
KrakenExApi

Release 0.0.1

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CONTENTS

1 Overview	1
1.1 Installation	1
1.2 Documentation	1
1.3 Development	1
2 Installation	3
3 Usage	5
4 Reference	7
4.1 krakenexapi	7
4.2 krakenexapi.api	7
5 Contributing	11
5.1 Bug reports	11
5.2 Documentation improvements	11
5.3 Feature requests and feedback	11
5.4 Development	12
6 Authors	15
7 Changelog	17
7.1 WIP	17
7.2 0.0.1 (2020-12-27)	17
7.3 0.0.0 (2020-12-25)	17
8 Indices and tables	19
Python Module Index	21
Index	23

OVERVIEW

docs	
tests	
package	

A Kraken Exchange API adapter.

- Free software: MIT license

1.1 Installation

```
pip install krakenexapi
```

You can also install the in-development version with:

```
pip install https://github.com/Querela/python-krakenexapi/archive/master.zip
```

1.2 Documentation

<https://python-krakenexapi.readthedocs.io/>

1.3 Development

To run all the tests run:

```
tox
```

Note, to combine the coverage data from all the tox environments run:

Windows	<pre>set PYTEST_ADDOPTS=--cov-append tox</pre>
Other	<pre>PYTEST_ADDOPTS=--cov-append tox</pre>

INSTALLATION

At the command line:

```
pip install krakenexapi
```

CHAPTER THREE

USAGE

To use KrakenExApi in a project:

```
import krakenexapi
```


REFERENCE

4.1 krakenexapi

4.2 krakenexapi.api

4.2.1 Raw API

```
class krakenexapi.api.RawKrakenExAPI (key: Optional[str] = None, secret: Optional[str] = None)
```

Bases: object

Raw Kraken Exchange API adapter.

api_domain = 'https://api.kraken.com'

load_key (*path: Optional[os.PathLike] = None*)

nonce () → int

_query_raw (*path: str, data: Dict[str, Any], headers: Dict[str, Any], timeout: Optional[Tuple[int, float]] = None*) → Dict[str, Any]

_sign (*api_path: str, data: Dict[str, Any]*) → str

query_public (*method: str, **kwargs*) → Dict[str, Any]

query_private (*method: str, otp: Optional[str] = None, **kwargs*) → Dict[str, Any]

krakenexapi.api.**NONCE_OFFSET** = -1577836800.0

Nonce value *offset*, nonce value will start from year 2020

krakenexapi.api.**API_METHODS_PUBLIC** = ['Time', 'SystemStatus', 'Assets', 'AssetPairs', 'Ticker']
List of allowed public endpoints

krakenexapi.api.**API_METHODS_PRIVATE** = ['Balance', 'TradeBalance', 'TradeVolume', 'DepositMethods']
List of allowed private endpoints

Notes

The `nonce()` will use an offset of `NONCE_OFFSET` for its value - so, the nonce value is comparatively smaller compared to the standard unix timestamp. Try to avoid using the same API key for different applications!

4.2.2 Basic Kraken Exchange API methods

Wraps the endpoints in `API_METHODS_PUBLIC` and `API_METHODS_PRIVATE` with simplified parameters and corrected return values. It will try to call rate limit both public and, when provided a `tier` (verification level), private API endpoints to avoid possible blacklisting. The full description of methods, parameters and return values can be found in the [Official Kraken REST API](#).

```
class krakenexapi.api.BasicKrakenExAPI (key: Optional[str] = None, secret: Optional[str] =
                                     None, tier: Optional[str] = None)
    Bases:      krakenexapi.api.BasicKrakenExAPIPublicMethods,      krakenexapi.
api.BasicKrakenExAPIPrivateUserDataMethods,      krakenexapi.api.
BasicKrakenExAPIPrivateUserTradingMethods,      krakenexapi.api.
BasicKrakenExAPIPrivateUserFundingMethods,      krakenexapi.api.RawKrakenExAPI

    _query_raw (path: str, data: Dict[str, Any], headers: Dict[str, Any], timeout: Optional[Tuple[int,
float]] = None) → Dict[str, Any]
```

Public Endpoints

```
class krakenexapi.api.BasicKrakenExAPIPublicMethods

    _get_server_time () → Dict[str, Any]
    get_server_time () → datetime.datetime
    get_system_status ()
    get_asset_info (asset: Optional[Union[str, List[str]]] = None) → Dict[str, Dict[str, Any]]
    _get_asset_pairs (pair: Optional[Union[str, List[str]]] = None, info: Optional[str] = None) →
Dict[str, Dict[str, Any]]
    _get_asset_pairs_static_values () → Dict[str, Union[int, float, str]]
    get_asset_pairs (pair: Optional[Union[str, List[str]]] = None, info: Optional[str] = None) →
Dict[str, Dict[str, Any]]
    _get_ticker_information (pair: Union[str, List[str]]) → Dict[str, Dict[str, Any]]
    get_ticker_information (pair: Union[str, List[str]]) → Dict[str, Dict[str, Any]]
    _get_ohlcv_data (pair: str, interval: Optional[int] = None, since: Optional[int] = None) → Tu-
ple[List[List[Any]], int]
    get_ohlcv_data (pair: str, interval: Optional[int] = None, since: Optional[int] = None) → Tu-
ple[List[List[Any]], int]
    _get_order_book (pair: str, count: Optional[int] = None) → Tuple[List, List]
    get_order_book (pair: str, count: Optional[int] = None) → Tuple[List, List]
    _get_recent_trades (pair: str, since: Optional[int] = None) → Tuple[List[List[Any]], int]
    get_recent_trades (pair: str, since: Optional[int] = None) → Tuple[List[List[Any]], int]
```

```

_get_recent_spread_data (pair: str, since: Optional[int] = None) → Tuple[List[List[Any]], int]
get_recent_spread_data (pair: str, since: Optional[int] = None) → Tuple[List[List[Any]], int]

```

Private Endpoints

```
class krakenexapi.api.BasicKrakenExAPIPrivateUserDataMethods
```

```

get_account_balance () → Dict[str, float]
get_trade_balance (asset: Optional[str] = None) → Dict[str, float]
get_open_orders (trades: Optional[bool] = None, userref: Optional[str] = None) → Dict[str, Dict[str, Any]]
get_closed_orders (trades: Optional[bool] = None, userref: Optional[str] = None, start: Optional[Union[int, str]] = None, end: Optional[Union[int, str]] = None, offset: Optional[int] = None, closetime: Optional[str] = None) → Tuple[Dict[str, Dict[str, Any]], int]
get_orders_info (txid: Union[str, List[str]], trades: Optional[bool] = None, userref: Optional[str] = None) → Dict[str, Dict[str, Any]]
get_trades_history (type: Optional[str] = None, trades: Optional[bool] = None, start: Optional[Union[int, str]] = None, end: Optional[Union[int, str]] = None, offset: Optional[int] = None) → Tuple[Dict[str, Dict[str, Any]], int]
get_trades_info (txid: Union[str, List[str]], trades: Optional[bool] = None) → Dict[str, Dict[str, Any]]
get_open_positions (txid: Union[str, List[str]], docalcs: Optional[bool] = None, trades: Optional[bool] = None, consolidation: Optional[str] = None) → Dict[str, Dict[str, Any]]
get_ledgers_info (asset: Optional[Union[str, List[str]]] = None, type: Optional[str] = None, start: Optional[Union[int, str]] = None, end: Optional[Union[int, str]] = None, offset: Optional[int] = None) → Tuple[Dict[str, Dict[str, Any]], int]
get_ledgers (lid: Union[str, List[str]]) → Dict[str, Dict[str, Any]]
get_trade_volume (pair: Optional[Union[str, List[str]]] = None, fee_info: Optional[bool] = None) → Dict[str, Any]

```

```
class krakenexapi.api.BasicKrakenExAPIPrivateUserTradingMethods
```

```
class krakenexapi.api.BasicKrakenExAPIPrivateUserFundingMethods
```

4.2.3 Call Rate Limiting

The Kraken Exchange used different quotas for its API methods, see the article [What are the API rate limits?](#).

```

class krakenexapi.api._CallRateLimitInfo (limit: float = 1, cost: float = 1, decay: float = 1.0)

decay ()
time_to_call (cost: float) → float
can_call (cost: Optional[Union[int, float]] = None) → bool
check (cost: Optional[Union[int, float]] = None) → bool
check_and_wait (cost: Optional[Union[int, float]] = None)

```

```
class krakenexapi.api.KrakenExAPICallRateLimiter (tier: Optional[str] = None)

    _reset_account_crl ()
    static _is_private (method: str)
    static _get_cost (method: str) → int
    check_call (method: str, wait: bool = True) → bool
```

4.2.4 Exceptions

```
exception krakenexapi.api.KrakenExAPIError
    Bases: Exception
```

Generic error

```
exception krakenexapi.api.NoPrivateKey
    Bases: krakenexapi.api.KrakenExAPIError
```

Thrown if trying to use a private Kraken Exchange API without a private key.

```
exception krakenexapi.api.NoSuchAPIMethod
    Bases: krakenexapi.api.KrakenExAPIError
```

Error thrown if trying to use an invalid API method.

CONTRIBUTING

Contributions are welcome, and they are greatly appreciated! Every little bit helps, and credit will always be given.

5.1 Bug reports

When [reporting a bug](#) please include:

- Your operating system name and version.
- Any details about your local setup that might be helpful in troubleshooting.
- Detailed steps to reproduce the bug.

5.2 Documentation improvements

KrakenExApi could always use more documentation, whether as part of the official KrakenExApi docs, in docstrings, or even on the web in blog posts, articles, and such.

5.3 Feature requests and feedback

The best way to send feedback is to file an issue at <https://github.com/Querela/python-krakenexapi/issues>.

If you are proposing a feature:

- Explain in detail how it would work.
- Keep the scope as narrow as possible, to make it easier to implement.
- Remember that this is a volunteer-driven project, and that code contributions are welcome :)

5.4 Development

To set up *python-krakenexapi* for local development:

1. Fork [python-krakenexapi](#) (look for the “Fork” button).
2. Clone your fork locally:

```
git clone git@github.com:YOURGITHUBNAME/python-krakenexapi.git
```

3. Create a branch for local development:

```
git checkout -b name-of-your-bugfix-or-feature
```

Now you can make your changes locally.

4. When you’re done making changes run all the checks and docs builder with `tox` one command:

```
tox
```

5. Commit your changes and push your branch to GitHub:

```
git add .
git commit -m "Your detailed description of your changes."
git push origin name-of-your-bugfix-or-feature
```

6. Submit a pull request through the GitHub website.

5.4.1 License

Any contribution that you make to this repository will be under the MIT license.

5.4.2 Developer Certificate of Origin

Contributors must sign-off each commit by adding a *Signed-off-by*: ... line to commit messages to certify that they have the right to submit the code they are contributing to the project according to the [Developer Certificate of Origin \(DCO\)](#).

5.4.3 Pull Request Guidelines

If you need some code review or feedback while you’re developing the code just make the pull request.

For merging, you should:

1. Include passing tests (run `tox`)¹.
2. Update documentation when there’s new API, functionality etc.
3. Add a note to `CHANGELOG.rst` about the changes.
4. Add yourself to `AUTHORS.rst`.

¹ If you don’t have all the necessary python versions available locally you can rely on Travis - it will [run the tests](#) for each change you add in the pull request.

It will be slower though ...

5.4.4 Tips

To run a subset of tests:

```
tox -e envname -- pytest -k test_myfeature
```

To run all the test environments in *parallel*:

```
tox -p auto
```


AUTHORS

- Erik Körner - none

CHANGELOG

7.1 WIP

7.2 0.0.1 (2020-12-27)

- Add raw kraken Exchange API.
- Add basic Kraken Exchange API - public methods.
- Add custom exceptions.
- Add basic response classes for better accessing of entries, fix stringified floats.
- Add call rate limiting (crl).
- Add tests for crl, more in work.
- Add private user data API endpoints.
- Add basic documentation.
- First official pre-release.

7.3 0.0.0 (2020-12-25)

- First release on PyPI.

INDICES AND TABLES

- `genindex`
- `modindex`
- `search`

PYTHON MODULE INDEX

k

`krakenexapi`, [7](#)
`krakenexapi.api`, [7](#)

Symbols

[_CallRateLimitInfo](#) (class in [krakenexapi.api](#)), 9
[_get_asset_pairs\(\)](#) (krakenexapi.api.BasicKrakenExAPIPublicMethods method), 8
[_get_asset_pairs_static_values\(\)](#) (krakenexapi.api.BasicKrakenExAPIPublicMethods method), 8
[_get_cost\(\)](#) (krakenexapi.api.KrakenExAPICallRateLimiter static method), 10
[_get_ohlc_data\(\)](#) (krakenexapi.api.BasicKrakenExAPIPublicMethods method), 8
[_get_order_book\(\)](#) (krakenexapi.api.BasicKrakenExAPIPublicMethods method), 8
[_get_recent_spread_data\(\)](#) (krakenexapi.api.BasicKrakenExAPIPublicMethods method), 8
[_get_recent_trades\(\)](#) (krakenexapi.api.BasicKrakenExAPIPublicMethods method), 8
[_get_server_time\(\)](#) (krakenexapi.api.BasicKrakenExAPIPublicMethods method), 8
[_get_ticker_information\(\)](#) (krakenexapi.api.BasicKrakenExAPIPublicMethods method), 8
[_is_private\(\)](#) (krakenexapi.api.KrakenExAPICallRateLimiter static method), 10
[_query_raw\(\)](#) (krakenexapi.api.BasicKrakenExAPI method), 8
[_query_raw\(\)](#) (krakenexapi.api.RawKrakenExAPI method), 7
[_reset_account_crl\(\)](#) (krakenexapi.api.KrakenExAPICallRateLimiter method), 10
[_sign\(\)](#) (krakenexapi.api.RawKrakenExAPI method), 7

A

[api_domain](#) (krakenexapi.api.RawKrakenExAPI attribute), 7
[API_METHODS_PRIVATE](#) (in module [krakenexapi.api](#)), 7
[API_METHODS_PUBLIC](#) (in module [krakenexapi.api](#)), 7

B

[BasicKrakenExAPI](#) (class in [krakenexapi.api](#)), 8
[BasicKrakenExAPIPrivateUserDataMethods](#) (class in [krakenexapi.api](#)), 9
[BasicKrakenExAPIPrivateUserFundingMethods](#) (class in [krakenexapi.api](#)), 9
[BasicKrakenExAPIPrivateUserTradingMethods](#) (class in [krakenexapi.api](#)), 9
[BasicKrakenExAPIPublicMethods](#) (class in [krakenexapi.api](#)), 8

C

[can_call\(\)](#) (krakenexapi.api._CallRateLimitInfo method), 9
[check\(\)](#) (krakenexapi.api._CallRateLimitInfo method), 9
[check_and_wait\(\)](#) (krakenexapi.api._CallRateLimitInfo method), 9
[check_call\(\)](#) (krakenexapi.api.KrakenExAPICallRateLimiter method), 10

D

[decay\(\)](#) (krakenexapi.api._CallRateLimitInfo method), 9

G

[get_account_balance\(\)](#) (krakenexapi.api.BasicKrakenExAPIPrivateUserDataMethods method), 9
[get_asset_info\(\)](#) (krakenexapi.api.BasicKrakenExAPIPublicMethods method), 8

get_asset_pairs()	(krakenexapi. <i>BasicKrakenExAPIPublicMethods</i> method), 8	K krakenexapi module, 7
get_closed_orders()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	krakenexapi. <i>api</i> module, 7
get_ledgers()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	KrakenExAPICallRateLimiter (class in krakenexapi. <i>api</i>), 10 KrakenExAPIError, 10
get_ledgers_info()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	L load_key() (krakenexapi. <i>RawKrakenExAPI</i> method), 7
get_ohlcv_data()	(krakenexapi. <i>BasicKrakenExAPIPublicMethods</i> method), 8	M module krakenexapi, 7 krakenexapi. <i>api</i> , 7
get_open_orders()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	N nonce() (krakenexapi. <i>RawKrakenExAPI</i> method), 7 NONCE_OFFSET (in module krakenexapi. <i>api</i>), 7 NoPrivateKey, 10 NoSuchAPIMethod, 10
get_open_positions()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	Q query_private() (krakenexapi. <i>RawKrakenExAPI</i> method), 7 query_public() (krakenexapi. <i>RawKrakenExAPI</i> method), 7
get_order_book()	(krakenexapi. <i>BasicKrakenExAPIPublicMethods</i> method), 8	R RawKrakenExAPI (class in krakenexapi. <i>api</i>), 7
get_orders_info()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	T time_to_call() (krakenexapi. <i>api</i> ._CallRateLimitInfo method), 9
get_recent_spread_data()	(krakenexapi. <i>BasicKrakenExAPIPublicMethods</i> method), 9	
get_recent_trades()	(krakenexapi. <i>BasicKrakenExAPIPublicMethods</i> method), 8	
get_server_time()	(krakenexapi. <i>BasicKrakenExAPIPublicMethods</i> method), 8	
get_system_status()	(krakenexapi. <i>BasicKrakenExAPIPublicMethods</i> method), 8	
get_ticker_information()	(krakenexapi. <i>BasicKrakenExAPIPublicMethods</i> method), 8	
get_trade_balance()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	
get_trade_volume()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	
get_trades_history()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	
get_trades_info()	(krakenexapi. <i>BasicKrakenExAPIPrivateUserDataMethods</i> method), 9	