Hackathon Documentation

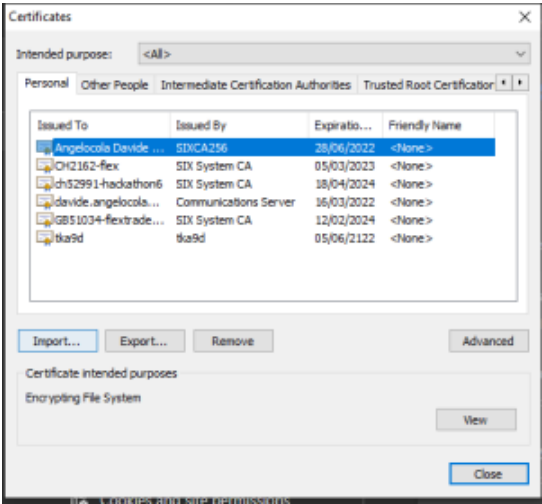## Getting Started

In order to use the API, you need a MTLS certificate and a password, provided by SIX.

Setup for Google Chrome/Edge

Open the settings in your browser:
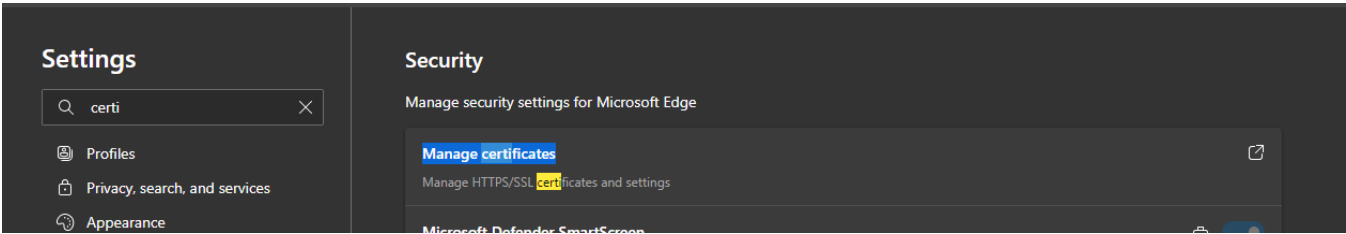
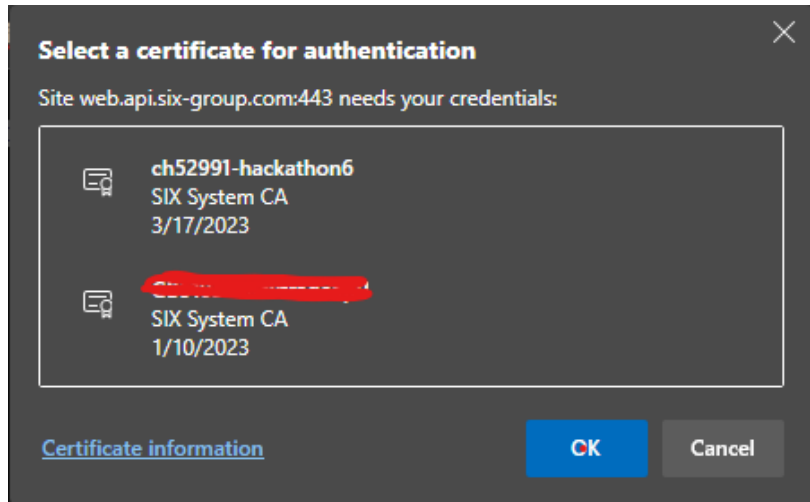Then by clicking on the "import...", you should see something similar to:

Follow the wizard, using the certificate.p12 file and the provided password.

Test your setup

Try to open with your browser the following URL

https://web.api.six-group.com/api/findata/v1/instruments/referenceData/instrumentSummary?scheme=ISIN&ids=CH0009980894

If everything goes well, you should see a dialog like:

**Select your certificate and you should see some JSON formatted data:**

{"errors":[{"category":"VALIDATION_ERROR","code":"MISSING_REQUEST_HEADER","message":"missing request header 'api-version'"}]}

This means that the authentication setup is complete.

In case of errors, this is the message you get from the API:

{"message":"No required TLS certificate was sent"}

In order to see data you need to pass a custom header "api-version=2022-01-01":
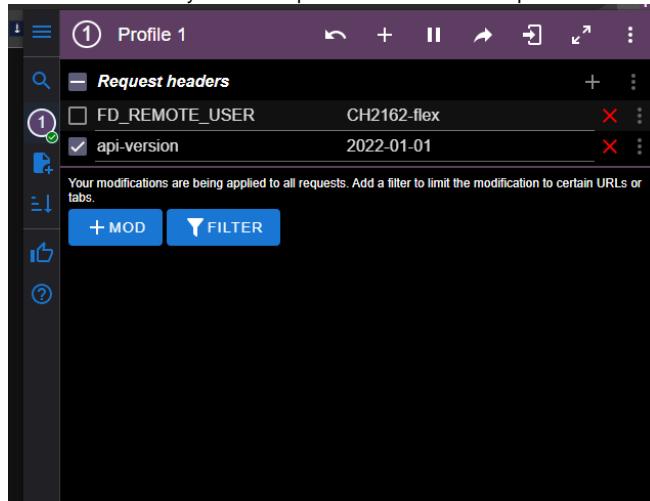
After that, by reloading the page you should able to see data like:

```
{"data":{"instruments":[{"requestedId":"CH0009980894","requestedScheme":"ISIN","lookupStatus":"FOUND","lookup":
{"instrumentName":"SMI","instrumentStatus":"ACTIVE","instrumentType":"INDEX"},"referenceData":
{"instrumentSummary":{"sixLongName":"Swiss Market Index SMI SMI unadjusted for dividends","fisn":"SMI Index/SMI","
fisnSIX":"SMI Index/SMI","issuer":{"name":"SMI Index","gk":266982,"domicile":"CH"},"cfi":"TIECMX","openingDate":"
1988-07-06","expiration":"NO_EXPIRATION_DATE"}}}]}}
```

APIs Available

API	Description	Example URL

Free Text Search	Text search Instruments, Institutions & Markets	https://web.api.six-group.com/api/findata/v1/searchInstruments?query=apple&size=2
Instrument Summary	REST API for basic instrument data	https://web.api.six-group.com/api/findata/v1/instruments/referenceData/instrumentSummary?scheme=ISIN&ids=CH0009980894
End of Day Time Series	End of the day prices for listings	https://web.api.six-group.com/api/findata/v1/listings/marketData/eodTimeseries?scheme=TICKER_BC&ids=AAPL_67&from=2020-01-01
Streaming Market Data	Real time price	see the dedicated manual

Free Text Search

Free text search API searches instruments, institutions and markets on a given search string or text.

The API outputs the hits that are matching the search query, ordered from the most

- Search Instruments end point will provide the results on instruments
- Search Institutions end point will provide the results on institutions
- Search Markets end point will provide the results on markets

Example Request - Search Instrument

Search for "Apple" and limit the results to 2

Request

```
https://web.api.six-group.com/api/findata/v1/searchInstruments?query=apple&size=2
```

Example Response

Response

```
{
  "data": {
    "searchInstruments": [
      {
        "hit": {
          "valor": 908440,
          "name": "Apple Rg",
          "instrumentType": "EQUITY",
          "issuer": {
            "gk": 908440,
            "name": "Apple Inc",
            "domicile": "US",
            "sector": "COMPUTER_HARDWARE_AND_NETWORKING"
          },
          "mostLiquidMarket": {
            "bc": 67,
            "name": "NASDAQ",
            "mic": "XNAS"
          },
          "mostLiquidListing": {
            "ticker": "AAPL"
          }
        },
        "normalizedScore": 1,
        "highlights": [
          {
            "description": "Matching Issuer Name"
          },
          {
            "description": "Matching Name"
          }
        ]
      },
      {
        "hit": {
          "valor": 28266921,
          "name": "Apple Hosp REIT Rg",
          "instrumentType": "EQUITY",
          "issuer": {
            "gk": 687102,
            "name": "Apple Hospitality REIT Inc",
            "domicile": "US",
            "sector": "REAL_ESTATE"
          },
          "mostLiquidMarket": {
            "bc": 65,
            "name": "NYSE",
            "mic": "XNYS"
          },
          "mostLiquidListing": {
            "ticker": "APLE"
          }
        },
        "normalizedScore": 0.6501964,
        "highlights": [
          {
            "description": "Matching Issuer Name"
          },
          {
            "description": "Matching Name"
          }
        ]
      }
    ]
  }
}
```

Example Request - Search Institution

Search for "Apple" and limit the results to 2

Request

```
https://web.api.six-group.com/api/findata/v1/searchInstitutions?query=apple&size=2
```

Response

Response

```
{
  "data": {
    "searchInstitutions": [
      {
        "hit": {
          "name": "APPLE INTERNATIONAL",
          "gk": 211764,
          "type": "COMPANY",
          "domicile": "JP"
        },
        "normalizedScore": 1,
        "highlights": [
          {
            "description": "Matching Name"
          }
        ]
      },
      {
        "hit": {
          "name": "Apple",
          "gk": 908440,
          "type": "COMPANY",
          "domicile": "US"
        },
        "normalizedScore": 0.8855479,
        "highlights": [
          {
            "description": "Matching Name"
          }
        ]
      }
    ]
  }
}
```

Example Request - Search Market

Search for "nasdaq" and limit the results to 2

Request

```
https://web.api.six-group.com/api/findata/v1/searchMarkets?query=nasdaq&size=2
```

Response

Response

```
{
  "data": {
    "searchMarkets": [
      {
        "hit": {
          "name": "NASDAQ",
          "bc": 67,
          "type": "TRADING_PLACE_MARKET"
        },
        "normalizedScore": 1,
        "highlights": [
          {
            "description": "Matching Name"
          }
        ]
      },
      {
        "hit": {
          "name": "NASDAQ GIDS",
          "bc": 1135,
          "type": "PRICE_INFORMATION_PROVIDER"
        },
        "normalizedScore": 0.2675515,
        "highlights": [
          {
            "description": "Matching Name"
          }
        ]
      }
    ]
  }
}
```

Field Descriptions

The below are the output fields for the APIs.

The output varies based on the entity which is searched. It's either institutions, markets or instruments.

Field	Sub Fields	Description
Highlights Description		List of reasons of triggered match for "search term" in human readable form.
Normalized Score		Value always between 0 and 1. An exact match of the "search term" equals a score of 1.
Institution		
Name		Institution's short name with up to 19 characters.
GK		Company key identifier (GK) allocated by SIX Financial Information on all institutions present in the SIX Financial Information database.
Domicile		The country of residence of the institution.
Type		Institution classification allocated by SIX Financial Information. Present on all institutions in the SIX Financial Information database.
Market		
Name		The short name of the market.
Type		Market classification allocated by SIX Financial Information. Present on all markets in the SIX Financial Information database.

BC		Represents the SIX Financial Information identifier for exchanges, trading platforms, regulated or non-regulated markets and trade reporting facilities as sources of prices and related information.
Instrument		
Valor		Official national instrument identifier assigned by the National Numbering Agency responsible for Switzerland: SIX Financial Information.
Name		Instrument short name with up to 19 characters.
Type		Instrument classification allocated by SIX Financial Information. Present on all instruments in the SIX Financial Information database.
Issuer		An issuer is a legal entity that develops, registers and sells securities to finance its operations. Issuers may be corporations, investment trusts, or domestic or foreign governments. This is the present-day issuer of the financial instrument.
	GK	The SIX Financial Information company key identifier (GK) of the issuer.
	Name	The issuer short name with up to 19 characters.
	Domicile	The issuer's country of residence as country ISO Code (ISO 3166 ALPHA-2).
	Sector	Sector of the issuer allocated by SIX Financial Information.
Most Liquid Market		The market with the largest number of orders to buy and sell.
	Name	The short name of the most liquid market.
	BC	Bourse Code (BC) of the most liquid market. It represents the SIX Financial Information identifier for exchanges, trading platforms, regulated or non-regulated markets and trade reporting facilities as sources of prices and related information.
	MIC	Market Identifier Code (MIC) of the most liquid market. It is based on ISO10383, represents a universal method of identifying exchanges, trading platforms, regulated or non-regulated markets and trade reporting facilities as sources of prices and related information. It is a four alphanumeric character code.

Instrument Summary

Instrument summary API provides basic reference data fields for an Instrument.

Example Request

Instrument summary for Apple using ISIN US0378331005

Request

```
https://web.api.six-group.com/api/findata/v1/instruments/referenceData/instrumentSummary?
scheme=ISIN&ids=US0378331005
```

Response

Response

```
{
    "data": {
        "instruments": [
            {
                "requestedId": "US0378331005",
                "requestedScheme": "ISIN",
                "lookupStatus": "FOUND",
                "lookup": {
                    "instrumentName": "Apple Rg",
                    "instrumentStatus": "ACTIVE",
                    "instrumentType": "EQUITY"
                },
                "referenceData": {
                    "instrumentSummary": {
                        "sixLongName": "Apple Inc Registered Shs",
                        "fisn": "APPLE INC/SH SH",
                        "fisnSIX": "Apple/RegSh USD0.00001",
                        "issuer": {
                            "name": "Apple",
                            "gk": 908440,
                            "domicile": "US",
                            "sector": "COMPUTER_HARDWARE_AND_NETWORKING"
                        },
                        "cfi": "ESVUFR",
                        "cfiSIX": "ESVUFR",
                        "mostLiquidMarket": {
                            "name": "NASDAQ",
                            "bc": 67,
                            "mic": "XNAS"
                        },
                        "legalForm": "REGISTERED_FORM",
                        "unit": "PIECE_UNIT",
                        "nominal": 0.00001,
                        "nominalCurrency": "USD",
                        "repaymentsInOtherCurrencies": false,
                        "openingDate": "1980-11-21",
                        "certificate": false,
                        "combinedSecurity": false,
                        "partlyPaidIssue": false,
                        "amortization": false,
                        "extensionByIssuer": false,
                        "extensionByHolder": false,
                        "callable": false,
                        "puttable": false,
                        "conversionByHolder": false,
                        "conversionByIssuer": false,
                        "expiration": "NO_EXPIRATION_DATE",
                        "earningsWholeTermType": "VALID_FOR_WHOLE_TERM",
                        "incomeType": "PERIODICAL_PAYMENT",
                        "dividendPolicy": "QUARTERLY",
                        "equityType": "COMMON_STOCK",
                        "icmaRegulated": false
                    }
                }
            }
        ]
    }
}
```

Field Descriptions

The below are the output fields for the API.

The output varies based on type of instrument and only the fields relevant to the instrument type are in the output.

Field Name	Sub Fields	Description
Institution Name Main Language		Name of the institution in main language.
Main Language		Main language of the institution, in which name, descriptions and texts are stored.
Deletion Date		This date indicates when the institution was set to inactive.
Reason For Deletion		Populated for inactive institutions (e.g. due to merger, reorganization or change of name).
Legal Address		The address which is stated in the commercial register.
	Domicile Code	The country as ISO Code (ISO 3166 ALPHA-2).
	Street And House Number	Street and house number
	Place	The city or place.
	Postal Code	Postal code or ZIP code.
	State	The state or district
	URL	Web address of the institution.
Headoffice Address		The address of the headquarter.
	Domicile Code	The country as ISO Code (ISO 3166 ALPHA-2).
	Street And House Number	Street and house number
	Place	The city or place.
	Postal Code	Postal code or ZIP code.
	State	The state or district
	URL	Web address of the institution.
Banque de France Sector Code		Sector code issued by Banque de France (BDF Protide).
is BIS Central Bank or Monetary Authority		Classification issued by the Bank for International Settlements (BIS) for central banks and moentary authorities.
EBA Sector Code		This sector scheme from the European Banking Authority (EBA) is prominently used for the EU capital requirements for credit risk.

Fitch Market Sector		Fitch industry identifier codes.
GICS Sector Code		The sector code GICS (Global Industry Classification Standard) is issued by MSCI and S&P.
Industry Classification Benchmark		The Industry Classification Benchmark (ICB) service resulting from a merger of the Dow Jones with the FTSE industry classification systems.
MFI Branch		Industry classification for the central bank reporting considering the credit & debit side https://ec.europa.eu/eurostat/
MFI Sector		Sector Codes according to ESVG 2010 covering private households, governments, financial and public non-financial corporations https://ec.europa.eu/eurostat/
NACE Sector code		NACE (for the French term *"Nomenclature statistique des Activités économiques dans la Communauté Européenne"*) is the industry standard classification system used in the European Union.
NAF Sector Code		NAF (for the French term *"Nomenclature d'Activités Française"*) is a sector classification published by the French department of statistics (INSEE / Institut National de la Statistique et des Études Économiques).
ORBOF Sector Code		This is the issuers institutional sector code published by Kredittilsynet (Financial Supervisory Authority of Norway), Norges Bank (Norwegian Central Bank) and Statistisk Sentralbyra (Statistics Norway).
SIX Protide		Sector code according to the symbology provided by Banque de France (BDF Protide), allocated by SIX Financial Information. SIX Protide is a subset of Banque de France Sector Code and covers only issuers which are not resident in France whereas BDF Protide covers all French issuers but only part of non-French issuers. Customers are advised to always pick BDF Protide classification in priority.
SIX Sector Code		Sector code allocated by SIX Financial Information.
Standard Industrial Classification		The Standard Industrial Classification (SIC) is a system issued by the United States Department of Labor for classifying industries.
Balance Sheet Currency		Reporting currency according to ISO4217 alpha codes.
Disolution Date		Disolution date, when the institution entry is deleted from the commercial register.
End Of Current Financial Year		Date entry only in the year in which the financial year changes, otherwise empty.
End Of Last Financial Year		Day month entry for the end of last financial year DDMM (e.g. 30.11.). This field only changes if the current financial year expires on a different date from the previous year.
Further Clause		Further special legal clauses.
Investment Fund Guideline		Type of EU Directive (UCITS, AIF).
Legal Form		Legal form of the institution (e.g. public limited company).

Legal Form Peculiarity		Special peculiarities of the legal form.
MiFID II Investment Firm		The institution is considered to be a MiFID II Investment Firm according to ESMA
Central Counterparty Type		A central clearing counterparty (CCP), also referred to as a central counterparty, is a financial institution that takes on counterparty credit risk between parties to a transaction and provides clearing and settlement services for trades in foreign exchange, securities, options, and derivative contracts. CCPs are highly regulated institutions that specialize in managing counterparty credit risk.
Central Counterparty Type Valid From		The date the central counterparty type starts to be valid.
Central Securities Depository Type		A central securities depository (CSD) is a specialized financial organization holding securities like shares, either in certificated or uncertificated (dematerialized) form, allowing ownership to be easily transferred through a book entry rather than by a transfer of physical certificates. This allows brokers and financial companies to hold their securities at one location where they can be available for clearing and settlement. This is usually done electronically, making it much faster and easier than was traditionally the case where physical certificates had to be exchanged after a trade had been completed.
Central Securities Depository Type Valid From		The date the central securities depository type starts to be valid.

End of Day Time Series

End of Day Time Series API will provide historical price data for instruments. The API is ideal for building candlesticks or bar charts over a period of time.

Example Request

Request

```
https://web.api.six-group.com/api/findata/v1/listings/marketData/eodTimeseries?
scheme=TICKER_BC&ids=AAPL_67&from=2022-01-01&to=2022-01-31
```

Response

Response

```
{
  "data": {
    "listings": [
      {
        "requestedId": "AAPL_67",
        "requestedScheme": "TICKER_BC",
        "lookupStatus": "FOUND",
        "lookup": {
          "listingName": "Apple Rg",
          "marketName": "NASDAQ",
          "listingCurrency": "USD",
          "listingStatus": "LISTED"
        },
        "marketData": {
```

```json
      "eodTimeseries": [
        {
          "sessionDate": "2022-01-01"
        },
        {
          "sessionDate": "2022-01-03",
          "open": 177.81,
          "close": 182.01,
          "low": 177.72,
          "high": 182.88,
          "volume": 20242137
        },
        {
          "sessionDate": "2022-01-04",
          "open": 182.61,
          "close": 179.7,
          "low": 179.12,
          "high": 182.9,
          "volume": 22861113
        },
        {
          "sessionDate": "2022-01-05",
          "open": 179.61,
          "close": 174.92,
          "low": 174.67,
          "high": 180.15,
          "volume": 23529582
        },
        {
          "sessionDate": "2022-01-06",
          "open": 172.4,
          "close": 172,
          "low": 171.64,
          "high": 175.29,
          "volume": 22211799
        },
        {
          "sessionDate": "2022-01-07",
          "open": 172.73,
          "close": 172.17,
          "low": 171.03,
          "high": 174.13,
          "volume": 17997383
        },
        {
          "sessionDate": "2022-01-10",
          "open": 168.85,
          "close": 172.19,
          "low": 168.18,
          "high": 172.5,
          "volume": 28362576
        },
        {
          "sessionDate": "2022-01-11",
          "open": 172.19,
          "close": 175.08,
          "low": 170.83,
          "high": 175.17,
          "volume": 17142952
        },
        {
          "sessionDate": "2022-01-12",
          "open": 176,
          "close": 175.53,
          "low": 174.83,
          "high": 177.17,
          "volume": 16823872
        },
        {
          "sessionDate": "2022-01-13",
          "open": 175.69,
```

```json
      "close": 172.19,
      "low": 171.8,
      "high": 176.62,
      "volume": 20151305
    },
    {
      "sessionDate": "2022-01-14",
      "open": 171.36,
      "close": 173.07,
      "low": 171.09,
      "high": 173.78,
      "volume": 20392775
    },
    {
      "sessionDate": "2022-01-17"
    },
    {
      "sessionDate": "2022-01-18",
      "open": 171.47,
      "close": 169.8,
      "low": 169.41,
      "high": 172.53,
      "volume": 24917911
    },
    {
      "sessionDate": "2022-01-19",
      "open": 169.89,
      "close": 166.23,
      "low": 165.94,
      "high": 171.08,
      "volume": 23523709
    },
    {
      "sessionDate": "2022-01-20",
      "open": 166.85,
      "close": 164.51,
      "low": 164.23,
      "high": 169.63,
      "volume": 19123223
    },
    {
      "sessionDate": "2022-01-21",
      "open": 164.51,
      "close": 162.41,
      "low": 162.3,
      "high": 166.32,
      "volume": 35165068
    },
    {
      "sessionDate": "2022-01-24",
      "open": 159.88,
      "close": 161.62,
      "low": 154.71,
      "high": 162.3,
      "volume": 43981302
    },
    {
      "sessionDate": "2022-01-25",
      "open": 158.87,
      "close": 159.78,
      "low": 157.03,
      "high": 162.76,
      "volume": 28907992
    },
    {
      "sessionDate": "2022-01-26",
      "open": 163.45,
      "close": 159.69,
      "low": 157.82,
      "high": 164.38,
      "volume": 28866071
```

```
            },
            {
              "sessionDate": "2022-01-27",
              "open": 162.35,
              "close": 159.22,
              "low": 158.28,
              "high": 163.84,
              "volume": 28340604
            },
            {
              "sessionDate": "2022-01-28",
              "open": 165.72,
              "close": 170.33,
              "low": 162.8,
              "high": 170.35,
              "volume": 38146627
            },
            {
              "sessionDate": "2022-01-31",
              "open": 170.18,
              "close": 174.78,
              "low": 169.51,
              "high": 175,
              "volume": 31779283
            }
          ]
        }
      }
    ]
  }
}
```

Field Descriptions

The below are the output fields for the API.

The output varies based on type of instrument and only the fields relevant to the instrument type are in the output.

Field Name	Description
Session Date	Date for which the EoD Timeseries prices are valid.
Open	An **Open** is associated with the first transaction of the day. It follows immediately after the opening auction (if any) is completed. It is an opening price or first recorded price of the trading day - any value that the provider officially designates as the open. It is not necessarily a transacted price.
High	A **High** shows the intraday price swings, i.e. the highest price reached during the day. The high price enables the investor to directly estimate the daily price swings and the state of the market. The Daily High is a key input for charting.
Low	A **Low** shows the intraday price swings, i.e. the lowest price reached during the day. The low price enables the investor to directly estimate the daily price swings and the state of the market. The Daily Low is a key input for charting.
Close	A **Close** is the final price at which a security is traded on a given trading day. It represents the most up-to-date valuation of a security until trading commences again on the next trading day. The Close Price can be based on the last transaction of the day or it could be calculated by the provider (e.g. Volume Weighted Average Price (VWAP)). The Close Price is updated by the Last until the price source sends an official Close Price. The Close Price is used in Valuation and Statistics. It is one of the most important data attributes in the Market Data environment and is the most important input for historical data capture. The Close Price is used as an input to most analytical calculations and is used in portfolio valuations.
Volume	**Volume** is the volume on market which is a number of units/nominal/contracts traded on market during a session. It is mainly used for analytical purposes and can be used for time series and historical data or data studies to compare it with the associated price action.
Turnover	**Turnover** is a daily volume in units/nominal/contracts multiplied by the current price of each traded unit on the market.
Yield to Maturity	A **Yield to Maturity** is the internal rate of return (IRR, overall interest rate) earned by the investor who buys the bond today at the market price, assuming that the bond will be held until maturity, and that all coupon and principal payments will be made on schedule.

Net Asset Value	A **Net Asset Value** is a mutual fund's price per share or exchange-traded fund's (ETF) per-share value. It gives an investor an indication what the value of CIV (Collective Investment Vehicle) is and how it might have changed during market activity. Some fund data providers identify whether the NAV is swung or unswung. Swing pricing occurs when a fund provider adjusts the net asset value (NAV) of a fund in order to pass on the costs of trading to those that are buying and selling within their accounts. It is designed to protect longer-term shareholders from having the value of their accounts eroded by the transaction activity of others within the same fund. While this is not yet a market-widespread concept, SIX intends to promote the standard with the fund issuers, in order to provide transparency in the market.
Settlement Price	A **Settlement Price** is a price at which all the open contracts are settled in cash at the custodian level. This value is disseminated by the provider. It values the derivative's portfolio at the end of the trading day. It is used to calculate the margin requirements on the basis of its value and the provided collateral. It is the most important data attribute for Exchange Traded Derivatives (ETDs).
Open Interest	An **Open Interest** is an amount of open derivative contracts that are not closed or delivered on a particular day. It indicates the most active derivative contracts.
VWAP	The **Volume Weighted Average Price (VWAP)** is a trading indicator, which averages the ratio between the traded prices and the cumulative traded volume throughout the day.

Streaming Market Data

Field Descriptions

The below are the output fields for the API.

The output varies based on type of instrument and only the fields relevant to the instrument type are in the output.

Field Name	Sub Fields	Description
open	value datetime unixTimestamp	An **Open** is associated with the first transaction of the day. It follows immediately after the opening auction (if any) is completed. It is an opening price or first recorded price of the trading day - any value that the provider officially designates as the open. It is not necessarily a transacted price.
close	value datetime unixTimestamp	A **Close** is the final price at which a security is traded on a given trading day. It represents the most up-to-date valuation of a security until trading commences again on the next trading day. The Close Price can be based on the last transaction of the day or it could be calculated by the provider (e.g. Volume Weighted Average Price (VWAP)). The Close Price is updated by the Last until the price source sends an official Close Price. The Close Price is used in Valuation and Statistics. It is one of the most important data attributes in the Market Data environment and is the most important input for historical data capture. The Close Price is used as an input to most analytical calculations and is used in portfolio valuations.
last	value size datetime unixTimestamp	A **Last** is the most recent price which, after a successful matching of buy and sell orders, is eligible to update the last trade. The Last Trade is required so that market participants can see the trade prices and estimate the impact of their order and the probability of getting the order fully executed. Furthermore, trades are required for valuation purposes, understanding if an order was executed, understanding the change in the value of a security over time, understanding liquidity and the speed of trading.
high	value datetime unixTimestamp	A **High** shows the intraday price swings, i.e. the highest price reached during the day. The high price enables the investor to directly estimate the daily price swings and the state of the market. The Daily High is a key input for charting.
low	value datetime unixTimestamp	A **Low** shows the intraday price swings, i.e. the lowest price reached during the day. The low price enables the investor to directly estimate the daily price swings and the state of the market. The Daily Low is a key input for charting.

cumulated_volume	value datetime unixTimestamp	A **Cumulated Volume** is the volume on market which is a number of units/nominal/contracts traded on market during a session. It is mainly used for analytical purposes and can be used for time series and historical data or data studies to compare it with the associated price action.
vwap	value datetime unixTimestamp	The **Volume Weighted Average Price (VWAP)** is a trading indicator, which averages the ratio between the traded prices and the cumulative traded volume throughout the day.
best_bid	value size datetime unixTimestamp	A **Bid** is an offer made by a trader, investor or other industry professional to purchase a security. The **Best Bid** is the highest price offered by a stock's market makers to buy a particular trading instrument. It is the highest price that an investor is willing to pay for an asset.
best_ask	value size datetime unixTimestamp	An **Ask** (also known as an **Offer**) is a price at which securities, foreign exchange, or foreign bank notes are offered for sale. The **Best Ask** is the lowest price offered by a stock's market makers to sell a particular trading instrument. It is the lowest price that an investor is willing to sell an asset for.

orderbook	position
	
	side
	
	size
	
	value
	
	timestamp
	
	unixTimestamp
		An **Order Book** refers to a list of orders (electronic or manual), organized by price level, that a trading venue uses to record the interest in buyers and sellers in a particular financial instrument. A matching engine uses the order book to determine which orders can be fully or partially executed.
		
		The number of price levels (or positions) specified in the order book at a given time is known as the **book depth** (or **market depth**).
		
		• The order book can have a fixed (where the orders beyond the depth are ignored) or unlimited depth.
		• The order book data is also known as "Level 2" data, where "Level 1" consists of trades and best bid/ask.
		• Generally, the "top of the book" (i.e. the first bid/ask) become the best bid and the best ask. Some quotes may not be part of the order book (e.g. market maker quotes), in which case the first bid/ask may not match the best bid/ask. In addition, the best bid and the best ask (Level 1) may not match the first bid and the first ask (Level 2) due to internal SIX rules, such as quote filtering or exclusion of the Market Best Orders from Level 1 (while they are part of the Level 2 data).
		• Data providers may disseminate Level 2 data in various ways:
		  • A provider may or may not specify the quote position/level in an order book. If the position/level is not specified, it can be determined based on the price value (the higher the bid (the lower the ask) the higher in the order book it is).
		  • A provider may disseminate an order book data in aggregated or disaggregated form .
		• Note that SIX gives preference to aggregated order books.

Sub Fields Description		
	value	The **Value** of the price.
	size	A **Size** associated with a price value represent an amount of units/contracts/nominal offered for sale, demanded for purchase, traded, orders that will be executed at a given price (e.g. in the event of an auction theoretical matching price quantity). The size associated with a quote can directly signal the market participant the ability of the market to absorb their order. Furthermore, it provides an indication of a market imbalance. The Ask Size is required by traders trading data products and those entities interest in intra-day market data values. The size associated with a trade allows a market participant to see the trade volumes and estimate or understand the impact of their own order on the market and the probability of getting it fully executed. In addition, the trade size allows calculation of the Volume Weighted Average Price (VWAP).
	quantity	A **Quantity** is the number of quotes or trades of daily transactions during an exchange session for a price type. It indicates how many quotes or trades are made in a given instrument over a certain period of time. It helps to estimate the liquidity of the particular security and/or detect an unusual activity level on a listing.
	datetime	Generally, in real-time feeds, the providers disseminate various **Datetimestamps** that are associated with different price types or events. There could be multiple timestamps associated with a given price. Different providers may have different names for these timestamps and will not necessarily provide all of them in their feeds. In some cases, if the timestamp is not provided by the exchange, SIX internal timestamp may be used. In SIX products only one timestamp can be displayed with a given price or event. If the exchange provides multiple timestamps within the feed, use the timestamps in the following priority: • Market data entry time - the time when the price was entered on a trader's side. • Transaction time - the time when the price was recognized by the exchange. • Exchange processing time - the time when the price was processed for updates, calculations at the exchange. • Exchange's sending time - the time that the exchange disseminate the price via the feed.

	unixTim estamp	The **unixTimestamp** is the datetime representation in Unix time.
	valueTy pe	A **ValueType** is a SIX Financial Information price qualifier which denotes data content received from internal and external sources
	valueSty le	A **ValueStyle** is an optional SIX Financial Information price qualifier used to specify particular characteristics and non-ordinary data.
	position	**Position** provides the orderbook position from 1 to 10. (e.g. first BID to thenth BID in the orderbook)
	side	**Side** provides the orderbook side, if the quote is considered to be an ASK or BID.