# Package 'etrader'

July 22, 2025
Title 'ETRADE' API Interface for R
Version 0.1.5
Author Anthony Balentine [aut, cre]
Maintainer Anthony Balentine <exploringfinance1@gmail.com></exploringfinance1@gmail.com>
<pre>URL https://exploringfinance.github.io/etrader/</pre>
BugReports https://github.com/exploringfinance/etrader/issues
<b>Description</b> Use R to interface with the 'ETRADE' API <a href="https://developer.etrade.com/home">https://developer.etrade.com/home</a> . Functions include authentication, trading, quote requests, account information, and option chains. A user will need an ETRADE brokerage account and 'ETRADE' API approval. See README for authentication process and examples.
License GPL-3
Encoding UTF-8
Imports magrittr, httr, urltools, dplyr, rvest, purrr, jsonlite, methods
RoxygenNote 7.1.1
Suggests testthat
NeedsCompilation no
Repository CRAN
<b>Date/Publication</b> 2023-01-05 20:30:02 UTC
Contents
etrd_account_balance

2 etrd\_account\_balance

```
      etrd_auth_login_url
      10

      etrd_auth_manage_token
      11

      etrd_cancel_order
      13

      etrd_get_url
      14

      etrd_market_quote
      15

      etrd_option_chain
      16

      etrd_option_expiration
      18

      etrd_order_history
      19

      etrd_place_eq_order
      21

      etrd_place_mf_order
      23

      etrd_place_optn_order
      25

      etrd_product_search
      27

      etrd_transactions
      29

      etrd_transaction_detail
      30
```

## Description

Index

This API returns detailed balance information for a specified account for the current user. The information returned includes account type, option level, and details on up to four balances - account balance, margin account balance, day trade balance, and cash account balance.

## Usage

```
etrd_account_balance(
   account,
   realTimeNAV = "false",
   output = c("df", "list"),
   access_tokens = NULL,
   etrade_cred = NULL,
   sandbox = FALSE
)
```

## **Arguments**

account	The account ID key, not the account ID associated with the specific account. Use etrd_account_list to identify the proper account id key.		
realTimeNAV	Default is false. If true, fetches real time balance		
output	Indicate whether the output should be in the form of a data frame ('df') or lis ('list'). Data frame is returned by default.		
access_tokens	Access tokens are created using etrd_auth_access_token. This entry is not required because the output is saved and retrieved from R options automatically.		

etrd\_account\_list 3

etrade\_cred

The output created from etrd\_auth\_credentials when a valid ETRADE key and secret have been passed. This entry is not required because the output is saved and retrieved from R options automatically.

sandbox

ETRADE offers a sandbox environment for validating API calls and responses. If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

#### Value

df or list of account balance information

## Examples

```
## Not run:
account_id = etrd_account_list()$accountIdKey[1]
etrd_account_balance(account_id)
## End(Not run)
```

etrd\_account\_list

ETrade Account Data

## **Description**

This API returns the account information for the current user. The information returned includes account type, mode, and details. The Account ID Key is also given which is required for other etrader functions.

## Usage

```
etrd_account_list(
  output = c("df", "list"),
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

#### **Arguments**

output

Indicate whether the output should be in the form of a data frame ('df') or list ('list'). Data frame is returned by default.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

 $\verb| etrade_cred| & The output created from \verb| etrd_auth_credentials when a valid ETRADE key| \\$ 

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

#### Value

a data frame or list of account data

## **Examples**

```
## Not run:

# Once valid access tokens are obtained, the function can be run without parameters
etrd_account_list()

## End(Not run)

etrd_account_portfolio
```

ETrade Account Portfolios

## **Description**

Provides detailed portfolio information for a selected brokerage account

## Usage

```
etrd_account_portfolio(
  account,
  count = 50,
  marketSession = "REGULAR",
  totalsRequired = "false",
  lotsRequired = "false",
  view = "QUICK",
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

etrd\_account\_portfolio 5

#### **Arguments**

account ID key, not the account ID associated with the specific account.

Use etrd\_account\_list to identify the proper account id key.

count The number of positions to return in the response. If not specified, defaults to

50. 50 is also the maximum.

marketSession The market session. Default: REGULAR. Options: REGULAR, EXTENDED

totalsRequired It gives the total values of the portfolio. Default: false.

lotsRequired It gives position lots for positions. Default: false.

view The view query. Default: Quick. Options: PERFORMANCE, FUNDAMEN-

TAL, OPTIONSWATCH, QUICK, COMPLETE

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

#### Value

a list of portfolio objects based on request

## **Examples**

6 etrd\_alerts

etrd\_alerts

ETrade Alert Search

## **Description**

Search alerts associated with the provided ETrade Account

## Usage

```
etrd_alerts(
  account,
  count = 25,
  category = NULL,
  status = NULL,
  search = NULL,
  output = c("df", "list"),
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

## **Arguments**

account	The account ID	key, not the account II	associated with t	the specific account.
---------	----------------	-------------------------	-------------------	-----------------------

Use etrd\_account\_list to identify the proper account id key.

count The alert count. By default it returns 25. Max values that can be returned: 300.

The alert category. By default it will return STOCK and ACCOUNT. Options: category

STOCK, ACCOUNT

status The alert status. By default it will return READ and UNREAD. Options: READ,

UNREAD, DELETED

The alert search. Search is done based on the subject. search

Indicate whether the output should be in the form of a data frame ('df') or list output

('list'). Data frame is returned by default.

Access tokens are created using etrd\_auth\_access\_token. This entry is not access\_tokens

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

> If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests

entered but successful pull will indicate whether the entry was valid or not.

etrd\_alert\_detail 7

#### Value

a list or data frame of alert data

#### **Examples**

```
## Not run:
account_id = etrd_account_list()$accountIdKey[1]
etrd_alerts(account_id)
## End(Not run)
```

etrd\_alert\_detail

ETrade Alert Details

## Description

Get the details for a specific alert based on the alert ID

## Usage

```
etrd_alert_detail(
  alertId,
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

## **Arguments**

alertId An alert id that comes from etrd\_alerts

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

## Value

the alert details in list form

## **Examples**

```
## Not run:

# Get an alert detail for a specific account and alert
account_id = etrd_account_list()$accountIdKey[1]
alert_id = etrd_alerts(account_id)$id[1]
etrd_alert_detail(alert_id)

## End(Not run)

etrd_auth_access_token

Auth Step 3: Create Access Tokens to use etrader
```

## **Description**

Step 3 of ETRADE authentication. Pass the verification code generated after a successful log into the URL created from etrd\_auth\_login\_url.

#### Usage

```
etrd_auth_access_token(verif_code, etrade_cred = NULL, sandbox = FALSE)
```

## **Arguments**

verif\_code a 5 digit alpha numeric code created after successfully logging into the ETRADE

URL generated from etrd\_auth\_login\_url

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

## **Details**

Authentication into the ETRADE environment requires a three step process: set ETRADE credentials, generate request tokens to create a login URL, and use the verification code to create access tokens. The verification code is generated after successfully logging into the URL that comes from etrd\_auth\_login\_url.

The access tokens expire each day at midnight Eastern Time. The next day Auth step 1-3 will be required to get new access tokens. If two hours have elapsed between API calls during a trading

etrd\_auth\_credentials 9

day, the access token is inactivated. Use etrd\_auth\_manage\_token to refresh an inactivated access token.

#### Value

a key and secret oauth access token

#### See Also

etrd\_auth\_credentials to set the key and secret into an oauth app, etrd\_auth\_login\_url to generate request tokens and create a login URL, etrd\_auth\_access\_token to use the verification code to create access tokens, etrd\_auth\_manage\_token to renew or revoke access tokens

#### **Examples**

```
## Not run:

# The etrade_cred has been stored into options so does not need to be passed
# After a successful log in, paste the verification code as shown
access_tok = etrd_auth_access_token(verif_code = 'XX123')

## End(Not run)
```

## **Description**

Step 1 of ETRADE authentication. Create an oauth app using the key and secret that can be obtained after completing the agreements on ETRADE Developer.

## Usage

```
etrd_auth_credentials(etrade_key, etrade_secret, sandbox = FALSE)
```

## **Arguments**

etrade\_key Either a sandbox or production key provided by ETRADE after completing the

agreements on ETRADE Developer

etrade\_secret Either a sandbox or production secret provided by ETRADE after completing

the agreements on ETRADE Developer

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

10 etrd\_auth\_login\_url

#### **Details**

Authentication into the ETRADE environment requires a three step process: set ETRADE credentials, generate request tokens to create a login URL, and use the verification code to create access tokens. The Key and Secret need to be fed into this function to set the credentials into an oauth app that can be fed into the next function: etrd\_auth\_login\_url.

#### Value

an oauth app stored into options by default

## See Also

etrd\_auth\_credentials to set the key and secret into an oauth app, etrd\_auth\_login\_url to generate request tokens and create a login URL, etrd\_auth\_access\_token to use the verification code to create access tokens, etrd\_auth\_manage\_token to renew or revoke access tokens

## **Examples**

#### **Description**

Step 2 of ETRADE authentication. Use the output from etrd\_auth\_credentials to generate Request Tokens and a login URL

#### Usage

```
etrd_auth_login_url(etrade_cred = NULL, sandbox = FALSE, auto_open = TRUE)
```

## **Arguments**

etrade\_cred

The output created from etrd\_auth\_credentials when a valid ETRADE key and secret have been passed. This entry is not required because the output is saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

auto\_open indicate whether the browser should open automatically to the login URL

#### **Details**

Authentication into the ETRADE environment requires a three step process: set ETRADE credentials, generate request tokens to create a login URL, and use the verification code to create access tokens. The output from etrd\_auth\_credentials needs to be fed into this function to create the URL.

Once the URL is generated it will pop up automatically. Log into the page. If the redirect is to a normal ETRADE landing page, re-paste the URL into the browser. The page header should read: Indicate Terms Agreement. Press "Accept" to generate a 5 digit alpha-numeric Verification Code. The Verification Code will feed into etrd\_auth\_access\_token to generate Access Tokens and complete the authorization process.

#### Value

a list of three items: a login URL valid for 5 minutes and two request tokens, a key and secret

#### See Also

etrd\_auth\_credentials to set the key and secret into an oauth app, etrd\_auth\_login\_url to generate request tokens and create a login URL, etrd\_auth\_access\_token to use the verification code to create access tokens, etrd\_auth\_manage\_token to renew or revoke access tokens

## **Examples**

```
## Not run:

# The etrade_cred has been stored into options so does not need to be passed
loginURL = etrd_auth_login_url()

## End(Not run)
```

etrd\_auth\_manage\_token

Auth - Renew or Revoke Access Tokens as needed

## **Description**

#' During the trading day, if two hours have elapsed between API calls, the token is inactivated. Use this function to refresh an inactivated access token. This function can also be used to revoke an active access token. Once a token has been revoked, Auth steps 1-3 will need to be run to get new access tokens

## Usage

```
etrd_auth_manage_token(
  action = c("renew", "revoke"),
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

#### **Arguments**

action Enter 'renew' to activate an inactive access token. Enter 'revoke' to invalidate a

current access token.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

#### **Details**

The access tokens expire each day at midnight Eastern Time. The next day, Auth Step 1-3 will need to be run again. This function cannot renew an expired access token.

## Value

a key and secret oauth access token

## See Also

etrd\_auth\_credentials to set the key and secret into an oauth app, etrd\_auth\_login\_url to generate request tokens and create a login URL, etrd\_auth\_access\_token to use the verification code to create access tokens, etrd\_auth\_manage\_token to renew or revoke access tokens

etrd\_cancel\_order 13

## **Examples**

```
## Not run:

# Will renew production tokens
etrd_auth_manage_token('renew')

# Will revoke a sandbox access token
etrd_auth_manage_token('revoke', sandbox = TRUE)

## End(Not run)
```

etrd\_cancel\_order

Cancel an existing order

## Description

Cancel an open order that has been submitted. Note: Verify the cancel request was received and processed

#### Usage

```
etrd_cancel_order(
  account,
  orderId,
  output = c("df", "list"),
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

## Arguments

account ID key, not the account ID associated with the specific account.

Use etrd\_account\_list to identify the proper account id key.

orderId Order confirmation Id for the order placed.

output Indicate whether the output should be in the form of a data frame ('df') or list

('list'). Data frame is returned by default.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

14 etrd\_get\_url

sandbox

ETRADE offers a sandbox environment for validating API calls and responses. If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

#### Value

a response validating that the order has been canceled

## **Examples**

etrd\_get\_url

Get request for a specific URL

## **Description**

Some functions may return a URL (for example etrd\_option\_chain) that requires a further GET request. This function can return the contents. The access token and etrade credentials must be explicitly passed.

#### Usage

```
etrd_get_url(etrade_url, access_tokens, etrade_cred)
```

#### **Arguments**

etrade\_url The URL for the get request

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrd\_market\_quote 15

etrade\_cred

The output created from etrd\_auth\_credentials when a valid ETRADE key and secret have been passed. This entry is not required because the output is saved and retrieved from R options automatically.

#### Value

content of the GET request

## **Examples**

etrd\_market\_quote

ETrade Quotes

## **Description**

Retrieves the quote information for one or more specified symbols. To receive access to real-time market data, you would need to sign the market data agreement. Otherwise, you will receive delayed market data.

## Usage

```
etrd_market_quote(
   symbols = c("AAPL", "MSFT", "SPY"),
   detailFlag = "ALL",
   output = c("df", "list"),
   access_tokens = NULL,
   etrade_cred = NULL,
   sandbox = FALSE
)
```

## **Arguments**

symbols

One or more symbols for equities or options, up to a maximum of 50 Symbols for equities are simple, for example, GOOG. Symbols for options are more complex, consisting of six elements separated by colons, in this format: underlier:year:month:day:optionType:strikePrice.

detailFlag

Determines the market fields returned from a quote request. The default is ALL. Options: ALL, FUNDAMENTAL, INTRADAY, OPTIONS, WEEK\_52, MF\_DETAIL

16 etrd\_option\_chain

output Indicate whether the output should be in the form of a data frame ('df') or list

('list'). Data frame is returned by default.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

#### Value

a list or data frame of quote data

## **Examples**

```
## Not run:
# Get quotes for 3 symbols
etrd_market_quote(c('AAPL','MSFT','SPY'))
## End(Not run)
```

etrd\_option\_chain

**Option Chains** 

## **Description**

Returns a list of option chains for a specific underlying instrument. The request must specify an instrument, and can include the month the option expires and to show calls, puts, or both. Values returned include the option pair count and information about each option pair, including the type, call count, symbol, product, date, and strike price.

## Usage

```
etrd_option_chain(
   symbol = "SPY",
   expiryYear = NULL,
   expiryMonth = NULL,
   expiryDay = NULL,
   strikePriceNear = NULL,
```

etrd\_option\_chain 17

```
noOfStrikes = NULL,
includeWeekly = "false",
skipAdjusted = "true",
optionCategory = NULL,
chainType = NULL,
priceType = NULL,
output = c("df", "list"),
access_tokens = NULL,
etrade_cred = NULL,
sandbox = FALSE
)
```

## **Arguments**

symbol The market symbol for the instrument

expiryYear Indicates the expiry year corresponding to which the optionchain needs to be

fetched

expiryMonth Indicates the expiry month corresponding to which the optionchain needs to be

fetched

expiryDay Indicates the expiry day corresponding to which the optionchain needs to be

fetched

strikePriceNear

The optionchians fetched will have strike price nearer to this value

noOfStrikes Indicates number of strikes for which the optionchain needs to be fetched

includeWeekly The include weekly options request. Default: false. Can also be true

skipAdjusted The skip adjusted request. Default: true. Can also be false

optionCategory The option category. Default: STANDARD. options include: STANDARD,

ALL, MINI

chainType The type of option chain. Default: CALLPUT. Options include: CALL, PUT,

**CALLPUT** 

priceType The price type. Default: ATNM. Options include ATNM, ALL

output Indicate whether the output should be in the form of a data frame ('df') or list

('list'). Data frame is returned by default.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests

entered but successful pull will indicate whether the entry was valid or not.

## Value

a list or data frame of options chains

## **Examples**

```
## Not run:
# Get SPY Expirations
etrd_option_chain('SPY')
## End(Not run)
```

etrd\_option\_expiration

**Option Expiration Dates** 

## Description

Returns a list or data frame of dates suitable for structuring an option table display. The dates are used to group option data (returned by the option chains method) for a specified underlier, creating a table display.

## Usage

```
etrd_option_expiration(
  symbol = "SPY",
  output = c("df", "list"),
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

## **Arguments**

symbol	The symbol in the request			
output	Indicate whether the output should be in the form of a data frame ('df') or ('list'). Data frame is returned by default.			
access_tokens	Access tokens are created using etrd_auth_access_token. This entry is not required because the output is saved and retrieved from R options automatically.			
etrade_cred	The output created from etrd_auth_credentials when a valid ETRADE key and secret have been passed. This entry is not required because the output is saved and retrieved from R options automatically.			

etrd\_order\_history 19

sandbox

ETRADE offers a sandbox environment for validating API calls and responses. If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

#### Value

a data frame of expiration dates for the symbol requested

## **Examples**

```
## Not run:
# Get SPY Expirations
etrd_option_expiration('SPY')
## End(Not run)
```

etrd\_order\_history

ETrade order-related information

## Description

Provides the order details for a selected brokerage account based on the search criteria provided.

## Usage

```
etrd_order_history(
  account,
  count = 100,
  status = NULL,
  fromDate = Sys.Date() - 30,
  toDate = Sys.Date(),
  symbol = NULL,
  securityType = NULL,
  transactionType = NULL,
  marketSession = NULL,
  output = c("df", "list"),
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

20 etrd\_order\_history

#### **Arguments**

account The account ID key, not the account ID associated with the specific account.

Use etrd\_account\_list to identify the proper account id key.

count Number of orders to return with a max of 100

status a valid status: OPEN, EXECUTED, CANCELLED, INDIVIDUAL FILLS, CAN-

CEL\_REQUESTED, EXPIRED, REJECTED, PARTIAL, DO\_NOT\_EXERCISE,

DONE\_TRADE\_EXECUTED

fromDate a date object for the start of the filter toDate a data object for the end of the filter

symbol a specific symbol to filter for

securityType a valid security type: EQ, OPTN, MF, MMF

transactionType

a valid transaction type: ATNM, BUY, SELL, SELL\_SHORT, BUY\_TO\_COVER,

MF\_EXCHANGE

marketSession REGULAR, EXTENDED

output Indicate whether the output should be in the form of a data frame ('df') or list

('list'). Data frame is returned by default.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

## Value

a list or df of orders

## **Examples**

etrd\_place\_eq\_order 21

## **Description**

Execute an equity order on the ETrade platform for the selected account. Users are given the option to preview the order before submitting.

## Usage

```
etrd_place_eq_order(
  account,
  symbol,
  quantity,
  orderAction,
  priceType,
  stopPrice = "",
  limitPrice = "",
  stopLimitPrice = "",
  quantityType = "quantity",
  orderTerm = "good_for_day",
 marketSession = "regular",
  allOrNone = "false",
 previewOrder = "df",
  etrade_cred = NULL,
  access_tokens = NULL,
  sandbox = FALSE
)
```

## Arguments

limitPrice

in a limit order

account	The account ID key, not the account ID associated with the specific account.  Use etrd_account_list to identify the proper account id key.
symbol	The market symbol for the security being bought or sold
quantity	The number of shares to buy or sell
orderAction	The action that the broker is requested to perform: BUY, SELL, BUY_TO_COVER, SELL_SHORT
priceType	The type of pricing: MARKET, LIMIT, STOP, STOP_LIMIT, TRAILING_STOP_CNST, TRAILING_STOP_PRCT, MARKET_ON_OPEN, MARKET_ON_CLOSE, LIMIT_ON_OPEN, LIMIT_ON_CLOSE
stopPrice	The designated boundary price for a stop order. For trailing stop orders this will represent the dollar amount or percentage trailing value. Enter percentages as whole numbers.

The highest price at which to buy or the lowest price at which to sell if specified

22 etrd\_place\_eq\_order

stopLimitPrice The designated boundary price for a stop-limit order

quantityType The type of the quantity - QUANTITY, DOLLAR, ALL\_I\_OWN (note: DOL-

LAR is not yet an option)

orderTerm The term for which the order is in effect: GOOD\_UNTIL\_CANCEL, GOOD\_FOR\_DAY,

IMMEDIATE\_OR\_CANCEL, FILL\_OR\_KILL

marketSession The session in which the order will be placed: REGULAR, EXTENDED

allorNone If TRUE, the transactions specified in the order must be executed all at once or

not at all; default is FALSE

preview0rder Elect to preview the order before submitting. Options are: 'df', 'json', or 'none'

for an instant order entry. In a non interactive environment will default to 'none'. This also indicates how the order output is shown, json will return the output as

a list, otherwise it will return as a dataframe

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

## Value

A list or data frame of the order entry details

## Warning

TRADES THAT ARE SUCCESSFULLY ENTERED WILL BE SENT FOR EXECUTION. THIS FUNCTION HAS HUNDREDS OF POTENTIAL COMBINATIONS AND ONLY A HANDFUL HAVE BEEN TESTED. IT IS STRONGLY RECOMMENDED TO TEST THE DESIRED ORDER USING THE SANDBOX ENVIRONMENT. PLEASE NOTE THE SANDBOX ENVIRONMENT WILL NOT RETURN THE ORDER ENTERED, IT IS USED FOR CONFIRMING THE ORDER ENTRY HAS CORRECT SYNTAX. ORDERS CAN ALSO BE TESTED IN OFF MARKET HOURS ON A VERY SMALL QUANTITY WITH LITTLE MONEY AT STAKE. ANOTHER OPTION IS TO USE LIMIT ORDERS FAR FROM THE CURRENT PRICE. ETRADE HAS THEIR OWN ERROR HANDLING BUT IF A SUCCESSFUL COMBINATION IS ENTERED IT COULD BE EXECUTED UNINTENTIONALLY. DOUBLE CHECK ALL ENTRIES BEFORE SUBMITTING.

## **Examples**

## Not run:

etrd\_place\_mf\_order 23

etrd\_place\_mf\_order

Place a Mutual Fund Order

## **Description**

Submit a mutual fund order on the ETrade platform for the selected account. Users are given the option to preview the order before submitting. Mutual fund orders must be received before 4pm or will be executed the following day.

## Usage

```
etrd_place_mf_order(
   account,
   symbol,
   quantity,
   mfTransaction,
   reInvestOption = "REINVEST",
   quantityType = "DOLLAR",
   previewOrder = "df",
   etrade_cred = NULL,
   access_tokens = NULL,
   sandbox = FALSE
)
```

## **Arguments**

account	Use etrd_account_list to identify the proper account id key.
symbol	The market symbol for the security being bought or sold
quantity	The amount of the investment in either DOLLARS or SHARES depending on the input for quantityType
mfTransaction	The transaction for the mutual fund order. Options: BUY, SELL

reInvestOption Indicator flag to specify whether to reinvest profit on mutual funds. Options:

REINVEST, DEPOSIT, CURRENT\_HOLDING

quantityType The type of the quantity - QUANTITY, DOLLAR, ALL\_I\_OWN (note: DOL-

LAR is not yet an option)

preview0rder Elect to preview the order before submitting. Options are: 'df', 'json', or 'none'

for an instant order entry. In a non interactive environment will default to 'none'. This also indicates how the order output is shown, json will return the output as

a list, otherwise it will return as a dataframe

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

#### Value

A list or data frame of the order entry details

## Warning

TRADES THAT ARE SUCCESSFULLY ENTERED WILL BE SENT FOR EXECUTION. THIS FUNCTION HAS HUNDREDS OF POTENTIAL COMBINATIONS AND ONLY A HANDFUL HAVE BEEN TESTED. IT IS STRONGLY RECOMMENDED TO TEST THE DESIRED ORDER USING THE SANDBOX ENVIRONMENT. PLEASE NOTE THE SANDBOX ENVIRONMENT WILL NOT RETURN THE ORDER ENTERED, IT IS USED FOR CONFIRMING THE ORDER ENTRY HAS CORRECT SYNTAX. ORDERS CAN ALSO BE TESTED IN OFF MARKET HOURS ON A VERY SMALL QUANTITY WITH LITTLE MONEY AT STAKE. ETRADE HAS THEIR OWN ERROR HANDLING BUT IF A SUCCESSFUL COMBINATION IS ENTERED IT COULD BE EXECUTED UNINTENTIONALLY. DOUBLE CHECK ALL ENTRIES BEFORE SUBMITTING.

#### **Examples**

etrd\_place\_optn\_order

```
quantity = 10,
    mfTransaction = 'buy',
    reInvestOption = 'reinvest',
    previewOrder = 'df')
## End(Not run)
```

## **Description**

Execute an option order on the ETrade platform for the selected account. Users are given the option to preview the order before submitting. Note: ETrade offers significantly more complex order structures than what is offered in this function. See the ETrade documentation for more details on submitting complex option strategies.

## Usage

```
etrd_place_optn_order(
  account,
  symbol,
 callPut,
 expiryYear,
  expiryMonth,
  expiryDay,
  strikePrice,
  quantity,
  orderAction,
  priceType,
  stopPrice = ""
  limitPrice = "",
  stopLimitPrice = "",
 quantityType = "quantity",
 orderTerm = "good_for_day",
 marketSession = "regular",
  allOrNone = "false",
 previewOrder = "df",
 etrade_cred = NULL,
  access_tokens = NULL,
  sandbox = FALSE
)
```

#### **Arguments**

account

The account ID key, not the account ID associated with the specific account. Use etrd\_account\_list to identify the proper account id key.

symbol The market symbol for the security being bought or sold

callPut The option type: CALL, PUT

expiryYear The four-digit year the option will expire expiryMonth The month (1-12) the option will expire expiryDay The day (1-31) the option will expire

strikePrice The strike price for the option
quantity The number of shares to buy or sell

orderAction The action that the broker is requested to perform: BUY\_OPEN, BUY\_CLOSE,

SELL OPEN, SELL CLOSE

priceType The type of pricing: MARKET, LIMIT, STOP, STOP\_LIMIT, TRAILING\_STOP\_CNST,

TRAILING\_STOP\_PRCT, MARKET\_ON\_OPEN, MARKET\_ON\_CLOSE, LIMIT\_ON\_OPEN,

LIMIT\_ON\_CLOSE

stopPrice The designated boundary price for a stop order. For trailing stop orders this will

represent the dollar amount or percentage trailing value. Enter percentages as

whole numbers.

limitPrice The highest price at which to buy or the lowest price at which to sell if specified

in a limit order

stopLimitPrice The designated boundary price for a stop-limit order

quantityType The type of the quantity - QUANTITY, DOLLAR, ALL\_I\_OWN (note: DOL-

LAR is not yet an option)

orderTerm The term for which the order is in effect: GOOD UNTIL CANCEL, GOOD FOR DAY,

IMMEDIATE\_OR\_CANCEL, FILL\_OR\_KILL

marketSession The session in which the order will be placed: REGULAR, EXTENDED

allorNone If TRUE, the transactions specified in the order must be executed all at once or

not at all; default is FALSE

preview0rder Elect to preview the order before submitting. Options are: 'df', 'json', or 'none'

for an instant order entry. In a non interactive environment will default to 'none'. This also indicates how the order output is shown. json will return the output as

a list, otherwise it will return as a dataframe

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

etrd\_product\_search 27

#### Value

A list or data frame of the order entry details

## Warning

TRADES THAT ARE SUCCESSFULLY ENTERED WILL BE SENT FOR EXECUTION. THIS FUNCTION HAS HUNDREDS OF POTENTIAL COMBINATIONS AND ONLY A HANDFUL HAVE BEEN TESTED. IT IS STRONGLY RECOMMENDED TO TEST THE DESIRED ORDER USING THE SANDBOX ENVIRONMENT. PLEASE NOTE THE SANDBOX ENVIRONMENT WILL NOT RETURN THE ORDER ENTERED, IT IS USED FOR CONFIRMING THE ORDER ENTRY HAS CORRECT SYNTAX. ORDERS CAN ALSO BE TESTED IN OFF MARKET HOURS ON A VERY SMALL QUANTITY WITH LITTLE MONEY AT STAKE. ANOTHER OPTION IS TO USE LIMIT ORDERS FAR FROM THE CURRENT PRICE. ETRADE HAS THEIR OWN ERROR HANDLING BUT IF A SUCCESSFUL COMBINATION IS ENTERED IT COULD BE EXECUTED UNINTENTIONALLY. DOUBLE CHECK ALL ENTRIES BEFORE SUBMITTING.

#### **Examples**

```
## Not run:
# Place Option Buy_to_open order
acts = etrd_account_list()
account = acts$accountIdKey[1]
etrd_place_optn_order(account = account,
                      symbol = 'FB',
                      callPut = 'call',
                      expiryYear = '2018',
                      expiryMonth = '12',
                      expiryDay = '21'
                      strikePrice = '140',
                      quantity = 1,
                      orderAction = 'BUY_OPEN',
                      priceType = 'market',
                      previewOrder = 'df')
## End(Not run)
```

## **Description**

Returns a list of securities of a specified type (e.g., equity stock) based on a full or partial match of any part of the company name. For instance, a search for "jones" returns a list of securities associated with "Jones Soda Co", "Stella Jones Inc", and many others. The list contains the company name, the exchange that lists the security, the security type, and the symbol, for up to 10 matches.

28 etrd\_product\_search

The result may include some unexpected matches, because the search includes more than just the display version of the company name. For instance, searching on "etrade" returns securities for "E TRADE" - notice the space in the name. This API is for searching on the company name, not a security symbol. It's commonly used to look up a symbol based on the company name, e.g., "What is the symbol for Google stock?". To look up company information based on a symbol, or to find detailed information on a security, use the quote API.

#### Usage

```
etrd_product_search(
   search = "tech",
   access_tokens = NULL,
   etrade_cred = NULL,
   sandbox = FALSE
)
```

#### **Arguments**

search The search request

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

## Value

a Data frame of the search results

## **Examples**

```
## Not run:
# search for tech firms
etrd_product_search('tech')
## End(Not run)
```

etrd\_transactions 29

etrd\_transactions

ETrade Transaction Search

#### **Description**

Provides the transactions for a selected brokerage account based on the search criteria provided.

## Usage

```
etrd_transactions(
  account,
  count = 50,
  fromDate = Sys.Date() - 30,
  toDate = Sys.Date(),
  output = c("df", "list"),
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

## **Arguments**

account ID key, not the account ID associated with the specific account.

Use etrd\_account\_list to identify the proper account id key.

Number of transactions to return in the response with a max of 50. If not speci-

fied, defaults to 50.

fromDate a date object for the start of the filter toDate a data object for the end of the filter

output Indicate whether the output should be in the form of a data frame ('df') or list

('list'). Data frame is returned by default.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

## Value

a list or df of transactions

## **Examples**

## **Description**

Get transaction details for the specified transaction

## Usage

```
etrd_transaction_detail(
  account,
  transactionId,
  output = c("df", "list"),
  access_tokens = NULL,
  etrade_cred = NULL,
  sandbox = FALSE
)
```

## **Arguments**

account	The account ID	key not th	ne account ID	associated	with the	specific account.
account	The account in	Kev. Hot u	ie account id	associated	with the	specific account.

Use etrd\_account\_list to identify the proper account id key.

transactionId A transaction id that comes from etrd\_transactions

output Indicate whether the output should be in the form of a data frame ('df') or list

('list'). Data frame is returned by default.

access\_tokens Access tokens are created using etrd\_auth\_access\_token. This entry is not

required because the output is saved and retrieved from R options automatically.

etrade\_cred The output created from etrd\_auth\_credentials when a valid ETRADE key

and secret have been passed. This entry is not required because the output is

saved and retrieved from R options automatically.

sandbox ETRADE offers a sandbox environment for validating API calls and responses.

If using the sandbox environment, this must be set to TRUE in each function called throughout etrader. ETRADE states "Sandbox responses use stored data that's intended to provide typical responses for basic use cases. So the responses you receive will not contain current data, and may not exactly match your requests in other ways." Essentially, the responses will not match the requests entered but successful pull will indicate whether the entry was valid or not.

## Value

a list or data frame of transaction details

## Examples

```
## Not run:

# Search for mutual fund buys over the last month
account_id = etrd_account_list()$accountIdKey[1]
transID = etrd_transactions(account_id)$transactionId[1]
etrd_transaction_detail(account_id, transID)

## End(Not run)
```

## **Index**

```
etrd_account_balance, 2
etrd_account_list, 2, 3, 5, 6, 13, 20, 21, 23,
        25, 29, 30
etrd_account_portfolio, 4
etrd_alert_detail, 7
etrd_alerts, 6, 7
etrd_auth_access_token, 2, 4-7, 8, 9-14,
        16–18, 20, 22, 24, 26, 28–30
etrd_auth_credentials, 3-9, 9, 10-13,
        15–18, 20, 22, 24, 26, 28–30
etrd_auth_login_url, 8-10, 10, 11, 12
etrd_auth_manage_token, 9-11, 11, 12
etrd_cancel_order, 13
etrd_get_url, 14
etrd_market_quote, 15
etrd_option_chain, 14, 16
etrd_option_expiration, 18
etrd_order_history, 19
etrd_place_eq_order, 21
etrd_place_mf_order, 23
etrd_place_optn_order, 25
etrd_product_search, 27
etrd_transaction_detail, 30
etrd_transactions, 29, 30
```