

# i T R ▲ D I N G

## TOC

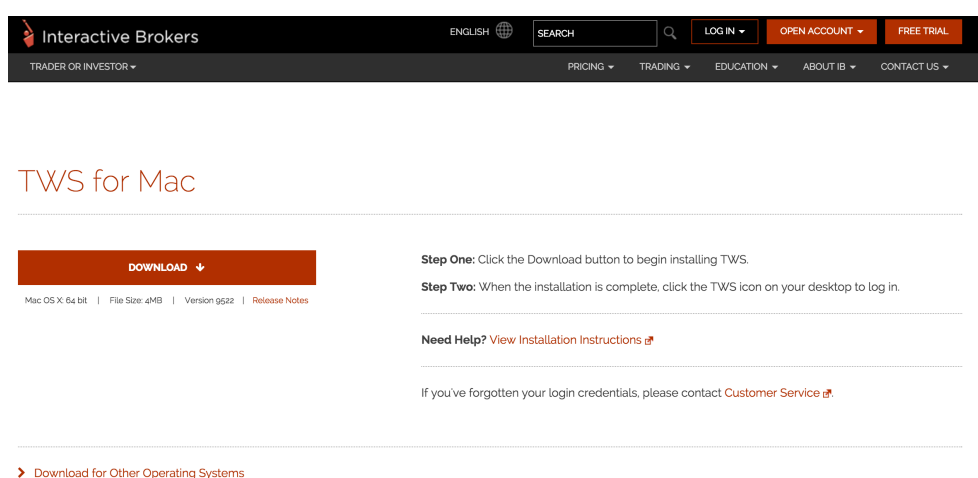
1	Download Interactive Broker TWS .....	2
2	Execute TWS .....	3
2.1	New Interactive Broker Account .....	4
3	Configure TWS.....	5
4	Download iTrading .....	6
5	Use cases.....	7
5.1	Browse and interact with charts/indicators.....	7
5.2	Browse the Account Summary.....	8
5.3	Browse Open Positions.....	8
5.4	Algorithmic Trading.....	9

# i T R A D I N G

## 1 Download Interactive Broker TWS

Link:

<https://www.interactivebrokers.com/en/index.php?f=1604>

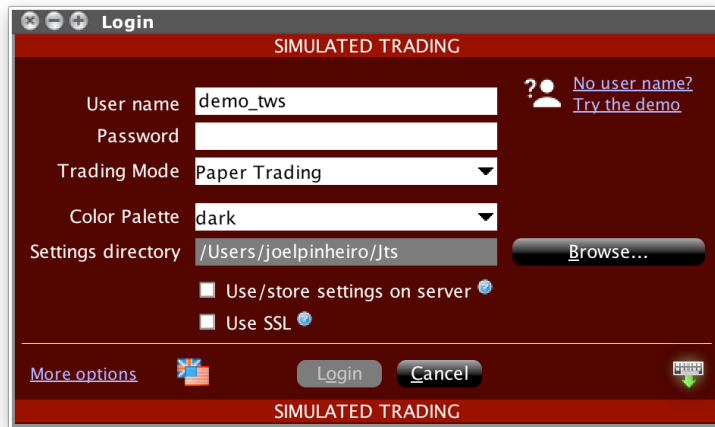


The screenshot shows the Interactive Brokers website interface. At the top, there is a navigation bar with the logo, language selection (ENGLISH), a search bar, and buttons for LOG IN, OPEN ACCOUNT, and FREE TRIAL. Below the navigation bar, the page title is "TWS for Mac". A prominent orange "DOWNLOAD" button is visible, with a dropdown arrow. Below the button, technical details are listed: "Mac OS X, 64 bit | File Size: 4MB | Version 9532 | Release Notes". To the right of the button, there are two steps: "Step One: Click the Download button to begin installing TWS." and "Step Two: When the installation is complete, click the TWS icon on your desktop to log in." Below these steps, there is a "Need Help?" section with a link to "View Installation Instructions" and a note: "If you've forgotten your login credentials, please contact Customer Service". At the bottom of the page, there is a link for "Download for Other Operating Systems".

This broker software is mandatory to iTrading.

# i T R A D I N G

## 2 Execute TWS



1. Change the Trading Mode to “Paper Trading”
2. Then click on “Try the demo” on the right side.
3. Login

If you want to create a new IB Account see section 2.1.

# i T R A D I N G

## 2.1 New Interactive Broker Account

Link:

<https://gdcdyn.interactivebrokers.com/Universal/servlet/Application.ApplicationSelector>

The screenshot shows the registration page for Interactive Brokers. At the top left is the Interactive Brokers logo. The main content area is divided into two sections: "Email Address" and "Register Your Username".

**Email Address**

Email Address  Required  
Algorithmic Trading  
<https://www.reddit.com/r/algotrading/>

**Register Your Username**

Username  Required

Password  Required

Confirm Password  Required

Username Requirements

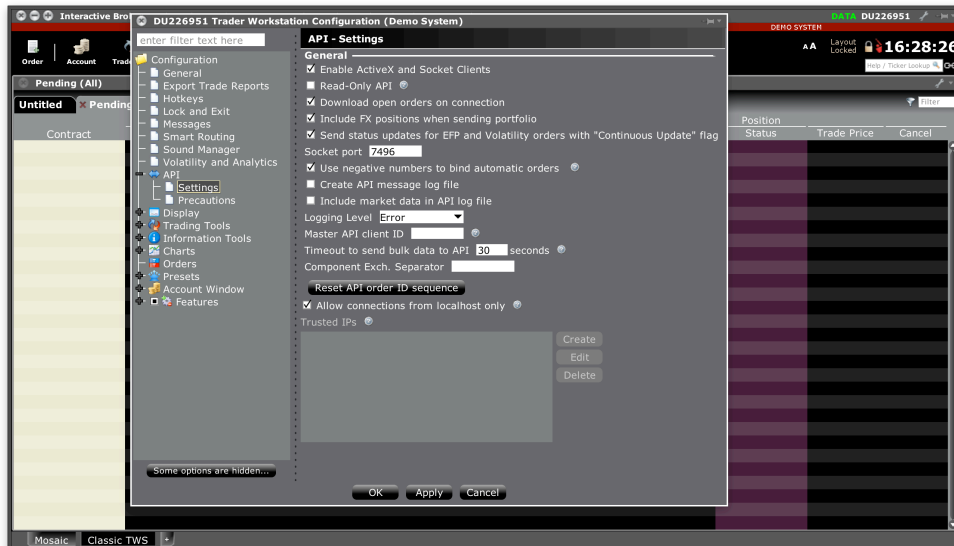
- ✘ Lower case only, no spaces, no special characters
- ✘ Begin with a letter
- ✘ Contain a minimum of 3 letters and 3 numbers
- ✘ Length of 8 or 9 characters

On the right side of the form, there is a "Call Us" section with a phone icon, a telephone number (00800-42-276537 and +41-41-726-9500), and a list of languages: English, Français, Deutsch, Español, Русский, Italiano, 简体中文, 繁體中文, and 日本語.

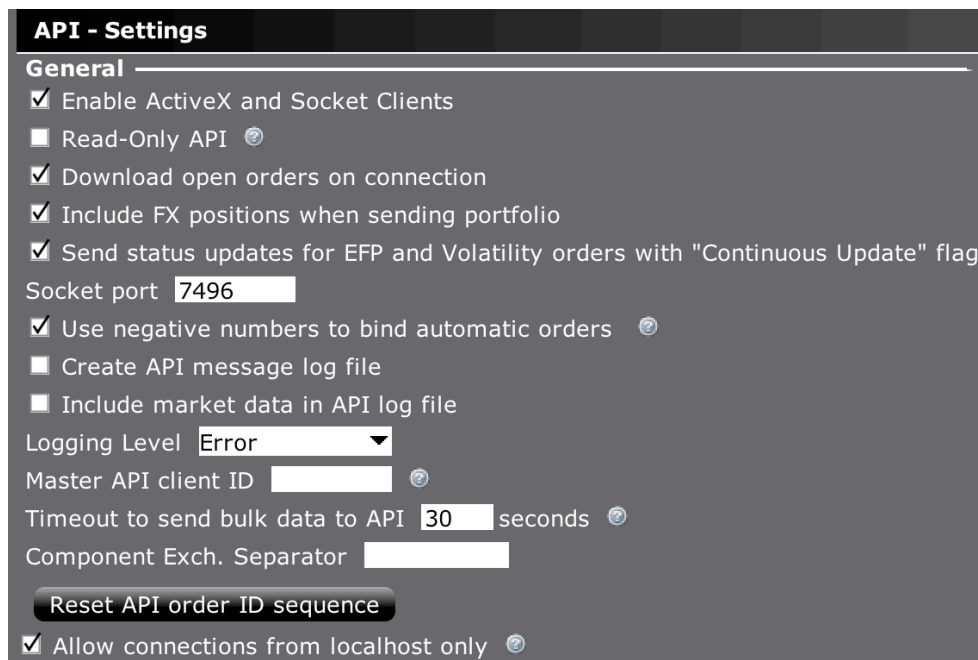
# iTRADING

## 3 Configure TWS

Configure > API > Settings



Apply the following configuration.



# iTRADING

## 4 Download iTrading

Link: <http://joelpinheiro.github.io/itrading>

iTRADING ABOUT FEATURES VIDEO DOWNLOAD CONTACT

## Download

To run iTrading you need:

- ✓ Interactive Brokers (IB) valid account
- ✓ IB's Latest Standalone Traders Workstation (TWS) installed and running
- ✓ Demonstration Video

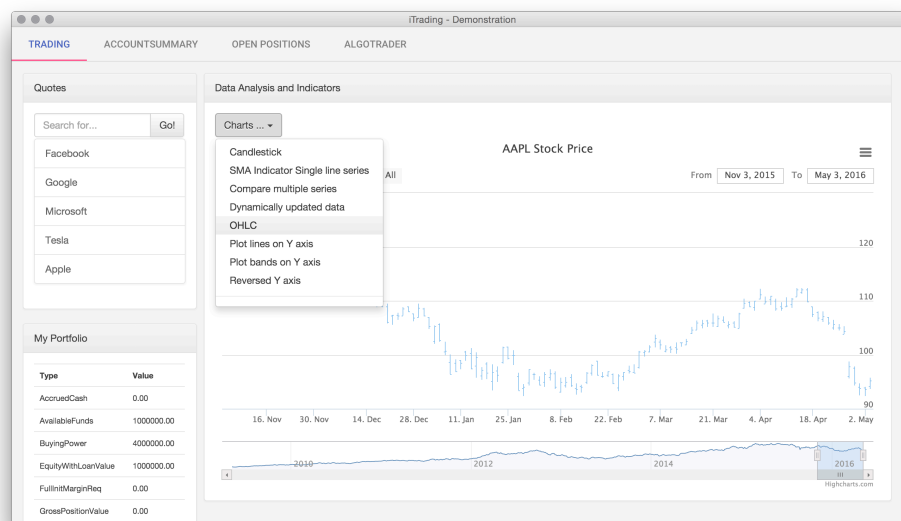
LINUX	MAC-OS	WINDOWS
v0.9.0 Beta	v0.9.0 Beta	v0.9.0 Beta
✓ 8 Advanced Charts, 1 Indicator	✓ 8 Advanced Charts, 1 Indicator	✓ 8 Advanced Charts, 1 Indicator

Download your corresponding iTrading version.

# iTRADING

## 5 Use cases

### 5.1 Browse and interact with charts/indicators



# iTRADING

## 5.2 Browse the Account Summary

Account	Account Summary	Value	Currency
DU226951	AccountCash	0.00	USD
DU226951	AvailableFunds	1000000.00	USD
DU226951	BuyingPower	4000000.00	USD
DU226951	EquityWithLoanValue	1000000.00	USD
DU226951	ExcessLiquidity	1000000.00	USD
DU226951	FullAvailableFunds	1000000.00	USD
DU226951	FullExcessLiquidity	1000000.00	USD
DU226951	FullInitMarginReq	0.00	USD
DU226951	FullMaintMarginReq	0.00	USD
DU226951	GrossPositionValue	0.00	USD
DU226951	InitMarginReq	0.00	USD
DU226951	LookAheadAvailableFunds	1000000.00	USD
DU226951	LookAheadExcessLiquidity	1000000.00	USD
DU226951	LookAheadInitMarginReq	0.00	USD
DU226951	LookAheadMaintMarginReq	0.00	USD
DU226951	MaintMarginReq	0.00	USD
DU226951	NetLiquidation	1000000.00	USD

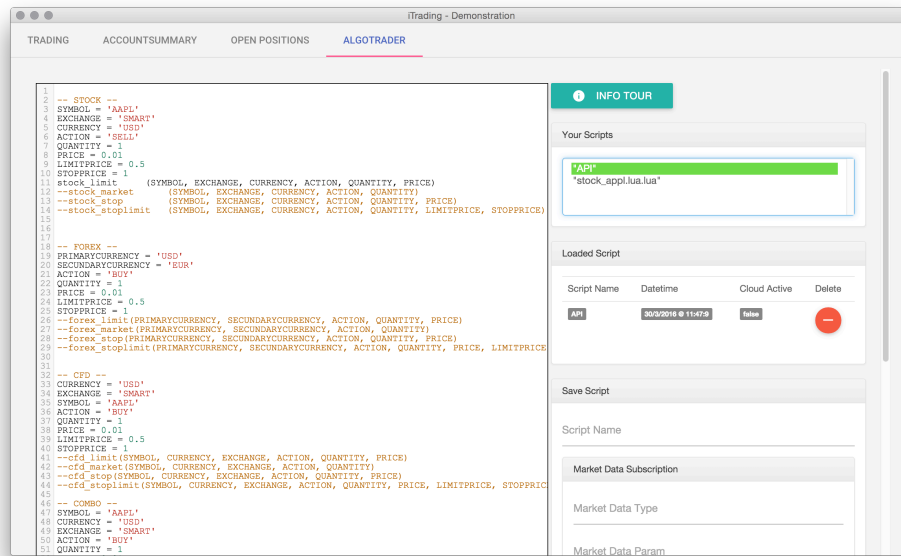
## 5.3 Browse Open Positions

ID	Symbol	Security Type	Expiry	Strike	Right	Multiplier	Exchange	Currency	Local Symbol	Trading Class
265598	AAPL	STK		0			NASDAQ	USD	AAPL	NMS
265598	AAPL	STK		0			NASDAQ	USD	AAPL	NMS



# iTRADING

## 5.4 Algorithmic Trading



Click on “INFO TOUR” to have a guided tour on AlgoTrading functionalities.

# iTRADING

1  
2 -- STOCK --  
3 SYMBOL = 'AAPL'  
4 EXCHANGE = 'SMART'  
5 CURRENCY = 'USD'  
6 ACTION = 'SELL'  
7 QUANTITY = 1  
8 PRICE = 0.01  
9 LIMITPRICE = 0.5  
10 STOPPRICE = 1  
11 --stock\_limit (SYMBOL, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)  
12 --stock\_market (SYMBOL, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)  
13 --stock\_stop (SYMBOL, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)  
14 --stock\_stoplimit (SYMBOL, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)  
15  
16  
17  
18 -- FOREX --  
19 PRIMARYCURRENCY = 'USD'  
20 SECONDARYCURRENCY = 'EUR'  
21 ACTION = 'BUY'  
22 QUANTITY = 1  
23 PRICE = 0.01  
24 LIMITPRICE = 0.5  
25 STOPPRICE = 1  
26 --forex\_limit (PRIMARYCURRENCY, SECONDARYCURRENCY, ACTION, QUANTITY, PRICE)  
27 forex\_market (PRIMARYCURRENCY, SECONDARYCURRENCY, ACTION, QUANTITY, PRICE)  
28 --forex\_stop (PRIMARYCURRENCY, SECONDARYCURRENCY, ACTION, QUANTITY, PRICE)  
29 --forex\_stoplimit (PRIMARYCURRENCY, SECONDARYCURRENCY, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)  
30  
31  
32 -- CFD --  
33 CURRENCY = 'USD'  
34 EXCHANGE = 'SMART'  
35 SYMBOL = 'AAPL'  
36 ACTION = 'BUY'  
37 QUANTITY = 1  
38 PRICE = 0.01  
39 LIMITPRICE = 0.5  
40 STOPPRICE = 1  
41 --cfd\_limit (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
42 --cfd\_market (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
43 --cfd\_stop (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
44 --cfd\_stoplimit (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)  
45  
46 -- COMBO --  
47 SYMBOL = 'AAPL'  
48 CURRENCY = 'USD'  
49 EXCHANGE = 'SMART'  
50 ACTION = 'BUY'  
51 QUANTITY = 1  
52 PRICE = 0.01  
53 LIMITPRICE = 0.5  
54 STOPPRICE = 1  
55 --combo\_limit (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
56 --combo\_market (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
57 --combo\_stop (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
58 --combo\_stoplimit (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)  
59  
60  
61 -- FUTURE --  
62 SYMBOL = 'AAPL'  
63 EXPIRY = '20170118'  
64 CURRENCY = 'USD'  
65 EXCHANGE = 'ONS'  
66 ACTION = 'BUY'  
67 QUANTITY = 1  
68 PRICE = 0.01

**Your Scripts**  
In this section you have all the trades that you saved.  
To switch between trades you have to select one of them.  
Next

**INFO TOUR**  
Your Scripts  
"AAPL"  
"stock\_appl.lua.lua"  
Loaded Script  
Script Name Datetime Cloud Active Delete  
AAPL 30/3/2016 @ 11:47:24 false  
Save Script  
Script Name  
Market Data Subscription  
Market Data Type  
Market Data Param  
SUBSCRIBE MARKET DATA

1  
2 -- STOCK --  
3 SYMBOL = 'AAPL'  
4 EXCHANGE = 'SMART'  
5 CURRENCY = 'USD'  
6 ACTION = 'SELL'  
7 QUANTITY = 1  
8 PRICE = 0.01  
9 LIMITPRICE = 0.5  
10 STOPPRICE = 1  
11 --stock\_limit (SYMBOL, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)  
12 --stock\_market (SYMBOL, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)  
13 --stock\_stop (SYMBOL, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)  
14 --stock\_stoplimit (SYMBOL, EXCHANGE, CURRENCY, ACTION, QUANTITY, LIMITPRICE, STOPPRICE)  
15  
16  
17  
18 -- FOREX --  
19 PRIMARYCURRENCY = 'USD'  
20 SECONDARYCURRENCY = 'EUR'  
21 ACTION = 'BUY'  
22 QUANTITY = 1  
23 PRICE = 0.01  
24 LIMITPRICE = 0.5  
25 STOPPRICE = 1  
26 --forex\_limit (PRIMARYCURRENCY, SECONDARYCURRENCY, ACTION, QUANTITY, PRICE)  
27 forex\_market (PRIMARYCURRENCY, SECONDARYCURRENCY, ACTION, QUANTITY, PRICE)  
28 --forex\_stop (PRIMARYCURRENCY, SECONDARYCURRENCY, ACTION, QUANTITY, PRICE)  
29 --forex\_stoplimit (PRIMARYCURRENCY, SECONDARYCURRENCY, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)  
30  
31  
32 -- CFD --  
33 CURRENCY = 'USD'  
34 EXCHANGE = 'SMART'  
35 SYMBOL = 'AAPL'  
36 ACTION = 'BUY'  
37 QUANTITY = 1  
38 PRICE = 0.01  
39 LIMITPRICE = 0.5  
40 STOPPRICE = 1  
41 --cfd\_limit (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
42 --cfd\_market (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
43 --cfd\_stop (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
44 --cfd\_stoplimit (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)  
45  
46 -- COMBO --  
47 SYMBOL = 'AAPL'  
48 CURRENCY = 'USD'  
49 EXCHANGE = 'SMART'  
50 ACTION = 'BUY'  
51 QUANTITY = 1  
52 PRICE = 0.01  
53 LIMITPRICE = 0.5  
54 STOPPRICE = 1  
55 --combo\_limit (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
56 --combo\_market (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
57 --combo\_stop (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)  
58 --combo\_stoplimit (SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)  
59  
60  
61 -- FUTURE --  
62 SYMBOL = 'AAPL'  
63 EXPIRY = '20170118'  
64 CURRENCY = 'USD'  
65 EXCHANGE = 'ONS'  
66 ACTION = 'BUY'  
67 QUANTITY = 1  
68 PRICE = 0.01

**Loaded Script**  
This section you have the information regarding the trade you selected in Your Scripts section.  
Regarding each trade you have the name of the script, date and time when you saved, if is automatic to run and the delete button to remove the trade.  
Next

**Loaded Script**  
Script Name Datetime Cloud Active Delete  
AAPL 30/3/2016 @ 11:47:24 false  
Save Script  
Script Name  
Market Data Subscription  
Market Data Type  
Market Data Param  
SUBSCRIBE MARKET DATA  
Automate Trade?  
SAVE

# iTRADING

The screenshot shows the iTrading interface with a 'Save Script' dialog box overlaid on the code editor. The dialog box contains the following text:

**Save Script**

Here is the section where you can add to your local storage a new trade script.

It is mandatory to insert a name in the script and if it will be active for automatic trading.

If you check the trade to be active for automatic trading, you should add a market data subscription to aggregate all types of market data that your trade script will be ticked.

**Next**

The background shows the code editor with the following code:

```
33 CURRENCY = 'USD'
34 EXCHANGE = 'SMART'
35 SYMBOL = 'AAPL'
36 ACTION = 'BUY'
37 QUANTITY = 1
38 PRICE = 0.01
39 LIMITPRICE = 0.5
40 STOPPRICE = 1
41 --cf limit(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
42 --cf market(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY)
43 --cf stop(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
44 --cf stoplimit(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)
45
46 -- COMBO --
47 SYMBOL = 'AAPL'
48 CURRENCY = 'USD'
49 EXCHANGE = 'SMART'
50 ACTION = 'BUY'
51 QUANTITY = 1
52 PRICE = 0.01
53 LIMITPRICE = 0.5
54 STOPPRICE = 1
55 --combo limit(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
56 --combo market(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY)
57 --combo stop(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
58 --combo stoplimit(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)
59
60 -- FUTURE --
61 SYMBOL = 'AAPL'
62 EXPIRY = '20170118'
63 CURRENCY = 'USD'
64 EXCHANGE = 'ONE'
65 ACTION = 'BUY'
66 QUANTITY = 1
67 PRICE = 0.01
68 LIMITPRICE = 0.5
69 STOPPRICE = 1
70 --future limit(SYMBOL, EXPIRY, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
71 --future market(SYMBOL, EXPIRY, CURRENCY, EXCHANGE, ACTION, QUANTITY)
72 --future stop(SYMBOL, EXPIRY, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
73 --future stoplimit(SYMBOL, EXPIRY, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)
74
75 -- OPTION --
76 SYMBOL = 'AAPL'
77 EXPIRY = '20170118'
78 STRIKE = 40.00
79 RIGHT = 'C'
80 EXCHANGE = 'SMART'
81 CURRENCY = 'USD'
82 ACTION = 'BUY'
83 QUANTITY = 1
84 PRICE = 0.01
85 LIMITPRICE = 0.5
86 STOPPRICE = 1
87 --option limit(SYMBOL, EXPIRY, STRIKE, RIGHT, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)
88 --option market(SYMBOL, EXPIRY, STRIKE, RIGHT, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)
```

The 'Save Script' form on the right includes:

- Save Script
- Script Name
- Market Data Subscription
- Market Data Type
- Market Data Param
- SUBSCRIBE MARKET DATA**
- Automate Trade?
- SAVE**

The screenshot shows the iTrading interface with the 'Run Script' dialog box overlaid on the code editor. The dialog box contains the following text:

**Run Script**

This button will execute your Lua Script directly in your financial broker.

**Next**

The background shows the code editor with the following code:

```
52 PRICE = 0.01
53 LIMITPRICE = 0.5
54 STOPPRICE = 1
55 --combo limit(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
56 --combo market(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY)
57 --combo stop(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
58 --combo stoplimit(SYMBOL, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)
59
60 -- FUTURE --
61 SYMBOL = 'AAPL'
62 EXPIRY = '20170118'
63 CURRENCY = 'USD'
64 EXCHANGE = 'ONE'
65 ACTION = 'BUY'
66 QUANTITY = 1
67 PRICE = 0.01
68 LIMITPRICE = 0.5
69 STOPPRICE = 1
70 --future limit(SYMBOL, EXPIRY, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
71 --future market(SYMBOL, EXPIRY, CURRENCY, EXCHANGE, ACTION, QUANTITY)
72 --future stop(SYMBOL, EXPIRY, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE)
73 --future stoplimit(SYMBOL, EXPIRY, CURRENCY, EXCHANGE, ACTION, QUANTITY, PRICE, LIMITPRICE, STOPPRICE)
74
75 -- OPTION --
76 SYMBOL = 'AAPL'
77 EXPIRY = '20170118'
78 STRIKE = 40.00
79 RIGHT = 'C'
80 EXCHANGE = 'SMART'
81 CURRENCY = 'USD'
82 ACTION = 'BUY'
83 QUANTITY = 1
84 PRICE = 0.01
85 LIMITPRICE = 0.5
86 STOPPRICE = 1
87 --option limit(SYMBOL, EXPIRY, STRIKE, RIGHT, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)
88 --option market(SYMBOL, EXPIRY, STRIKE, RIGHT, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)
89 --option stop(SYMBOL, EXPIRY, STRIKE, RIGHT, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)
90 --option stoplimit(SYMBOL, EXPIRY, STRIKE, RIGHT, EXCHANGE, CURRENCY, ACTION, QUANTITY, PRICE)
91
92
```

The 'Output' section at the bottom left includes:

- EXECUTE
- Run Script**
- Next**

The background also shows the 'Save Script' form from the previous screenshot, with the 'SUBSCRIBE MARKET DATA' button highlighted.

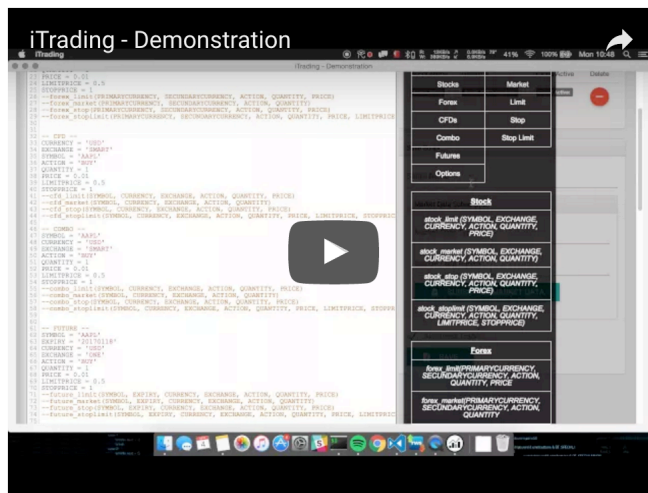
# iTRADING

## 6 Questionary

Link:

[https://docs.google.com/forms/d/1WKjgGOCwYRYKfQSYdWNIPy7N8flnCxgHeR3GoeWACvg/viewform?edit\\_requested=true](https://docs.google.com/forms/d/1WKjgGOCwYRYKfQSYdWNIPy7N8flnCxgHeR3GoeWACvg/viewform?edit_requested=true)

### Context of Use



What do you do for a living?

# i T R A D I N G

## 7 Issues

Link: <https://github.com/joelpinheiro/itrading/issues>

