Montel Web API

USER GUIDE

Version 1.1.6

Montel AS / Montel GMBH
HOLBERGSGATE 1, 0166 OSLO, NORWAY | ZEHNTSTRASSE 7, D - 73779 DEIZISAU, GERMANY

MONTEL

1 Document history

The latest version of this document is available for download at
https://support.montelgroup.com/introduction-to-montel-web-api

Version	Date	Description of changes
1.1.6	26.06.2025	New fields information added to *4 Future changes*. Front symbol details added to *8.4 Subscribe with FrontSymbol*. Unique TradeId information added.
1.1.5	11.12.2023	Documentation updated with correct http links
1.1.4	02.11.2022	Currency will be removed from QuoteElement December 2022.
1.1.3	09.05.2022	Changed text from Content to Body in GetToken.
1.1.2	06.05.2022	Added maximum request length info
1.1.1	22.04.2021	Added description of fundamental forecast. Added information about max poll frequency and max poll intervals per day. See: **12.1** Removed 9.2 Maximum URL length.
1.1.0	12.11.2020	Corrected misspell of datatype TradeId from Int to Int64. Corrected trade limitation to 3 months.
1.0.9	24.10.2019	Added description of *Derivatives/GetMetadataForSpecifiedContracts.* Added description of system maintenance window. Changed description of how to query multiple SymbolKeys using metadata in typical flow (Query by markets).
1.0.8	30.01.2019	Added Query by markets to typical flow. Added a note for **Connection URL** using Java. Added description of CET in **Date and time formats** Corrected EstimatedSetttlement to EstimatedSettlement in **QuoteElement** Added link to source information.
1.0.7	18.06.2017	Changed description of date and time formats according to actual formats in use. See **Date and time formats** Changed the term “Optional parameters” to “Optional parameter values”
1.0.6	16.05.2017	Added information to the registration form, and description of routines for support.
1.0.5	18.04.2017	Montel Web API now offers complete list of all active orders for certain sources. Description of the new functions is added to this document: API Functions: Order: **Get** Removed description of “result” types from this documentation, as they are not actually visible in the JSON that is received from the server. Note: document change only. There are no changes in return types of the API.

1.0.4	30.01.2017	Numerous changes in names of metadata properties, functions, parameters and fields: Metadata: Function named *Derivatives/GetMetadataForActiveProducts* changed name to *Derivatives/GetMetadataForActiveContracts* Metadata: Function named *Derivatives/GetMetadataForExpiredProducts* changed name to *Derivatives/GetMetadataForExpiredContracts* Derivatives/ohlc/get: *GlueRelative* parameter changed to *Continuous* MetadataElement: *Symbol* changed to *TickerSymbol* *RelativeSymbol* changed to *FrontSymbol* *PeriodSymbol* changed to *MontelSymbol* *FrontValue* changed to *FrontCode* *PeriodType* changed to *GenericPeriod* *Period* changed to *SpecificPeriod* *ProviderCode* changed to *SourceId* QuoteElement: *Symbol* changed to *TickerSymbol* *RelativeSymbol* changed to *FrontSymbol* *PeriodSymbol* changed to *MontelSymbol* *LastVol* changed to *LastVolume* *AccVol* changed to *AccVolume* *PrevClose* changed to *PrevSettlement* OhlcElement: *Symbol* changed to *TickerSymbol*
1.0.3	20.01.2017	Added description of fundamental data, optional parameters, estimated settlement, URLs and headers.
1.0.2	09.12.2016	Added description of trade data and structural changes for spots.
1.0.1	18.11.2016	Added description of spot data, and updated URLs to match restructuring of files.
1.0.0	02.11.2016	Initial draft

2 Introduction

Montel Web API is a HTTP based programming interface that can be utilized to retrieve data from Montel. The API offer both polling and pushing of data. Data from server to client is delivered in JSON format.

All data available in the API is identifiable by unique keys. A complete list of accessible data and keys can be obtained by sending requests for **Metadata**.

Requests for data can be narrowed down to a selection of fields, so that only relevant information is retrieved.

Pushing of data is enabled via the Microsoft **SignalR** library.

Please note that there are some restrictions of usage of the API. See **Restrictions.**

3 Maintenance and server downtime

Montel's system has a scheduled update every Sunday at 02 - 04 CET. Servers may restart in this window. These scheduled downtimes will not be notified.

Any non-scheduled manual downtime will be notified via email registered in the registration form.

4 Future changes

Montel Web API is in constant development in order to meet the demands and wishes from our users. Changes that may affect existing clients will be avoided if possible but can occur from time to time. Breaking changes will be announced in advance to all subscribing users by e-mail. There will be a minimum of 1 month notice before a breaking change goes live. Adding new fields to messages delivered from the API is not considered as a breaking change, and users/clients should ensure that their system will not break if new fields are added.

5 API Content

Montel Web API offer the following content:

- Live data for derivatives with best bid and ask, and full order depth for selected sources.
- End of day summaries for current and expired contracts
- Trading history for current and expired contracts
- Current and historical spot data for the European power markets
- Current and historical fundamental data
- Fundamental forecasts

Data available in the API cover power, gas, oil, coal, forex, green certificates, stock indices and more. Availability is based on user rights and may vary. Contact sales@montel.energy for a complete and updated list of which data that is available for your account.

We have gathered some information of the most used sources in this document: https://info.montelgroup.com/hubfs/Montel%20Web%20API/Source_information.pdf. This can be useful to get an overview of which sources that covers certain markets, and to get the market codes that mostly corresponds with "TickerSymbol" in the Montel Web API.

6 Registration

All new clients of the Montel Web API need to be registered with Montel. Please fill out the form at the last page in this document and send it to sales@montel.energy.com. See **Registration form**.

You will receive a unique **ClientId** after registration which must be used for **Authorization**. This will be the identifier for your client and should be kept confidential.

You also need a **Username** and a **Password** to represent a Montel user. This is provided together with the **ClientId** . Multiple usernames are required if more than one user will use the client at the same time. Developers can contact Montel to get an additional developer user account for free. This can be useful for continuous development. Note that the developer user account should be used for development only, and data may be restricted due to agreements with Montel's sources.

If you are developing multiple applications simultaneously, or if you work with different versions, you may want to acquire an extra client id.

7 Authorization

Most functions in this API require that a token is set in the Authorization http header. A token can be obtained by calling the **GetToken** function. Use the bearer authentication scheme when setting the header: "Authorization: Bearer [token]"

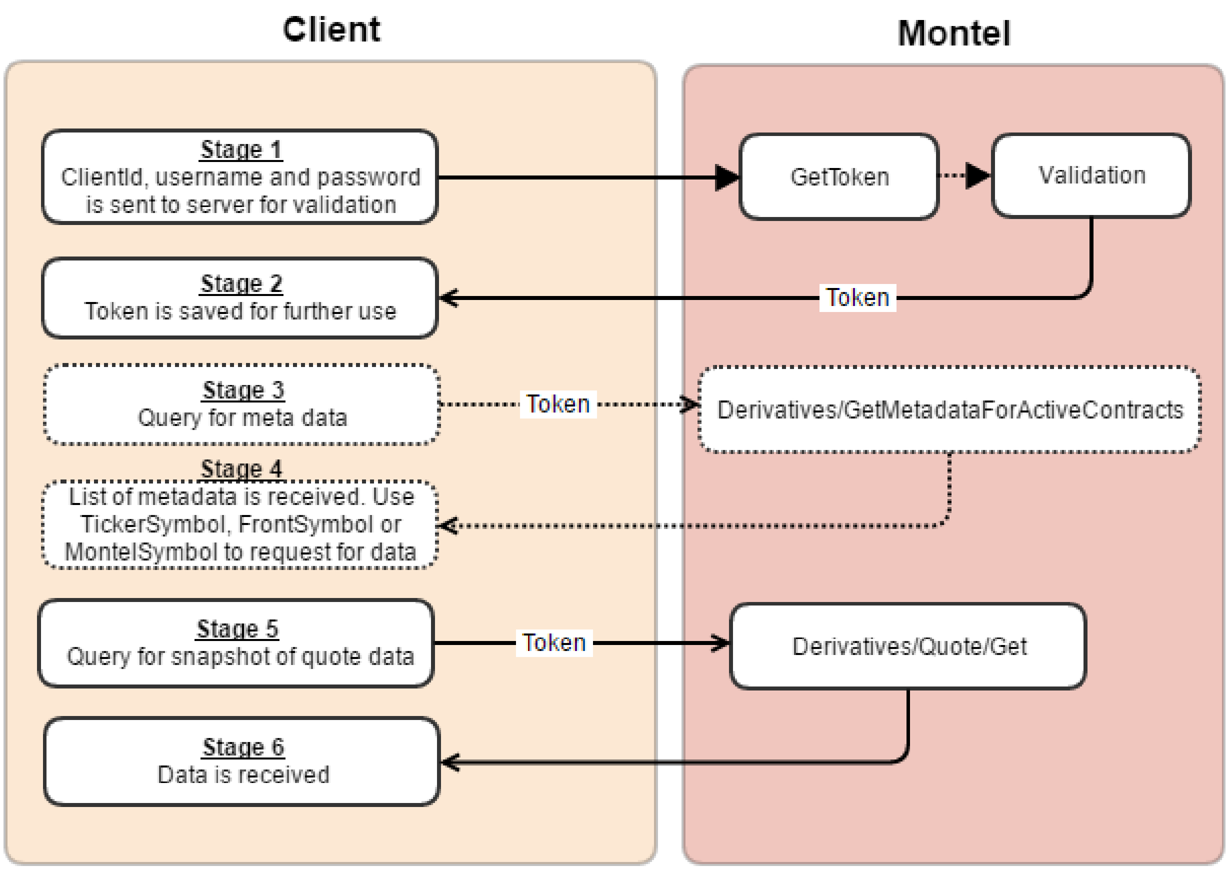
A token consists of a session ID that represents a session on the Montel Web API server. Sessions can be invalidated at any time by Montel. Tokens with an invalidated session ID will result in "401 unauthorized", even if the token itself is not expired. In this case, call GetToken again to renew session.

Note: There will only be one valid session per combination of username and clientId at any time. Previous sessions are invalidated each time you call the **GetToken** function.

8 Typical flows

8.1 Authenticate and get data

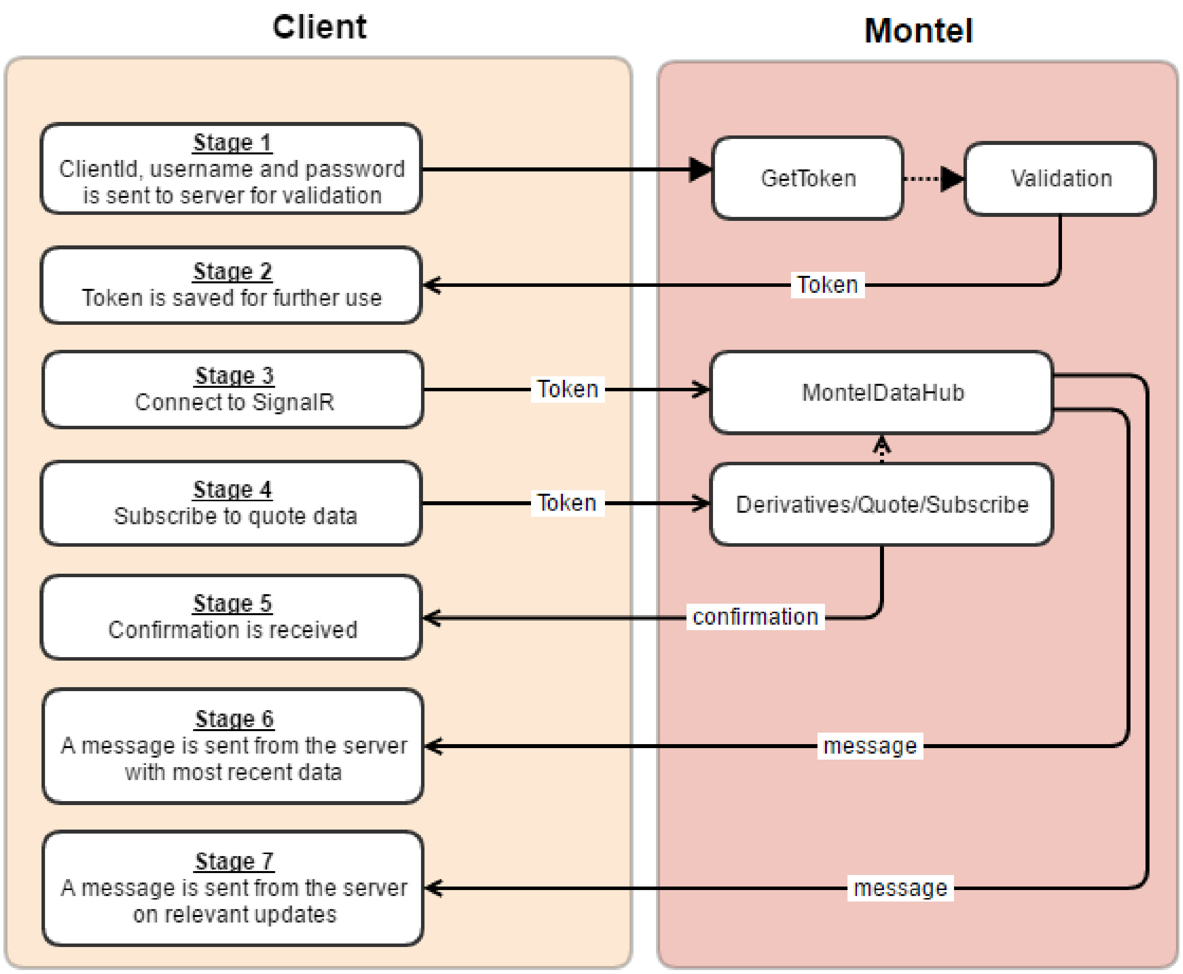
This is a typical flow of a how a client can query Montel Web API for a snapshot of current quote data:



First the client identifies itself, and receives a token as a proof of validation. The token is then used in all subsequent requests. It is valid for 31 days. The client can now ask for data directly, given that the ***SymbolKey*** *to ask for are predefined. For instance, a call to Derivatives/Quote/Get?SymbolKeys=ice+brn+m1&Fields=last will give the latest trade for the front month in the ICE Brent oil market. Alternatively, client can call Derivatives/GetMetadataForActiveContracts to get a list of available* ***SymbolKey*** s *before querying for data.*

8.2 Authenticate and subscribe to data

This is a typical flow of how a client can subscribe to quote data in Montel Web API:



First the client identifies itself and receives a token as a proof of validation. The token is then used in all subsequent requests. It is valid for 31 days. The client can now connect to the MontelDataHub via SignalR. A confirmation is sent from the server to confirm that the SignalR connection is up and running. The client can now subscribe to data. As soon as the subscription is activated, a message is sent via the SignalR connection with the most recent data. From then, a message is sent on every single update relevant to the subscribed contracts and fields.

Note: If historic data is corrected, only resent data will be pushed via SignalR. To ensure correct historic data we suggest clients to poll for historic data on regular basis. See **10.4.2**, **10.5.3** and **10.5.4** for more details.

8.3 Query for multiple SymbolKeys

Metadata can be used to build a list of SymbolKey(s) for queries/subscriptions. To get all active contracts within a specific market, call **Derivatives/GetMetadataForSpecifiedContracts** and filter the results on MarketCode representing the market.

Note: MarketName should not be used as lookup criteria. This element is a description and can be changed without notice.

8.4 Subscribe with FrontSymbol

The messages received from the sources are delivered and processed by Montel API server using the TickerSymbol from the source. The FrontSymbol is relative and might change from one day to another. Therefore, it's important to set up new subscription each trading day when using FronSymbol as SymbolKey.

9 URLs and headers

9.1 Encoding

Queries to the API are constructed as URLs. The query strings in the URLs must be encoded as application/x-www-form-urlencoded. Spaces should be encoded as "+".

9.2 Maximum request length

The maximum size of a request (total size of URL and headers) is 16384 bytes.

9.3 Optional HTTP headers

9.3.1 AcceptEncoding

Set this header to "deflate" to enable compression of data. Recommended when querying for large amounts of data.

10 API functions

10.1 Authentication

10.1.1 GetToken

Verifies the incoming *clientId*, *username* and *password* in the Body. A granted validation will return a token that is valid for 31 days or until server restarts. Best practice will therefore include logic a getting a new token when server returns unauthorized response.

cURL example:

--request POST
--url https://api.montelnews.com/gettoken
--data 'grant_type=password&client_Id={clientID}&username={username}&password={password}'

Type	Post
URL	https://api.montelnews.com/gettoken

Required HTTP headers	None
Optional HTTP headers	None
Body	grant_type=password&client_Id=**ClientId** &username=**Username** &password=**Password**

Returns:

Expires_in	int	Number of seconds left before the token expires.
Access_token	string	The token that should be used in the **Authorization** http header in subsequent calls to Montel Web API.

10.2 Metadata

10.2.1 Derivatives/GetMetadataForActiveContracts

Returns a list of **MetadataElement**, representing all currently tradable **Contract** s that are accessible for the user.

Type	Get
URL	https://api.montelnews.com/derivatives/getmetadataforactivecontracts
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**
Parameters	none

Returns:

Elements	**MetadataElement**[]	List of metadata elements.
Error	string	Indicates if there was an error with the request.

10.2.2 Derivatives/GetMetadataForSpecifiedContracts

Returns a list of **MetadataElement**s, representing all **Contract** s in the SymbolKeys parameter. Can be used for active and expired contracts.

Type	Get
URL	https://api.montelnews.com/derivatives/getmetadataforspecifiedcontracts
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SymbolKeys	Array of contracts to include in the query. See **SymbolKey** .

Returns:

Elements	**MetadataElement**[]	List of metadata elements.
Error	string	Indicates if there was an error with the request.

10.2.3 Derivatives/GetMetadataForExpiredContracts

Returns a list of **MetadataElement**s, representing all expired **Contract** s that are accessible for the user.

Type	Get
URL	https://api.montelnews.com/derivatives/getmetadataforexpiredcontracts
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**
Parameters	none

Returns:

Elements	**MetadataElement**[]	List of metadata elements.
Error	string	Indicates if there was an error with the request.

10.2.4 Spot/GetMetadata

Returns a list of **SpotMetadataElements**s that represents all spot contracts that are available for the user.

Type	Get
URL	https://api.montelnews.com/spot/getmetadata
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**
Parameters	none

Returns:

Elements	**SpotMetadataElement**[]	List of spot metadata elements.
Error	string	Indicates if there was an error with the request.

10.2.5 Fundamental/GetMetadata

Returns a list of **FundamentalMetadataElements**s that represents all fundamental products provided by Montel.

Type	Get

URL	https://api.montelnews.com/fundamental/getmetadata
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**
Parameters	none

Returns:

Elements	**FundamentalMetadataElement**[]	List of fundamental metadata elements.
Error	string	Indicates if there was an error with the request.

10.3 Quote

10.3.1 Get

Gives a snapshot of current market price data for the requested contracts specified in the *SymbolKeys* parameter. You must specify which fields of the **QuoteElement** that should be included in the result in the *fields* parameter. The fields "SymbolKey" and "UpdateTime" are not optional; these fields are always included.

Type	Get
URL	https://api.montelnews.com/derivatives/quote/get
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SymbolKeys	Array of contracts to include in the query. See **SymbolKey** .
Fields	Array of which fields to include. See **Quote** fields.

Returns:

Elements	**QuoteElement**[]	List of **QuoteElement**s with the specified fields.
Info	string	Indicates if on ore more of the requested *SymbolKeys* are unknown or not accessible.
Error	string	Indicates if there was an error with the request.

Note: The data retrieved can be intentionally delayed for certain sources. This will be notified in the "status" property of each quote element.

Note: Only one element will be returned if a contract is referred to by more than one of its valid symbol keys. Example:

Get?SymbolKeys=NPE ENOMDEC-25&SymbolKeys= NPE+ENO+DEC-2025&Fields=Last

In this query, two SymbolKeys are specified. But both SymbolKeys refer to the December 2025 contract for the Nasdaq Nordic power market. First by TickerSymbol, then by MontelSymbol. This will only give one element in the result.

10.3.2 Subscribe

Adds a quote subscription to the **Contract** specified in the *SymbolKeys* parameter. A **SubscriptionId** must be specified, and this should be saved to identify incoming data, and to administrate the subscription later. **Connection** to SignalR needs to be established in advance for a successful subscribe. Clients will immediately receive a message with most recent data when the subscription activates. As long as a subscription is active, new data will be received whenever there is an update in one of the specified fields for the specified contracts.

Type	Get
URL	https://api.montelnews.com/derivatives/quote/subscribe
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	GUID that will be the reference for this subscription.
SymbolKeys	Array of contracts to subscribe to. See **SymbolKey** .
Fields	Array of fields to subscribe to. See **QuoteElement**.

Returns:

Result	string	Indicates whether the subscription was successfully initialized, or if there was a problem.

Data message from SignalR:

Elements	**QuoteElement**[]	List of **QuoteElement** with the subscribed fields.

10.3.3 ChangeSubscription

Changes the subscription referred to by SubscriptionId. Specified *SymbolKeys* and *Fields* will replace existing values in the subscription. SubscriptionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/derivatives/quote/changesubscription
Required HTTP headers	**Authorization**

Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be changed.
SymbolKeys	Array of contracts to subscribe to. See **SymbolKey** .
Fields	Array of fields to subscribe to. See **QuoteElement**.

Returns:

Result	string	Indicates whether the subscription was successfully changed, or if there was a problem.

Data message from SignalR:

Elements	**QuoteElement**[]	List of **QuoteElement**s with the subscribed fields.

10.3.4 StopSubscription

Stops the subscription referred to by *SubscriptionId*. SubscriptionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/derivatives/quote/stopsubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be stopped.

Returns:

Result	string	Indicates whether the subscription was successfully stopped, or if there was a problem.

10.4 OHLC

10.4.1 Get

Gives a series of historical data for the **Contract** identified by the *SymbolKey* parameter. The series are constructed with one element per day. Each element gives a summary of the day, with opening price, highest price, lowest price and close/settlement. You must specify which fields that should be returned in the result in the *fields* parameter. See **OhlcElement** for complete list of available fields.

Type	Get
URL	https://api.montelnews.com/derivatives/ohlc/get
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SymbolKey	Contract to query. See **SymbolKey** .
Fields	Array of fields to include. See **OhlcElement**.
FromDate	Starting date of the series. Entered in valid **Date and time formats**.
ToDate (**Optional parameter value**)	End date of the series, if specified. Entered in valid **Date and time formats**.
SortType	How the data is sorted in the returned list of elements. *Ascending* or *descending.* Default is *ascending*.
InsertElementsWhenDataMissing	If the server should give empty elements for days without data. Valid options are *weekdays*, *always* and *never.* Default is *never*.
Continuous	Only in effect if **FrontSymbol** is used as *SymbolKey*. Valid options are *true* or *false*. If set to false: API will return historic data for the contract that match the relative symbol compared to today. If set to true: API will return historic data for multiple contracts chained together, so that each element covers the contract that match the relative symbol compared to this element's date.

Returns:

SymbolKey	string	The **SymbolKey** requested in the query.
Elements	**OhlcElement**[]	List of **OhlcElements** with the subscribed fields.
Info	string	Indicates if there has been a modification of the request.
Error	string	Indicates if there was an error with the request.

Note: The returned OHLC field "Date" is not optional; this field is always included.

Note: While OHLC series are generated on daily basis, they may be delayed by several minutes compared to when the settlement prices are delivered by source. For faster access to settlements, use Quote/**Get** instead.

Note: History will be limited to 30 days if the user does not have a subscription to *historical data* from Montel. This will be indicated in the *info* message. Contact sales@montel.energy for more information.

10.4.2 Subscribe

Adds an OHLC subscription to the **Contract** specified by the *SymbolKey* parameter. A **SubscriptionId** must be specified, and this should be saved to identify incoming data, and to administrate the subscription later. **Connection** to SignalR needs to be established in advance for a successful subscribe. If there already is OHLC data available for today at the time of subscription, clients will receive a data message for this day immediately. In addition, a message for the day before will also be received immediately, if available. As long as a subscription is active, new data will be received whenever there is a new or updated OHLC element available.

Note: If historic data is corrected, only data 1 day back will be pushed via SignalR. To ensure correct historic OHLC data we suggest clients to poll for historic data on regular basis.

Type	Get
URL	https://api.montelnews.com/derivatives/ohlc/subscribe
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	GUID that will be the reference for this subscription.
SymbolKey	Contract to subscribe to. See **SymbolKey** .
Fields	Array of fields to subscribe to. See **OhlcElement**.

Returns:

Result	string	Indicates whether the subscription was successfully initialized, or if there was a problem.

Data message from SignalR:

Elements	**OhlcElement**[]	List of **OhlcElement**s with the subscribed fields.

10.4.3 ChangeSubscription

Changes the subscription referred to by *SubscriptionId*. Specified *SymbolKey* and *Fields* will replace existing values in the subscription. SubscripitionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/derivatives/ohlc/changesubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be changed.
SymbolKey	Contract to subscribe to. See **SymbolKey** .
Fields	Array of fields to subscribe to. See **OhlcElement**.

Returns:

Result	string	Indicates whether the subscription was successfully changed, or if there was a problem.

Data message from SignalR:

Elements	**OhlcElement**[]	List of **OhlcElement**s with the subscribed fields.

10.4.4 StopSubscription

Stops the subscription referred to by *SubscriptionId*. SubscripitionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/derivatives/ohlc/stopsubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be stopped.

Returns:

Result	string	Indicates whether the subscription was successfully stopped, or if there was a problem.

10.5 Spot

10.5.1 GetPrices

Gives a series of historical spot prices for the contract identified by the *SpotKey* parameter. You must specify which fields that should be included in each element of the spot result in the *Fields* parameter. You must also specify the currency you want the prices to be received in. Available currencies for each spot contract can be found in spot metadata.

Type	Get
URL	https://api.montelnews.com/spot/getprices
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SpotKey	SpotKey for the spot contract to query. See **SpotKey** .
Fields	Array of fields to include in each spot element. See **Spot fields**.
FromDate	Starting date of the series. Entered in valid date format. See **Date and time formats**.
ToDate (**Optional parameter value**)	End date of the series, if specified. Entered in valid date format. See **Date and time formats**.
Currency	The currency of the prices. Use spot metadata to get valid options.
SortType	How the data is sorted in the returned list of elements. *Ascending* or *descending.* Default is *ascending*.

Returns:

SpotKey	string	The SpotKey requested in the query.
SpotName	string	The name of this spot contract.
Denomination	string	The denomination for all values in each element.
Elements	**SpotElement**[]	List of **SpotElements** based on the specified fields, where each element represent a date.
Info	string	Indicates if there has been a modification of the request.
Error	string	Indicates if there was an error with the request.

Note: History will be limited to 30 days if the user does not have a subscription to *historical data* from Montel. This will be indicated in the *info* message. Contact sales@montel.energy for more information.

10.5.2 GetVolumes

Gives a series of historical spot volumes for the contract identified by the *SpotKey* parameter. You must specify which fields that should be included in each element of the spot result in the *Fields* parameter.

Type	Get
URL	https://api.montelnews.com/spot/getvolumes
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SpotKey	SpotKey for the spot contract to query. See **SpotKey** .
Fields	Array of fields to include in each spot element. See **Spot fields**.
FromDate	Starting date of the series. Entered in valid date format. See **Date and time formats**.
ToDate (**Optional parameter value**)	End date of the series, if specified. Entered in valid date format. See **Date and time formats**.
SortType	How the data is sorted in the returned list of elements. *Ascending* or *descending.* Default is *ascending*.

Returns:

SpotKey	string	The SpotKey requested in the query.
SpotName	string	The name of the spot contract.
Denomination	string	The denomination for all values in each element.
Elements	**SpotElement**[]	List of **SpotElement**s based on the specified fields, where each element represent a date.
Info	string	Indicates if there has been a modification of the request.
Error	string	Indicates if there was an error with the request.

Note: History will be limited to 30 days if the user does not have a subscription to *historical data* from Montel. This will be indicated in the *info* message. Contact sales@montel.energy for more information.

10.5.3 SubscribePrices

Adds a price subscription to the spot contract specified by the *SpotKey* parameter. A **SubscriptionId** must be specified, and this should be saved to identify incoming data, and to administrate the subscription later. **Connection** to SignalR needs to be established in advance for a successful subscribe. If there already are spot prices available for the current or future days at the time of subscription, clients will receive a data message for these day(s) immediately. In addition, a message for the day before will also be received immediately, if available. As long as a subscription is active, new data will be received whenever there is a new or updated spot element available.

Note: If historic data is corrected, only data 3 days back will be pushed via SignalR. To ensure correct historic spot data we suggest clients to poll for historic data on regular basis.

Type	Get
URL	https://api.montelnews.com/spot/subscribeprices
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	GUID that will be the reference for this subscription.
SpotKey	Spot contract to subscribe to. See **SpotKey**
Fields	Array of fields to include in each spot element. See **Spot fields**.
Currency	The currency of the prices. Use spot metadata to get valid options.

Returns:

Result	string	Indicates whether the subscription was successfully initialized, or if there was a problem.

Data message from SignalR:

Elements	**SpotElement**[]	List of **SpotElements** based on the specified fields, where each element represent a date.

Note: If a subscription receives data for multiple days simultaneously, they are not necessary in chronological order.

10.5.4 SubscribeVolumes

Adds a volume subscription to the spot contract specified by the *SpotKey* parameter. A **SubscriptionId** must be specified, and this should be saved to identify incoming data, and to administrate the subscription later. **Connection** to SignalR needs to be established in advance for a successful subscribe. If there already are spot volumes available for the current or future days at the time of subscription, clients will receive a data message for these day(s) immediately. In addition, a message for the day before will also be received immediately, if available. As long as a subscription is active, new data will be received whenever there is a new or updated spot element available.

Note: If historic data is corrected, only data 3 days back will be pushed via SignalR. To ensure correct historic spot data we suggest clients to poll for historic data on regular basis.

Type	Get
URL	https://api.montelnews.com/spot/subscribevolumes
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	GUID that will be the reference for this subscription.
SpotKey	Spot contract to subscribe to. See **SpotKey** .
Fields	Array of fields to include in each spot element. See **Spot fields**.

Returns:

Result	string	Indicates whether the subscription was successfully initialized, or if there was a problem.

Data message from SignalR:

Elements	**SpotElement**[]	List of **SpotElements** based on the specified fields, where each element represent a date.

Note: If a subscription receives data for multiple days simultaneously, they are not necessary in chronological order.

10.5.5 ChangePriceSubscription

Changes the subscription referred to by *SubscriptionId*. Specified *SpotKey*, *Fields* and *Currency* will replace existing values in the subscription. SubscripitionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/spot/changepricesubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be changed.
SpotKey	Spot contract to subscribe to. See **SpotKey** .
Fields	Array of fields to include in each spot element. See **Spot fields**.
Currency	The currency of the prices. Use spot metadata to get valid options.

Returns:

Result	string	Indicates whether the subscription was successfully changed, or if there was a problem.

Data message from SignalR:

Elements	**SpotElement**[]	List of **SpotElements** based on the specified fields, where each element represent a date.

10.5.6 ChangeVolumeSubscription

Changes the subscription referred to by *SubscriptionId*. Specified *SpotKey* and *Fields* will replace existing values in the subscription. SubscripitionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/spot/changevolumesubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be changed.
SpotKey	Spot contract to subscribe to. See **SpotKey**
Fields	Array of fields to include in each spot element. See **Spot fields**.

Returns:

Result	string	Indicates whether the subscription was successfully changed, or if there was a problem.

Data message from SignalR:

Elements	**SpotElement**[]	List of **SpotElements** based on the specified fields, where each element represent a date.

10.5.7 StopSubscription

Stops the subscription referred to by *SubscriptionId*. SubscriptionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/spot/stopsubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be stopped.

Returns:

Result	string	Indicates whether the subscription was successfully stopped, or if there was a problem.

10.6 Trade

10.6.1 Get

Gives a series of historical trade data for the **Contract** identified by the *SymbolKey* parameter. The series is constructed with one element for each trade within the requested *FromTime* and *ToTime*. Skip the *ToTime* parameter to request for all trades up to now.

Type	Get
URL	https://api.montelnews.com/derivatives/trade/get
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SymbolKey	Contract to query. See **SymbolKey** .
FromTime	Starting time of the series. Entered in valid date and time format. See **Date and time formats**.
ToTime(**Optional parameter value**)	End time of the series, if specified. Entered in valid date and time format. See **Date and time formats**.
SortType	How the data is sorted in the returned list of elements. *Ascending* or *descending.* Default is *ascending*.

Returns:

SombolKey	String	The **SymbolKey** requested in the query.
TradeResult	**TradeElement**[]	List of **TradeElement**s.
Info	string	Indicates if there has been a modification of the request.
Error	string	Indicates if there was an error with the request.

Note: History will be limited to 2 days if the user does not have a subscription to *historical data* from Montel. This will be indicated in the *info* message. Contact sales@montel.energy for more information.

Note: Requests for large amounts of trade data can result in an error saying “Request will result in too much data”. In this case, narrow down the *FromTime* and *ToTime*, and use multiple queries instead.

Note: For all sources we offer trade history 3 months back.

Note: ICE data have a timespan limitation on *FromTime/ToTime* set to 2 days.

Note: TradeId is only unique per symbol per trading day

10.6.2 GetByCount

Gives a series of the n latest trades for the **Contract** identified by the *SymbolKey* parameter. The series is constructed with one element for each trade.

Type	Get
URL	https://api.montelnews.com/derivatives/trade/getbycount
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SymbolKey	Contract to query. See **SymbolKey** .
NumberOfTrades	The number (n) of trades to query.
SortType	How the data is sorted in the returned list of elements. *Ascending* or *descending.* Default is *ascending*.

Returns:

SymbolKey	String	The **SymbolKey** requested in the query.
TradeResult	**TradeElement**[]	List of **TradeElements**.
Info	string	Indicates if there has been a modification of the request.
Error	string	Indicates if there was an error with the request.

Note: History will be limited to maximum 5 elements if the user does not have a subscription to *historical data* from Montel. This will be indicated in the *info* message. Contact sales@montel.energy for more information.

Note: History is currently limited to maximum 10 000 elements for all users.

10.6.3 Subscribe

Adds a trade subscription to the **Contract** specified in the *SymbolKey* parameter. A **SubscriptionId** must be specified, and this should be saved to identify incoming data, and to administrate the subscription later. **Connection** to SignalR needs to be established in advance for a successful subscribe. Clients will immediately receive messages with trade data from the last 2 minutes (if any) when the subscription activates. As long as a subscription is active, new data will be received whenever there is a new or updated trade for the specified contract.

Type	Get
URL	https://api.montelnews.com/derivatives/trade/subscribe

Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	GUID that will be the reference for this subscription.
SymbolKey	Contract to subscribe to. See **SymbolKey** .

Returns:

Result	string	Indicates whether the subscription was successfully initialized, or if there was a problem.

Data message from SignalR:

Elements	**TradeElement**[]	List of **TradeElements**.

Note: Trade data can change. Use TradeId of incoming elements and compare with data already received, to check if the message represents a new trade, or if it is a modification.

Note: TradeId is only unique per symbol per trading day

10.6.4 ChangeSubscription

Changes the subscription referred to by *SubscriptionId*. Specified *SymbolKey* will replace existing values in the subscription. SubscripitionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/derivatives/trade/changesubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be changed.
SymbolKey	Contract to subscribe to. See **SymbolKey** .

Returns:

Result	string	Indicates whether the subscription was successfully changed, or if there was a problem.

Data message from SignalR:

Elements	**TradeElement**[]	List of **TradeElements**.

10.6.5 StopSubscription

Stops the subscription referred to by *SubscriptionId*. SubscriptionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/derivatives/trade/stopsubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be stopped.

Returns:

Result	string	Indicates whether the subscription was successfully stopped, or if there was a problem.

10.7 Order

Note: Subscription via SignalR is not available for orders.

10.7.1 Get

Gives all the current orders for the contract identified by the *SymbolKey* parameter.

Type	Get
URL	https://api.montelnews.com/derivatives/order/get
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SymbolKey	Contract to query. See **SymbolKey** .

Returns:

SymbolKey	String	The **SymbolKey** requested in the query.
Elements	**OrderElement**[]	List of **OrderElements**.
Info	string	Indicates if there has been a modification of the request.
Error	string	Indicates if there was an error with the request.

10.8 Fundamental

10.8.1 Get

Gives a series of fundamental data for the product identified by the *FundamentalKey* parameter.

Type	Get
URL	https://api.montelnews.com/fundamental/get
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

FundamentalKey	Contract to query. See **FundamentalKey**
FromDate	Starting date of the series. Entered in valid date format. See **Date and time formats**.
ToDate(**Optional parameter value**)	End date of the series, if specified. Entered in valid date format. See **Date and time formats**.
SortType	How the data is sorted in the returned list of elements. *Ascending* or *descending.* Default is *ascending*.

Returns:

FundamentalKey	String	The **FundamentalKey** requested in the query.
Elements	**FundamentalElement**[]	List of **FundamentalElements**.
Info	string	Indicates if there has been a modification of the request.
Error	string	Indicates if there was an error with the request.

10.8.2 GetForecast

Gives a series of fundamental forecast data for the product identified by the *FundamentalKey* parameter.

Type	Get
URL	https://api.montelnews.com/fundamental/getforecast
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

FundamentalKey	Contract to query. See **FundamentalKey**
FromDate	Starting date of the series. Entered in valid date format. See **Date and time formats**.
ToDate(**Optional parameter value**)	End date of the series, if specified. Entered in valid date format. See **Date and time formats**.
ForecastFromDate(**Optional parameter value**)	Start date of the series forecast, if specified. Entered in valid date format. See **Date and time formats**. Parameter value must be set if OnlyLatest parameter equals false. Value will be ignored if OnlyLatest parameter equals true.
ForecastToDate(**Optional parameter value**)	End date of the series forecast, if specified. Entered in valid date format. See **Date and time formats**. Parameter value must be set if OnlyLatest parameter equals false. Value will be ignored if OnlyLatest parameter equals true.
OnlyLatest	Valid options are true or false. If set to true, API will return the latest forecast for the given FundamentalKey. Values for ForecastFromDate and ForecastTodate will be ignored.
SortType	How the data is sorted in the returned list of elements. *Ascending* or *descending.* Default is *ascending*.

Returns:

FundamentalKey	String	The **FundamentalKey** requested in the query.
Elements	**ForecastElement** []	List of **ForecastElement**
Info	string	Indicates if there has been a modification of the request.
Error	string	Indicates if there was an error with the request.

10.8.3 Subscribe

Adds a fundamental subscription to the product specified by the *FundamentalKey* parameter. A **SubscriptionId** must be specified, and this should be saved to identify incoming data, and to administrate the subscription later. **Connection** to SignalR needs to be established in advance for a successful subscribe. If there already are fundamental data available for the current or future days at the time of subscription, clients will receive a data message for these day(s) immediately. As long as a subscription is active, new data will be received whenever there is a new or updated fundamental element available.

Type	Get
URL	https://api.montelnews.com/fundamental/subscribe
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	GUID that will be the reference for this subscription.
FundamentalKey	Fundamental product to subscribe to. See **FundamentalKey** .

Returns:

Result	string	Indicates whether the subscription was successfully initialized, or if there was a problem.

Data message from SignalR:

Elements	**FundamentalElement** []	List of **FundamentalElements**.

Note: If a subscription receives data for multiple days simultaneously, they are not necessary in chronological order.

10.8.4 ChangeSubscription

Changes the subscription referred to by *SubscriptionId*. Specified *SubscripitionId* needs to exist as an active subscription. Specified *FundamentalKey* will replace existing FundamentalKey for the subscription.

Type	Get
URL	https://api.montelnews.com/fundamental/changesubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	GUID that will be the reference for this subscription.
FundamentalKey	Fundamental product to subscribe to. See **FundamentalKey** .

Returns:

Result	string	Indicates whether the subscription was successfully changed, or if there was a problem.

Data message from SignalR:

Elements	**FundamentalElement** []	List of **FundamentalElements**.

10.8.5 StopSubscription

Stops the subscription referred to by *SubscriptionId*. SubscriptionId needs to exist as an active subscription.

Type	Get
URL	https://api.montelnews.com/fundamental/stopsubscription
Required HTTP headers	**Authorization**
Optional HTTP headers	**AcceptEncoding**

Parameters:

SubscriptionId	The GUID of the subscription that will be stopped.

Returns:

Result	string	Indicates whether the subscription was successfully stopped, or if there was a problem.

11 SignalR

Montel Web API uses **SignalR** from Microsoft to support push of data from server to client. Clients will first need to connect to the Montel Web API SignalR hub to be able to receive messages via push.

11.1 Connection

Connection URL	https://api.montelnews.com
HubName	"MontelDataHub"
Events	"Message" "Info"
Header	**Authorization**
Hub connection function	"Connect"
Note	Java developers may have to add "/Signalr/" to the URL manually.

11.2 Events

Events will start to arrive after the client has connected and set up a valid subscription.

11.2.1 Message

A "message" is sent to the client whenever a subscribed field for a subscribed contract has an updated or new value. The message includes the **SubscriptionId** of the subscription that triggered the message, and a data element with the **Fields and return types** that match the subscription.

11.2.2 Info

An “info” is sent to the client whenever there is a change in a subscription’s status, or if a problem occurs after initialization of a new subscription.

12 Restrictions

Montel Web API is constantly monitored by automatic statistical analysis. To ensure that the API stays fast and responsive for all users, Montel reserves the right to disable user accounts and/or ClientIds if excessive usage is detected. This will be done without notice in advance, if necessary.

As a developer using the Montel Web API you are responsible to write your code as efficient as possible to limit the number and size of your requests.

If you choose to poll historical data, you should only poll for data that you have not already received. This can be done by adjusting the fromtime/fromdate parameters.

Polling should not be used to achieve "live" data feed. If your usage requires faster updates, please use subscribe functions instead.

12.1 Overview of polling interval per data group

Data group	Minimum poll interval per unique request	Maximum polls per day for a given group
Quote	10 seconds	120 000
OHLC	120 seconds	20 000
Spot	120 seconds	1 000
Trade	10 seconds	50 000
Fundamental	120 seconds	20 000

Note: Polling interval and number of polls per day may be changed in the future and customers must comply to these changes.

13 Appendix

13.1 Terms

BasePeakType – Used for power contracts to specify which load the contract represents. Most common values are “Base”, “Peak”, “OffPeak” and “SuperPeak”.

ClientId – A Globally unique identifier (GUID) that represents a client. Provided by Montel on client registration.

DST – Daylight Saving Time. Sometimes used as part of a returned **SpotTimeSpan**, to represent the extra hour that is added the last Sunday in October.

Field – A property of a returned data type. Also used as parameter for some functions.

FrontCode – Front codes are constructed by Montel and are used to represent contracts ahead in time. See **Front codes**.

FundamentalKey – A string that uniquely identifies a product. The FundamentalKey is case insensitive when used in requests, but is always returned in upper case.

MarketCode – A code representing the market. Unique per source.

MarketName – A description of which market the contract belongs to. Can be changed by Montel without notification and should not be used as a reference.

MontelSymbol – Represents a contract. Constructed by SourceId + " " + MarketCode + " " + string that represent period.

Contract – A tradable product, identified by a SymbolKey.

Source – The exchange, broker, company or institution that is the data source.

SourceId – A unique ID representing a source. See **Source IDs**.

FrontSymbol – Constructed by SourceId + " " + MarketCode + " " + FrontCode.

SymbolKey – A string that uniquely identifies a contract. Either TickerSymbol, FrontSymbol and MontelSymbol can be used as SymbolKey. The SymbolKey is case insensitive when used in requests, but is always returned in upper case. "/otc" can be added to the end of a SymbolKey string to request for OTC data where available.

SubscriptionId – A Globally unique identifier (GUID) that identifies a subscription. Must be generated by client.

TickerSymbol – Constructed by SourceId + " " + a unique string generated by the source.

SpotKey – A unique key representing a spot contract. See **List of spot keys**.

Username – Name to identify a user. Provided by Montel.

Password – Password for user. Provided by Montel.

13.2 Date and time formats

Requesting data, all parameters for date and time need to be specified in the following formats:

Date: yyyy-MM-dd
Date and time: yyyy-MM-ddTHH:mm:ss

This is also the format for dates and timestamps that are returned from the server for derivative- and spot- data. This data is delivered in CET(S).

For fundamental data with datetime offset, the format is: yyyy-MM-ddTHH:mm:ss+HH:mm

13.3 Optional parameter values

Parameters that are marked as "optional parameter value" must be included in the query, but the value can be blank.

Example given requesting for APX spot with optional *ToDate* set to blank:

https://api.montelnews.com/spot/getprices?SpotKey=1&Fields=hours&FromDate=2016-12-05**&ToDate**&Currency=eur&SortType=ascending

13.4 Front codes

Front codes are constructed by Montel and are used to represent contracts ahead in time. The codes are updated daily, as they refer to contracts relatively as of the current time. The codes consist of one or more letters + a number.

Examples.

M1 refers to the first tradable month
Y2 refers to the second tradable year

Letters used for front codes:

Letter(s)	Description
Y	Year
S	Season
Q	Quarter
M	Month
W	Week
D	Day
MDEC	Mid December period for EUA contracts

13.5 Source IDs

Source ID	Source
ACT	ACT
CGH	Central European Gas Hub
EEX	European Energy Exchange
EPEX	EPEX
GPN	Gaspoint
HUPX	Hungarian Power Exchange
ICE	Intercontinental Exchange
MTP	Metanopoly

NDX	ICE Endex
NPE	Nasdaq Commodities
NYMEX	New York Mercantile Exchange
OMIP	OMIP
PGS	Pan-European Gas Cooperation
PNX	Powernext SA
PXE	Power Exchange Central Europe
SEB	Skandinaviska Enskilda Banken AB
SIX	SIX
SKM	Svensk Kraftmäkling
SNT	SentiTrade
STX	STX
TGE	Towarowa Gielda Energii

For a complete and updated list of source IDs, please refer to **Derivatives/GetMetadataForActiveContracts**

13.6 List of spot keys

SpotKey	**SpotName**
1	APX
2	BPX
3	EPEX France
4	EXAA
5	Nord Pool
13	Omel Es
14	Phelix
15	Swissix
20	OTE
23	SpotTest
32	TestSpot
57	N2EX-GBP
58	South Pool
60	Omel Pt
61	PXE Czech
62	PXE Hungary
63	PXE Slovakia
65	OPCOM RO
78	PolPX
79	ELIX
83	HUPX

89	EXIST
90	OKTE
91	SEMO
92	GME
104	CROPEX
105	IBEX
106	SEEPEX

For a complete and updated list of spot keys, please refer to **Spot/GetMetadata**.

13.7 Commodity groups

Commodity groups are a set of categories that each contract is grouped into. There are currently six different commodity groups:

Power
Gas
Coal
Oil
Green
Financial

13.8 Commodity types

Commodity types are further categorizations of contracts within the commodity groups. Some commodity types are identical to the higher commodity group, and some are more detailed. Examples:

Commodity group	Commodity type
Power	Power
Oil	Crude Oil
Oil	Gasoil

13.9 OTC data

OTC data is available for some contracts, and can be retrieved by adding "/otc" to the SymbolKey string when requesting for, or subscribing to data. Example:

quote/get?SymbolKeys=eex+f1b+m1/otc?Fields=last

This will give the latest traded price today that was traded OTC. Whether a contract is tradable OTC or not is part of the metadata.

13.10 Algorithms

13.10.1 Estimated settlement

The value for estimated settlement is calculated by the following criteria:

1. Last traded inside market spread. If last traded is "higher than bid" and "lower than ask" then "last traded" is the "estimated settlement".
2. Last traded outside market spread. If last traded is outside the bid-ask spread then the average of bid and ask is the "estimated settlement".
3. No last trade but there is a bid-ask spread. If there is no last traded then the average of bid and ask is the "estimated settlement".
4. No last trade and no bid and no ask then use PrevSettlement as "estimated settlement".
5. If there is only a bid and no ask and no last trade then use the highest value of PrevSettlement and bid as "estimated settlement"
6. If there is only an ask and no bid and no last trade then use the lowest value of PrevSettlement and ask as "estimated settlement"

13.11 Fields and return types

13.11.1 MetadataElement

Field	Type	Description	Example
TickerSymbol	string	A unique string that can be used to identify a contract. The TickerSymbol is constructed by **SourceId** + " " + a unique symbol string constructed by the source.	ICE BRN FMZ0016!
FrontSymbol	string	A unique string that can be used to relatively identify a contract. The FrontSymbol is constructed by Montel, as follows: **SourceId** + " " + **MarketCode** + " " + **FrontCode**	ICE BRN M1
MontelSymbol	string	A unique string that can be used to identify a contract. The MontelSymbol is constructed by Montel, as follows: **SourceId** + " " + **MarketCode** + " " + specific period.	ICE BRN Dec-2016
MarketName	string	The name of the market which the contract belongs to.	Crude Oil Brent
ContractName	string	The name of the contract within a market.	Dec16
MarketCode	string	A code representing the market. The MarketCode is unique per source.	BRN
FrontCode	string	Identifies the period of the contract in relation to *today*. See **Front codes**.	M1

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DeliveryArea	string	Delivery area for intraday contracts.	GERMANY
GenericPeriod	string	Type of period that the contract represents.	Month
CommodityGroup	string	The commodity group that the contract relates to.	Oil
CommodityType	string	The commodity type that the contract relates to.	Crude Oil
Currency	string	The currency that this contract is traded in.	USD
Denomination	string	The denomination of the prices used for this contract.	USD/bbl
ContractYear	string	The year of the period that the contract represents.	2016
SpecificPeriod	string	The period within the year that the contract represents. Set to "Year" for year contracts.	November
Spread	bool	Indicates if the contract is a spread between two other contracts.	false
OTC	bool	Indicates if the /otc notation can be used as part of the symbolKey for this contract, to request for OTC data. See **OTC data**.	true
SourceId	string	A unique ID representing the exchange or the broker, where the contract is traded.	ICE
BasePeakType	string	Used for power contracts to specify which load the contract represent. See **BasePeakType** .	Base
ContractSize	Int	The number of hours in the period that the contract represents.	1000
Liquidiy	double	Classification of liquidity for the contract. Algorithm by Montel based on number of orders and trades for the contract. Value goes from 0 to 1. Example of higher level of classification: High: >= 0.7 Medium: >= 0.5 && < 0.7 Low: < 0.5. Still under development.	0.9
TradingStart	datetime	When the contract starts trading.	
TradingEnd	datetime	When the contract stops trading.	2016-31-10
DeliveryStart	datetime	When the delivery of the contract starts.	2016-12-01
DeliveryEnd	datetime	When the delivery of the contract ends.	2016-12-31

AccessLevel	string	Whether you have real-time or delayed access to data for this contract. See **AccessLevel**.	AccessLevel

13.11.2 SpotMetadataElement

Field	Type	Description	Example
SpotKey	string	The SpotKey for the spot contract	14
SpotName	string	The name of the spot contract.	Phelix
SourceName	string	The exchange that sets the spot values.	EEX
PeakType	string	Describes the timespan that is defined as “peak time” for the spot contract.	Peak (09-20)
Country	string	The related country for the spot contract.	Germany
DefaultCurrency	string	The standard currency used for the spot contract.	EUR
AvailableCurrencies	String	Available currencies used for the spot contract, separated by comma if more than one.	EUR

13.11.3 FundamentalMetadataElement

Field	Type	Description	Example
FundamentalKey	string	The FundamentalKey for the contract	DF_123
Description	string	Description of the contract	Observed temperature, Jenbach
ExpectedElementsPerDay	int	Has a value if there is a predefined number of values that can be expected per day, otherwise blank.	24
ExpectedElementNames	string	Has a value if the contract has a predefined number of values that can be expected, but these are not evenly distributed throughout the day.	06:00-07:00;13:30-14:20
Attributes	string	Additional metadata for the contract. Constructed in the following format: AttributeName: Value;	ElementGroup: Weather;ProductSource: ConWX; ProductCountry: Germany;

13.11.4 QuoteElement

Field	DataType	Description
SymbolKey	string	The SymbolKey for this contract.

TickerSymbol	string	The ticker symbol for this contract.
FrontSymbol	string	The front symbol for this contract.
MontelSymbol	string	The Montel symbol of this contract.
Bid	double	The currently best bid price for this contract.
BidSize	double	The volume of the currently best bid price.
BidFlow	int	Indicates if the current best bid price is higher or lower than the previous best bid price. 1=higher, -1=lower, 0=not changed
Ask	double	The current best ask price for this contract.
AskSize	double	The volume of the current best ask price.
AskFlow	int	Indicates if the currently best ask price is higher or lower than the previous best ask price. 1=higher, -1=lower, 0=not changed.
BidAskSpread	double	The difference between the best bid and the best ask.
Last	double	The latest traded price today for this contract.
LastVolume	double	The volume of the latest trade.
LastFlow	int	Indicates if the latest traded price was higher or lower than the previous traded price. 1=higher, -1=lower, 0=not changed.
AccVolume	double	Total volume traded for this contract so far today.
Settlement	double	Today's settlement price for this contract. Set by the source at time of closing. Not in use for all contracts.
PrevSettlement	double	The previous settlement price for this contract, or the last traded price of the previous trading day if settlement is not provided.
EstimatedSettlement	double	An estimation of today's settlement. See algorithm for **Estimated settlement.**
Change	double	The difference between previous closing price and the latest trade today. Only set if there are values for both PrevSettlement and Last.
ChangePercent	double	The value of Change in percent.
Open	double	The first traded price today for this contract.
High	double	The highest traded price so far today for this contract.
Low	double	The lowest traded price so far today for this contract.
OpenInterest	double	The open interest volume for this contract.
Status	string	Indicates the access level to this contract for the user. Can be "real-time", "delayed" or "no access".
UpdateTime	datetime	Timestamp for when this contract last had an updated value.

13.11.5 OhlcElement

Field	**DataType**	**Description**
TickerSymbol	string	The ticker symbol for this contract.
ContractName	string	The name of the contract this element represents.
Date	datetime	The date this element represents.
Open	doube	The first traded price for this day.
High	doube	The highest traded price for this day.
Low	doube	The lowest traded price for this day.

Close	doube	The latest traded price. Not necessary traded this day.
Settlement	doube	The settlement price set by the source for this day.
Volume	doube	The total volume traded this day.
OpenInterest	doube	The open interest volume for this day.

Note: ContractName will be empty for elements that are added when setting the "InsertElementsWhenDataMissing" option to "always" or "weekdays".

13.11.6 Spot fields

Field	DataType	Description
Hours	string	Request all hours. Result will also contain **DST** .
HalfHours	string	Request all half hours. Result will also contain **DST** .
Quarters	string	Request all quarters. Result will also contain **DST** .
HH:mm-HH:mm	string	Request a specific time range. Replace HH with hour and MM with minute. Examples: • 00:00-01:00 • 00:00-00:15 **DST** values cannot be requested as specific time ranges.
Base	string	An average of all time span values when requesting prices, or the total of all time span values when requesting volumes.
Peak	string	An average of all time span values that are defined as peak hours for the exchange when requesting prices. Or the total of all time span values that are defined as peak hours for the exchange when requesting volumes.

Note: HalfHours, Quarters and HH:mm-HH:mm will not give values for some spot contracts, as they are not delivered by all sources.

13.11.7 SpotElement

Field	DataType	Description
Date	datetime	The date this element represents.
Base	double	An average of all time span values when requesting prices, or the total of all time span values when requesting volumes.
Peak	double	An average of all time span values that are defined as peak hours for the exchange when requesting prices. Or the total of all time span values that are defined as peak hours for the exchange when requesting volumes.

TimeSpans	SpotTimeSpanValue[]	List of values for all fractions of the day for the spot contract.

13.11.8 SpotTimeSpanValue

Field	DataType	Description
TimeSpan	string	A string referring to a timespan of the day, in format “HH:mm-HH:mm”.
Value	double	The value for this timespan.

13.11.9 TradeElement

Field	DataType	Description
TradeId	int	A unique id for the trade. The TradeId is only unique per symbol per trading day
TradingTime	datetime	The time this trade took place.
Price	double	The traded price.
Volume	double	The volume of the trade.
TradeStatus	string	Status of the trade. A=Active R=Removed Use the TradeStatus together with TradeId to insert, update or remove trades on client.
OTC	bool	Indicates if this trade was traded as OTC or not.
ModifiedTime	datetime	The time when this trade was registered in Montel, or when it was last changed.

13.11.10 OrderElement

Field	DataType	Description
OrderId	int	A unique id for the order.
Price	double	The price of the order.
Size	double	The size of the order.
OrderTime	datetime	The time when this order was placed.
Side	string	Side of the order. B=Bid A=Ask

13.11.11 FundamentalElement

Field	DataType	Description
Date	datetimeoffset	The date this element represents.
AsOfDate	datetime	When the values for this element was set.
TimeSpans	FundamentalTimeSpanValue[]	List of values for all fractions of the day for this fundamental product.

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13.11.12 FundamentalTimeSpanValue

Field	DataType	Description
TimeFrom	datetimeoffset	Start time.
TimeTo	datetimeoffset	End time.
Value	double	The value for this timespan.

13.11.13 ForecastElement

Field	DataType	Description
Date	datetimeoffset	The date this element represents.
TimeSpans	ForecastTimeSpanValue[]	List of timespans for all fractions of the day for this fundamental product.

13.11.14 ForecastTimeSpanValue

Field	DataType	Description
TimeFrom	datetimeoffset	Start time.
TimeTo	datetimeoffset	End time.
Forecasts	ForecastValue[]	List of forecast values for latest forecast or between ForecastFromDate and ForecastToDate parameter for this timespan.

13.11.15 ForecastValue

Field	DataType	Description
AsOfDate	datetimeoffset	When the values for this element was set.
Value	double	The value for this element.

13.11.16 AccessLevel

Field	DataType	Description
Access	bool	If the user has access to this contract or not.
Delay	int	Number of minutes delayed for this contract. 0 if real-time.
HistoricAccess	string	“None” or “Full”. “None” will limit historical requests to last 30 days of data.

14 Online reading

SignalR: https://www.asp.net/signalr

Montel marketsource information: https://support.montel.energy/data-sources

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15 Support

If you experience problems, please check if you are able to reproduce the unexpected behavior by using an unmodified version of the https://support.montelgroup.com/introduction-to-montel-web-api .

If you need technical support, please go to https://support.montelgroup.com/kb-tickets/new and open a new ticket. It is important that your message is in English, and that the following information is included:

- Description of the problem, as detailed as possible
- Username and ClientId
- The complete URL of your query, with all parameters included
- The result you get from the server, or the part of the result where you have discovered problems
- The result you would except from the server, and the difference from what you actually got
- Timestamp of the query and/or result

16 Registration form

Application type	(web, window, console, plug-in, other)
Description	(short description of the client application)
Developer company	
Programming languages	(c# .net, java, php, other)
Contact e-mail	

By submitting this registration form you are aware of the following conditions:

Montel is a sub-distributor of external data sources and the quality of data we deliver is dependent on the quality of our sources. We cannot offer better quality than the data we receive. If we get incorrect data from a source, or if data is not delivered to us, we will liaise with the source in order to fix the problem as soon as possible. Montel will evaluate the importance of the incorrect/missing data in each case and notify all users depending on the severity of the problem. Messages will be sent via email.