

Latoken Public API (V1)

Download OpenAPI specification:

[Download](#)

Welcome to official Public API of Latoken Exchange. Here you can find information about our public and private endpoints.

Basic information

- The base address is **<https://api.latoken.com>**
 - All methods return JSON object
 - Error requests return **4XX** status codes if the error is caused by client, else, internal errors will be returned with status code **5XX**

Error format

Errors are returned in JSON format as follows:

```
{
  "error": {
    "message": "error message",
    "errorType": "AuthorizationError"
    "statusCode": 401
  }
}
```

Rate limit errors will return code **429** and they will be formatted in following way:

```
{  
  "message": "Request limit reached",  
  "details": "Request limit reached. Maximum allowed: 3 per 4s. Please try again in  
}
```

(To see rate limits use `/api/v1/ExchangeInfo/limits` endpoint. There you can find rate limits for **public** and signed **endpoints**)

Public and Private endpoints

Latoken API has two type of endpoint. **Public** and **Signed** endpoints. Public endpoints can be accessed by anyone and they mostly contain methods that return public market data (Order book, ticker, trades, exchange info etc...) Signed endpoint contain user related data and enable to create, cancel and see the state of user accounts, orders and balances.

Enpoint	Endpoint type
/api/v1/Account/	SIGNED
/api/v1/ExchangeInfo/	PUBLIC
/api/v1/MarketData/	PUBLIC
/api/v1/Order/new	SIGNED

Authorization

For signed endpoints client should have `ApiKey` and `ApiSecret`. Request can be signed using **HMAC-SHA256**, **HMAC-SHA384** or **HMAC-SHA512**. If Hash header is not provided, default hash algorithm will be **HMAC-SHA256**.

Request headers

Header key	Value description	Value example
X-LA-KEY	<code>Client key</code>	api-key-mysuperlatokenkey
X-LA-SIGNATURE	<code>Request signature</code>	45dec0cf062d5f79f94fa34d0e7a6c58cafe8bb5a00b34175226e579a181
X-LA-HASHTYPE	<code>Hash function (optional)</code>	HMAC-SHA384

Signature

The signature of request is created by using your ApiSecret to sign `api endpoint` + `query string` of request. For example, if we want to make request to see our latest trades on **LAETH** pair, we would use `https://api.latoken.com/api/v1/Order/trades?timestamp=1555515807369&symbol=LAETH` request. In that case, we would need to sign `/api/v1/Order/trades?timestamp=1555515807369&symbol=LAETH` part of request, and the result of signing should be placed in **X-LA-SIGNATURE** header.

Example of signed request in JavaScript:

```
const request = require('request')
const crypto = require('crypto')

const apiKey = 'Your Latoken API key'
const apiSecret = 'Your Latoken API secret'
const baseUrl = 'https://api.latoken.com'
const endpoint = '/api/v1/Order/trades'

const params = {
  timestamp: Date.now(),
  symbol: "LAETH"
}

const query = `?${Object.entries(params)
  .map(([key, val]) => `${key}=${val}`)
  .join('&')}`

const signature = crypto
  .createHmac('sha256', apiSecret)
  .update(endpoint+query)
  .digest('hex')

const options = {
  url: baseUrl+endpoint+query,
  headers: {
    'X-LA-KEY': apiKey,
    'X-LA-SIGNATURE': signature
  }
}

return request.get(
  options,
  function(error, response, body) {
    console.log('response:', JSON.stringify(body, 0, 2))
  })
```



WebSockets

Purpose of WebSocket data is to provide to clients exchange changes in real-time without making REST requests.

- On initial subscription request WebSocket server will send **Full Order Book** (anonymized) for instrument requested, then it sends full **Order Log** (anonymized) to the client
- All Order Book changes on instrument are sent to clients
- Every request to a WS **"rqst"** field
- Every response from WS **"rspns"** field

WebSocket Workflow

To subscribe to market data clients need to make subscription request to WS with selected instrument ID's. All trading pair IDs you can get by calling **/api/v1/ExchangeInfo/pairs** endpoint

Request example:

```
{ "rqst": "sbscr", "secs": [29, 44, 128] }
```

The above example request will return **FOB** or **Full Order Book** response with all orders.

FOB Response example:

```
{
  "rspns": "ok",
  "sec": 44, // Pair ID
  "fob": [
    {
      "id": "12345660.123120.XXXXXX", //Order id
      "side": "ask", //Order side
      "prx": "1123.22", //Order price
      "qty": "0.22" //Order amount
    },
    {
      "id": "12345600.123100.XXXXXX",
      "side": "ask",
      "prx": "1123.21",
      "qty": "0.11"
    },
    {
      "id": "12345601.123101.XXXXXX",
      "side": "bid",
      "prx": "1123.10",
      "qty": "0.12"
    },
    {
      "id": "12345602.123102.XXXXXX",
      "side": "bid",
      "prx": "1123.09",
      "qty": "0.19"
    }
  ]
}
```

If there is an error with request you can expect error response from WS

```
{
  "rqst": "sbscr",
  "secs": [
    29,
    44,
    128
  ],
  "rspns": "Error: Invalid security Id: 44"
}
```

After initial FOB response, client will receive **Full Order Log** update for each instrument he is subscribed to

FOL Response example:

```
{
  "sec": 44, // Pair ID
  "fol": [
    {
      "id": "12345666.123123.XXXXXX", // Order ID
      "prx": "1123.21", // Order price
      "qty": "0.22", // Order amount
      "side": "bid", // Order side
      "stat": "new" // Order status
    },
    {
      "id": "12345667.123124.XXXXXX",
      "prx": "1123.24",
      "stat": "filled"
    },
    {
      "id": "12345677.123224.XXXXXX",
      "prx": "1123.25",
      "qty": "0.26",
      "stat": "part_filled"
    },
    {
      "id": "12345668.123126.XXXXXX",
      "stat": "cancelled"
    }
  ]
}
```

To unsubscribe from pair send *"usbscr"* message to WS

```
{"rqst": "usbscr", "secs": [29, 44, 128]}
```

Account

Get all balances

QUERY PARAMETERS

timestamp	integer <int64> Request timestamp (in unix milliseconds)
-----------	---

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET /api/v1/Account/balances

Response samples

200

400

401

428

application/json

Copy Expand all Collapse all

```
[
  - [
    + { ... }
  ]
]
```

Get balance for desired currency

PATH PARAMETERS

currency required	string Symbol of currency (e.g. LA)
----------------------	---

QUERY PARAMETERS

timestamp required	integer <int64> Request timestamp (in unix milliseconds)
-----------------------	---

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET /api/v1/Account/balances/{currency}

Response samples

200**400****401****428**

application/json

Copy Expand all Collapse all

```
{
  "currencyId": 102,
  "symbol": "LA",
  "name": "Latoken",
  "amount": 1054.66,
  "available": 900.66,
  "frozen": 154,
```

```
"pending": 0  
}
```

ExchangeInfo

Returns current exchange time

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET /api/v1/ExchangeInfo/time

Response samples

200

400

401

428

application/json

```
{  
  "time": "2019-04-18T9:00:00.0Z",  
  "unixTimeSeconds": 1555578000,  
}
```

Copy

Expand all

Collapse all

```
"unixTimeMilliseconds": 1555578000000
}
```

Information about request rate limits of API

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET /api/v1/ExchangeInfo/limits

Response samples

200

400

401

428

application/json

Copy Expand all Collapse all

```
{
  - "publicEndpoints": [
    + { ... }
  ],
  - "signedEndpoints": [
    + { ... }
  ]
}
```

Returns all trading pairs of Latoken exchange

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET /api/v1/ExchangeInfo/pairs

Response samples

200

400

401

428

application/json

Copy

Expand all

Collapse all

```
[
  - {
    "pairId": 502,
    "symbol": "LAETH",
    "baseCurrency": "LA",
    "quotedCurrency": "ETH",
    "makerFee": 0.01,
    "takerFee": 0.01,
    "pricePrecision": 8,
    "amountPrecision": 8,
    "minQty": 0.1
  }
]
```

]

Returns all trading pairs that contain desired currency

PATH PARAMETERS

currency
required

string
Currnecy target (e.g. LA)

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET /api/v1/ExchangeInfo/pairs/{currency}

Response samples

200**400****401****428**

application/json

[

Copy

Expand all

Collapse all

```
- {  
  "pairId": 502,  
  "symbol": "LAETH",  
  "baseCurrency": "LA",  
  "quotedCurrency": "ETH",  
  "makerFee": 0.01,  
  "takerFee": 0.01,  
  "pricePrecision": 8,  
  "amountPrecision": 8,  
  "minQty": 0.1  
}
```

Gets info about desired trading pair

QUERY PARAMETERS

symbol	string Symbol of traded pair (e.g. LAETH)
--------	--

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET /api/v1/ExchangeInfo/pair

Response samples

200

400

401

428

application/json

Copy

Expand all

Collapse all

```
{
  "pairId": 502,
  "symbol": "LAETH",
  "baseCurrency": "LA",
  "quotedCurrency": "ETH",
  "makerFee": 0.01,
  "takerFee": 0.01,
  "pricePrecision": 8,
  "amountPrecision": 8,
  "minQty": 0.1
}
```

Get all currencies available on Latoken exchange

Responses

✓ 200 Success

✓ 400 BadRequest

✓ 401 Forbidden

✓ 428 RequestLimit

GET /api/v1/ExchangeInfo/currencies

Response samples

200**400****401****428**

application/json

Copy

Expand all

Collapse all

```
[
  - {
    "currencyId": 102,
    "symbol": "LA",
    "name": "Latoken",
    "precision": 8,
    "type": "ERC20",
    "fee": 0.1
  }
]
```

Get currency info by symbol or name

PATH PARAMETERS

symbol
required

string

Symbol or name of desired currency (e.g LA or Latoken)

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET /api/v1/ExchangeInfo/currencies/{symbol}

Response samples

200**400****401****428**

application/json

[Copy](#)[Expand all](#)[Collapse all](#)

```
{
  "currencyId": 102,
  "symbol": "LA",
  "name": "Latoken",
  "precision": 8,
  "type": "ERC20",
  "fee": 0.1
}
```

MarketData

Get 24h ticker for desired pair

QUERY PARAMETERS

symbol

string

Symbol of traded pair (example: LAETH)

Responses

✓ **200** Success

▼ **400** BadRequest

▼ **401** Forbidden

▼ **428** RequestLimit

GET /api/v1/MarketData/ticker

Response samples

200

400

401

428

application/json

Copy

Expand all

Collapse all

```
{
  "pairId": 502,
  "symbol": "LAETH",
  "volume": 1023314.3202,
  "open": 134.82,
  "low": 133.95,
  "high": 136.22,
  "close": 135.12,
  "priceChange": 0.22
}
```

Get OrderBook for desired pair

QUERY PARAMETERS

symbol

string

Symbol of traded pair (example: LAETH)

Responses

✓ 200 Success

✗ 400 BadRequest

✗ 401 Forbidden

✗ 428 RequestLimit

GET /api/v1/MarketData/orderBook

Response samples

200

400

401

428

application/json

Copy Expand all Collapse all

```
{
  "pairId": 502,
  "symbol": "LAETH",
  "spread": 0.07,
  - "asks": [
    + { ... }
  ],
  - "bids": [
    + { ... }
  ]
}
```

Get tardes history for desired pair

QUERY PARAMETERS

symbol	string Symbol of tarded pair (example: LAETH)
limit	integer <int32> Default: <input type="text" value="100"/> Number of trades to fetch (Max value 500, Default value 100)

Responses

✓ 200 Success

✓ 400 BadRequest

✓ 401 Forbidden

✓ 428 RequestLimit

GET /api/v1/MarketData/trades

Response samples

- 200
- 400
- 401
- 428

application/json

Copy Expand all Collapse all

```
{
  "pairId": 502,
  "symbol": "LAETH",
  "tradeCount": 1,
  - "trades": [
    + { ... }
  ]
}
```

Order

Placing a new order

QUERY PARAMETERS

Symbol required	string Symbol of tarded pair (example: LAETH)
CliOrdId	string ID of order set by client (example: myNewOrder)
Side required	string Order side (buy or sell)
Price	number <double> Price of order
Amount required	number <double> Amount of order
OrderType	string Order type (limit)
Timestamp required	integer <int64> Time of request in millisecods (example: 1555515807369)
TimeAlive	integer <int64> Indicator how long request is valid in millisecods (example: 3000)

Responses

✓ **200** Success

✓ **400** BadRequest

▼ 401 Forbidden

▼ 428 RequestLimit

POST /api/v1/Order/new

Response samples

200

400

401

428

application/json

Copy Expand all Collapse all

```
{
  "orderId": "1555492358.126073.126767@0502:2",
  "cliOrdId": "myNewOrder",
  "pairId": 502,
  "symbol": "LAETH",
  "side": "buy",
  "orderType": "limit",
  "price": 136.2,
  "amount": 0.57
}
```

Cancel desired order by ID

QUERY PARAMETERS

orderId required	string Id of order to cangle (e.g. '1555418536.649142.126767@0371:1')
timestamp required	integer <int64> Time of request in millisecods (example: 1555515807369)

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

POST /api/v1/Order/cancel

Response samples

200

400

401

428

application/json

Copy

Expand all

Collapse all

```
{
  "orderId": "1555492358.126073.126767@0502:2",
  "cliOrdId": "myNewOrder",
  "pairId": 502,
  "symbol": "LAETH",
  "side": "buy",
  "orderType": "limit",
  "price": 136.2,
  "amount": 0.57,
  "orderStatus": "partiallyFilled",
  "executedAmount": 0.27,
  "reaminingAmount": 0.3,
  "timeCreated": 155551580736,
  "timeFilled": 0
}
```

Cancel all orders on traded pair

QUERY PARAMETERS

symbol required	string Sybol of traded pair (e.g. LAETH)
timestamp required	integer <int64> Time of request in millisecods (example: 1555515807369)

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

POST /api/v1/Order/cancel_all

Response samples

200

400

401

428

application/json

Copy Expand all Collapse all

```
{
  "pairId": 502,
  "symbol": "LAETH",
  - "cancelledOrders": [
    "1555492358.126073.126767@0502:2"
  ]
}
```


Get all orders by trading symbol with requested status

QUERY PARAMETERS

symbol required	string Sybol of traded pair (e.g. LAETH)
status required	string Default: <code>"active"</code> Status of order ['active', 'partiallyFilled', 'filled', 'cancelled'] (Default value is 'active')
limit	integer <int32> Default: <code>100</code> Number of orders to fetch

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET `/api/v1/Order/status`

Response samples

200

400

401

428

application/json

```
[
  - {
    "orderId": "1555492358.126073.126767@0502:2",
    "cliOrdId": "myNewOrder",
    "pairId": 502,
    "symbol": "LAETH",
    "side": "buy",
    "orderType": "limit",
    "price": 136.2,
    "amount": 0.57,
    "orderStatus": "partiallyFilled",
    "executedAmount": 0.27,
    "reaminingAmount": 0.3,
    "timeCreated": 155551580736,
    "timeFilled": 0
  }
]
```

Get all active orders on traded pair

QUERY PARAMETERS

symbol required	string Symbol of traded pair (e.g. LAETH)
timestamp required	integer <int64> Time of request in millisecods (example: 1555515807369)
limit	integer <int32> Default: <input type="text" value="50"/> Number of orders to fetch (Default 50)

Responses

✓ 200 Success

[▼ 400 BadRequest](#)[▼ 401 Forbidden](#)[▼ 428 RequestLimit](#)

GET /api/v1/Order/active

Response samples

200

400

401

428

application/json

[Copy](#)[Expand all](#)[Collapse all](#)

```
[
  - {
    "orderId": "1555492358.126073.126767@0502:2",
    "cliOrdId": "myNewOrder",
    "pairId": 502,
    "symbol": "LAETH",
    "side": "buy",
    "orderType": "limit",
    "price": 136.2,
    "amount": 0.57,
    "orderStatus": "partiallyFilled",
    "executedAmount": 0.27,
    "reaminingAmount": 0.3,
    "timeCreated": 155551580736,
    "timeFilled": 0
  }
]
```

Returns info about client order by order ID

QUERY PARAMETERS

orderId required	string ID of orer to fetch (e.g. '1555418536.649142.126767@0371:1')
----------------------------------	--

Responses

✓ 200 Success

✓ 400 BadRequest

✓ 401 Forbidden

✓ 428 RequestLimit

GET /api/v1/Order/get_order

Response samples

200

400

401

428

application/json

Copy Expand all Collapse all

```
{
  "orderId": "1555492358.126073.126767@0502:2",
  "cliOrdId": "myNewOrder",
  "pairId": 502,
  "symbol": "LAETH",
  "side": "buy",
  "orderType": "limit",
  "price": 136.2,
  "amount": 0.57,
  "orderStatus": "partiallyFilled",
  "executedAmount": 0.27,
  "reaminingAmount": 0.3,
```

```
"timeCreated": 155551580736,  
"timeFilled": 0  
}
```

Users latest trades by pair

QUERY PARAMETERS

symbol required	string Symbol of traded pair (e.g. LAETH)
timestamp required	integer <int64> Time of request in milliseconds (example: 1555515807369)
limit	integer <int32> Default: <input type="text" value="10"/> Number of orders to fetch (Default 10)

Responses

✓ **200** Success

✓ **400** BadRequest

✓ **401** Forbidden

✓ **428** RequestLimit

GET /api/v1/Order/trades

Response samples

200

400

401

428

application/json

Copy Expand all Collapse all

```
{
  "pairId": 502,
  "symbol": "LAETH",
  "tradeCount": 1,
  - "trades": [
    + { ... }
  ]
}
```

