**BEE project collaboration page:**

**Tickets to make:**

* **UI**
* **anxhkUSD [Un tick] -No market data**
* **bitbayUSD [Ish tick] -Very illiquid**
* **coinmateUSD (Not USD) #BP Not on bitcoincharts list. It must be a less-popular one**
* **cotrUSD #BP seems active, but illiquid.**
* **itbitUSD (No API) #BP then ignore.**
* **lakeUSD #BP seems inactive - no activity on bitcoincharts.com**
* **okcoinUSD #BP not listed in bitcoincharts.com**
* **#BP INACTIVE EXCHANGES: coinUSD, anxhkUSD, b2cUSD, b7USD, bcmBMUSD, bcmLRUSD, bcmMBUSD, bcmMLUSD, bcmPPUSD, bitaloUSD, bitboxUSD, bitfloorUSD, bitmarketUSD, bitmeUSD, btc24USD, btcexUSD, btcexWMZ, btctreeUSD, cryptoxUSD, crytrUSD, exchbUSD, fbtcUSD, freshUSD, globalUSD, ibwtUSD, imcexUSD, intrsngUSD, justUSD, lakeUSD, lybitUSD, mtgoxUSD, rippleUSD, ruxumUSD, thLRUSD, thUSD, weexUSD,**
* **#BP ACTIVE EXCHANGES - BUT LOW VOLUME: bitbayUSD, cbxUSD, cotrUSD, localbtcUSD (too erratic), vxcUSD,**
* **#BP ACTIVE EXCHANGES - AND GOOD VOLUME: bitfinexUSD, bitkonanUSD, bitstampUSD, btceUSD, coinbaseUSD, hitbtcUSD, itbitUSD, krakenUSD, rockUSD,** 
  1. **TICK bitfinexUSD. LISTED ON BCOINITY**
  2. **TICK bitkonanUSD. -- ??? not listed on bitcoinity**
  3. **TICK bitstampUSD. LISTED ON BCOINITY**
  4. **TICK btceUSD. LISTED ON BCOINITY**
  5. **TICK coinbaseUSD. LISTED ON BCOINITY**
  6. **TICK hitbtcUSD. -- low volume**
  7. **TICK krakenUSD. -- low volume**
  8. **TICK itbitUSD. LISTED ON BCOINITY**
  9. **TICK rockUSD. -- ??? not listed on bitcoinity**
  + **okcoin. ticket added.**
  + **bit-x. ticket added.**
  + **lakebtc. can’t find the website.**
  + **gatecoin. ticket added.**

**from bitcoinity.org...**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Volume [BTC]** | **Listed above in bitcoincharts.com** | **API** | **Done** |
| [**coinbase**](https://bitcoinity.org/markets/coinbase/USD) | **235,824** | **yes. e** |  |  |
| [**bitfinex**](https://bitcoinity.org/markets/bitfinex/USD) | **223,994** | **yes. a** | **yes** | **yes** |
| [**okcoin**](https://bitcoinity.org/markets/okcoin/USD) | **147,355** | **---** |  |  |
| [**bitstamp**](https://bitcoinity.org/markets/bitstamp/USD) | **91,151** | **yes. c** | **yes** | **yes** |
| [**btce**](https://bitcoinity.org/markets/btce/USD) | **61,305** | **yes. d** |  | **yes** |
| [**bit-x**](https://bitcoinity.org/markets/bit-x/USD) | **45,148** | **---** |  | **probs with API** |
| [**lakebtc**](https://bitcoinity.org/markets/lakebtc/USD) | **39,464** | **---** | **20 orders returned** | **yes but probs!!** |
| [**itbit**](https://bitcoinity.org/markets/itbit/USD) | **27,987** | **yes. h** | **no** | **done** |
| [**gatecoin**](https://bitcoinity.org/markets/gatecoin/USD) | **21,722** | **---** |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **bitKonan** |  |  | **yes** | **Seems low volume** |
| **kraken** |  |  |  | **YES** |

**From bitcoin-analytics and bitcoinity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Exch** | **Impl?** |  |  |
| **btceUSD** | yes |  |  |
| **cbxUSD** | yes |  |  |
| **bitstampUSD** | yes |  |  |
| **vcxUSD** | yes |  |  |
| **rockUSD** | yes |  |  |
| **anxhkUSD** | yes |  |  |
| **bitkonanUSD** | yes |  |  |
| **krakenUSD** | yes |  |  |
| **bitfinexUSD** | yes |  |  |
| **lakeUSD** | yes |  |  |
| **hitbtcUSD** | yes |  |  |
| **itbitUSD** | yes |  |  |
| **coinmateUSD** | yes, THOUGH NOT USD |  |  |
| **cotrUSD** | yes |  |  |
| **bitbayUSD** | yes |  |  |
| **coinbaseUSD** | yes |  |  |
| **okcoinUSD** | yes |  |  |
| **gatecoin**  **NOT IN BC-ANAL** | yes |  |  |
| **localbitcoins** | type2  Not convinced we should use this data. The amounts seem massive and prices are off-market. | see https://localbitcoins.com/bitcoincharts/USD/orderbook.json | |
| **cex.io** | type2  :) | https://cex.io/api/order\_book/BTC/USD/ | |
| **bit-x** | Needs new type.  (impliment this) | https://bit-x.com/api/public/orderBook?pair=BTCUSD | |
| **gemini** | type 1  (impliment this) | https://api.gemini.com/v1/book/BTCUSD | |
| **exmo** | Needs new type.  (impliment this) | https://api.exmo.com/v1/order\_book/?pair=BTC\_USD | |
| **bitquick** | can’t find an API. They are a marketplace it seems - not an exchange. | ??? | |
| **wallofcoins** | type2  Seems like a very small orderbook. No bids! | https://wallofcoins.com/api/public/v1/orderBook | |
| **coinsetter** | Needs new type.  Seems very low volume | https://api.coinsetter.com/v1/marketdata/depth | |
| **bitcurex** | type2  Seems very low volume | https://bitcurex.com/api/usd/orderbook.json | |
| **c-cex** | Seems very low volume | https://c-cex.com/t/api\_pub.html?a=getorderbook&market=btc-usd&type=both | |
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**References:**

* **How to access and interpret data from an API in Python with dictionaries:** [**Rest API integration in Python**](https://realpython.com/blog/python/api-integration-in-python/#talking-rest)
* **Functions and methods on dictionaries:** [**Dictionary functions, methods and explanations**](http://stackoverflow.com/questions/19103785/python-dictionary-searching)
* **Website that is project is based around and trying to copy data from:** [**bitcoin-analytics.com**](http://bitcoin-analytics.com)
* **More information on dictionaries in Python:** [**Python dictionaries**](http://www.pythonforbeginners.com/dictionary/dictionary-manipulation-in-python)
* **How to sort a list of lists by a specific index in the inner lists:** [**Sorting a list of lists**](http://stackoverflow.com/questions/4174941/how-to-sort-a-list-of-lists-by-a-specific-index-of-the-inner-list)
* **How to sort a list of lists by a specific element in inner list:** [**Sorting list lists**](http://stackoverflow.com/questions/17555218/python-how-to-sort-a-list-of-lists-by-the-fourth-element-in-each-list)
* **Work-in-progress code is stored in a shared location on google drive in the bee project folder under the file name projectcode.py.**
* **BitstampUSD**
  + **Endpoint:** [**https://www.bitstamp.net/api/**](https://www.bitstamp.net/api/)
  + **Documentation:** [**https://www.bitstamp.net/api/**](https://www.bitstamp.net/api/)
  + **Orderbook:** [**https://www.bitstamp.net/api/order\_book/**](https://www.bitstamp.net/api/order_book/)
  + **Done: True**
* **BitfinexUSD**
  + **Endpoint:** [**https://api.bitfinex.com**](https://api.bitfinex.com/v1/)
  + **Documentation:** [**http://docs.bitfinex.com/#orderbook**](http://docs.bitfinex.com/#orderbook)
  + **Orderbook:** [**https://api.bitfinex.com/v1/book/BTCUSD?**](https://api.bitfinex.com/v1/book/BTCUSD?limit_asks=1000000000000000&limit_bids=100000000000000)
  + **Done: True**
* **AnxhkUSD**
  + **Endpoint:** [**https://anxpro.com/api/**](https://anxpro.com/api/2/BTCUSD/money/depth/full)
  + **Documentation:** [**http://docs.anxv2.apiary.io/#reference/market-data/currencypairmoneydepthfull**](http://docs.anxv2.apiary.io/#reference/market-data/currencypairmoneydepthfull)
  + **Orderbook:** [**https://anxpro.com/api/2/BTCUSD/money/depth/full**](https://anxpro.com/api/2/BTCUSD/money/depth/full)
  + **Done: true**

* **bitbayUSD** 
  + **Endpoint:** [**https://bitbay.net/API/**](https://bitbay.net/API/Public/bitkonanUSD)
  + **Documentation:** [**https://www.bitbay.net/public-api**](https://www.bitbay.net/public-api)
  + **Orderbook:** [**https://bitbay.net/API/Public/BTCUSD/orderbook.json**](https://bitbay.net/API/Public/BTCUSD/orderbook.json)
  + **Done: True**
* **btceUSD** 
  + **Endpoint:** [**https://btc-e.com/api/**](https://btc-e.com/api/3/depth/btc_usd?limit=1000000)
  + **Documentation:** [**https://btc-e.com/api/3/docs#main**](https://btc-e.com/api/3/docs#main)
  + **Orderbook:** [**https://btc-e.com/api/3/depth/btc\_usd?limit=1000000**](https://btc-e.com/api/3/depth/btc_usd?limit=1000000)
  + **Done: True**
* **cbxUSD**
  + **Endpoint:** [**https://campbx.com/api.php**](https://campbx.com/api.php)
  + **Documentation:** [**https://campbx.com/api.php#market**](https://campbx.com/api.php#market)
  + **Orderbook:** [**https://campbx.com/api/xdepth.php**](https://campbx.com/api/xdepth.php)
  + **Done: True**
* **coinbaseUSD** 
  + **Endpoint:** [**https://api.exchange.coinbase.com**](https://api.exchange.coinbase.com/coinmateUSD)
  + **Documentation:** [**https://docs.exchange.coinbase.com/**](https://docs.exchange.coinbase.com/)
  + **Orderbook:** [**https://api.exchange.coinbase.com/products/BTC-USD/book?level=3**](https://api.exchange.coinbase.com/products/BTC-USD/book?level=3)
  + **Done: true**
* **cotrUSD** 
  + **Endpoint:** [**https://www.cointrader.net/api4/**](https://www.cointrader.net/api4/stats/orders/BTCUSD/all/1000)
  + **Documentation:** [**http://docs.cointrader.apiary.io/#reference/public-methods-get/**](http://docs.cointrader.apiary.io/#reference/public-methods-get/)
  + **Orderbook:** [**https://www.cointrader.net/api4/stats/orders/BTCUSD/all/1000**](https://www.cointrader.net/api4/stats/orders/BTCUSD/all/1000)
  + **Done: True**
  + **SEEMS VERY LITTLE DATA. IGNORE**
* **hitbtcUSD** 
  + **Endpoint:** [**https://api.hitbtc.com**](https://api.hitbtc.com)
  + **Documentation:** [**https://hitbtc.com/api**](https://hitbtc.com/api)
  + **Orderbook:** [**https://api.hitbtc.com/api/1/public/BTCUSD/orderbook**](https://api.hitbtc.com/api/1/public/BTCUSD/orderbook)
  + **Done: True**
* **itbitUSD** 
  + **Done: True**
* **krakenUSD** 
  + **Endpoint:** [**https://api.kraken.com/**](https://api.kraken.com/)
  + **Documentation:** [**https://www.kraken.com/en-us/help/api**](https://www.kraken.com/en-us/help/api)
  + **Orderbook:** [**https://api.kraken.com/0/public/Depth?pair=XBTUSD&count=1000000**](https://api.kraken.com/0/public/Depth?pair=XBTUSD&count=1000000)
  + **Done: True**
* **okcoinUSD** 
  + **Endpoint:** [**https://www.okcoin.com/api/**](https://www.okcoin.com/api/)
  + **Documentation:** [**https://www.okcoin.com/about/rest\_api.do**](https://www.okcoin.com/about/rest_api.do)
  + **Orderbook:** [**https://www.okcoin.com/api/v1/depth.do**](https://www.okcoin.com/api/v1/depth.do)
  + **Done: True**

**# Request   
GET https://www.okcoin.com/api/v1/depth.do  
# Response  
{  
 "asks": [  
 [792, 5],  
 [789.68, 0.018],  
 [788.99, 0.042],  
 [788.43, 0.036],  
 [787.27, 0.02]  
 ],  
 "bids": [  
 [787.1, 0.35],  
 [787, 12.071],  
 [786.5, 0.014],  
 [786.2, 0.38],  
 [786, 3.217],  
 [785.3, 5.322],  
 [785.04, 5.04]  
 ]  
}**

* **rockUSD**
  + **Endpoint:** [**https://api.therocktrading.com**](https://api.therocktrading.com)
  + **Documentation:** [**https://api.therocktrading.com/doc/**](https://api.therocktrading.com/doc/)
  + **Orderbook:** [**https://api.therocktrading.com/v1/funds/BTCUSD/orderbook**](https://api.therocktrading.com/v1/funds/BTCUSD/orderbook)
  + **Done: True**
* **coinmateUSD** 
  + **(Not USD)**
* **bitkonanUSD**
  + **Endpoint:** [**https://bitkonan.com/api/**](https://bitkonan.com/api/)
  + **Documentation:** [**https://bitkonan.com/info/api**](https://bitkonan.com/info/api)
  + **Orderbook:** [**https://bitkonan.com/api/btc\_orderbook**](https://bitkonan.com/api/btc_orderbook)
  + **Done: False**
* **lakeUSD**
  + **Endpoint:** [**https://www.LakeBTC.com/api\_v1/bcorderbook?symbol=btcusd**](https://www.lakebtc.com/api_v1/bcorderbook?symbol=btcusd)
  + **Documentation:** [**https://www.lakebtc.com/s/api**](https://www.lakebtc.com/s/api)
  + **Orderbook:** [**https://www.LakeBTC.com/api\_v1/bcorderbook?symbol=btcusd**](https://www.lakebtc.com/api_v1/bcorderbook?symbol=btcusd)
  + **Done: True**
* **vcxUSD**
  + **Endpoint:** [**https://api.vircurex.com/api/**](https://api.vircurex.com/api/)
  + **Documentation:** [**https://vircurex.com/welcome/api**](https://vircurex.com/welcome/api)
  + **Orderbook:** [**https://api.vircurex.com/api/orderbook.json?base=BTC&alt=USD**](https://api.vircurex.com/api/orderbook.json?base=BTC&alt=USD)
  + **Done: False**

**GATECOIN**

**Request URL**

**https://www.gatecoin.com/api/**

**You can find more detailed information about connecting to our HTTP API on our Github Page**

**https://github.com/gatecoin**

**Link**

**GET https://www.gatecoin.com/api/Public/MarketDepth/:CurrencyPair**

**Parameters**

**Parameter Data Type Description Parameter Type**

**CurrencyPair string The currency pair for which prices are wanted path**

**Response**

**{**

**"asks": [**

**{**

**"price": 203,**

**"volume": 10**

**},**

**{**

**"price": 204,**

**"volume": 1**

**}**

**]**

**}**

**Explanation**

**Key Value Explanation**

**price 203 There is an available ask order to sell BTC at 203 USD**

**volume 10 The available quantity at that price is 10 BTC**

**STRUCTURE:**

**currency**

**currency Abbreviation**

**exchange**

**exchange Name**

**currency**

**orderBook URL**

**Python Functions:**

* **getMarketDepth()**
  + **Input:**
    - **Exchange list (CSV), one exchange or exchange currency**
    - **Example:**
      * **Exchange List: bitfinEx, bitmarkets**
      * **Exchange Currency: USDall**
      * **One exchange: bitFinEx**
    - **Depth-Value e.g. 100k**
  + **Details of the function:**
    - **Runs getOrderBook function on exchange(s) specified in the function arguments then with the new merged orderbook it calculates the market depth on those exchanges.**
  + **Output:**
    - **Market depth of the specified exchange(s)**
* **getOrderBook()**
  + **Input:**
    - **exchange list, one exchange or exchange currency**
    - **Example:**
      * **Exchange List: bitfinEx, bitmarkets**
      * **Exchange Currency: USDall**
      * **One exchange: bitFinEx**
  + **Details of the function:**
    - **Runs getOrderBook<exchange name> for on any exchange(s)’s order books specified in the function arguments.**
  + **Output:**
    - **Standardised and merged (sometimes) orderbook dictionary.**
* **getOrderBook<EXCHANGE>()**
* **e.g. getOrderBookBitFinEx**
  + **Input:**
    - **/dev/null :)**
  + **Details of the function:**
    - **Gets orderbook for a specific exchange and converts the API response data into the universal order book format.**
  + **Output:**
    - **Standardised orderbook dictionary.**

**SHELL SCRIPT**

bee.sh

args

-web [up|down|check] Starts, stops and checks the status of the bee webserver.

-stats [up|down|check] Starts, stops and checks the status of the bee stats deamon.

**Description of args**

-web [up|down|check]

up - first checks to see if the webserver is running. If not, starts the web server.

down - checks to see if the webserver is running, and if so then shuts down the webserver.

check - checks to see if the web server is running.

-stats [up|down|check]

up - first checks to see if the stats deamon is running. If not, starts it.

down - checks to see if the stats deamon is running, and if so then shuts it down.

check - checks to see if the stats deamon is running.

shell script internals…

Sets BEE\_PATH. This is the directory in which this instance of Bee will operate. This directory contains all the python code, ini files and output log files. The systems administrator should edit this shell script and specify the BEE\_PATH for this instance of the Bee System.

BEE\_PATH is used by the Bee deamon to determine where to find ini files and log the output files.

BEE\_PATH is used by the Bee webserver to