

Package ‘rRofex’

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Type Package

Title Interface to 'Matba Rofex' Trading API

Version 2.0.5

Description Execute API calls to the 'Matba Rofex' <<https://apihub.primary.com.ar>> trading platform. Functionality includes accessing account data and current holdings, retrieving investment quotes, placing and canceling orders, and getting reference data for instruments.

Depends R (>= 4.0.0)

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URL <https://matbarofex.github.io/rRofex/>, <https://github.com/matbarofex/rRofex/>

BugReports <https://github.com/matbarofex/rRofex/issues/>

Encoding UTF-8

Imports dplyr (>= 1.0.0),

httr,
jsonlite,
magrittr,
tibble (>= 3.0.0),
tidyr,
rlang,
purrr,
glue,
methods,
websocket,
later,
lifecycle

RoxygenNote 7.1.1

Collate 'attach.R'

's4_object.R'
'functions.R'
'functions_helpers.R'
'functions_websocket.R'
'globals.R'
'rRofex.R'

RdMacros lifecycle

Suggests rmarkdown

R topics documented:

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rRofex-package

rRofex: Interface to 'Matba Rofex' Trading API

Description

Execute API calls to the 'Matba Rofex' <<https://apihub.primary.com.ar>> trading platform. Functionality includes accessing account data and current holdings, retrieving investment quotes, placing and canceling orders, and getting reference data for instruments.

Author(s)

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- Matba Rofex [copyright holder]

See Also

Useful links:

- <https://matbarofex.github.io/rRofex/>
- <https://github.com/matbarofex/rRofex/>
- Report bugs at <https://github.com/matbarofex/rRofex/issues/>

.validate_fecha	<i>Helper: Date validation</i>
-----------------	--------------------------------

Description

[Questioning] Validate date

Usage

```
.validate_fecha(date)
```

Arguments

date	Date
------	------

Value

TRUE if date has a correct format.

agent	<i>See Agent</i>
-------	------------------

Description

Shows information about the agent set with [trading_login](#)

Usage

```
agent(x)
```

```
## S4 method for signature 'rRofexConnection'  
agent(x)
```

Arguments

x	S4 Class. rRofexConnection object
---	-----------------------------------

Value

Scalar with the 'agent'

base_url	<i>See Base URL</i>
----------	---------------------

Description

Shows information about the 'base url' where the user has been connected with [trading_login](#)

Usage

```
base_url(x)

## S4 method for signature 'rRofexConnection'
base_url(x)
```

Arguments

x	S4 Class. rRofexConnection object
---	-----------------------------------

Value

Scalar with the 'base url'

login_date_time	<i>See Log-in Timestamp</i>
-----------------	-----------------------------

Description

Shows information about the connection timestamp when calling [trading_login](#)

Usage

```
login_date_time(x)

## S4 method for signature 'rRofexConnection'
login_date_time(x)
```

Arguments

x	S4 Class. rRofexConnection object
---	-----------------------------------

Value

Scalar with the 'log-in timestamp'

rRofexConnection-class

Connection Class: rRofexConnection

Description

[Stable] Creates an rRofex connection object that contains a summary from the [trading_login](#) function.

Value

S4 rRofexConnection object.

Slots

token character. Obtained from login method

base_url character. Connected environment

login_date_time character. Log-in date time. The connection object is only valid for a day.

agent character. User Agent to pass to the API. Format: 'rRofex-<environment>-user_name'

user_name character. User Name.

rRofex_connection

Create rRofex Connection Object

Description

[Stable] rRofex_connection creates a New Connection Object.

Usage

```
rRofex_connection(token, base_url, user_name)
```

Arguments

token String. **Mandatory** Obtained with [trading_login](#)

base_url String. **Mandatory** URL given by [trading_login](#) or known by the client.

user_name character. User Name

Value

S4 rRofexConnection object.

A valid rRofexConecciont object.

Note

You can use accessors to get information about the Object by using:

- `token(conn)`
- `base_url(conn)`
- `login_date_time(conn)`
- `agent(conn)`
- `user_name(conn)`

`show, rRofexConnection-method`

Show summary of rRofexConnection

Description

Shows a summary about the `rRofexConnection` object created with `trading_login`

Usage

```
## S4 method for signature 'rRofexConnection'
show(object)
```

Arguments

`object` S4 Class. `rRofexConnection` object

Value

Summary text with User, Environment and Timestamp

`token`

See Token

Description

Shows information about the token that has been generated with `trading_login`

Usage

```
token(x)
```

```
## S4 method for signature 'rRofexConnection'
token(x)
```

Arguments

`x` S4 Class. `rRofexConnection` object

Value

Scalar with token

trading_account	<i>Account Information</i>
-----------------	----------------------------

Description

[Maturing] Access information about the trading account.

Usage

```
trading_account(connection, account, detailed = FALSE)
```

Arguments

connection	S4. Mandatory Formal rRofexConnection class object
account	String. Mandatory Account Number
detailed	Logical. Expanded information.

Value

If correct, it will load a tibble.

See Also

Other account functions: [trading_account_report\(\)](#)

trading_account_report	<i>Account Report</i>
------------------------	-----------------------

Description

[Maturing] Access report about your trading account.

Usage

```
trading_account_report(connection, account)
```

Arguments

connection	S4. Mandatory Formal rRofexConnection class object
account	String. Mandatory Account Number

Value

If correct, it will load a tibble.

Note

To access nested data is strongly recommended the use of 'pluck'.

See Also

Other account functions: [trading_account\(\)](#)

Examples

```
## Not run:
data %>% pluck("detailedAccountReports", 1, "availableToOperate", 1, "cash")

## End(Not run)
```

trading_cancel_order	<i>Cancel Order Sent to the Market</i>
----------------------	--

Description

[Maturing] The method trading_cancel_order should be use to cancel orders that are open on the market.

Usage

```
trading_cancel_order(connection, id, proprietary)
```

Arguments

connection	S4. Mandatory Formal rRofexConnection class object
id	String. Mandatory clOrdId given by the trading_orders method.
proprietary	String. Mandatory ID given by the trading_orders method.

- **PBCP**

Value

If correct, it will load a tibble.

See Also

Other order placements functions: [trading_new_order\(\)](#)

trading_currencies	<i>Currencies</i>
--------------------	-------------------

Description

[Stable] Access currencies prices.

Usage

```
trading_currencies(connection)
```

Arguments

connection S4. **Mandatory** Formal rRofexConnection class object

Value

If correct, it will load a data frame.

See Also

Other market data functions: [trading_mdh\(\)](#), [trading_md\(\)](#)

trading_instruments	<i>List of Instruments</i>
---------------------	----------------------------

Description

[Stable] Method to list segments and instruments currently available through the Trading API.

Usage

```
trading_instruments(
  connection,
  request,
  sec_detailed = FALSE,
  market_id = "ROFX",
  segment_id,
  cfi_code,
  sec_type
)
```

Arguments

connection S4. **Mandatory** Formal rRofexConnection class object

request String. **Mandatory** The type of request that you are making:

- **segments:** List available market segments
- **securities:** List available instruments listed on Matba Rofex. *Depends on 'sec_detailed'.*

	<ul style="list-style-type: none"> • by_segment: List available instruments searching by market segment. <i>Depends on 'market_id' and 'segment_id'</i> • by_cfi_code: List available instruments searching by CFI Code. <i>Depends on 'cfi_code'</i> • by_type: List available instruments searching by Instrument Type. See section Instrument Types. <i>Depends on 'sec_detailed' and 'sec_type'</i>.
sec_detailed	Logical. Optional for request='securities'. Brings additional information like segment, price, minimal/maximal trading quantity, settlement date, etc.
market_id	String. Needed for request='by_segment'. Market ID. <ul style="list-style-type: none"> • ROFX: Matba Rofex
segment_id	String. Needed for request='by_segment'. Market Segment ID. <ul style="list-style-type: none"> • DDF: Financial Derivatives • DDA: Agricultural Derivatives • DUAL: Other Derivatives • MERV: S&P Merval
cfi_code	String. Needed for request='by_cfi_code'. CFI Code. See https://www.quotemedia.com/apifeeds/cfi_code
sec_type	String. Needed for request='by_type'. <ul style="list-style-type: none"> • E: Equities • D: Debt • C: Collective Investment Vehicles • R: Entitlements (Rights) • O: Listed Options • F: Futures • T: Referential Instruments • M: Others

Value

If correct, it will load a tibble data frame

See Also

Other reference data functions: `trading_instruments_frons()`

trading_instruments_frons

Front Month of Futures

Description

[Stable] List all front month contracts for futures.

Usage

```
trading_instruments_frons(connection)
```

Arguments

connection S4. **Mandatory** Formal rRofexConnection class object

Value

If correct, it will load a tibble data frame

See Also

Other reference data functions: [trading_instruments\(\)](#)

trading_login	<i>API Log-in</i>
---------------	-------------------

Description

[Stable] Function that it is use to log-in into Primary trading API

Usage

```
trading_login(username, password, base_url)
```

Arguments

username String. User Name
password String. Password
base_url String. Which environment are you going to connect:

- reMarkets: 'https://api.remarkets.primary.com.ar'
- production: 'https://api.primary.com.ar'
- xOMS: 'https://api.<BROKER>.xoms.com.ar'

Value

S4 rRofexConnection object.

Note

- reMarkets: Testing environment. For credentials go to <https://remarkets.primary.ventures>
- production: Production environment. For credentials send an email to <mpi@primary.com.ar>
- xOMS: Ask your broker about it.

Accessors: You can use accessors to get information about the Object by using:

- token(conn)
- base_url(conn)
- login_date_time(conn)
- agent(conn)
- user_name(conn)

Examples

```
## Not run:
conn <- trading_login(
  username = "pepe",
  password = "pepino",
  base_url = "https://api.remarkets.primary.com.ar"
)

## End(Not run)
```

trading_lookup	<i>Lookup Order Status</i>
----------------	----------------------------

Description

[Stable] The method trading_lookup is used to check the status of an order.

Usage

```
trading_lookup(connection, lookup_type, id, proprietary)
```

Arguments

connection	S4. Mandatory Formal rRofexConnection class object
lookup_type	String. Mandatory . Look-up by: <ul style="list-style-type: none"> • COID - Client Order ID. • OID - Order ID.
id	String. Mandatory . ID given by the trading_orders method. Depends on 'lookup_type'.
proprietary	String. ID given by the trading_orders method. Only for 'lookup_type=COID' In most cases: <ul style="list-style-type: none"> • PBCP

Value

If correct, it will load a tibble.

See Also

Other order management functions: [trading_orders\(\)](#)

trading_md	<i>Market Data Real Time</i>
------------	------------------------------

Description

[Stable] This method brings Market Data in Real Time.

Usage

```
trading_md(
  connection,
  symbol,
  entries = c("BI", "OF", "LA", "OP", "CL", "SE", "OI", "HI", "LO", "TV", "IV", "EV",
    "NV", "TC"),
  depth = 1L,
  market_id = "ROFX",
  tidy = TRUE
)
```

Arguments

connection	S4. Mandatory . Formal rRofexConnection class object
symbol	String. Mandatory . Use trading_instruments to see which symbols are available.
entries	Vector of Strings. When nothing is set, then all entries are the default . It contains the information to be queried: <ul style="list-style-type: none"> • BI - Bid. • OF - Offer. • LA - Last Available Price. • OP - Open Price. • CL - Close Price. • SE - Settlement Price. • OI - Open Interest. • HI - Trading Session High Price • LO - Trading Session Low Price • TV - Trading Volume • IV - Index Value • EV - Trading Effective Volume • NV - Nominal Volume • TC - Trade Count
depth	Integer. Depth of the book. Default is 1L .
market_id	String. Market to which you are going to connect. Default is ROFX . <ul style="list-style-type: none"> • ROFX - Matba Rofex
tidy	Logical. Data arranged on a tidy format. Default is TRUE .

Value

If correct, it will load a tibble data frame

See Also

Other market data functions: [trading_currencies\(\)](#), [trading_mdh\(\)](#)

Examples

```
# If you want to query many products at once,
# I recommend you to use "purrr::map" family like this:

## Not run:
purrr::map_df(
  list('MERV - XMEV - GGAL - 48hs', 'MERV - XMEV - BYMA - 48hs'),
  ~trading_md(connection = conn, symbol = .x, entries = c("LA", "OP", "NV"), tidy = T)
)

## End(Not run)
```

trading_mdh

Historical Market Data

Description

[Stable] Access Historical Trades for a given instrument.

Usage

```
trading_mdh(
  connection,
  market_id = "ROFX",
  symbol,
  date,
  date_from,
  date_to,
  tidy = TRUE
)
```

Arguments

connection	S4. Mandatory Formal rRofexConnection class object
market_id	String. Market to which we are going to connect. <ul style="list-style-type: none"> • ROFX - Matba Rofex. • MERV - S&P Merval.
symbol	String. Use trading_instruments to see which symbols are available.
date	String. Date to be queried. With format '%Y-%m-%d'.
date_from	String. Used together with 'date_to'.
date_to	String. Used together with 'date_from'.
tidy	Logical. Data arranged on a tidy format.

Value

If correct, it will load a data frame.

See Also

Other market data functions: [trading_currencies\(\)](#), [trading_md\(\)](#)

trading_new_order	<i>Send Order to the Market</i>
-------------------	---------------------------------

Description

[Maturing] The method trading_new_order is use to send orders.

Usage

```
trading_new_order(
  connection,
  account,
  symbol,
  side,
  quantity,
  price,
  order_type = "Limit",
  time_in_force = "Day",
  iceberg = FALSE,
  expire_date = NULL,
  display_quantity = NULL,
  cancel_previous = FALSE
)
```

Arguments

connection	S4. Mandatory Formal rRofexConnection class object
account	String. Mandatory Account Number
symbol	String. Use trading_instruments to see which symbols are available.
side	String. Mandatory Either: <ul style="list-style-type: none"> • Buy • Sell
quantity	Numeric. Mandatory Quantity of the order.
price	Numeric. Mandatory Price of the order.
order_type	String. Type of order. <ul style="list-style-type: none"> • Limit - Default. Limit order sets the maximum or minimum price at which you are willing to buy or sell.
time_in_force	String. Specifies how long the order remains in effect. Absence of this field is interpreted as 'Day': <ul style="list-style-type: none"> • Day - Day or session.

	<ul style="list-style-type: none"> • IOC - Immediate or Cancel. • FOK - Fill or Kill. • GTD - Good Till Date.
iceberg	Logical. If TRUE, then the order is 'iceberg'. FALSE as default.
expire_date	String. Only for GTD orders. Maturity date of the order, With format '%Y-%m-%d'.
display_quantity	Numeric. Only for Iceberg orders. Indicate the disclosed quantity for the 'iceberg' order.
cancel_previous	Logical. Optional parameter only valid for Matba Rofex instruments. By default it's FALSE.

Value

If correct, it will load a tibble.

See Also

Other order placements functions: [trading_cancel_order\(\)](#)

trading_orders	<i>View Orders</i>
----------------	--------------------

Description

[Stable] The method trading_orders is used to see each order sent by Account.

Usage

```
trading_orders(connection, account)
```

Arguments

connection	S4. Mandatory Formal rRofexConnection class object
account	String. Mandatory Account Number

Value

If correct, it will load a tibble.

See Also

Other order management functions: [trading_lookup\(\)](#)

trading_ws_close	<i>Web Sockets: Close connection</i>
------------------	--------------------------------------

Description

[Maturing] This method it is use to close open Websocket connections.

Usage

```
trading_ws_close(close_all = TRUE, selection, where_is_env = .GlobalEnv)
```

Arguments

close_all	Logical. Should all connections be closed or only the selected ones.
selection	List. Is the same name that you have chosen for destination in trading_ws_md
where_is_env	Environment. Only for advance users.

Value

If correct, it will show a message saying that the connection has been closed.

See Also

Other websocket functions: [trading_ws_md\(\)](#), [trading_ws_orders\(\)](#)

Examples

```
# To close all connections at once

## Not run:
trading_ws_close(close_all = TRUE)

## End(Not run)
```

trading_ws_md	<i>Web Sockets: Market Data Real Time</i>
---------------	---

Description

[Experimental] This method brings Market Data in Real Time using web socket protocol.

Usage

```
trading_ws_md(
  connection,
  destination,
  symbol,
  entries = list("BI", "OF", "LA", "OP", "CL", "SE", "OI", "HI", "LO", "TV", "IV",
    "EV", "NV", "TC"),
  listen_to = NA,
  market_id = "ROFX",
  where_is_env = .GlobalEnv
)
```

Arguments

connection	S4. Mandatory Formal rRofexConnection class object
destination	String. Name of the tibble where the data is going to be stored.
symbol	String. Mandatory . Use trading_instruments to see which symbols are available.
entries	List of Strings. It contains the information to be queried: <ul style="list-style-type: none"> • BI - Bid. • OF - Offer. • LA - Last Available Price. • OP - Open Price. • CL - Close Price. • SE - Settlement Price. • OI - Open Interest. • HI - Trading Session High Price • LO - Trading Session Low Price • TV - Trading Volume • IV - Index Value • EV - Trading Effective Volume • NV - Nominal Volume • TC - Trade Count
listen_to	List. Column names from the tibble that you are going to listen to. This is not the same as entries names.
market_id	String. Market to which you are going to connect.
where_is_env	Environment. Only for advance users .

Value

If correct, it will load a tibble.

See Also

Other websocket functions: [trading_ws_close\(\)](#), [trading_ws_orders\(\)](#)

Examples

```
# To create simultaneously many connections

## Not run:
purrr::walk2(
  .x = symbols,
  .y = tickers,
  .f = ~ trading_ws_md(connection = conn, destination = .y, symbol = .x)
)

## End(Not run)
```

trading_ws_orders	<i>Web Sockets: Orders Lookup</i>
-------------------	-----------------------------------

Description

[Experimental] This method brings orders states in real time using web socket protocol.

Usage

```
trading_ws_orders(
  connection,
  destination,
  account = NA,
  only_active = FALSE,
  where_is_env = .GlobalEnv
)
```

Arguments

connection	S4. Mandatory Formal rRofexConnection class object
destination	String. Name of the tibble where the data is going to be stored.
account	List. List of accounts to be listeting
only_active	Logical. Wheater or not to listen to only active orders
where_is_env	Environment. Only for advance users.

Value

If correct, it will load a tibble.

See Also

Other websocket functions: [trading_ws_close\(\)](#), [trading_ws_md\(\)](#)

`user_name`*See User Name*

Description

Shows information about the user name connected using [trading_login](#)

Usage

```
user_name(x)
```

```
## S4 method for signature 'rRofexConnection'  
user_name(x)
```

Arguments

`x` S4 Class. `rRofexConnection` object

Value

Scalar with the 'user_name'

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