Acuity FXStreet Calendar API Guide

FXStreet owns useful macroeconomic data on the most relevant economic events. This data can be accessed using the Economic Calendar API.

You can take a quick look at some of this data in the Economic Calendar section of FXStreet's website.

Basic Concepts

The Economic Calendar data is composed of hundreds of important events. There are two kinds of entities that must be clearly understood when using our API.

Event

An event is a noteworthy entity that FXStreet editors have picked to include in the economic calendar. It is not associated with a specific date, as this is related to the concept of the event, such as the *Nonfarm Payrolls*.

An event can be recurrent (and have a frequency in which happens or in which data is released) and not. It may have one or many occurrences (that are associated with the event and a specific date and time).

It is specific to a country, related to a currency, has a category and other properties that are common for all occurrences of that recurrent event. This entity can also be referred to as Event.

Event Occurrence

An event occurrence is an instance of an event that happens in a specific date and time. An example of an event occurrence can be the data release of the *Nonfarm Payrolls* for December 2019.

An occurrence is usually related to a data release, so it can contain relevant values like the *actual*, *consensus*, etc.
This entity can also be referred to as EventDate.

Event Types

- Holidays
- Economic Activity
- Inflation
- Consumption & Inflation
- Liquidity & Balance
- Industrial & Non-Industrial Activity
- Central Banks
- Employment
- Labor Market
- Capital Flows
- Politics
- Confidence Indices
- Interest Rates
- Government
- Consumption
- Housing Market
- Bond Auctions
- Energy

Supported Languages

Language	LanguageCode
English	en-GB
Spanish	es-ES
German	de-DE
French	fr-FR
Italian	it-IT
Russian	ru-RU
Hungarian	hu-HU
Polish	pl-PL
Simplified Chinese	zh-CN
Traditional Chinese	zh-HK

Vietnamese	vi-VN
Persian	fa-IR
Arabic	ar-AE
Japanese	ja-JP
Indonesian	id-ID
Turkish	tr-TR
Thai	th-TH
Portuguese	pt-PT

Data Schema

The root element, Event, has the following attributes. These attributes are provided with an @ symbol preceding the name within the Event element of the parsed-event element in the API response.

This information is included in the FXStreet response type (ResponseType: 0 in the API).

The data schema is the same for both the Corporate Calendar and the Economic Calendar data from FXStreet.

Field Name	Definition	Data Type
Id	The unique identifier for an instance of the event.	string
EventId	Id code which identifies a particular recurrent event (e.g., US GDP).	string
Name	Name of the recurrent event	string
Description	Description of the recurrent event.	string
HTMLDescription	Description of the recurrent event in HTML format.	string
CountryId	Unique identifier of the country of the event.	string
CountryCode	Country code of the recurrent event (country code according to ISO 3166-1).	string
CountryName	Name of the country.	string
EventTypeId	Unique identifier of the event type (e.g., Economic Activity).	string
EventTypeDescription	Description of the event type.	string
Potency	Potency of the recurrent event	int

PotencySymbol	Potency symbol of the recurring event (0, K, M, B, T)	string
CurrencyId	Unique ID of the currency of the country of the recurring event.	string
CurrencySymbol	Symbol of the currency of the country of the recurring event.	string
Symbol	The "unit" of the indicator reported in the event. For example, will be % for Percentage values.	string
IsSpeech	A flag to indicate that this event is a speech.	boolean
IsReport	A flag to indicate that this event is a report.	boolean
RiseType	Rise type of the recurrent event data (could be NEUTRAL, NEGATIVE, POSITIVE, if available).	string
IdEventDate	Unique combination of the recurring event and the date which allows to track the instance of this specific recurring event.	string
DateUtc	Date and time of the event occurrence (in date-time notation as defined by RFC 3339, section 5.6)	string
Comments	Comments for the recurring event.	string
IsPreliminary	A flag to indicate that the results in this event are preliminary.	string
PeriodType	Period of the event data (could be NONE, DAY, MONTH, QUARTER)	string
ForPeriod	The period this event covers (for example Q3 2022).	string
Volatility	Volatility of the event occurrence (could be NONE, LOW, MEDIUM, HIGH)	int
Actual	Actual value of the event occurrence	float
Consensus	Consensus value of the event occurrence	float
Previous	Value of the previous occurrence of its recurrent event	float
Revised	Revised value of the event occurrence	float
IsTentative	Indicates whether the event occurrence is tentative	boolean
IsAllDay	Indicates whether the event occurrence lasts for the whole day	boolean
IsBetterThanExpected	Indicates whether the actual value of the event occurrence is better than expected	boolean
UrlSource	Official Source Link of the recurrent event. Example: https://www.bls.gov/news.release/empsit.toc.htm	string
CreateDateUtc	Date when this event was originally added to the database.	string
AssetIds	List of Acuity Asset IDs that this event affects.	list of ints
AssetClassIds	List of the Acuity Asset Class IDs that this event affects.	list of ints

Data Format

There are two data formats that are currently supported: the full response and the simplified response.

The full response ("ResponseFormat": 0) is a JSON representation of the fields, attributes and values described above in the **Data Schema** section.

The simplified response ("ResponseFormat:" 1) is a JSON representation of only the required fields from the **Data Schema** section.

REST API

REST API should generally be used to retrieve an arbitrary or filtered list of Signal Stream trade ideas on demand for a specific time period in the past. For real time report retrieval please use the Streaming (WebSocket) API.

Documentation

Overview: https://api.acuitytrading.com/
Swagger URL: https://api.acuitytrading.com/swagger/index.html

Authentication

Documentation URL: https://api.acuitytrading.com/Security
Exchange your username and password for a Bearer token that you can pass with any request. The token is valid for 14 days.

Sample request

```
curl -L -X POST "https://api.acuitytrading.com/token" ^
-H "Content-Type: application/x-www-form-urlencoded" ^
--data-urlencode "grant_type=password" ^
--data-urlencode "username=YOUR_USERNAME" ^
--data-urlencode "password=YOUR_PASSWORD"
```

Sample response

```
{
    "access_token":
"eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiJwcm9kdWN0MiIsImh0dHA6Ly9zY2hlbWF
zLmFjdWl0eXRyYWRpbmcuY29tL3dzLzIwMTMvMDgvaWRlbnRpdHkvY2xhaW1zL3VzZXJpZCI6Ij
U3OSIsImh0dHA6Ly9zY2hlbWFzLmFjdWl0eXRyYWRpbmcuY29tL3dzLzIwMTMvMDgvaWRlbnR
pdHkvY2xhaW1zL2FwaWtleasdasdasdYWRpbmcuY29tL3dzLzIwMTMvMDgvaWRlbnRpdHkvY2
xhaW1zL2lzYWRtaW5pc3RyYXRvciI6IkZhbHNlIiwianRpIjoiZjNjZGMzOTctMjY3Yy00YzMwLWFhNj
MtODM1NzZhMjY1YjgyIiwiaWF0IjoxNjM0MzExNDI0LCJuYmYiOjE2MzQzMTE0MjQsImV4cCI6M
TYzNTUyMTAyNCwiaXNzIjoiQWN1aXR5IiwiYXVkIjoiQWN1aXR5QXVkaWVuY2UifQ.-kMs-D4XoV
OZSvjmSPVpjdiF3_IWflQU6Z27bPg2D3Q",
    "token_type": "bearer",
    "expires_in": 1209600,
    "userName": "YOUR_USERNAME"
}
```

The retrieved access_token is the Bearer token that you can pass in the Authorization header of your API requests.

Common Requests

Endpoint: POST /api/fxevents

Get Events By Countries

Description:
Retrieve Events by a collection of ISO2 country codes.

Sample request

```
curl -L -X POST "https://api.acuitytrading.com/api/fxevents" \
-H "Content-Type: application/json" \
-H "Authorization: Bearer YOUR_BEARER_TOKEN" \
-d "{
 \"StartDate\": \"2023-05-09T15:24:46+02:00\",
 \"EndDate\": \"2023-05-16T15:24:46+02:00\",
 \"LanguageCode\": \"en-gb\",
 \"Countries\": [\"EMU\", \"US\"],
 \"Count\": 100,
 \"FillAssetInfo\": true,
 \"ResponseFormat\": 0
```

```
  }"
```

A response sample is provided in the Appendix - REST API Response Sample section.

Get Events by Acuity Asset IDs

Description:
Retrieve a list of economic events for EURUSD (asset ID: 50) and Gold (asset ID: 46). It's possible to retrieve corporate events this way as well, it's simply necessary to obtain a list of Acuity Asset IDs before doing that.

Sample request

```
curl -L -X POST "https://api.acuitytrading.com/api/fxevents" \
-H "Content-Type: application/json" \
-H "Authorization: Bearer YOUR_BEARER_TOKEN" \
-d "{
  \"StartDate\": \"2023-05-09T15:24:46+02:00\",
  \"EndDate\": \"2023-05-16T15:24:46+02:00\",
  \"LanguageCode\": \"en-gb\",
  \"AssetIds\": [50, 46],
  \"Count\": 100,
  \"FillAssetInfo\": true,
  \"ResponseFormat\": 0
}"
```

Sample response is identical to the previous requests. A sample is provided in the Appendix - REST API Response Sample section.

Streaming (WebSocket) API

The purpose of this API is to deliver the Signal Stream trade ideas in real time after their publication and/or modification.

Documentation

Overview: https://api.acuitytrading.com/

Streaming API: https://api.acuitytrading.com/Streaming
FXStreet Calendar: https://api.acuitytrading.com/Streaming#fx-calendar-parameters

Authentication

To authenticate, you need to pass your API key in the server URL when connecting to Acuity API. Example: wss://api.acuitytrading.com/api/streaming?apiKey=YOUR_API_KEY

Common Subscription Parameters

Each subscription in the Streaming API has the following parameters:

```
{
    "action": "ACTION",
    "topic": "TOPIC",
    "format": FORMAT
}
```

"action" (string) could be either subscribe or unsubscribe
"topic" (string) could be assets or fxevents. Other topics are also supported, but require additional services to be enabled.
"format" (int) - either 0 (full response) or 1 (simplified response). Simplified response delivers only mandatory fields and can be easier to process.

Subscribe to All Economic Events

Sample subscription message

```
{
    "action": "subscribe",
    "topic": "fxcalendar",
    "economic": true,
    "corporate": false,
    "fillAssetInfo": true,
    "format": 0
}
```

Subscribe to Events by Countries

Sample subscription message

```
{
    "action": "subscribe",
    "topic": "fxcalendar",
    "countries": [
        "US",
        "EU"
    ],
    "fillAssetInfo": true,
    "format": 0
}
```

Response Samples

insert message

This message type is sent when a brand new report is published. The same message type is also sent with an update. The user simply needs to replace the previously received event with the new data in full. Please see a sample message in the Appendix.

delete message

This message type is sent when a report has any of the fields updated. Please see a sample message in the Appendix.

Code Samples

For **REST API** you can use any language that supports sending/receiving web requests in JSON format.

For the **Streaming (WebSocket) API**, please consult the following pages:
- C# Sample
- Python

Appendix

REST API Response Sample

```
[
  {
    "Id": "55eed53c-cb46-4353-9e72-3a882247a6fe",
    "EventId": "7503eefc-3e94-46e7-bfe7-02f280d8b4f9",
    "Name": "IBD/TIPP Economic Optimism (MoM)",
    "Description": null,
    "HTMLDescription": "Economic optimism index, by <a href=\"http://www.tipponline.com/\"
target=\"_blank\"> TechnoMetrica Institute of Policy and Politics (TIPP) of The Investor's Business
Daily (IBD) </a> published, this index measures consumers' sentiments related to economic
conditions. The report is based on a monthly survey in which nearly 1,000 adults nationwide
assess their economic prospects over the next six months, their personal financial views and
beliefs about economic policies. federal. If consumers are optimistic, they will buy more goods
and services, which will cause domestic demand to grow and stimulate the economy. An index
above 50 indicates consumer optimism and a index below 50 indicates consumer pessimism.",
    "CountryId": "0345d08a-7068-42e0-a65f-e2c6243c4de1",
    "CountryCode": "US",
    "CountryName": "United States",
    "EventTypeId": "e229c890-80fc-40f3-b6f4-b658f3a02635",
    "EventTypeDescription": "Consumption",
    "Potency": 0,
    "PotencySymbol": "",
    "CurrencyId": "USD",
    "CurrencySymbol": "$",
    "Symbol": "",
    "IsSpeech": false,
    "IsReport": false,
    "RiseType": "Positive",
    "IdEventDate": "55eed53c-cb46-4353-9e72-3a882247a6fe",
    "DateUtc": "2023-05-09T14:00:00Z",
    "Comments": "",
    "IsPreliminary": false,
    "PeriodType": "M",
    "ForPeriod": "2023-05-01T00:00:00Z",
    "Volatility": 1,
    "Actual": 41.6,
    "Consensus": 48.2,
```

```
            "HasRelatedContent": true,
            "Previous": 47.4,
            "Revised": null,
            "IsTentative": false,
            "IsAllDay": false,
            "IsBetterThanExpected": false,
            "HasNews": true,
            "HasRelateds": false,
            "HasHistory": true,
            "UrlSource": "https://tippinsights.com/",
            "CreateDateUtc": "2022-11-02T11:21:33.75Z",
            "AssetIds": [
                50
            ],
            "AssetClassIds": [
                10027
            ]
        }
]
```

Streaming - INSERT message sample

```
{
    "topic": "fxcalendar",
    "messageType": "insert",
    "id": "743304d2-c80b-496f-9a44-945542726228",
    "lang": "en-gb",
    "doc": {
        "Id": "935af7fa-c58d-4541-ae15-95a42ecd980a",
        "Name": "Nonfarm Productivity",
        "Description": null,
        "HTMLDescription": "The Non-farm Productivity released by the <a
href=\"http://www.bls.gov/lpc/\" target=\"_blank\">Bureau of Labor Statistics of the US
Department of Labor</a> shows the output per Hour of labor worked. Non-farm Productivity
indicates the overall business health in the US, which has an influence on GDP. A high reading is
positive (or bullish) for the USD, while a low reading is negative (or bearish).",
        "CountryId": "0345d08a-7068-42e0-a65f-e2c6243c4de1",
        "CountryName": "United States",
        "EventTypeId": "91da97bd-d94a-4ce8-a02b-b96ee2944e4c",
```

```json
    "EventTypeDescription": "Labor Market",
    "Potency": 0,
    "PotencySymbol": "",
    "CurrencyId": "USD",
    "CurrencySymbol": "$",
    "Symbol": "%",
    "IsSpeech": false,
    "IsReport": false,
    "RiseType": "Positive",
    "IdEventDate": "743304d2-c80b-496f-9a44-945542726228",
    "DateUtc": "2023-06-01T12:30:00Z",
    "Comments": "",
    "IsPreliminary": false,
    "PeriodType": "Q",
    "ForPeriod": "2022-01-01T00:00:00Z",
    "Volatility": 2,
    "Actual": null,
    "Consensus": -2.7,
    "HasRelatedContent": true,
    "Previous": -2.7,
    "Revised": null,
    "IsTentative": false,
    "IsAllDay": false,
    "IsBetterThanExpected": null,
    "HasNews": false,
    "HasRelateds": false,
    "HasHistory": true,
    "UrlSource": null,
    "CreateDateUtc": "2022-11-04T15:31:46.323Z",
    "AssetIds": [
        3,
        18,
        28
    ],
    "AssetClassIds": [
        6,
        8,
        10027,
        10031
    ]
}
```

```
}
```

Streaming - Umessage sample

```
{
    "topic": "fxcalendar",
    "messageType": "update",
    "id": "acf31575-8bb1-456c-8c52-6a882f7c8cac",
    "lang": "en-gb",
    "doc": {
        "Id": "4f50e4f8-cd33-428b-b721-5fb620b7f097",
        "Name": "ADP Employment Change",
        "Description": null,
        "HTMLDescription": "The Employment Change released by the <a
href=\"http://adpemploymentreport.com/\" target=\"_blank\">Automatic Data Processing,
Inc</a>, Inc is a measure of the change in the number of employed people in the US.
Generally speaking, a rise in this indicator has positive implications for consumer spending,
stimulating economic growth. So a high reading is traditionally seen as positive, or bullish for
the USD, while a low reading is seen as negative, or bearish.",
        "CountryId": "0345d08a-7068-42e0-a65f-e2c6243c4de1",
        "CountryName": "United States",
        "EventTypeId": "91da97bd-d94a-4ce8-a02b-b96ee2944e4c",
        "EventTypeDescription": "Labor Market",
        "Potency": 3,
        "PotencySymbol": "K",
        "CurrencyId": "USD",
        "CurrencySymbol": "$",
        "Symbol": "",
        "IsSpeech": false,
        "IsReport": false,
        "RiseType": "Positive",
        "IdEventDate": "acf31575-8bb1-456c-8c52-6a882f7c8cac",
        "DateUtc": "2023-06-01T12:15:00Z",
        "Comments": "",
        "IsPreliminary": false,
        "PeriodType": "M",
        "ForPeriod": "2023-05-01T00:00:00Z",
        "Volatility": 3,
```

      "Actual": null,
      "Consensus": -22.0,
      "HasRelatedContent": true,
      "Previous": 296.0,
      "Revised": null,
      "IsTentative": false,
      "IsAllDay": false,
      "IsBetterThanExpected": null,
      "HasNews": false,
      "HasRelateds": false,
      "HasHistory": false,
      "UrlSource": null,
      "CreateDateUtc": "2022-03-24T11:19:23.213Z",
      "AssetIds": [
         3,
         18,
         28,
         50,
         58,
         59,
         69592
      ],
      "AssetClassIds": [
         6,
         8,
         10027,
         10031
      ]
   }
}