Dataset description

Data update frequency: T+1; normal ready at utc+0 4:00

Data type

- T_TRADE: tick-by-tick trade
- T_DEPTH: tick-by-tick order book (level 2); under development.
- S_DEPTH: order book snapshot (level 2); temp data solution only for BTCUSDT at the moment.

tick-by-tick trade (T_TRADE)

Schema

same as api, for example https://binance-docs.github.io/apidocs/futures/en/#recent-trades-list

Symbol

COIN-M and USDT-M futures are all supported (queried through different symbol, for example: 'BTCUSDT', 'BTCUSD_200925')

Time

2020/01/01 to date; for newly launched symbols starting from the launch date.

tick-by-tick order book, level 2 (T_DEPTH)

Schema

field	desc
symbol	symbol
time	transaction time, timestamp
first_update_id	-
last_update_id	-
pu	Last_update_id of previous row, to help exam completeness. Only applicable to coin-m futures depth update (not orderbook snapshot).
side	a = ask (SELL order) b = bid (BUY order)
update_type	snap = used for order book snapshot only set = set price level to current qty (not delta) delta = qty change of the price level (delta)
price	-
qty	-

sample data

symbol	timestamp	first_update_id	last_update_id	side	update_type	price	qty
BTCUSDT	1593647999921	39538108420	39538108420	a	set	9235.09	0
BTCUSDT	1593647999933	39538108444	39538108444	a	set	9236.04	0.852
BTCUSDT	1593647999954	39538108472	39538108472	b	set	9219.67	0
BTCUSDT	1593647999983	39538108497	39538108497	a	set	9236.04	0.912
BTCUSDT	1593647999983	39538108498	39538108498	a	set	9235.11	0

Symbol

COIN-M and USDT-M futures are all supported (queried through different symbol, for example: 'BTCUSDT', 'BTCUSD_200925')

Time

2020/07/01 to date; for newly launched symbols starting from the launch date.

Completeness

For coin-m futures, a small part of the datasets when missing, detailed as below

- 2020.09.27 lost 18 seconds
- 2020.10.24 lost 121 seconds

You can use the `pu` to check the datasets yourselves.

For usdt-m futures, the datasets are guaranteed to be complete, as they are reproduced from internal logs; you are welcome to compare this to any collected datasets, and if there is any difference, feel free to tell us.

Order book snapshot, level 2 (S_DEPTH)

Currently only support BTCUSDT at around 1s (1000 ms) interval with 20 price levels. A small part of the data is missing, and will be back filled in the future. `ts` refers to `transaction_time`.

Historical Data Download API

General Info

The data download API is part of the Binance API (https://binance-docs.github.io/apidocs/spot/en/#general-api-information).

For how to use it, you may find info there with more examples, especially SIGNED Endpoint security as in https://binance-docs.github.io/apidocs/spot/en/#signed-trade-user_data-and-margin-endpoint-security

For accessing Futures data, the API account also needs to open a Futures account.

Get Download ID For Futures Hist Data (USER_DATA)

POST /sapi/v1/futuresHistDataId (HMAC SHA256)

For bulk data download, it may take hours to generate the download link; it's recommended requesting within 1-3 months length each time, especially for tick-level order book data.

For data type info (available symbol and time range), please refer to `dataset description`.

Weight: 1000

Parameters:

Name	Type	Mandatory	Description
symbol	STRING	YES	
startTime	LONG	YES	Timestamp in ms; INCLUSIVE
endTime	LONG	YES	Timestamp in ms; INCLUSIVE
dataType	ENUM	YES	"T_TRADE", "T_DEPTH", "S_DEPTH"
recvWindow	LONG	NO	
timestamp	LONG	YES	

Response:

```
{
    "id": "11141ad13d1"    // download id
}
```

Get Download Link by ID (USER_DATA)

GET /sapi/v1/downloadLink (HMAC SHA256)

Download link expiration: 24h

Weight: 1000

Parameters:

Name	Type	Mandatory	Description
downloadId	STRING	YES	
recvWindow	LONG	NO	
timestamp	LONG	YES	

Response:

{
"link": "www.binance.com", // download link
"expirationTime": 1566813600, // the link would expire after this timestamp
}

Index Price, Mark Price, Premium Index, Kline/Candlestick Data

For USDT-M futures

GET /fapi/v1/marketKlines

Use fapi.binance.com as base url as in https://binance-docs.github.io/apidocs/futures/en/#change-log

Weight: 1000

Parameters:

Name	Type	Mandatory	Description
symbol	STRING	YES	mBTCUSDT for BTCUSDT mark price; iBTCUSDT for BTCUSDT index price pBTCUSDT for BTCUSDT premium index price
interval	ENUM	YES	
startTime	LONG	NO	
endTime	LONG	NO	
limit	INT	NO	Default 500; max 1500.

Response:

```
[
  [
    1591256400000,          // Open time
    "9653.69440000",        // Open
    "9653.69640000",        // High
    "9651.38600000",        // Low
    "9651.55200000",        // Close (or latest price)
    "0  ",                  // Ignore
    1591256459999,          // Close time
    "0",                    // Ignore
    60,                     // Number of bisic data
    "0",                    // Ignore
    "0",                    // Ignore
    "0"                     // Ignore
  ]
]
```

For COIN-M futures please see

https://binance-docs.github.io/apidocs/delivery/en/#index-price-kline-candlestick-data

https://binance-docs.github.io/apidocs/delivery/en/#mark-price-kline-candlestick-data

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Changelog

2020/11/13

Support T_DEPTH for USDT-m futures (all symbol starting from 2020/07/01);

Download limit rules improvements

Add docs for mark price, index price

2020/11/06

Support T_DEPTH for Coin-m futures (all symbol starting from 2020/07/01)

2020/10/30

support T_DEPTH for USDT-M futures (BTCUSDT, ETHUSDT, starting from 2020/07/01)

2020/08/12

support T_TRADE for COIN-M futures

2020/06/18

add second-level S_DEPTH data (BTCUSDT only)

group data file into day interval

add description for data types, support symbol; omit interval in doc for possible errors