

# Indexer Client

## Getting Started

### Installation

TypeScript Python pnpm install @dydxprotocol / v4 - client - js

### Initializing the Client

TypeScript Python import { IndexerClient , Network } from

"@dydxprotocol/v4-client-js" ;

/\*\* // For the deployment by DYDX token holders, use below:

import { IndexerConfig, ValidatorConfig } from "@dydxprotocol/v4-client-js";

```
const NETWORK: Network = new Network( 'mainnet', new IndexerConfig( 'https://indexer.dydx.trade',  
'wss://indexer.dydx.trade', ), new ValidatorConfig( 'https://dydx-ops-rpc.kingnodes.com', // or other node URL 'dydx-mainnet-  
1', { CHAINTOKEN_DENOM: 'adydx', CHAINTOKEN_DECIMALS: 18, USDC_DENOM:  
'ibc/8E27BA2D5493AF5636760E354E46004562C46AB7EC0CC4C1CA14E9E20E2545B5', USDC_GAS_DENOM: 'uusdc',  
USDC_DECIMALS: 6, }, ), ); */ const
```

NETWORK

=

Network .testnet ();

const

client

=

new

IndexerClient ( NETWORK .indexerConfig);

## Indexer Status

### Get Block Height and Block Time parsed by Indexer

TypeScript Python const

response

=

await

client . utility .getHeight (); const

height

=

response .height; const

heightTime

=

response .time;

### Get Server Time

TypeScript Python const

```
response
=
await
client . utility .getTime (); const
timeIso
=
response .iso; const
timeEpoch
=
response .epoch;
```

## Markets

### List Perpetual Markets

```
TypeScript Python const
response
=
await
client . markets .getPerpetualMarkets (); Params and Response : See Indexer API
```

### List Sparklines

```
TypeScript Python const
response
=
await
client . markets .getPerpetualMarketSparklines (); Params and Response : See Indexer API
```

### Get Perpetual Market

```
TypeScript Python // ticker is the market ticket, such as "BTC-USD" const
response
=
await
client . markets .getPerpetualMarket (ticker); Params and Response : See Indexer API
```

### Get Orderbook

```
TypeScript Python // ticker is the market ticket, such as "BTC-USD" const
response
=
await
client . markets .getPerpetualMarketOrderbook (ticker); const
asks
```

=

response .asks; const

bids

=

response .bids; Params and Response : See [Indexer API](#)

## Get Trades

TypeScript Python // ticker is the market ticket, such as "BTC-USD" const

response

=

await

client . markets .getPerpetualMarketTrades (ticker); const

trades

=

response .trades; Params and Response : See [Indexer API](#)

## Get Historical Funding

TypeScript Python // ticker is the market ticket, such as "BTC-USD" const

response

=

await

client . markets .getPerpetualMarketHistoricalFunding (ticker); const

historicalFunding

=

response .historicalFunding; Params and Response : See [Indexer API](#)

## Get Candles

TypeScript Python // ticker is the market ticket, such as "BTC-USD", resolution is the resolution of the candles, such as "1MIN" const

response

=

await

client . markets .getPerpetualMarketCandles (ticket , resolution); const

candles

=

response .candles; Params and Response : See [Indexer API](#)

## Subaccount

### Get Address Subaccounts

TypeScript Python // address is the wallet address on dYdX chain const

response

```
=
await
client . account .getSubaccounts (address); const
subaccounts
=
response .subaccounts; Params and Response : See Indexer API
```

## Get Subaccount

TypeScript Python // address is the wallet address on dYdX chain, subaccountNumber is the subaccount number const  
response

```
=
await
client . account .getSubaccount (address , subaccountNumber); const
subaccounts
=
response .subaccount; Params and Response : See Indexer API
```

## Get Asset Positions

TypeScript Python // address is the wallet address on dYdX chain, subaccountNumber is the subaccount number const  
response

```
=
await
client . account .getSubaccountAssetPositions (address , subaccountNumber); const
positions
=
response .positions; Params and Response : See Indexer API
```

## Get Perpetual Positions

TypeScript Python // address is the wallet address on dYdX chain, subaccountNumber is the subaccount number const  
response

```
=
await
client . account .getSubaccountPerpetualPositions (address , subaccountNumber); const
positions
=
response .positions; Params and Response : See Indexer API
```

## Get Orders

TypeScript Python // address is the wallet address on dYdX chain, subaccountNumber is the subaccount number const  
response

```
=  
await  
client . account .getSubaccountOrders (address , subaccountNumber); const  
orders  
= response; Params and Response : See Indexer API
```

## Get Order

```
TypeScript Python // orderId is the ID of the order const  
response  
=  
await  
client . account .getOrder (orderId); const  
order  
= response; Params and Response : See Indexer API
```

## Get Fills

```
TypeScript Python // address is the wallet address on dYdX chain, subaccountNumber is the subaccount number const  
response  
=  
await  
client . account .getSubaccountFills (address , subaccountNumber); const  
fills  
=  
response .fills; Params and Response : See Indexer API
```

## Get Transfers

```
TypeScript Python // address is the wallet address on dYdX chain, subaccountNumber is the subaccount number const  
response  
=  
await  
client . account .getSubaccountTransfers (address , subaccountNumber); const  
transfers  
=  
response .transfers; Params and Response : See Indexer API
```

## Get Historical PNL

```
TypeScript Python // address is the wallet address on dYdX chain, subaccountNumber is the subaccount number const  
response  
=  
await
```

```
client . account .getSubaccountHistoricalPNLs (address , subaccountNumber); const  
historicalPnl  
  
=
```

response .historicalPnl; Params and Response : See[Indexer API](#)

Last updated on May 30, 2024 [Indexer Usage Estimates](#) [Socket Client](#)