

TrueFX Market Data Web API

Developer Guide

The TrueFX Market Data Web API is a simple HTTP query/response protocol used by clients to access rates from TrueFX.

1.1 Connecting to TrueFX

Clients use HTTP queries to establish sessions that define the set of currency pairs, response format, and other details of the session.

All requests are made to the following base URL:

`https://webrates.truefx.com/rates/connect.html`

Clients can interact with TrueFX in unauthenticated or authenticated sessions.

1.1.1 Unauthenticated Sessions

Unauthenticated requests using the base URL with no query parameters return a default response in the form of a snapshot session that includes data for a subset of 10 currency pairs. See [Default Rate Format](#) on page 4 for information about the snapshot response. Unauthenticated requests do not support the more powerful query-based API functionality, including incremental responses containing only the changed currency pairs.

Example 1-1 URL for Snapshot Rates

`https://webrates.truefx.com/rates/connect.html`

Unauthenticated sessions can access the following currency pairs:

- EUR/USD
- USD/JPY
- GBP/USD
- EUR/GBP
- USD/CHF
- EUR/JPY
- EUR/CHF
- USD/CAD
- AUD/USD
- GBP/JPY

1.1.2 Authenticated Sessions

For a client to establish an authenticated session, you must have a registered TrueFX account with a registered, confirmed username.

Authenticated sessions can access the following currency pairs:

- EUR/USD
- USD/JPY
- GBP/USD
- EUR/GBP
- USD/CHF
- EUR/JPY
- EUR/CHF
- USD/CAD
- AUD/USD
- GBP/JPY
- AUD/CAD
- AUD/CHF
- AUD/JPY
- AUD/NZD
- CAD/CHF
- CAD/JPY
- CHF/JPY
- EUR/AUD
- EUR/CAD
- EUR/NOK
- EUR/NZD
- GBP/CAD
- GBP/CHF
- NZD/JPY
- NZD/USD
- USD/NOK
- USD/SEK

Register with TrueFX

To register with TrueFX, go to www.truefx.com.

Establish an Authenticated Session

Authenticated TrueFX rate access requires that a client establish a session by forming a query with a registered TrueFX username and session qualifier. Optionally, you can specify properties of the session on the query, such as currency pairs and response format. See [Market Data Web API Query Parameters](#) on page 2 for query details. TrueFX substitutes default values for any missing session parameters in a query. The client can then make requests for rates by quoting the returned session ID in any further queries.

On each poll, your custom client can override the session specification for that poll only by adding query parameters to the poll URL. For example, you can request different currency pairs or vary the format of the response.

1.2 Market Data Web API Query Parameters

Use the following parameters to build your TrueFX rate queries:

Parameter	Value	Example
<code>u=username</code>	Required to establish an authenticated session. A registered TrueFX user name, one or more alphanumeric characters. See Register with TrueFX on page 2.	<code>u=JSTrader</code>
<code>p=string</code>	Required for backwards compatibility. Cannot be empty. Any string of one or more alphanumeric characters.	<code>p=anystring</code>
<code>q=qualifier</code>	Required to establish an authenticated session. One or more alpha numeric characters	<code>q=eurates</code>
<code>id=session ID</code>	Server-generated value returned with a successful authenticated session request in the format <code>username:password:qualifier:sessionID</code>	<code>id=JSTrader:string:eurates:188290ef92</code>
<code>di=session ID</code>	The server-generated session ID, presented when terminating a session	<code>di=JSTrader:string:eurates:188290ef92</code>
<code>c=currency pairs</code>	Comma-separated ISO currency-pair names	<code>c=EUR/USD,USD/JPY</code>
<code>f=format</code>	For more information about the response formats, see HTTP Responses on page 3. <ul style="list-style-type: none"> • <code>csv</code> to get responses in CSV format • <code>html</code> to get responses in HTML • Absent implies the default encoding (concatenated string) 	<code>f=csv</code>
<code>s=snapshot</code>	<ul style="list-style-type: none"> • <code>y</code> to get a snapshot update of all currency pairs, changed or not • Absent or any other value indicates an incremental update of only the currency pairs that have moved since the last update. 	<code>s=y</code>

1.2.1 HTTP Responses

TrueFX can respond in one of three ways to a client's HTTP request:

1. An authorization failure results in a simple "not authorized" message. A request with malformed query parameters is likely to be interpreted by TrueFX as an unauthenticated request and result in a snapshot session request, but this behavior is not guaranteed. In case of server failure, TrueFX responds with a "not authorized" message. Your client must reestablish a new authenticated session with the failover server by sending an authentication request with username and qualifier.
2. A successful authentication request results in an HTTP response with the session ID to be used in subsequent queries.
3. A rate response.

A rate response contains only the requested currency pairs for which TrueFX has rates.

The rate response can be in one of three formats:

- [Default Rate Format](#) on page 4
- [CSV Format](#) on page 4
- [HTML Format](#) on page 4

Default Rate Format

If the client does not request a format or if the client does not establish an authenticated session, TrueFX returns the rate in the default format as a concatenated string with the following characteristics:

- Currency-pair symbols of seven characters each (AUD/USDUSD/JPY)
- Bid big numbers of 4 characters each (0.86#89). Leading hash marks are used to pad big-number values of less than 4 characters.
- Bid pips of 3 characters each (519852). Trailing hash marks are used to pad pip values of less than 3 characters.
- Offer big numbers of 4 characters each (0.86#89). Leading hash marks are used to pad big-number values of less than 4 characters.
- Bid pips of 3 characters each (534860). Trailing hash marks are used to pad pip values of less than 3 characters.
- High, the greatest offer price since the currency pair's roll time (0.87078#90.619)
- Low, the smallest bid price since the currency pair's roll time (0.86148#89.763)
- Millisecond timestamps of 13 characters each. (12549864542851254986454400)

Example 1-2 Example Default Rate Format, Authenticated Session

AUD/USDUSD/JPY0.86#89.5198520.86#89.5348600.87078#90.6190.86148#89.763
12549864542851254986454400

Example 1-3 Example Default Rate Format, Unauthenticated Session

EUR/USDUSD/JPYGBP/USDEUR/GBPUSD/CHF EUR/JPYEUR/CHFUSD/CADAUD/USDGBP/JPY1.46
#89.1.590.921.02131.1.501.080.86143.8877464641077608329589255481121.46#89.1.590.92
1.02131.1.501.080.86143.9007554821147698439789475611451.47206#90.6191.604650.92196
1.03428133.0851.512521.098420.87078145.2521.46233#89.7101.592040.915881.02584131.796
1.509481.087260.86148143.0581254986453711125498645440412549864541981254986454344
125498645427912549864544881254986454286125498645450112549864542001254986455393

CSV Format

TrueFX returns rates in CSV format as a single string with each currency pair separated by a space. Each grouping of currency pair data contains the following information:

- Currency-pair symbol (AUD/USD)
- Millisecond timestamp (1253890249578)
- Bid big figure (for example, 0.86)
- Bid points (for example, 565)
- Offer big figure (for example, 0.86)
- Offer points (for example, 583)
- High, the greatest offer price since the currency pair's roll time (for example, 0.86148)
- Low, the smallest bid price since the currency pair's roll time (for example, 0.87078)
- Open, the mid price at the currency pair's roll time (for example, 0.86821)

Example 1-4 Example CSV Rate Format

AUD/USD, 1253890249578, 0.86, 565, 0.86, 583, 0.86148, 0.87078, 0.86821 USD/JPY, 1253890249628, 89., 897, 89., 907, 89.763, 90.619, 90.526

HTML Format

TrueFX returns rates in HTML format as a simple table containing one currency pair per row with the following information:

- Currency-pair symbol (EUR/USD)
- Millisecond timestamp (1253834856482)
- Bid big figure (for example, 1.46)
- Bid points (for example, 431)
- Offer big figure (for example, 1.46)
- Offer points (for example, 483)
- High, the greatest offer price since the currency pair's roll time (for example, 1.46428)
- Low, the smallest bid price since the currency pair's roll time (for example, 1.46715)
- Open, the mid price at the currency pair's roll time (for example, 1.46662)

Example 1-5 Example HTML Rate Format

```
<table><tr><td>EUR/USD</td><td>1253834856482</td><td>1.46</td><td>431</td>
<td>1.46</td><td>483</td><td>1.46428</td><td>1.46715</td><td>1.46662</td></tr>
<tr><td>USD/JPY</td><td>1253835143636</td><td>91.</td><td>240</td><td>91.</td>
<td>297</td><td>91.222</td><td>91.406</td><td>91.267</td></tr></table>
```

1.2.2 Example Session

The following HTTPS request/response conversation represents a typical TrueFX Market Data Widget authenticated session.

Example 1-6 Authentication request from client

```
https://webrates.truefx.com/rates/connect.html?u=jsTrader&p=anystring&q=ozrates&c=AUD/USD,USD/JPY
&f=html&s=n
```

Example 1-7 Authentication response from TrueFX

```
jsTrader:string:ozrates:1253889202204
```

Example 1-8 Rate request from client

```
https://webrates.truefx.com/rates/connect.html?id=jsTrader:string:ozrates:1253889202204
```

Example 1-9 Rate response from TrueFX

```
<table><tr><td>AUD/USD</td><td>1253889660610</td><td>0.86</td><td>416</td>
<td>0.86</td><td>430</td><td>0.86148</td><td>0.87078</td><td>0.86821</td></tr>
<tr><td>USD/JPY</td><td>1253889660595</td><td>90.</td><td>147</td><td>90.</td>
<td>157</td><td>89.962</td><td>90.619</td><td>90.526</td></tr></table>
```

Example 1-10 Specific currency pair request from client using established session

```
https://webrates.truefx.com/rates/connect.html?id=jsTrader:string:ozrates:1253889202204&c=EUR/USD
```

Example 1-11 Rate response from TrueFX with requested currency pair

```
<table><tr><td>EUR/USD</td><td>1255973422340</td><td>1.49</td><td>449</td>
<td>1.49</td><td>460</td><td>1.48280</td><td>1.49640</td><td>1.48880</td>
</tr></table>
```