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EEX Market Data – API  
User Guide

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Ref. 15

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## 1. Versions

Version	Description	Date	Author
001	Initial Draft	02.02.2019	Simon Jackson
002	Review	19.03.2019	Daniel Köhler, Mathias Ponnwitz
003	Review	03.04.2019	Simon Jackson, Daniel Köhler, Mathias Ponnwitz
004	Clarify & added new fields after the first few tests	22.07.2019	Daniel Köhler
005	Review and format	23.07.2019	Simon Jackson
006	Review	26.07.2019	Daniel Köhler
007	Review and format	02.09.2019	Simon Jackson
008	Review	03.09.2019	Daniel Köhler
009	Added Best Bid, Best Ask to getQuote & getIntraday. Added DeliveryDate as parameter for getIndex for APDD index. Updated examples to reflect the current syntax.	14.11.2019	Daniel Köhler
010	Review	03.06.2021	Daniel Köhler
011	Additional clarification on the return of Best Bid, Best Ask information for getQuote and getIntraday calls.	28.06.2021	Daniel Köhler
012	Addition of symbol description and additional sample requests	12.07.2022	Jana Credé
013	Additional examples, changes in getHistory and getPermission	19.04.2023	Jana Credé
014	Addition of HYDRIX, EGSi and good to know section	16.10.2023	Jana Credé
015	Additions to good to know section and glossary	16.02.2024	Jana Credé

## 2. Glossary

Term	Description
<b>A</b>	
<b>API</b>	Application Programming Interface
<b>B</b>	
<b>Base load</b>	Base load refers to the load profile of power deliveries with a constant output over 24 hours of every day of the delivery period.
<b>C</b>	
<b>CSV</b>	Comma-separated values
<b>E</b>	
<b>EEX</b>	European Energy Exchange
<b>Endpoint</b>	A URL address which services the API requests
<b>EUA</b>	EU Allowance - One EUA confers the right to emit one tonne of CO <sub>2</sub> equivalent. An EUA is the smallest tradable unit in EU emissions trading.
<b>EUAA</b>	EU Aviation Allowance. Special EU emission allowances which can only be used by airline companies for compliance purposes.
<b>J</b>	
<b>JSON</b>	JavaScript Object Notation
<b>M</b>	
<b>MDS</b>	Market Data Services
<b>Method</b>	An operation that takes parameters to create a specific request for data
<b>O</b>	
<b>Open Interest</b>	The Open Interest refers to the total of all derivatives contracts which have been opened (i.e. not yet settled) at a given point in time. The Open Interest published by EEX considers all opened positions regardless if a position has been closed with a counter trade. The Open interest provided is not netted.
<b>P</b>	
<b>Peak load</b>	This refers to a load profile for power deliveries with a constant output over twelve hours from 8 a.m. to 8 p.m. on any business day of the delivery period.
<b>S</b>	
<b>Settlement price</b>	Daily market price of a future or option contract which is established by the exchange and used for its daily settlement.
<b>T</b>	
<b>Trade</b>	The API includes both exchange trades and trade registrations (OTC). Implicit spreads are displayed as two separate trades with the same trade ID.
<b>Trade registration</b>	A service which enables the trading participants to register transactions concluded over the counter (OTC transactions) on the exchange, as a result of which clearing and settlement are provided by the clearing house.
<b>U</b>	
<b>Underlying</b>	The subject matter of a futures or option contract is referred to as the "underlying asset". The underlying can be the delivery of a commodity (power, natural gas, emission allowances), but also an index (e.g. Phelix) or - in the case of options - a future.
<b>URL</b>	Uniform Resource Locator
<b>UTC</b>	Universal Time Coordinated
<b>X</b>	
<b>XML</b>	eXtensible Markup Language

## 3. Introduction

### 3.1 Scope

The scope of this document is to provide a programmer who is familiar with web service Application programming interface (web API) with the information required to retrieve market data. It is also intended for non-programmer users to gain a basic understanding on how our API works and how it can be navigated to access the desired data.

### 3.2 Overview

The API User Guide provides information about how to retrieve EEX market data. This service provides real time updates of the market data available from EEX. The web service API returns XML and JSON exports. To access all EEX data products, the user has to use specific credentials After purchasing a subscription in our webshop, the user will receive the EEX ID and a password via mail.

An API is defined as a set of functions and procedures allowing the creation of applications that access the features or data of an operating system, application or other service.

### 3.3 Subscription

The API solution allows users to receive intraday and end of day EEX market data as well retrieve historical data. Get connected to EEX Group DataSource with fast and robust data directly from the source. Please find all information regarding ordering, prices and available modules of the API on our website.

#### How to subscribe:

<https://www.eex.com/en/market-data/eex-group-datasource/api>

#### Contact:

Information Services  
T +49 341 2156-288  
[datasource@eex-group.com](mailto:datasource@eex-group.com)

## 4. Included Market Data

EEX Group DataSource offers the following APIs for market data:

- EEX Power Derivatives
- EEX Natural Gas (Spot and Derivatives)
- EEX Environmental Markets (Spot and Derivatives)
- EEX Metals Derivatives
- EEX Agricultural Derivatives
- EEX Freight Derivatives
- EEX Indices data

The available data types are listed below – full details of the returned data for these symbols and the parameters can be found in section 5.5.:

- End of Day
- Intraday
- Trades
- Historic Data
- Best Bid and Ask
- Product Master Data

## 5. Market Data API

Criterion	Description
URL	All API request address: <ul style="list-style-type: none"> <li><a href="https://api1.datasources.eex-group.com">https://api1.datasources.eex-group.com</a></li> </ul>
Data Domain	The API provides access to the Market Data (Time Series) stored in the EEX Database. This covers the following data areas: <ul style="list-style-type: none"> <li>Power</li> <li>Natural Gas</li> <li>Freight</li> <li>Environmentals</li> <li>Agriculturals</li> <li>Indices</li> </ul>
Availability	Market Data and the API are available for customers 24/7. The return formats provided are XML, CSV and JSON.
Source of Data	EEX Group trading, clearing and backend systems
Data Depth	Depending on the request parameters, the API will return latest data updates and historical data. The API will provide the latest EEX data available and is the quickest medium to receive prices, ideally moments after a price is known in the source system.

### 5.1 Request Method

The API is a synchronous interface. It supports one method of requesting data:

- **Https Get**

Any date or filter parameters are a part of the URL query string that is submitted. In general, the request string is built as follows:

`https://api1.datasources.eex-group.com/<method>?` followed by “Parameter Name”=“Parameter Value”, where each pair of parameter name and value are separated by an ampersand (“&”)

Nine methods are supported:

- `getAuction`
- `getDerivative`
- `getSpot`
- `getIndex`
- `getIntraday`
- `getHistory`
- `getPermission`
- `getProduct`
- `getQuote`



## 5.2 Symbols

Symbology is the interpretation of how symbols are configured. Knowing the symbology, will assist you when creating a quote query or when configuring an historical table.

### Formatting EEX Group Market Data

We use four digit shortcodes within all DataSource products to reference the different roots of the API. To find out the code for each contract, you can either use our getProduct call or have a look into our EEX Products (Shortcodes, WKN, ISIN, Vendor Codes, GoO) file.

EEX Group Market Data Symbols are composed as follows:

/E.PRODUCTCODE FOR EMISSION SPOT AND ALL FUTURES  
 -E.PRODUCTCODE FOR OPTIONS  
 #E.PRODUCTCODE FOR GAS SPOT  
 #E.PRODUCTCODE FOR INDICES

If you want to address a specific maturity, you must address a product instead of a root. This is how the product codes are built:

Example:

/E.DEBMH20

- o DEBM = Phelix DE Base Load Month Futures
- o H = March
- o 20= 2020

### EEX Month Codes

Month	Month Short Code
January	F
February	G
March	H
April	J
May	K
June	M
July	N
August	Q
September	U
October	V
November	X
December	Z

As the Get request is a URL string, special characters will need to be escaped. Escaping means to replace the special character with the escape symbol. For instance, to replace the space in 'a link', you must use this 'a%20link' in the URL. The most common of these special characters including their respective translation can be found in the table below.

The above-mentioned example would lead to this request (trade date is just one of the possible examples):

`https://api1.datasources.eex-group.com/getDerivatives/json?returnType=results&productType=futures&tradeDate=2020-02-06&product=%2FE.DEBMH20`

Character	Escape Symbol	Character	Escape Symbol
Space	%20	,	%2C
!	%21	/	%2F
#	%23	:	%3A
\$	%24	;	%3B
&	%26	=	%3D
'	%27	?	%3F
(	%28	@	%40
)	%29	[	%5B
*	%2A	]	%5D
+	%2B		

This is not a comprehensive list. There are many resources on the internet that provide lookups for translation of URLs or specific special characters.

### 5.3 EndPoint

The endpoint for the service is:

- `https://api1.datasources.eex-group.com`

Please note, the endpoint supports html requests only. Furthermore, https (secure http) addresses are supported.

## 5.4 Authentication

Basic authentication is used for the API. This includes an EEX ID (example: EEX\_1234) and a provided password (example: PassworD1234!). Please note that you cannot use your mail address or webshop login data for authentication, as this is not linked to the API. If you have problems while logging in, please contact us at [datasource@eex-group.com](mailto:datasource@eex-group.com) or [access.datasource@eex-group.com](mailto:access.datasource@eex-group.com).

The User ID and password will be provided by EEX once a subscription is in place. If you already have an active subscription for other DataSource Software, the same password and ID are also used for the API.

## 5.5 Definition of API Formats

The following formats will be used for the data fields of the API.

Term	Description	Example
<datetime>	Time format – information of a point in time. Please note that all points in time are in UTC.	2017-01-17T01:00:00Z
<string>	Alphanumeric string – used for text information.	Nuclear
<integer>	The integer data type is used to specify a numeric value without a fractional component.	99
<float>	The float data type stores double-precision floating-point numbers with up to 17 significant digits.	34,15
<time>	Time format – information of a point in time. Please note that all points in time are in UTC.	15:05:00
<date>	Time format – information of a point in time. Please note that all points in time are in UTC.	2010-03-01
<real>	The real data type is used in to represent an approximation of a real number.	128,91
<period>	The period data type is an anchored duration. It represents a set of contiguous time granules within that duration and will consist of a beginning and ending bound.	2017-08

## 5.6 Definition of API Data Fields

This is a full list of the data fields and their types for reference.

Fieldname	Format	Description	Example
AuctionClearingPrice	<float>	The final clearing price for an emission primary auction, also known as "auction price".	40,67
AuctionName	<string>	Name of the auction	EU
AuctionVolume	<integer>	Volume auctioned	735450
AverageBidSize	<float>	Average bid size	7354,50
AverageNumberOfBidsPerBidder	<integer>	Average number of Bids per bidder	2
AverageVolumeBidPerBidder	<integer>	Average volume bid per bidder	2222
AverageVolumeWonPerBidder	<integer>	Average volume won per bidder	3333
Contract	<string>	Contract of emission primary auction	T3PA
CountryRevenue	<integer>	Revenue per country of the auction	AT:318600
CoverRatio	<float>	Cover ratio of the auction	3,46
DeliveryEnd	<datetime>	Timestamp of delivery end date of a contract	2023-01-01T23:00:00Z
DeliveryPeriod	<period>	Delivery period of a future contract	2010-01
DeliveryStart	<datetime>	Timestamp of delivery start date of a contract	2023-01-31T23:00:00Z
ExpiryDate	<datetime>	Timestamp of last settlement price amendment (if last day of delivery is on a weekend, the expiry date is on the next weekday)	2023-01-30T00:00:00Z
FrontContract	<period>	Front contract of the index (yyyy-mm)	2017-08
HighPrice	<real>	Highest prices of the trading day	128,91
LastPrice	<real>	Price of the last trade on the trading day	45,95
LongName	<string>	Plain text of the product code	Phelix-DE Base Month Future
LotSize	<integer>	Volume traded for the contract in the product's commodity unit	18100
LowPrice	<real>	Lowest price of the trading day	12,07
MarketArea	<string>	Name of the natgas market area (Detailed information may be found in the contract specification).	TTF
Maturity	<period>	Maturity of the products displays the month in which the delivery starts for long term contracts (month, quarter, season, year) displays the month in with the delivery ends for short term contracts (week, weekend).	2017-04

Fieldname	Format	Description	Example
MaturityType	<string>	A filter and return item which denotes the periodicity of a Product. DAY = Day Contracts WEEKEND = Weekend Contracts WEEK = Week contracts MONTH = month contracts QUARTER = quarter contracts SEASON = season contracts YEAR = year contracts	DAY
MaximumBid	<float>	Maximum bid of the auction	6,00
Mean	<float>	Mean price of the auction	5,54
Median	<float>	Median price of the auction	5,54
MinimumBid	<float>	Minimum bid of the auction	5,54
NumberOfBidsSubmitted	<integer>	Number of submitted bids	51
NumberOfSuccessfulBids	<integer>	Number of successful bids	4
NumberOfTrades	<integer>	Total number of trades per trading day	25
OpenInterestLots	<integer>	Open interest lots	12285
OpenInterestVolume	<integer>	Open interest lots multiplied by lot size.	234568
OpenPrice	<float>	Price of the first trade at an exchange market or the first registered traded price within business hours of ECC for trade registration (OTC).	42,67
Product	<string>	Code of the product	/E.DB18N19
Root	<string>	Code of a chain of EEX short codes	H9BQ
SettlementPrice	<float>	A settlement price is determined for each individual contract which can be traded continuously or Trade Registration on EEX Power Derivatives and on the EEX Derivatives and Spot Markets every day.	42,67
StandardDeviationofBidVolumePerBidder	<integer>	Standard Deviation derived from the Bid Volume Per Bidder	15
Status	<string>	Statement whether an auction has been successfully conducted.	Successful
Strike	<integer>	Strike price of the option	9000
TimestampHighPrice	<datetime>	Timestamp of trade with the highest price of the day	2017-06-14T13:45:00Z
TimestampLastPrice	<datetime>	Timestamp of last trade of trading day	2017-06-14T16:45:00Z
TimestampLowPrice	<datetime>	Timestamp of trade with the lowest price of the day	2017-06-14T11:45:00Z
TimestampOpenPrice	<datetime>	Timestamp of first trade at an exchange market or the first registered traded price	2017-06-14T10:45:00Z

Fieldname	Format	Description	Example
		within business hours of EEC for trade reg. (OTC)	
TotalNumberofBidders	<integer>	Total number of bidders of the auction	16
TotalRevenue	<float>	Total revenue of the auction	11050700
TotalVolumeOfBidsSubmitted	<integer>	Number of successful bids of the auction	1211
TradeDate	<date>	Date of Trading	2014-09-20
TradedLots	<integer>	Number of traded contracts/lots	58
TradedVolume	<integer>	Traded Contracts multiplied by contract volume	4200
TradeID	<string>	Identifier of a trade	30840
TradeTimestamp	<datetime>	Date and time of the trade	2017-06-14T16:45:00Z
TradingEnd	<datetime>	Date and time of end of trading period	2023-01-29T23:00:00Z
TradingStart	<datetime>	Date and time of start of trading period	2022-03-30T22:00:00Z
Type	<string>	Field shows if a trade was a trade registration (OTC) or an exchange trade	EXCHANGE TRADEREG
Underlying	<string>	Underlying contract of the product (Detailed information may be found in the contract specification)	F1BQ
UnitOfPrices	<string>	Contains information on currency ( Detailed information may be found in the contract specification )	EU
UnitofVolumes	<string>	Contains information on measuring unit (Detailed information may be found in the contract specification)	MWh
Valid	<string>	Traded version of the trade (If valid then "yes" if invalid then "no"). A trade is invalid if it has been cancelled	Yes or No
ValidTrade	<string>	Traded version of the trade (If valid then "yes" if invalid then "no"). A trade is invalid if it has been cancelled	Yes or No
Volume	<integer>	Volume traded for the contract	537189

## 5.8 Market Data API functions, available fields, usage and return format

The following chapter lists all available data types and the fields that the API can return. The heading for each section is the function call as passed into the API.

### 5.8.1 getPermissions

getPermissions returns all symbols permissioned for the user. This includes current and historical products. Further information about the products including meta data is available via getProduct or can be found in our EEX Products (Shortcodes, WKN, ISIN, Vendor Codes, GoO) file.

#### Parameters

Name	Optional	Description
Fields	Yes	A list of fields to return - available fields are listed below. If no field is selected, all fields get returned
Return Format	Yes	If no return format is added, the default return format is XML JSON - return format is json XML – return format is xml CSV – return format is csv
Commodity	Yes	Identifier or a comma separated list of identifiers for the commodity required Valid Arguments are: <b>POWER</b> – Power Derivatives <b>NATGAS</b> – Natural Gas Spot and Derivatives <b>AGRI</b> – Agricultural Futures <b>EMISSIONS</b> – Emissions Auction, Spot and Derivatives <b>FREIGHT</b> – Freight Futures

#### Available Fields

- Product
- Maturity
- LongName
- Root
- Underlying
- FrontContract
- Commodity
- MarketArea

### Usage and Return Sample

<https://api1.datasources.eex-group.com/getPermissions/json?commodity=EMISSIONS>

```
{ "results": [
  { "result": [
    {
      "Root": "FEAA",
      "Underlying": "",
      "Commodity": "EMISSIONS",
      "MarketArea": ""
    },
    {...
```

If you are not interested in a specific commodity like Power or Natgas, but want to see all permissioned roots or specific indices like the EGSI or HYDRIX, please use this request:

<https://api1.datasources.eex-group.com/getPermissions/json>

### 5.8.2 getProduct

getProduct returns the metadata associated with a specific symbol or list of symbols.

#### Parameters

Name	Optional	Description
Root	No	A precise identifier or a comma separated list of identifiers for the list of required products must be provided
Fields	Yes	A list of fields to return - available fields are listed below. If no field is selected, all fields get returned
Return Format	Yes	If no return format is added, the default return format is XML JSON - return format is json XML – return format is xml CSV – return format is csv



Available Fields

- Product
- Root
- LongName
- MarketArea
- Commodity
- DeliveryPeriod
- DeliveryStart
- DeliveryEnd
- Maturity
- Underlying
- Type
- FrontContract
- Strike
- ExpiryDate
- UnitofPrices
- UnitofVolumes
- TradingStart
- TradingEnd

Usage and Return Sample

<https://api1.datasource.eex-group.com/getProduct/xml?root=DEBM>

```
<Row>
<Field Name="Product">/E.DEBMF24</Field>
<Field Name="Root">DEBM</Field>
<Field Name="LongName">EEX German Power Base Month Future</Field>
<Field Name="MarketArea"/>
<Field Name="Commodity">POWER</Field>
<Field Name="DeliveryPeriod">MONTH</Field>
<Field Name="DeliveryStart">2024-01-01T23:00:00Z</Field>
<Field Name="DeliveryEnd">2024-01-31T23:00:00Z</Field>
<Field Name="Maturity">2024-01</Field>
<Field Name="Underlying"/>
<Field Name="Type">FUTURE</Field>
<Field Name="FrontContract">2023-04</Field>
<Field Name="Strike"/>
<Field Name="ExpiryDate">2024-01-30T00:00:00Z</Field>
<Field Name="UnitofPrices">EUR</Field>
<Field Name="UnitofVolumes">MWh</Field>
<Field Name="TradingStart">2023-03-30T22:00:00Z</Field>
<Field Name="TradingEnd">2024-01-29T23:00:00Z</Field>
</Row>
```

...

### 5.8.3 getDerivatives

This function returns settlements or trade results data for a specific day for a specific commodity, root or product. It can be filtered by Market Area/Country where applicable.

#### Parameters

Name	Optional	Description
Commodity	Yes	Identifier or a comma separated list of identifiers for the symbols: Valid Arguments are: POWER – Power Futures and Options NATGAS – Natural Gas Futures and Options AGRI – Agricultural Futures and Options EMISSIONS – Emissions Futures and Options FREIGHT – Freight Futures To select products to return – either a commodity, list of products or root(s) must be defined.
Root	Yes	Precise identifier or a comma separated list of identifiers for the products required
Products	Yes	Identifier or a comma separated list of identifiers for the products required
ReturnType	No	Filters are RESULTS or TRADES. Results are the pricing fields for the selected products, trades are the list of trades for the selected products. Either RESULTS or TRADES must be provided.
ProductType	No	Either valid filters FUTURES or OPTIONS must be provided.
MarketArea	Yes	Market Area – example TTF for Natural Gas. If no market area is provided or market area is not applicable all instruments for the commodity group will be returned
TradeDate	No	A date in the format 'YYYY-MM-DD' representing the trading date must be provided
Fields	Yes	A list of fields to return - available fields are listed below. If no field is selected, all fields get returned
Return Format	Yes	If no return format is added, the default return format is XML JSON - return format is json XML – return format is xml CSV – return format is csv
MaturityType	Yes	Filters for maturity. Valid inputs are: D = Day Contracts W = Week contracts M = month contracts Y = year contracts

## Available Fields and Usage

ReturnType=Results

- Product
- LongName
- Root
- Maturity
- MaturityType
- MarketArea
- Strike
- DeliveryStart
- DeliveryEnd
- OpenPrice
- TimestampOpenPrice
- HighPrice
- TimestampHighPrice
- LowPrice
- TimeStampLowPrice
- LastPrice
- TimeStampLastPrice
- SettlementPrice
- UnitofPrices
- LotSize\_Exchange
- TradedLots\_Exchange
- NumberOfTrades\_Exchange
- TradedVolume\_Exchange
- LotSize\_TR
- TradedLots\_TR
- NumberOfTrades\_TR
- TradedVolume\_TR
- OpenInterestLots
- OpenInterestVolume
- UnitofVolume

### Usage and Return Sample

<https://api1.datasource.eex-group.com/getDerivatives/json?returnType=results&productType=futures&tradeDate=2023-04-04&root=ATBY>

```
{ "results": [
  { "result": [
    {
      "Product": "\/E.ATBYF24",
      "LongName": "EEX Austrian Power Base Year Future",
      "Root": "ATBY",
      "Maturity": "2024-01",
      "MaturityType": "YEAR",
      "MarketArea": "",
      "Strike": "",
      "DeliveryStart": "2024-01-01T23:00:00Z",
      "DeliveryEnd": "2024-12-31T23:00:00Z",
      "OpenPrice": "168,25",
      "TimestampOpenPrice": "2023-04-04T12:24:34Z",
      "HighPrice": "168,25",
      "TimestampHighPrice": "2023-04-04T12:24:34Z",
      "LowPrice": "168,25",
      "TimestampLowPrice": "2023-04-04T12:24:34Z",
      "LastPrice": "168,25",
      "TimestampLastPrice": "2023-04-04T12:24:34Z",
      "SettlementPrice": "163,90",
      "UnitofPrices": "EUR",
      "LotSize_Exch": 8784,
      "TradedLots_Exch": 1,
      "NumberofTrades_Exch": 1,
      "TradedVolume_Exch": 8784,
      "LotSize_TR": 8784,
      "TradedLots_TR": 3,
      "NumberofTrades_TR": 3,
      "TradedVolume_TR": 26352,
      "OpenInterestLots": 109,
      "OpenInterestVolume": "957456",
      "UnitofVolumes": "MWh"
    }, ...
  ]
}
```

### Other examples:

<https://api1.datasource.eex-group.com/getDerivatives/xml?returnType=results&productType=futures&tradeDate=2022-05-03&commodity=natgas>

<https://api1.datasource.eex-group.com/getDerivatives/xml?returnType=results&productType=futures&tradeDate=2022-05-03&Product=%2FE.FEUAZ22>

<https://api1.datasource.eex-group.com/getDerivatives/json?returnType=results&productType=options&tradeDate=2022-05-06&root=O2BY>

## Return Type=Trades

- Product
- Long Name
- Root
- Maturity
- MaturityType
- MarketArea
- Type
- Underlying
- Strike
- DeliveryStart
- DeliveryEnd
- TradedTimeStamp
- TradeID
- Valid
- Price
- UnitofPrices
- LotSize
- TradedLots
- TradedVolume
- UnitofVolumes
- TradedType

## Usage and Return Sample

<https://api1.datasources.eex-group.com/getDerivatives/json?returnType=trades&productType=futures&tradeDate=2023-03-16&root=DEBY>

```
{ "results": [
  { "result": [
    {
      "Product": "\/E.DEBYF24",
      "LongName": "EEX German Power Base Year Future",
      "Root": "DEBY",
      "Maturity": "2024-01",
      "MaturityType": "YEAR",
      "MarketArea": "",
      "Type": "EXCHANGE",
      "Underlying": "",
      "Strike": "",
      "DeliveryStart": "2024-01-01T23:00:00Z",
      "DeliveryEnd": "2024-12-31T23:00:00Z",
      "TradeTimeStamp": "2023-03-16T16:16:37Z",
      "TradeID": "14801920",
      "Valid": "Yes",
      "Price": "136,00",
      "UnitofPrices": "EUR",
      "LotSize": 8784,
    }
  ]
}
```

```
"TradedLots": 4,
"TradedVolume": 35136,
"UnitofVolumes": "MWh",
"TradedType": "FUTURES"
},
{...
```

## 5.8.4 getSpot

This function returns spot results data of a specific day for gas and emissions. Results or trades can be retrieved for specific commodities, roots or products.

### Parameters

Name	Optional	Description
Commodity	No	Identifier or a comma separated list of identifiers for the symbols required Valid Arguments are NATGAS – Natural Gas EMISSIONS – Emissions Either NATGAS or EMISSIONS must be provided.
Root	Yes	Precise identifier or a comma separated list of identifiers for the products required
Products	Yes	Precise identifier or a comma separated list of identifiers for the products required
ReturnType	No	Either filter RESULTS or TRADES must be provided. Results are the pricing fields for the selected Products, Trades are the list of trades for the selected products.
MarketArea	Yes	Only applicable for natgas contracts. If no market area is supplied or market area is not applicable all instruments for the commodity group will be returned
TradeDate	No	A date in the format 'YYYY-MM-DD' must be provided.
Fields	Yes	A list of fields to return - available fields are listed below
Return Format	Yes	If no return format is added, the default return format is XML JSON - return format is json XML – return format is xml CSV – return format is csv

### Available Fields

#### Gas Results

- MarketArea
- Root
- LongName
- DeliveryStart
- DeliveryEnd
- OpenPrice

- TimestampOpenPrice
- HighPrice
- TimestampHighPrice
- LowPrice
- TimestampLowPrice
- LastPrice
- TimestampLastPrice
- SettlementPrice
- UnitofPrices
- TradedLots
- NumberofTrades
- TradedVolume
- UnitOfVolumes

### Usage and Return Sample

[https://api1.datasources.eex-](https://api1.datasources.eex.com/getSpot/xml?returnType=results&commodity=NATGAS&marketarea=ttf&&tradeDate=2022-12-09)

[group.com/getSpot/xml?returnType=results&commodity=NATGAS&marketarea=ttf&&tradeDate=2022-12-09](https://api1.datasources.eex.com/getSpot/xml?returnType=results&commodity=NATGAS&marketarea=ttf&&tradeDate=2022-12-09)

```

...
<Row>
<Field Name="MarketArea">TTF</Field>
<Field Name="Root">GND1</Field>
<Field Name="LongName">DAY 1 MW</Field>
<Field Name="DeliveryStart">2022-12-12T05:00:00Z</Field>
<Field Name="DeliveryEnd">2022-12-13T04:59:59Z</Field>
<Field Name="OpenPrice">136,000</Field>
<Field Name="TimestampOpenPrice">2022-12-09T07:43:17Z</Field>
<Field Name="HighPrice">148,500</Field>
<Field Name="TimestampHighPrice">2022-12-09T16:56:25Z</Field>
<Field Name="LowPrice">136,000</Field>
<Field Name="TimestampLowPrice">2022-12-09T07:43:17Z</Field>
<Field Name="LastPrice">146,500</Field>
<Field Name="TimestampLastPrice">2022-12-09T22:11:36Z</Field>
<Field Name="SettlementPrice">143,215</Field>
<Field Name="UnitOfPrices">EUR</Field>
<Field Name="TradedLots">161258</Field>
<Field Name="NumberOfTrades">3107</Field>
<Field Name="TradedVolume">3870192</Field>
<Field Name="UnitOfVolumes">MWh</Field>
</Row>
...

```

## Gas Trades

### Available Fields

- Root
- LongName
- MarketArea
- TradeTimeStamp
- DeliveryStart
- DeliveryEnd
- TradeID
- ValidTrade
- Price
- UnitofPrices
- LotSize
- TradedLots
- TradedVolume
- UnitofVolumes
- TradedType

### Usage and Return Sample

[https://api1.datasource.eex-](https://api1.datasource.eex-group.com/getSpot/xml?returnType=trades&commodity=NATGAS&marketarea=the&root=GND1&tradeDate=2023-04-04)

[group.com/getSpot/xml?returnType=trades&commodity=NATGAS&marketarea=the&root=GND1&tradeDate=2023-04-04](https://api1.datasource.eex-group.com/getSpot/xml?returnType=trades&commodity=NATGAS&marketarea=the&root=GND1&tradeDate=2023-04-04)

```
<Results>
<Result>
<Row>
<Field Name="Root">GND1</Field>
<Field Name="LongName">DAY 1 MW</Field>
<Field Name="MarketArea">THE</Field>
<Field Name="TradeTimestamp">2023-04-04T00:10:30Z</Field>
<Field Name="DeliveryStart">2023-04-04T04:00:00Z</Field>
<Field Name="DeliveryEnd">2023-04-05T04:00:00Z</Field>
<Field Name="TradeID">1159156300</Field>
<Field Name="ValidTrade">Yes</Field>
<Field Name="Price">53,000</Field>
<Field Name="UnitOfPrices">EUR</Field>
<Field Name="LotSize">24</Field>
<Field Name="TradedLots">100</Field>
<Field Name="TradedVolume">2400</Field>
<Field Name="UnitOfVolumes">MWh</Field>
<Field Name="TradedType">EXCHANGE</Field>
</Row>
...
```



## Emission Trades

### Available Fields

- Product
- Root
- LongName
- MarketArea
- TradeTimestamp
- DeliveryPeriod
- TradeID
- ValidTrade
- Price
- UnitofPrices
- TradedVolume
- UnitofVolumes
- TradedType

### Usage and Return Sample

<https://api1.datasource.eex-group.com/getSpot/xml?returnType=trades&commodity=emissions&root=SEME&tradeDate=2023-03-16>

```
<Results>
<Result>
<Row>
<Field Name="Product">/E.SEMEZ29</Field>
<Field Name="Root">SEME</Field>
<Field Name="LongName">EEX EUA Spot</Field>
<Field Name="MarketArea">EU</Field>
<Field Name="TradeTimestamp">2023-03-16T08:11:05Z</Field>
<Field Name="DeliveryPeriod"/>
<Field Name="TradeID">691200</Field>
<Field Name="ValidTrade"/>
<Field Name="Price">88,000</Field>
<Field Name="UnitOfPrices">EUR</Field>
<Field Name="TradedVolume">1000</Field>
<Field Name="UnitOfVolumes">tCO2</Field>
<Field Name="TradedType">EXCHANGE</Field>
</Row>
...
```

## 5.8.5 getAuction

This function returns emission auction results data for a specific day.

### Parameters

Name	Optional	Description
TradeDate	No	A date in the format 'YYYY-MM-DD' must be provided
Return Format	Yes	If no return format is added, the default return format is XML JSON - return format is json XML – return format is xml CSV – return format is csv

### Available Fields

- Time
- AuctionName
- Contract
- Status
- AuctionClearingPrice
- MinimumBid
- MaximumBid
- Mean
- Median
- UnitOfPrices
- AuctionVolume
- TotalVolumeOfBidsSubmitted
- NumberOfBidsSubmitted
- NumberOfSuccessfulBids
- AverageNumberOfBidsPerBidder
- AverageBidSize
- AverageVolumeBidPerBidder
- StandardDeviationOfBidVolumePerBidder
- AverageVolumeWonPerBidder
- StandardDeviationOfVolumeWonPerBidder
- CoverRatio
- TotalNumberOfBidders
- NumberOfSuccessfulBidders
- TotalRevenue
- CountryRevenue

## Usage and Return Sample

<https://api1.datasource.eex-group.com/getAuction/xml?tradeDate=2023-02-13>

```

<Results>
<Result>
<Row>
<Field Name="Time">10:00:01</Field>
<Field Name="AuctionName">EEX EUA Primary Auction Spot</Field>
<Field Name="Contract">T3PA</Field>
<Field Name="Status">Successful</Field>
<Field Name="AuctionClearingPrice">88,86</Field>
<Field Name="MinimumBid">70</Field>
<Field Name="MaximumBid">100</Field>
<Field Name="Mean">88,9</Field>
<Field Name="Median">89,09</Field>
<Field Name="UnitOfPrices">EUR</Field>
<Field Name="AuctionVolume">2409000</Field>
<Field Name="TotalVolumeOfBidsSubmitted">4145000</Field>
<Field Name="NumberOfBidsSubmitted">70</Field>
<Field Name="NumberOfSuccessfulBids">42</Field>
<Field Name="AverageNumberOfBidsPerBidder">4,12</Field>
<Field Name="AverageBidSize">59214,286</Field>
<Field Name="AverageVolumeBidPerBidder">243823</Field>
<Field Name="StandardDeviationOfBidVolumePerBidder">389042</Field>
<Field Name="AverageVolumeWonPerBidder">150562</Field>
<Field Name="StandardDeviationOfVolumeWonPerBidder">244475</Field>
<Field Name="CoverRatio">1,72</Field>
<Field Name="TotalNumberOfBidders">17</Field>
<Field Name="NumberOfSuccessfulBidders">16</Field>
<Field Name="TotalRevenue">214063740</Field>
<Field Name="CountryRevenue">EU</Field>
</Row>
...

```

## 5.8.6 getIndex

This function returns index results for a specific day

### Parameters

Name	Optional	Description
IndexType	No	The Index for which results should be returned. Valid tokens are <ul style="list-style-type: none"> <li>AG (Agriculture Indices)</li> <li>APDD</li> <li>ECARBIX</li> <li>EGIX</li> <li>EGSI</li> <li>HYDRIX</li> <li>MONTHLY</li> <li>NGP (currently not available)</li> </ul>
MarketArea	Yes	Where applicable (for instance EGIX) a market area(s) can be passed to limit the returned products
TradeDate	No	A date in the format 'YYYY-MM-DD' must be provided.
DeliveryDate	No	A date in the format 'YYYY-MM-DD' must be provided. Please note: DeliveryDate is only used as parameter for APDD index.
Fields	Yes	A list of fields to return - available fields are listed below
Return Format	Yes	If no return format is added, the default return format is XML JSON - return format is json XML – return format is xml CSV – return format is csv

### Available Fields

#### Agricultural Index

- Longname
- Product
- ReferenceWeek
- Market Area
- Price
- UnitofPrices

### Usage and Return Sample

<https://api1.datasources.eex-group.com/getIndex/xml?indexType=AG&tradeDate=2023-02-16>

```
<Row>
<Field Name="LongName">Weekly Dutch European Processing Potato Index</Field>
<Field Name="Product">$E.FAPP_NL</Field>
<Field Name="ReferenceWeek">Week 07/23</Field>
<Field Name="Price">30,130</Field>
<Field Name="UnitofPrices">EUR/100kg</Field>
</Row>
```

**APDD**

- MarketArea
- Timestamp
- MarginalBuyPrice
- MarginalSellPrice
- WeightedAveragePrice
- UnitOfPrice
- Volume
- DeliveryStart
- DeliveryEnd
- UnitofVolume

**Usage and Return Sample**

<https://api1.datasource.eex-group.com/getIndex/?IndexType=APDD&DeliveryDate=2022-11-06&MarketArea=THE>

```
<Results>
<Result>
<Row>
<Field Name="MarketArea">THE</Field>
<Field Name="Timestamp">2022-11-07T02:00:07Z</Field>
<Field Name="MarginalBuyPrice"/>
<Field Name="MarginalSellPrice">56,000</Field>
<Field Name="WeightedAveragePrice">58,404</Field>
<Field Name="UnitofPrice">EUR</Field>
<Field Name="Volume">4531514</Field>
<Field Name="DeliveryStart">2022-11-06T05:00:00Z</Field>
<Field Name="DeliveryEnd">2022-11-07T05:00:00Z</Field>
<Field Name="UnitofVolume">MWh</Field>
</Row>
</Result>
</Results>
```

## ECARBIX

- Longname
- Product
- IndexType (as in Day, Month, Year)
- Price
- Volumes
- UnitofPrices
- UnitofVolume
- TradeDate

After 1.1.2024, the field “Volumes” will be empty. This is an expected behavior.

### Usage and Return Sample

<https://api1.datasource.eex-group.com/getIndex/xml?indexType=ECARBIX&tradeDate=2023-02-28>

```
<Results>
<Result>
<Row>
<Field Name="LongName">EEX ECarbix Month Index</Field>
<Field Name="Product">#E.ECARBIX.M</Field>
<Field Name="IndexType">Month</Field>
<Field Name="Price">91,933</Field>
<Field Name="Volumes">39454000</Field>
<Field Name="UnitofPrices">EUR</Field>
<Field Name="UnitofVolume">tCO2</Field>
<Field Name="TradeDate">2023-02-28</Field>
</Row>
<Row>
<Field Name="LongName">EEX ECarbix Day Index</Field>
<Field Name="Product">#E.ECARBIX.D</Field>
<Field Name="IndexType">Day</Field>
<Field Name="Price">96,330</Field>
<Field Name="Volumes">2427000</Field>
<Field Name="UnitofPrices">EUR</Field>
<Field Name="UnitofVolume">tCO2</Field>
<Field Name="TradeDate">2023-02-28</Field>
</Row>
</Result>
</Results>
```

**EGIX**

- LongName
- IndexType (as in Day, Month)
- MarketArea
- FrontContract
- Price
- Volumes
- UnitofPrices
- UnitofVolume
- TradeDate
- 

**Usage and Return Sample**

[https://api1.datasource.eex-](https://api1.datasource.eex-group.com/getIndex/xml?indexType=EGIX&marketarea=TTF&tradeDate=2023-03-08)

[group.com/getIndex/xml?indexType=EGIX&marketarea=TTF&tradeDate=2023-03-08](https://api1.datasource.eex-group.com/getIndex/xml?indexType=EGIX&marketarea=TTF&tradeDate=2023-03-08)

```

<Results>
<Result>
<Row>
<Field Name="LongName">EGIX-Day</Field>
<Field Name="IndexType">Day</Field>
<Field Name="MarketArea">TTF</Field>
<Field Name="FrontContract">2023-04</Field>
<Field Name="Price">42,868</Field>
<Field Name="Volumes">0</Field>
<Field Name="UnitofPrices">EUR</Field>
<Field Name="UnitofVolume">MWh</Field>
<Field Name="TradeDate">2023-03-08</Field>
</Row>
<Row>
<Field Name="LongName">EGIX-Month</Field>
<Field Name="IndexType">Month</Field>
<Field Name="MarketArea">TTF</Field>
<Field Name="FrontContract">2023-04</Field>
<Field Name="Price">45,136</Field>
<Field Name="Volumes">0</Field>
<Field Name="UnitofPrices">EUR</Field>
<Field Name="UnitofVolume">MWh</Field>
<Field Name="TradeDate">2023-03-08</Field>
</Row>
</Result>
</Results>

```

**EGSI**

- IndexType
- MarketArea
- Longname
- Timestamp
- DeliveryStart
- DeliveryEnd
- Price
- UnitofPrices

When requesting the monthly EGIX, you must address the first day of delivery. This value is only available after the month has passed, e.g. when looking at the monthly EGIX for January 2024, this value is only available after January has passed. To access this price, please address the first day of Delivery, which is the first of January: <https://api1.datasources.eex-group.com/getIndex/xml?indexType=EGSI&DeliveryDate=2024-01-01>

**Usage and Return Sample**

<https://api1.datasources.eex-group.com/getIndex/xml?indexType=EGSI&DeliveryDate=2023-10-11&MarketArea=TTF>

```
<Results>
<Result>
<Row>
<Field Name="IndexType">Day</Field>
<Field Name="MarketArea">TTF</Field>
<Field Name="LongName">EEX EGSI TTF Day</Field>
<Field Name="Timestamp">2023-10-10T00:00:00Z</Field>
<Field Name="DeliveryStart">2023-10-11T04:00:00Z</Field>
<Field Name="DeliveryEnd">2023-10-12T04:00:00Z</Field>
<Field Name="Price">44,751</Field>
<Field Name="UnitofPrices">EUR/MWh</Field>
</Row>
</Result>
</Results>
```



**HYDRIX**

- LongName
- Product
- MarketArea
- IndexType
- Price
- UnitofPrices
- TradeDate

**Usage and Return Sample**

<https://api1.datasource.eex-group.com/getIndex/xml?indexType=hydrix&tradeDate=2023-08-16>

```

<Results>
<Result>
<Row>
<Field Name="LongName">EEX Green Weekly HYDRIX DE</Field>
<Field Name="MarketArea">DE</Field>
<Field Name="Product">$E.GNHYDRIX.W.DE</Field>
<Field Name="IndexType">Week</Field>
<Field Name="Price">38,228</Field>
<Field Name="UnitofPrices">EUR/MWh</Field>
<Field Name="TradeDate">2023-08-16</Field>
</Row>
<Row>
<Field Name="LongName">EEX Green Weekly HYDRIX NL</Field>
<Field Name="MarketArea">NL</Field>
<Field Name="Product">$E.GNHYDRIX.W.NL</Field>
<Field Name="IndexType">Week</Field>
<Field Name="Price">4,709</Field>
<Field Name="UnitofPrices">EUR/MWh</Field>
<Field Name="TradeDate">2023-08-16</Field>
</Row>
<Row>
<Field Name="LongName">EEX Grey Weekly HYDRIX DE</Field>
<Field Name="MarketArea">DE</Field>
<Field Name="Product">$E.GRHYDRIX.W.DE</Field>
<Field Name="IndexType">Week</Field>
<Field Name="Price">4,285</Field>
<Field Name="UnitofPrices">EUR/MWh</Field>
<Field Name="TradeDate">2023-08-16</Field>
</Row>
<Row>
<Field Name="LongName">EEX Grey Weekly HYDRIX NL</Field>
<Field Name="Market Area">NL</Field>
<Field Name="Product">$E.GRHYDRIX.W.NL</Field>
<Field Name="IndexType">Week</Field>
<Field Name="Price">4,586</Field>
<Field Name="UnitofPrices">EUR/MWh</Field>
<Field Name="TradeDate">2023-08-16</Field>
</Row>
</Result>
</Results>

```

## MONTHLY

For the monthly index, you can choose any date of the respective month as the trade date.

- LongName
- Product
- MarketArea
- Price
- UnitofPrices
- UnitofVolume
- TradeDate

### Usage and Return Sample

<https://api1.datasource.eex-group.com/getIndex/xml?indexType=monthly&tradeDate=2023-02-08>

```
<Row>
<Field Name="LongName">EEX CEGH Natural Gas Month Index</Field>
<Field Name="Product">$E.G8BM</Field>
<Field Name="MarketArea">CEGH</Field>
<Field Name="Price">54,778</Field>
<Field Name="UnitofPrices">EUR</Field>
<Field Name="UnitofVolume">MWh</Field>
<Field Name="TradeDate">2023-02-27</Field>
</Row>...
```

## 5.8.7 getHistory

getHistory returns trade information across a range of days for a list of items. Please note that this call only includes historic trades. Trades from the current day are not included.

### Parameters

Name	Optional	Description
Root	No	Identifier or a comma separated list of identifiers for the products must be provided.
Return Format	Yes	If no return format is added, the default return format is XML JSON - return format is json XML – return format is xml CSV – return format is csv
ProductType	No	Depending in which root or product gets addressed, the right product type must be chosen. Valid Arguments are: <b>FUTURES</b> – Futures of all commodities <b>OPTIONS</b> – Options of all commodities <b>INDEX</b> – all Indices <b>SPOT</b> – Gas and Emission spot contracts
Product	Yes	Precise identifier or a comma separated list of identifiers for the products required
Start	Yes	A date in the format, depending on the time resolution of the time series requested (e.g. 'YYYY-MM-DD hh:mm'). Is equal to the first output TimeStamp. If a start date is specified an end date must be specified. Otherwise the DaysBack parameter can be set. One or the other is required. If both are supplied the Start and End date will take precedence.
End	Yes	A date in the format, depending on the time resolution of the time series requested (e.g. 'YYYY-MM-DD hh:mm'). Is equal to the last output TimeStamp.
DaysBack	Yes	Synonymous with the START/ END pair, with the proviso that END is the current date. So 3, would count 3 days back from today.
Fields	Yes	Fields are dependent on the type of instrument to be retrieved, see the fields available in functions detailed in 5.6.1.2 to 5.6.1.14

### Available Fields

The available fields are determined by the Product codes requested. The fields available in the functions GetDerivatives, GetSpot, GetIndex for Trades will be available.

**Usage and Return Sample**

<https://api1.datasource.eex-group.com/getHistory/xml?root=G0BM&ProductType=FUTURES&daysBack=1>

```
<Results>
<Result>
<Row>
<Field Name="Product">/E.G0BMK23</Field>
<Field Name="Root">G0BM</Field>
<Field Name="LongName">EEX THE Natural Gas Month Future</Field>
<Field Name="Maturity">2023-05</Field>
<Field Name="MaturityType">MONTH</Field>
<Field Name="MarketArea">THE</Field>
<Field Name="Type">EXCHANGE</Field>
<Field Name="Underlying"/>
<Field Name="Strike"/>
<Field Name="DeliveryStart">2023-05-01T22:00:00Z</Field>
<Field Name="DeliveryEnd">2023-05-31T22:00:00Z</Field>
<Field Name="TradeTimeStamp">2023-04-04T09:04:57Z</Field>
<Field Name="TradeID">5652480</Field>
<Field Name="Valid">Yes</Field>
<Field Name="Price">49,50</Field>
<Field Name="UnitofPrices">EUR</Field>
<Field Name="LotSize">744</Field>
<Field Name="TradedLots">10</Field>
<Field Name="TradedVolume">7440</Field>
<Field Name="UnitofVolumes">MWh</Field>
<Field Name="TradedType">FUTURE</Field>
</Row>
...
```

**Another example:**

<https://api1.datasource.eex-group.com/getHistory/json?product=/E.DEBYF23&ProductType=FUTURES&start=2022-01-31&end=2022-02-01>

<https://api1.datasource.eex-group.com/getHistory/xml?root=GNHYDRIX.W&ProductType=Index&daysBack=10>

## 5.8.8 getQuote

getQuote returns the current latest price information for specific code or list of codes, it returns only the latest price information. The most recently stored value is returned for each field requested.

### Parameters

Name	Optional	Description
Product	No	Identifier or a comma separated list of identifiers for the products must be provided.
Return Format	Yes	If no return format is added, the default return format is XML JSON - return format is json XML – return format is xml CSV – return format is csv
Root	Yes	Precise identifier or a comma separated list of identifiers for the products required
Fields	Yes	Fields are dependent on the type of instrument to be retrieved, see the fields available in functions detailed in 5.6.1.2 to 5.6.1.14

### Available Fields

- Product
- Root
- BestBidPrice
- BestBidVolume
- TimestampBestBidPrice
- BestAskPrice
- BestAskVolume
- TimestampBestAskPrice
- OpenPrice
- TimestampOpenPrice
- HighPrice
- TimestampHighPrice
- LowPrice
- TimestampLowPrice
- LastPrice
- TimestampLastPrice
- NetChange
- Volume
- UnitofPrices
- UnitofVolumes

**NOTE:**

The fields BestBidPrice, BestAskPrice, BestBidVolume, BestAskVolume return the data for the latest available Bids and Asks for the specified symbol at the time when the API request is initiated.

**Usage and Return Sample**

[https://api1.datasources.eex-group.com/getQuote/json?product=%23E.TTF\\_GND1](https://api1.datasources.eex-group.com/getQuote/json?product=%23E.TTF_GND1)

```
{ "results": [
  { "result": [
    {
      "Product": "#E.TTF_GND1",
      "Root": "GND1",
      "BestBidPrice": "5,025",
      "BestBidVolume": "10",
      "BestAskPrice": "",
      "BestAskVolume": "",
      "open": "14,8",
      "High": "15,2",
      "Low": "14,4",
      "close": "14,513",
      "Last": "15,025",
      "NetChange": "0",
      "Volume": 55945,
      "UnitofPrices": "EUR",
      "UnitofVolumes": "MWh"
    }
  ]}
]}
```

### 5.8.9 getIntraday

getIntraday returns intraday pricing over a range of time in a single day for a list of products and items for Bids, Asks and Trades.

The API will return a separate block of data for each event (Bid, Ask, Trade) that occurred in the specified period. Not every field will be returned for every event. See the “Available fields” section below for details.

**NOTE: Gas Spot data is currently not available via getIntraday.**

#### Parameters

Name	Optional	Description
Root	Yes	Identifier or a comma separated list of identifiers for the products required. Either a list of root or a list of products must be supplied
Products	Yes	Identifier or a comma separated list of identifiers for the products required
Return Format	Yes	If no return format is added, the default return format is XML JSON - return format is json XML – return format is xml CSV – return format is csv
Fields	Yes	Fields are dependent on the type of instrument to be retrieved, see the fields available in functions detailed in 5.6.1.2 to 5.6.1.14. This only works for products that trade throughout the day

#### Available Fields

- Root
- Product
- LongName
- MarketArea
- DeliveryStart
- DeliveryEnd
- Timestamp
- Price – For **Trade** events only
- Volume – For **Trade** events only
- NumberofTrades – For **Trade** events only
- BestBidPrice – For **Bid** events only
- BestBidVolume – For **Bid** events only
- BestAskPrice – For **Ask** events only
- BestAskVolume – For **Ask** events only
- UnitofPrices
- UnitofVolumes

### Usage and Return Sample

<https://api1.datasources.eex-group.com/getIntraday/xml?root=DEBY&start=2023-04-05%2008:00&end=2023-04-05%2011:00>

```
<Result>
<Row>
<Field Name="Product">/E.DEBYF24</Field>
<Field Name="LongName">EEX German Power Base Year Future</Field>
<Field Name="Root">DEBY</Field>
<Field Name="BestBidPrice">149,800</Field>
<Field Name="BestBidVolume">1</Field>
<Field Name="BestAskPrice">151,400</Field>
<Field Name="BestAskVolume">1</Field>
<Field Name="MarketArea"/>
<Field Name="DeliveryStart">2024-01-01</Field>
<Field Name="DeliveryEnd">2024-12-31</Field>
<Field Name="TimeStamp">2023-04-05T08:00:06Z</Field>
<Field Name="Price"/>
<Field Name="Volume"/>
<Field Name="NumberOfTrades"/>
<Field Name="UnitofPrices">EUR</Field>
<Field Name="UnitofVolumes">MWh</Field>
</Row>...
```



## 6. API Samples for Java and C#

### 6.1 Java Example Request

Below is the same example request written using Java.

```
package com.eex.test;

import java.io.DataOutputStream;
import java.io.IOException;
import java.net.HttpURLConnection;
import java.net.MalformedURLException;
import java.net.URL;
import java.util.Scanner;

import sun.misc.BASE64Encoder;

public class EEXRequest {

    // Main method
    public static void main(String[] args) {

        EEXRequest client = new EEXRequest();
        if (args.length >= 3) {
            try {
                client.execute(args[0], args[1], args[2]);
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else {
            System.out.println("Usage : EEXRequest <URL> <user>
<password>");
            // Example https://api1.datasources.eex-
group.com/getIntraday/xml?root=DEBM&start=2019-11-11%2015:55&end=2019-11-
11%2016:00 user1 password123
        }

        public void execute(String serverURL, String user, String password) throws
MalformedURLException, IOException {

            // If you need to go through proxy by setting system properties

            // Proxy server
            // System.getProperties().setProperty("proxySet", "true");
            // System.getProperties().setProperty("proxyHost", proxy);
            // System.getProperties().setProperty("proxyPort", proxyPort);

            // Proxy server credentials if needed

```

```
//
    System.getProperties().setProperty("proxy.authentication.username",
proxyUsername);
//
    System.getProperties().setProperty("proxy.authentication.password",
proxyPassword);

    // Construct request
    URL httpFile = new URL(serverURL);
    HttpURLConnection connection =
(HttpURLConnection)httpFile.openConnection();
    connection.setRequestMethod("GET");
    connection.setRequestProperty("Content-Type", "application/x-www-form-
urlencoded");

    // Add credential to the request.
    BASE64Encoder enc = new sun.misc.BASE64Encoder();
    String encodedUsernameAndPassword = enc.encode((user + ":" +
password).getBytes());
    connection.setRequestProperty("Authorization", "Basic " +
encodedUsernameAndPassword);

    //Send request
    connection.setUseCaches(false);
    connection.setDoInput(true);
    connection.setDoOutput(true);
    DataOutputStream wr = new
DataOutputStream(connection.getOutputStream());
    wr.flush();
    wr.close();

    // Read response and write to screen
    Scanner scanner = new Scanner(connection.getInputStream());
    String responseBody = scanner.useDelimiter("\\A").next();
    System.out.println(responseBody);

}

}
```

## 6.2 C# Example Request

Below is an example using C# to interact with the API.

```
using System;
using System.IO;
using System.Net;
using System.Net.Http;
using CsvHelper;
using CsvHelper.Configuration;

public class Event {
    public string Symbol { get; set; }
    public string LineType { get; set; }
    public string Country { get; set; }
    public string CompanyID { get; set; }
    public string ProdConsID { get; set; }
    public string UnitID { get; set; }
    public string ControlArea { get; set; }
    public string Source { get; set; }
    public string Type { get; set; }
    public string EventID { get; set; }
    public DateTime NUMStartDate { get; set; }
    public DateTime NUMEndDate { get; set; }
    public string NUMCapacity { get; set; }
    public string NonavailabilityReason { get; set; }
    public string Remarks { get; set; }
    public DateTime TimeStamp { get; set; }
    public string Status { get; set; }
    public DateTime PublicationTimeStamp { get; set; }
    public DateTime ModificationTimeStamp { get; set; }
    public string Commodity { get; set; }
    public string Facility { get; set; }

    public override string ToString() {
        return base.ToString();
    }
}

class Program {
    static void Main(string[] args) {
        var client = new HttpClient(new HttpClientHandler { Credentials = new
NetworkCredential("user", "password") });
        var resp = client.GetAsync("https://api1.datasource.eex-
group.com/getIntraday/xml?root=DEBM&start=2019-11-11%2015:55&end=2019-11-
11%2016:00").Result;
        if (!resp.IsSuccessStatusCode) {
            Console.Error.WriteLine(resp.StatusCode + ": " +
resp.ReasonPhrase);
            Environment.Exit(1);
        }
    }
}
```

```

    }

    using (var csv = new CsvReader(new
StreamReader(resp.Content.ReadAsStreamAsync().Result), new Configuration {
ShouldSkipRecord = arr => arr[0] == "Error" })) {
        csv.Read();
        csv.ReadHeader();
        while (csv.Read()) {
            var record = csv.GetRecord<Event>();
            Console.WriteLine(record);
        }
    }
}
}
}

```

The same rules apply to the parameters– Basic Example.

## 6.3 API Responses

API responses are available in three formats:

- a) JSON
- b) XML
- c) CSV

Example responses for each type to be found in the following section.

### 6.3.1 JSON sample return

<https://api1.datasources.eex-group.com/getIntraday/json?root=DEBM&start=2019-11-11%2015:55&end=2019-11-11%2016:00>

```

{ "results": [
{ "result": [
{
"Root": "DEBM",
"Product": "\/E.DEBMF20",
"LongName": "German Base Month Future",
"MarketArea": "",
"BestBidPrice": "45,6",
"BestBidVolume": "5",
"BestAskPrice": "45,8",
"BestAskVolume": "10",
"DeliveryStart": "2020-01-01",
"DeliveryEnd": "2020-01-31",
"TradeTimeStamp": "2019-11-11T15:56:02Z",
"Price": "45,7",
"Volume": 7440,
"NumberOfTrades": 10,
"UnitofPrices": "EUR",
"UnitofVolumes": "MWh"
}
}
}

```

```

},
{
  "Root": "DEBM",
  "Product": "\/E.DEBMF20",
  "LongName": "German Base Month Future",
  "MarketArea": "",
  "BestBidPrice": "45,6",
  "BestBidVolume": "5",
  "BestAskPrice": "45,8",
  "BestAskVolume": "10",
  "DeliveryStart": "2020-01-01",
  "DeliveryEnd": "2020-01-31",
  "TradeTimeStamp": "2019-11-11T15:56:15Z",
  "Price": "45,7",
  "Volume": 3720,
  "NumberofTrades": 5,
  "UnitofPrices": "EUR",
  "UnitofVolumes": "MWh"
}
]]
]]

```

This is one example record from the retrieved response. It is standard JSON containing name/value pairs for the returned data.

### 6.3.2 XML sample return

<https://api1.datasource.eex-group.com/getIntraday/xml?root=DEBM&start=2019-11-11%2015:55&end=2019-11-11%2016:00>

```

<Response status="OK">
<Item symbol="/E.DEBMH19" date="2/13/2019 12:00:00
PM" open="42" high="42.2" low="41.75" volume="641" settle="42.87" last="42.05" ope
ninterest="135504"/>
</Response>

```

This is standard XML representing the fields returned in the response.

### 6.3.3 CSV sample return

<https://api1.datasource.eex-group.com/getIntraday/csv?root=DEBM&start=2019-11-11%2015:55&end=2019-11-11%2016:00>

```

Product,LongName,Root,BestBidPrice,BestBidVolume,BestAskPrice,BestAskVolume,Market
Area,DeliveryStart,DeliveryEnd,TimeStamp,Price,Volume,NumberofTrades,UnitofPrices,
UnitofVolumes
"/E.DEBMF20","EEX German Power Base Month Future","DEBM",,,,,,"2020-01-01","2020-
01-31","2019-11-11T15:56:02Z","45,70","7440","10","EUR","MWh"
"/E.DEBMF20","EEX German Power Base Month Future","DEBM",,,,,,"2020-01-01","2020-
01-31","2019-11-11T15:56:15Z","45,70","3720","5","EUR","MWh"

```

## 7. Good to Know

This chapter includes information that is good to know and/or only concerns specific requests or data types. These tips are not included under the respective chapters to not crowd the overall User Guide with special cases. Smaller known issues are also mentioned.

### 7.1 Agricultural Indices

The data field “ReferenceWeek” is empty and “LongName” is faulty prior to 22.11.2018.

### 7.2 Directly addressing Daily and Monthly EGIX via getHistory

EGIX can be addressed via getHistory. You cannot directly address all EGIX data via getHistory, but must differentiate between the daily and monthly EGIX:

```
https://api1.datasources.eex-group.com/getHistory/json?root=EGIX-D&producttype=index&start=2019-01-01&end=2020-12-31
```

```
https://api1.datasources.eex-group.com/getHistory/json?root=EGIX-M&producttype=index&start=2019-01-01&end=2020-12-31
```

### 7.3 Market area CZ VTP / OTE

For getSpot, the market area CZ VTP shows OTE. When filtering by market area, you must use OTE for getSpot:

```
https://api1.datasources.eex-group.com/getSpot/xml?returnType=results&commodity=NATGAS&marketArea=OTE&tradeDate=2021-01-04
```

For gas Derivatives, the market area is CZ:

```
https://api1.datasources.eex-group.com/getDerivatives?commodity=natgas&marketarea=CZ&producttype=futures&tradedate=2024-01-29&returntype=trades
```

### 7.4 New contracts first availability

Only roots and maturities that are tradable or have been tradable in the past are included in getPermission and getProduct.

Example:

EEX releases contracts for a new market area XX. The daily contracts XX01-XX31 all become tradable within the first month. Their master data is available in getPermission and getProduct as soon as they first get tradable. The contracts XX32-XX35 are placeholder contracts and are only

used for special cases. Especially for the contracts XX33-35, it can take many months or years until they first become tradable.

There is no disadvantage for the customer. Just be aware that, if you export the “getPermission” reply and address all received roots, the placeholder contracts may not be included. If they become tradable for the first time, you must add the root to your request list. You can already request these roots before they become tradable for the first time. You will not receive an error but only an empty reply for the specific roots.

## 7.5 No Gas Spot Data in getIntraday

Gas Spot data is currently not included for getIntraday. You can address intraday and eod data via getSpot. Best bid best ask data is not available for gas spot.

## 7.6 DeliveryStart/End and TradingStart/End for Derivatives are wrong

We are actively working on correcting our timestamps. In the meantime, please use our contract details file.

## 7.7 Unit of Volumes for Japanese Power Futures

The data field "UnitofVolumes" shows MWh for Japanese Power Futures. This is not inherently wrong, as "LotSize\_Exch" shows the amount of MWh in a traded lot size. However, the price given under "SettlementPrice" is in Y/kwh and not in Y/MWh.

## 7.8 Difference of “old and new” EGSi and EGSi Futures

You can find the “old” EGSi (until 31st Dec 2022) via getSpot: <https://api1.datasources.eex-group.com/getSpot/xml?returnType=results&commodity=NATGAS&tradeDate=2021-01-04&root=EGSI>

The “new” EGSi is available via getIndex: <https://api1.datasources.eex-group.com/getIndex/xml?indexType=EGSI&DeliveryDate=2023-10-11&MarketArea=TTF>

The EGSi Futures are Derivatives and are, like all other Derivatives, available via getDerivatives.

## 7.9 Uniqueness of trade ID

The field TradeID represents the information from the CEF field "TICK\_ID". The same trade ID can be shared for multiple legs of an implicit spread. Example:

<https://api1.datasource.eex-group.com/getDerivatives?commodity=power&producttype=futures&tradedate=2023-12-14&returntype=trades>

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Product	LongName	Root	Maturity	Maturity	Market	Type	Underly	Strike	Delivery	Delivery	TradeTi	TradeID	Valid	Price
2	/E.DEBMF	EEX Germ	DEBM	2024-01	MONTH		EXCHANGE			2024-01-0	2024-01-3	2023-12-1	16419840	Yes	85.55
119	/E.F7BMF	EEX Frencl	F7BM	2024-01	MONTH		EXCHANGE			2024-01-0	2024-01-3	2023-12-1	16419840	Yes	83.5

If two or more trades share the same trade ID, have the same trading timestamp and the same traded volume, they are part of an implicit spread trade. Within our market data product, we only offer explicit trades for gas spot contracts. These spreads are marked as spreads, e.g.: EEX THE/TTF Natural Gas Day Spot, with the symbol #E.THE\_GND1/TTF\_GND1

## 7.10 Best bid best ask availability

There is no best bid best ask information available prior to May 24<sup>th</sup> 2021.



## 8. Appendices

Market Area	Market Area Code
Central European Gas Hub Virtual Trading Point (Austria)	CEGH VTP
Czech Republic Virtual Trading Point	CZ VTP / OTE
Denmark	ETF
National Balancing Point (United Kingdom)	NBP
France	PEG
Punto di Scambio Virtuale (Italy)	PSV
Spain	PVB
Trading Hub Europe (Germany)	THE
Title Transfer Facility (Netherlands)	TTF
Zeebrugge Hub (Belgium) – merged with ZTP on Oktober 1 <sup>st</sup> 2023	ZEE
Zeebrugge Trading Point (Belgium)	ZTP