='0xd8648b6ac5
4162763c86fd54bf2005af8ecd2f9cb273a5775921fd7f91e17b2d',
event_name='SellBaseToken', parameters=[Argument(name='seller', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='payBase', type='uint256', value=733218897323),
Argument(name='receiveQuote', type='uint256', value=733246575229)],
event_guessed=False), DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=163, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='dst', type='address',
value=AddressInfo(address='0x111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver')), Argument(name='value',
type='uint256', value=940066.121371)], event_guessed=False),
DecodedEvent(chain_id='mainnet',
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
contract=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), index=164, call_id=None, event_signature='0xddf252ad1b
e2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef', event_name='Transfer',
parameters=[Argument(name='src', type='address',
value=AddressInfo(address='0x111111254fb6c44bac0bed2854e76f90643097d',

```

```

name='AggregationRouterV4', badge='receiver')), Argument(name='dst',
type='address',
value=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender')),
Argument(name='value', type='uint256', value=940066.121371)],
event_guessed=False)]
chain_id='mainnet' timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47)
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816'
call_id='' call_type='call'
from_address=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender')
to_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver') value=0.0
function_signature='0x7c025200' function_name='swap'
arguments=[Argument(name='caller', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='desc', type='tuple', value=[Argument(name='srcToken',
type='address',
value=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None)), Argument(name='dstToken', type='address',
value=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None)), Argument(name='srcReceiver', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='dstReceiver', type='address',
value=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender')),
Argument(name='amount', type='uint256', value=940024227336),
Argument(name='minReturnAmount', type='uint256', value=939126055934),
Argument(name='flags', type='uint256', value=4), Argument(name='permit',
type='bytes', value='0x')]), Argument(name='data', type='bytes',
value='0x0000000000000000000000000000000000000000000000000000000000000000...000000')]
outputs=[Argument(name='returnAmount', type='uint256', value=940066121371),
Argument(name='spentAmount', type='uint256', value=940024227336),
Argument(name='gasLeft', type='uint256', value=97610)] gas_used=599202
error=None status=True indent=0 subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='0', call_type='call',
from_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'),
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), value=0.0, function_signature='0x23b872dd',
function_name='transferFrom', arguments=[Argument(name='_from', type='address',
value=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender')),
Argument(name='_to', type='address',

```

```

value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='_value', type='uint256', value=9.40024227336e-07)], outputs=[],
gas_used=43630, error=None, status=True, indent=1, subcalls=[],
function_guessed=False), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1', call_type='call',
from_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), value=0.0,
function_signature='0x2636f7f8', function_name='callBytes',
arguments=[Argument(name='arg_0', type='address',
value=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender'))],
Argument(name='arg_1', type='bytes', value='0x0000000000')]), outputs=[],
gas_used=503483, error=None, status=True, indent=1,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0000', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), value=0.0,
function_signature='0xeb5625d9', function_name='safeApprove',
arguments=[Argument(name='arg_0', type='address',
value=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None)), Argument(name='arg_1', type='address',
value=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None)), Argument(name='arg_2', type='uint256',
value=206805330013)], outputs=[], gas_used=26419, error=None, status=True,
indent=2, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0000_0000', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), value=0.0, function_signature='0x095ea7b3',
function_name='approve', arguments=[Argument(name='_spender', type='address',
value=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None)), Argument(name='_value', type='uint256',
value=2.06805330013e-07)], outputs=[], gas_used=24953, error=None, status=True,
indent=3, subcalls=[], function_guessed=False)], function_guessed=True),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),

```

```
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None), value=0.0, function_signature='0x945bcec9',
function_name='batchSwap', arguments=[Argument(name='kind', type='uint8',
value=0), Argument(name='swaps', type='tuple[]', value=[[Argument(name='arg_1',
type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_2', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_3', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_4', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_5', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_6', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_7', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_8', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_9', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_10', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_11', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_12', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_13', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_14', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_15', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_16', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_17', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_18', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_19', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
Argument(name='arg_20', type='unknown',
value='0x0000000000000000000000000000000000000000000000000000000000000060'),
```

[illegible]

[illegible]

[illegible]

```
Argument(name='arg_29', type='unknown', value='0x0000000000000000000000000000000000000000000000000000000000000060'), Argument(name='arg_30', type='unknown', value='0x0000000000000000000000000000000000000000000000000000000000000060'), Argument(name='arg_31', type='unknown', value='0x0000000000000000000000000000000000000000000000000000000000000060'), Argument(name='arg_32', type='unknown', value='0x0000000000000000000000000000000000000000000000000000000000000060'))]], Argument(name='assets', type='address[]', value=['0xdac17f958d2ee523a2206206994597c13d831ec7', '0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c', '0x9210f1204b5a24742eba12f710636d76240df3d0', '0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48']]), Argument(name='funds', type='tuple', value=[Argument(name='sender', type='address', value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)), Argument(name='fromInternalBalance', type='bool', value='False'), Argument(name='recipient', type='address', value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)), Argument(name='toInternalBalance', type='bool', value='False')]), Argument(name='limits', type='int256[]', value=[57896044618658097711785492504343953926634992332820282019728792003956564819967, 0, 0, -204751351361]), Argument(name='deadline', type='uint256', value=1665413905)], outputs=[Argument(name='assetDeltas', type='int256[]', value=[206805330013, 0, 0, -206819546142])], gas_used=285946, error=None, status=True, indent=2, subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47), tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816', call_id='1_0001_0000', call_type='call', from_address=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8', name='Vault', badge=None), to_address=AddressInfo(address='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c', name='AaveLinearPool', badge=None), value=0.0, function_signature='0x01ec954a', function_name='onSwap', arguments=[Argument(name='request', type='tuple', value=[Argument(name='kind', type='uint8', value=0), Argument(name='tokenIn', type='address', value=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7', name='TetherToken', badge=None)), Argument(name='tokenOut', type='address', value=AddressInfo(address='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c', name='AaveLinearPool', badge=None)), Argument(name='amount', type='uint256', value=206805330013), Argument(name='poolId', type='bytes32', value='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c000000000000000000000fd'), Argument(name='lastChangeBlock', type='uint256', value=15711263), Argument(name='from', type='address', value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)), Argument(name='to', type='address',
```



```

value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='userData', type='bytes', value='0x')), Argument(name='balances',
type='uint256[]', value=[5192296839447818989433937389970455, 6454165457447,
11820181401568]), Argument(name='indexIn', type='uint256', value=1),
Argument(name='indexOut', type='uint256', value=0)], outputs=[Argument(name='',
type='uint256', value=203666116031336081757331)], gas_used=25723, error=None,
status=True, indent=3, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0000_0000', call_type='staticcall',
from_address=AddressInfo(address='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c',
name='AaveLinearPool', badge=None),
to_address=AddressInfo(address='0x7d2768de32b0b80b7a3454c06bdac94a69ddc7a9',
name='InitializableImmutableAdminUpgradeabilityProxy', badge=None), value=0.0,
function_signature='0xd15e0053', function_name='getReserveNormalizedIncome',
arguments=[Argument(name='asset', type='address',
value=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None))], outputs=[Argument(name='', type='uint256',
value=1093641539056167633751820766)], gas_used=12856, error=None, status=True,
indent=4, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0000_0000_0000', call_type='delegatecall',
from_address=AddressInfo(address='0x7d2768de32b0b80b7a3454c06bdac94a69ddc7a9',
name='InitializableImmutableAdminUpgradeabilityProxy', badge=None),
to_address=AddressInfo(address='0xc6845a5c768bf8d7681249f8927877efda425baf',
name='LendingPool', badge=None), value=0.0, function_signature='0xd15e0053',
function_name='getReserveNormalizedIncome', arguments=[Argument(name='asset',
type='address',
value=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None))], outputs=[Argument(name='', type='uint256',
value=1093641539056167633751820766)], gas_used=7745, error=None, status=True,
indent=5, subcalls=[], function_guessed=False)], function_guessed=False)],
DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0001', call_type='call',
from_address=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None),
to_address=AddressInfo(address='0x7b50775383d3d6f0215a8f290f2c9e2eebbeceb2',
name='StablePhantomPool', badge=None), value=0.0,
function_signature='0x01ec954a', function_name='onSwap',
arguments=[Argument(name='swapRequest', type='tuple',
value=[Argument(name='kind', type='uint8', value=0), Argument(name='tokenIn',
type='address',
value=AddressInfo(address='0x2bbf681cc4eb09218bee85ea2a5d3d13fa40fc0c',
name='AaveLinearPool', badge=None)), Argument(name='tokenOut', type='address',

```

```

value=AddressInfo(address='0x9210f1204b5a24742eba12f710636d76240df3d0',
name='AaveLinearPool', badge=None)), Argument(name='amount', type='uint256',
value=203666116031336081757331), Argument(name='poolId', type='bytes32',
value='0x7b50775383d3d6f0215a8f290f2c9e2eebbeceb2000000000000000000000fe'),
Argument(name='lastChangeBlock', type='uint256', value=15711263),
Argument(name='from', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='to', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='userData', type='bytes', value='0x'))], Argument(name='balances',
type='uint256[]', value=[19086951398764703899584644,
5192296796466977327168910881498791, 21407105879414517191755119,
21741468841235565329823364]), Argument(name='indexIn', type='uint256', value=0),
Argument(name='indexOut', type='uint256', value=3)], outputs=[Argument(name='',
type='uint256', value=204656404650254161241746)], gas_used=68269, error=None,
status=True, indent=3, subcalls=[], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0002', call_type='call',
from_address=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None),
to_address=AddressInfo(address='0x9210f1204b5a24742eba12f710636d76240df3d0',
name='AaveLinearPool', badge=None), value=0.0, function_signature='0x01ec954a',
function_name='onSwap', arguments=[Argument(name='request', type='tuple',
value=[Argument(name='kind', type='uint8', value=0), Argument(name='tokenIn',
type='address',
value=AddressInfo(address='0x9210f1204b5a24742eba12f710636d76240df3d0',
name='AaveLinearPool', badge=None)), Argument(name='tokenOut', type='address',
value=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None)), Argument(name='amount', type='uint256',
value=204656404650254161241746), Argument(name='poolId', type='bytes32',
value='0x9210f1204b5a24742eba12f710636d76240df3d00000000000000000000000fc'),
Argument(name='lastChangeBlock', type='uint256', value=15711263),
Argument(name='from', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='to', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='userData', type='bytes', value='0x'))], Argument(name='balances',
type='uint256[]', value=[5192296836793207384407866826424575, 3105456645935,
17502492955792]), Argument(name='indexIn', type='uint256', value=0),
Argument(name='indexOut', type='uint256', value=1)], outputs=[Argument(name='',
type='uint256', value=206819546142)], gas_used=19287, error=None, status=True,
indent=3, subcalls=[DecodedCall(chain_id='mainnet',

```

```

timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0002_0000', call_type='staticcall',
from_address=AddressInfo(address='0x9210f1204b5a24742eba12f710636d76240df3d0',
name='AaveLinearPool', badge=None),
to_address=AddressInfo(address='0x7d2768de32b0b80b7a3454c06bdac94a69ddc7a9',
name='InitializableImmutableAdminUpgradeabilityProxy', badge=None), value=0.0,
function_signature='0xd15e0053', function_name='getReserveNormalizedIncome',
arguments=[Argument(name='asset', type='address',
value=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None))], outputs=[Argument(name='', type='uint256',
value=1077903209590781548765506574)], gas_used=8356, error=None, status=True,
indent=4, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0002_0000_0000', call_type='delegatecall',
from_address=AddressInfo(address='0x7d2768de32b0b80b7a3454c06bdac94a69ddc7a9',
name='InitializableImmutableAdminUpgradeabilityProxy', badge=None),
to_address=AddressInfo(address='0xc6845a5c768bf8d7681249f8927877efda425baf',
name='LendingPool', badge=None), value=0.0, function_signature='0xd15e0053',
function_name='getReserveNormalizedIncome', arguments=[Argument(name='asset',
type='address',
value=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None))], outputs=[Argument(name='', type='uint256',
value=1077903209590781548765506574)], gas_used=7745, error=None, status=True,
indent=5, subcalls=[], function_guessed=False)], function_guessed=False)],
function_guessed=False), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0003', call_type='call',
from_address=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None),
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), value=0.0, function_signature='0x23b872dd',
function_name='transferFrom', arguments=[Argument(name='_from', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='_to', type='address',
value=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None)), Argument(name='_value', type='uint256',
value=2.06805330013e-07)], outputs=[], gas_used=12124, error=None, status=True,
indent=3, subcalls=[], function_guessed=False), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0004', call_type='call',
from_address=AddressInfo(address='0xba12222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',

```

```

name='USDC', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='value', type='uint256', value=206819546142)],
outputs=[Argument(name='', type='bool', value='True')], gas_used=44017,
error=None, status=True, indent=3, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0001_0004_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938feb5fec13bacfb16ae10ecbc4cbdcf',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='value', type='uint256', value=2.06819546142e-07)],
outputs=[Argument(name='', type='bool', value='True')], gas_used=36728,
error=None, status=True, indent=4, subcalls=[], function_guessed=False)],
function_guessed=False)], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), value=0.0,
function_signature='0xad0e7b1a', function_name='0xad0e7b1a',
arguments=[Argument(name='call_data', type='bytes',
value='0x0000000000000000000000000000000000000000000000000000000000000000...000004')],
outputs=[], gas_used=144254, error=None, status=True, indent=2,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0000', call_type='staticcall',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), value=0.0, function_signature='0x70a08231',
function_name='balanceOf', arguments=[Argument(name='who', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None))],
outputs=[Argument(name='', type='uint256', value=7.33218897323e-07)],
gas_used=1031, error=None, status=True, indent=3, subcalls=[],
function_guessed=False), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),

```

```

tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0001', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), value=0.0,
function_signature='0xeb5625d9', function_name='safeApprove',
arguments=[Argument(name='arg_0', type='address',
value=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None)), Argument(name='arg_1', type='address',
value=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None)), Argument(name='arg_2', type='uint256',
value=733218897323)], outputs=[], gas_used=26419, error=None, status=True,
indent=3, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0001_0000', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), value=0.0, function_signature='0x095ea7b3',
function_name='approve', arguments=[Argument(name='_spender', type='address',
value=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None)), Argument(name='_value', type='uint256',
value=7.33218897323e-07)], outputs=[], gas_used=24953, error=None, status=True,
indent=4, subcalls=[], function_guessed=False)], function_guessed=True),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None), value=0.0, function_signature='0x8dae7333',
function_name='sellBaseToken', arguments=[Argument(name='amount',
type='uint256', value=733218897323), Argument(name='minReceiveQuote',
type='uint256', value=725914109474), Argument(name='data', type='bytes',
value='0x')], outputs=[Argument(name='', type='uint256', value=733246575229)],
gas_used=108583, error=None, status=True, indent=3,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xf6a8e47daeaddc297e7541523e27df2f167bf3',
name='DODO', badge=None), value=0.0, function_signature='0x8dae7333',
function_name='sellBaseToken', arguments=[Argument(name='amount',

```

```

type='uint256', value=733218897323), Argument(name='minReceiveQuote',
type='uint256', value=725914109474), Argument(name='data', type='bytes',
value='0x')], outputs=[Argument(name='', type='uint256', value=733246575229)],
gas_used=105893, error=None, status=True, indent=4,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0000', call_type='staticcall',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xab291a45818bdaa1aaf18e128e134da797d3dc3f',
name='ConstOracle', badge=None), value=0.0, function_signature='0x98d5fdca',
function_name='getPrice', arguments=[], outputs=[Argument(name='',
type='uint256', value=1000000000000000000)], gas_used=2328, error=None,
status=True, indent=5, subcalls=[], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0001', call_type='staticcall',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xab291a45818bdaa1aaf18e128e134da797d3dc3f',
name='ConstOracle', badge=None), value=0.0, function_signature='0x98d5fdca',
function_name='getPrice', arguments=[], outputs=[Argument(name='',
type='uint256', value=1000000000000000000)], gas_used=328, error=None,
status=True, indent=5, subcalls=[], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0002', call_type='call',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='value', type='uint256', value=733246575229)],
outputs=[Argument(name='', type='bool', value='True')], gas_used=11617,
error=None, status=True, indent=5, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0002_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938feb5fec13bacfb16ae10ecbc4cbdcf',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',

```

```

value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='value', type='uint256', value=7.33246575229e-07)],
outputs=[Argument(name='', type='bool', value='True')], gas_used=10828,
error=None, status=True, indent=6, subcalls=[], function_guessed=False)],
function_guessed=False), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0003', call_type='call',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None), value=0.0, function_signature='0x23b872dd',
function_name='transferFrom', arguments=[Argument(name='_from', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='_to', type='address',
value=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None)), Argument(name='_value', type='uint256',
value=7.33218897323e-07)], outputs=[], gas_used=10124, error=None, status=True,
indent=5, subcalls=[], function_guessed=False), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0004', call_type='call',
from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value=AddressInfo(address='0x95c4f5b83aa70810d4f142d58e5f7242bd891cb0',
name='Proxy', badge=None)), Argument(name='value', type='uint256',
value=14665224)], outputs=[Argument(name='', type='bool', value='True')],
gas_used=11617, error=None, status=True, indent=5,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0002_0002_0000_0004_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938febf5fec13bacfb16ae10ecbc4cbdcf',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value=AddressInfo(address='0x95c4f5b83aa70810d4f142d58e5f7242bd891cb0',
name='Proxy', badge=None)), Argument(name='value', type='uint256',
value=1.4665224e-11)], outputs=[Argument(name='', type='bool', value='True')],
gas_used=10828, error=None, status=True, indent=6, subcalls=[],
function_guessed=False)], function_guessed=False)], function_guessed=False)],
function_guessed=False)], function_guessed=False),

```

```

DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0003', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), value=0.0,
function_signature='0x32ce0a7c', function_name='0x32ce0a7c',
arguments=[Argument(name='call_data', type='bytes',
value='0x0000000000000000000000000000000000000000000000000000000000000000...000000')],
outputs=[], gas_used=6145, error=None, status=True, indent=2,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0003_0000', call_type='staticcall',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), value=0.0,
function_signature='0x70bdb947', function_name='0x70bdb947',
arguments=[Argument(name='call_data', type='bytes',
value='0x0000000000000000000000000000000000000000000000000000000000000000...4ea949')],
outputs=[Argument(name='output_data', type='bytes',
value='0x0000000000000000000000000000000000000000000000000000000000000000')],
gas_used=2284, error=None, status=True, indent=3,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0003_0000_0000', call_type='staticcall',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0x70a08231',
function_name='balanceOf', arguments=[Argument(name='account', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None))],
outputs=[Argument(name='', type='uint256', value=940066121371)], gas_used=1315,
error=None, status=True, indent=4, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0003_0000_0000_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938feb5fec13bacfb16ae10ecbc4cbdcf',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0x70a08231',
function_name='balanceOf', arguments=[Argument(name='account', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',

```



```

name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0x70a08231',
function_name='balanceOf', arguments=[Argument(name='account', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None))],
outputs=[Argument(name='', type='uint256', value=9.40066121371e-07)],
gas_used=529, error=None, status=True, indent=4, subcalls=[],
function_guessed=False)], function_guessed=False),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0004_0001', call_type='call',
from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'))], Argument(name='value',
type='uint256', value=940066121371)], outputs=[Argument(name='', type='bool',
value='True')], gas_used=28717, error=None, status=True, indent=3,
subcalls=[DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10,
9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='1_0004_0001_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938feb5fec13bacfb16ae10ecbc4cbdcd',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'))], Argument(name='value',
type='uint256', value=9.40066121371e-07)], outputs=[Argument(name='',
type='bool', value='True')], gas_used=27928, error=None, status=True, indent=4,
subcalls=[], function_guessed=False)], function_guessed=False)],
function_guessed=False)], function_guessed=True),
DecodedCall(chain_id='mainnet', timestamp=datetime.datetime(2022, 10, 9, 14, 58,
47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='2', call_type='staticcall',
from_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0x70a08231',
function_name='balanceOf', arguments=[Argument(name='account', type='address',
value=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'))], outputs=[Argument(name='',
type='uint256', value=940066121371)], gas_used=1315, error=None, status=True,
indent=1, subcalls=[DecodedCall(chain_id='mainnet',

```

```

timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='2_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938febf5fec13bacfb16ae10ecbc4cbdcd',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0x70a08231',
function_name='balanceOf', arguments=[Argument(name='account', type='address',
value=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'))], outputs=[Argument(name='',
type='uint256', value=9.40066121371e-07)], gas_used=529, error=None,
status=True, indent=2, subcalls=[], function_guessed=False)],
function_guessed=False), DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='3', call_type='call',
from_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'),
to_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender'))],
Argument(name='value', type='uint256', value=940066121371)],
outputs=[Argument(name='', type='bool', value='True')], gas_used=28717,
error=None, status=True, indent=1, subcalls=[DecodedCall(chain_id='mainnet',
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47),
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816',
call_id='3_0000', call_type='delegatecall',
from_address=AddressInfo(address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48',
name='USDC', badge=None),
to_address=AddressInfo(address='0xa2327a938febf5fec13bacfb16ae10ecbc4cbdcd',
name='FiatTokenV2_1', badge=None), value=0.0, function_signature='0xa9059cbb',
function_name='transfer', arguments=[Argument(name='to', type='address',
value=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender'))],
Argument(name='value', type='uint256', value=9.40066121371e-07)],
outputs=[Argument(name='', type='bool', value='True')], gas_used=27928,
error=None, status=True, indent=2, subcalls=[], function_guessed=False)],
function_guessed=False)] function_guessed=False
[DecodedTransfer(from_address=AddressInfo(address='0xc143790f399351c25a906bb3fb1
5630828f8e75e', name='0xc143790f399351c25a906bb3fb15630828f8e75e',
badge='sender'),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
token_address='0xdac17f958d2ee523a2206206994597c13d831ec7',
token_symbol='TetherToken', token_standard='ERC20', value=9.40024227336e-07), De
codedTransfer(from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7f

```

```

cde2b1b8a8', name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xba1222222228d8ba445958a75a0704d566bf2c8',
name='Vault', badge=None),
token_address='0xdac17f958d2ee523a2206206994597c13d831ec7',
token_symbol='TetherToken', token_standard='ERC20', value=2.06805330013e-07), De
codedTransfer(from_address=AddressInfo(address='0xba1222222228d8ba445958a75a070
4d566bf2c8', name='Vault', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), token_address='0
xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=206819546142#inventory',
token_symbol='USDC 206819...42', token_standard=None, value=1.0), DecodedTransfe
r(from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
to_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None), token_address='0
xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=733246575229#inventory',
token_symbol='USDC 733246...29', token_standard=None, value=1.0), DecodedTransfe
r(from_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca2207fdf7d61ad',
name='DODO', badge=None),
token_address='0xdac17f958d2ee523a2206206994597c13d831ec7',
token_symbol='TetherToken', token_standard='ERC20', value=7.33218897323e-07), De
codedTransfer(from_address=AddressInfo(address='0xc9f93163c99695c6526b799ebca220
7fdf7d61ad', name='DODO', badge=None),
to_address=AddressInfo(address='0x95c4f5b83aa70810d4f142d58e5f7242bd891cb0',
name='Proxy', badge=None),
token_address='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=14665224#inventory',
token_symbol='USDC 14665224', token_standard=None, value=1.0), DecodedTransfer(f
rom_address=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None),
to_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'), token_address='0xa0b86991c6218b36
c1d19d4a2e9eb0ce3606eb48?a=940066121371#inventory', token_symbol='USDC
940066...71', token_standard=None, value=1.0), DecodedTransfer(from_address=Addr
essInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver'),
to_address=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender'), token_addres
s='0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=940066121371#inventory',
token_symbol='USDC 940066...71', token_standard=None, value=1.0)]
[DecodedBalance(holder=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828
f8e75e', name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender'),
tokens=[{'token_address': '0xdac17f958d2ee523a2206206994597c13d831ec7',
'token_symbol': 'TetherToken', 'token_standard': 'ERC20', 'balance': '-0.0000'},
{'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=940066121371#inventory',
'token_symbol': 'USDC 940066...71', 'token_standard': None, 'balance':

```

```
'1.0000'}]), DecodedBalance(holder=AddressInfo(address='0xf2f400c138f9fb90057626
3af0bc7fcde2b1b8a8', name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
badge=None), tokens=[{'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=206819546142#inventory',
'token_symbol': 'USDC 206819...42', 'token_standard': None, 'balance':
'1.0000'}, {'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=733246575229#inventory',
'token_symbol': 'USDC 733246...29', 'token_standard': None, 'balance':
'1.0000'}, {'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=940066121371#inventory',
'token_symbol': 'USDC 940066...71', 'token_standard': None, 'balance':
'-1.0000'}]), DecodedBalance(holder=AddressInfo(address='0xba1222222228d8ba4459
58a75a0704d566bf2c8', name='Vault', badge=None), tokens=[{'token_address':
'0xdac17f958d2ee523a2206206994597c13d831ec7', 'token_symbol': 'TetherToken',
'token_standard': 'ERC20', 'balance': '0.0000'}, {'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=206819546142#inventory',
'token_symbol': 'USDC 206819...42', 'token_standard': None, 'balance':
'-1.0000'}]), DecodedBalance(holder=AddressInfo(address='0xc9f93163c99695c6526b7
99ebca2207fdf7d61ad', name='DODO', badge=None), tokens=[{'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=733246575229#inventory',
'token_symbol': 'USDC 733246...29', 'token_standard': None, 'balance':
'-1.0000'}, {'token_address': '0xdac17f958d2ee523a2206206994597c13d831ec7',
'token_symbol': 'TetherToken', 'token_standard': 'ERC20', 'balance': '0.0000'},
{'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=14665224#inventory',
'token_symbol': 'USDC 14665224', 'token_standard': None, 'balance':
'-1.0000'}]), DecodedBalance(holder=AddressInfo(address='0x95c4f5b83aa70810d4f14
2d58e5f7242bd891cb0', name='Proxy', badge=None), tokens=[{'token_address':
'0xa0b86991c6218b36c1d19d4a2e9eb0ce3606eb48?a=14665224#inventory',
'token_symbol': 'USDC 14665224', 'token_standard': None, 'balance': '1.0000'}])])]
```

```
[ ]: # semantically decode a single event
decoded_event: DecodedEvent = ethtx.decoders.semantic_decoder.decode_event(
    abi_decoded_events[0], decoded_metadata, proxies
)
# semantically decode a single call
decoded_call: Call = ethtx.decoders.semantic_decoder.decode_call(
    abi_decoded_calls.subcalls[0], decoded_metadata, proxies
)

print(decoded_event)
print(decoded_call)
```

```
chain_id='mainnet'
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816'
timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47)
contract=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None) index=148 call_id=None event_signature='0xdddf252
```

```

ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef'
event_name='Transfer' parameters=[Argument(name='from', type='address',
value=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender')),
Argument(name='to', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='value', type='uint256', value=9.40024227336e-25)]
event_guessed=False
chain_id='mainnet' timestamp=datetime.datetime(2022, 10, 9, 14, 58, 47)
tx_hash='0x1594180567438ad258c98e263b412f55f62a23ebb5e9056089e9f11a513d4816'
call_id='0' call_type='call'
from_address=AddressInfo(address='0x1111111254fb6c44bac0bed2854e76f90643097d',
name='AggregationRouterV4', badge='receiver')
to_address=AddressInfo(address='0xdac17f958d2ee523a2206206994597c13d831ec7',
name='TetherToken', badge=None) value=0.0 function_signature='0x23b872dd'
function_name='transferFrom' arguments=[Argument(name='_from', type='address',
value=AddressInfo(address='0xc143790f399351c25a906bb3fb15630828f8e75e',
name='0xc143790f399351c25a906bb3fb15630828f8e75e', badge='sender')),
Argument(name='_to', type='address',
value=AddressInfo(address='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8',
name='0xf2f400c138f9fb900576263af0bc7fcde2b1b8a8', badge=None)),
Argument(name='_value', type='uint256', value=9.40024227336e-25)] outputs=[]
gas_used=43630 error=None status=True indent=1 subcalls=[]
function_guessed=False

```