

# Installing SpreadIB

For there exists no automatic installation procedure for this program, you need to unzip the entire content of the SpreadIB.zip file into a folder of your choice, preferably "c:\Program Files\SpreadIB\".

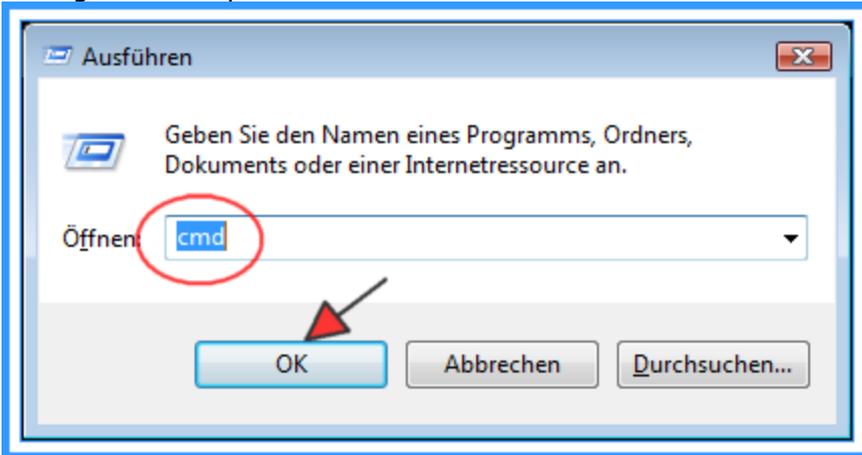
This program requires Interactive Brokers Trader Workstation to run. If you are an IB customer, then fine, I'd guess you know what Trader Workstation is.

If you don't have Trader Workstation installed on your computer, then install it from Interactive Brokers home page.

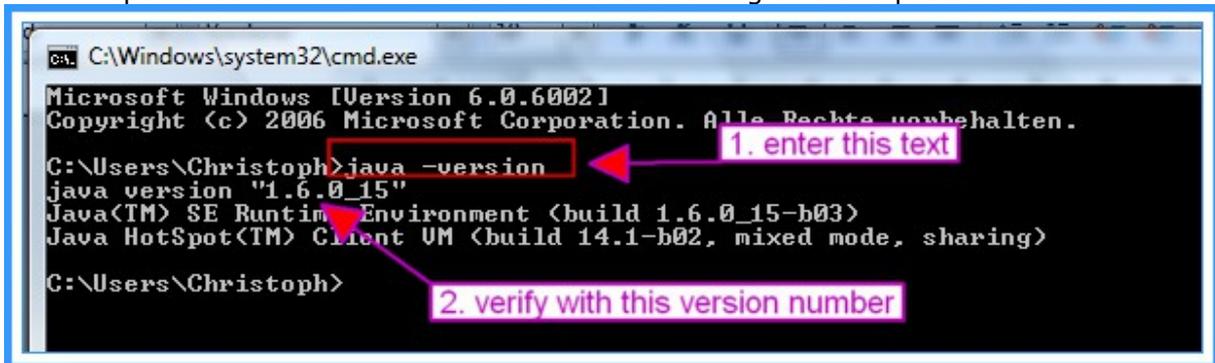
Both, Trader Workstation and SpreadIB need Java runtime environment. You easily can check if you have installed one or not:

Press this two keys on your computer:  + R

A dialog box will open. Please enter the same text as shown:



This in turn will open another window. Please enter the following text and press Enter:



If your java version is less than 1.6 or you get an error message, then you probably might have to install or update Java on your workstation. Please visit this site to proceed:

<http://java.com/en/download> and install Java runtime environment on your computer.

## What is Trader Workstation?

Interactive Brokers' Trader Workstation, or TWS, is an online trading platform that lets you trade and manage orders for all types of financial products (including stocks, bonds, options, futures and Forex) on markets all over the world - all from a single spreadsheet-like screen.

Underlying	Exch	Description	Position	Avg Price	Unrzd P&L	Rlzd P&L	Bid Size	Bid	Ask	Ask Size	Last	Change (%)	Change	Lst Sz	
TOTAL		EUR			0.08										
TOTAL		USD			701.72										
COL	IFE	JAN12 Future...									C86.71				
COL	IFE	DEC09 Future...					1	76.70	76.73	1	76.75	0.26%	+0.20	1	
WTI	IFE	DEC09 Future...					1	78.20	78.23	3	78.32	0.24%	+0.19	1	
CL	NYMEX	DEC09 Future...					1	78.21	78.23	2	78.23	0.14%	+0.11	1	
ZF	ECBOT	DEC09 Future...					65	118.140	118.142	99	118.140	0.03%	+0.0...	4	
ZN	ECBOT	DEC09 Future...	-1	118.123	-392.62		192	118.160	118.165	49	118.165	0.03%	+0.0...	16	
ZB	ECBOT	DEC09 Future...	1	119.595	311.25		24	119.280	119.280	12	119.280	0.08%	+0.0...	16	
DAX	DTB	DEC09 Future...	18:45 ...	U.S. dat...							C5425...				
ES	GLOBEX	DEC09 Future...					45	1040.25	1040.50	33	1040.25	0.12%	+1.25	4	
EUR	IDEAL...	EUR.USD Forex	22:40 ...	RPT-FO...			2,000.0...	1.47979	1.47975	8,000.000	C1.47...	0.19%	+0.0...		
USD	IDEAL	USD.EUR Forex					4.952	0.6757	0.6780	167	C0.6771	-0.03%	-0.0...		
JPY	IDEAL	JPY.EUR Forex					8,000	0.007375	0.007575	8,000	C0.00...	-0.29%	-0.0...		
VIX	CBOE	Index VIX			396	0.00729	0.08								
ZG	NYSEL...	DEC09 Future...					4	1064.20	1064.50	1	1064.50	0.96%	+1.0...	1	
ZI	NYSEL...	DEC09 Future...					3	16.586	16.585	1	16.603	1.05%	+0.1...	1	
HUI	AMEX	Index HUI									C394.64				
GE	GLOBEX	DEC10 Future...	19:04 ...	MONEY ...	1	98.186	597.50	700	98.425	98.430	761	98.425	-0.01%	-0.005	2
GE	GLOBEX	DEC09 Future...	19:04 ...	MONEY ...	-1	99.534	-365.00	9.765	99.675	99.680	250	99.680	0.00%	0.000	1
HE	GLOBEX	FEB10 Future...			1	52.706	4877.60	5	64.875	64.950	1	64.900	0.46%	+0.3...	1
HE	GLOBEX	DEC09 Future...			-1	46.644	-4552.40	21	64.980	64.975	3	64.975	0.52%	+0.3...	1
HE	GLOBEX	APR10 Future...			3	67.550	67.775	8	67.550	67.775	8	67.575	-0.07%	-0.050	1
HO	NYMEX	FEB10 Future...			1	1.81607	12173.00	1	2.1059	2.1079	1	C2.1051			
HO	NYMEX	DEC09 Future...			-1	1.76293	-11947.60	1	2.0470	2.0474	1	2.0490	0.15%	+0.0...	1

To get a little bit of a feel for TWS, go to the IB website and try TWS demo application. Its functionality is slightly limited and it only supports a small number of symbols, but you'll definitely get the idea. Once you have an approved, funded account you'll also be able to use PaperTrader, our simulated trading tool, with paper-money funding in the amount of \$100,000, which you can replenish at any time through TWS Account Management

### What Can You Do with TWS?

So, what can you do with TWS? For starters, you can:

- Send and manage orders for all sorts of products (all from the same screen!);
- Monitor the market through Level II, NYSE Deep Book and IB's Market Depth;
- Keep a close eye on all aspects of your account and executions;
- Use Technical, Fundamental and Price/Risk analytics tools to spot trends and analyze market movement;
- Completely customize your trading environment through your choice of modules, features, tools, fonts and colors, and user-designed workspaces.

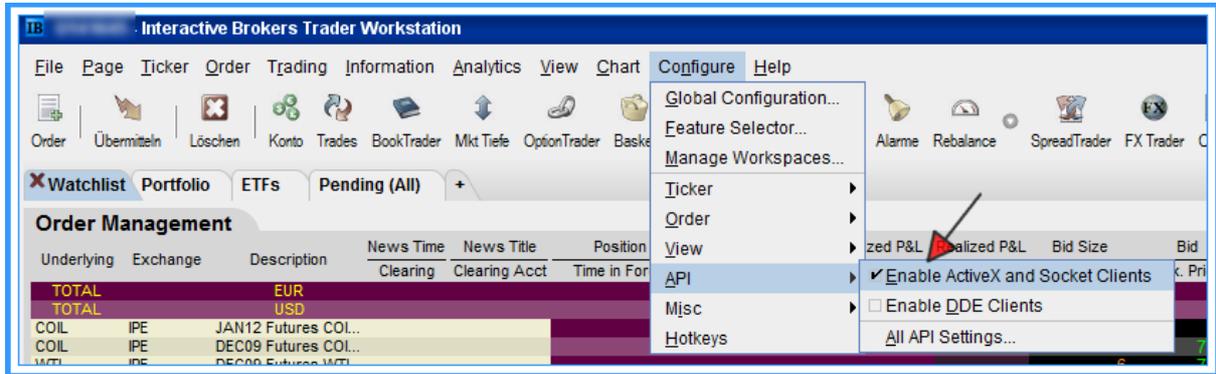
Basically, almost anything you can think of TWS can do - or will be able to do soon. IB is continually adding new features, and uses the latest technology to make things faster, easier and more efficient.

Anyway, most of you know this already, just because they use TWS day in day out. That's why I will not go deeper into TWS. Let's focus on how to use SpreadIB in company with TWS.

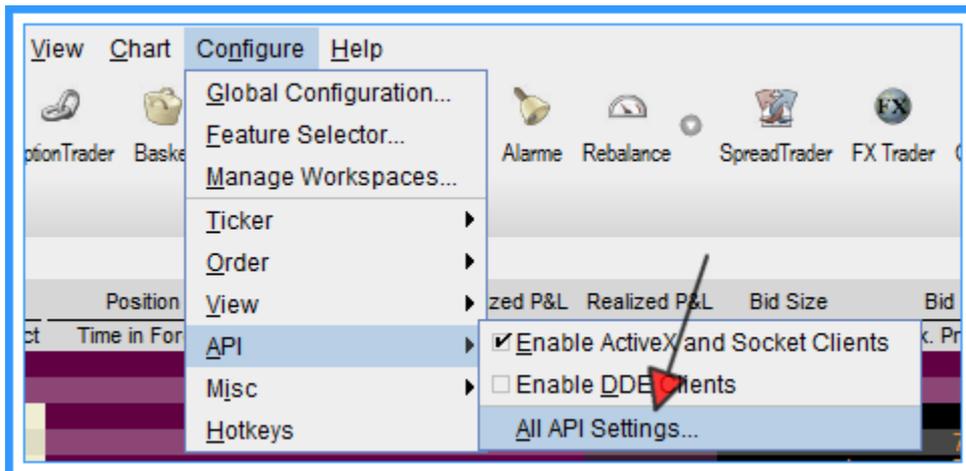
# How to prepare TWS for SpreadIB?

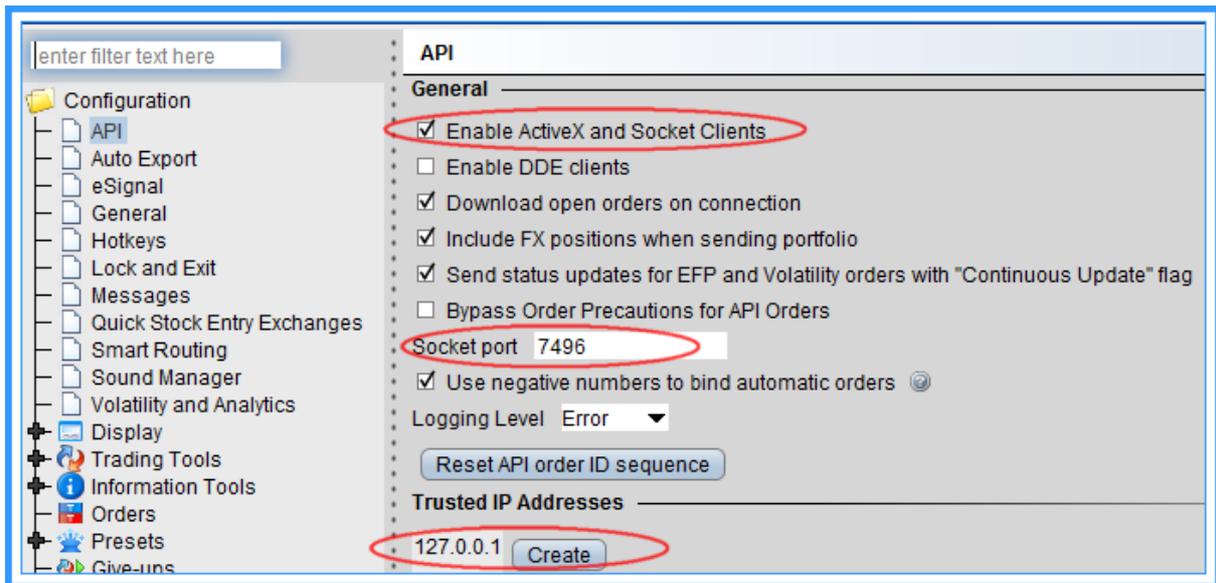
## Step 1: Log into TWS.

Then look up at the top of the trading window, and you'll see the menu bar. Click the **Configure** menu, and then hold your mouse over the **API** submenu, which reveals several check boxes. Check the *Enable ActiveX and Socket Clients* check box.

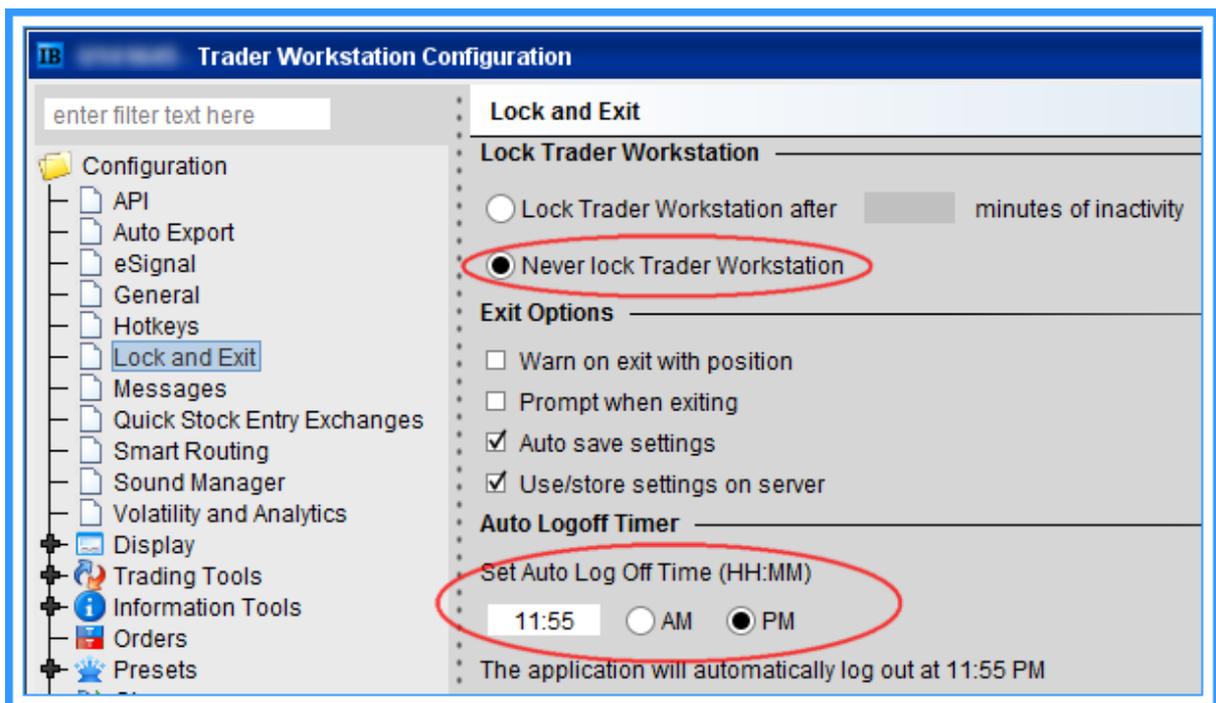


Normally TWS API listens to connections on port 746. If you want to change this setting then open the API Settings dialog and modify it accordingly:





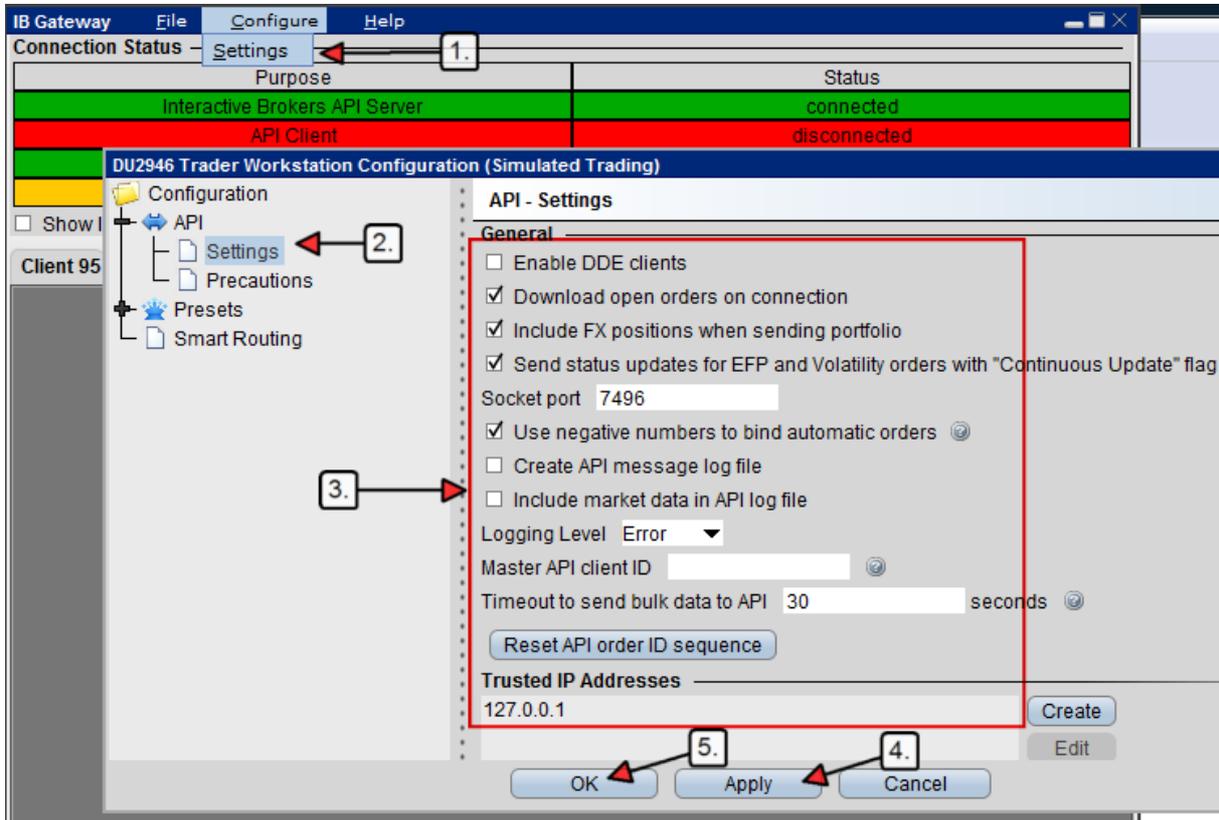
BTW: TWS will log you out regularly at certain times (see TWS), unless you didn't modify "Lock and Exit" settings at TWS:



# How to prepare IB-Gateway for SpreadIB?

## Step 1: Log into IB-Gateway.

Then look up at the top of the trading window, and you'll see the menu bar. Within the **Configure** menu choose **Settings** → **API** → **Settings**



Set required values accordingly.

## Note:

*I recommend to use IB-Gateway instead of TWS itself. IB-Gateway doesn't log off automatically. That's why you can run SpreadIB all day no matter if you need TWS to trade or not.*

*It is possible to run TWS and IB-Gateway parallel.*

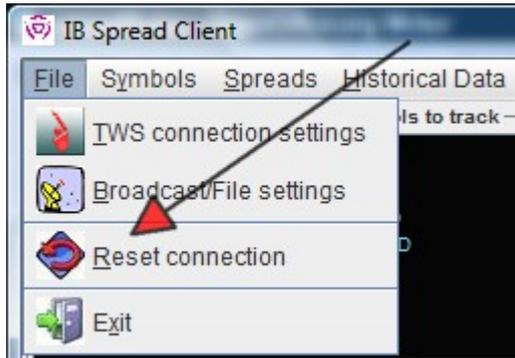
*Thus you may trade via TWS at one time while tick data will be passed to Spread-IB over IB-Gateway at the same time.*

*Unfortunately Interactive Brokers doesn't allow to be logged in with the same account twice.*

*Thus you will need to use your paper trading account to log SpreadIB into IB-Gateway and your real account to trade via TWS.*

## Step 2: Start SpreadIB.cmd or SpreadIB.jar

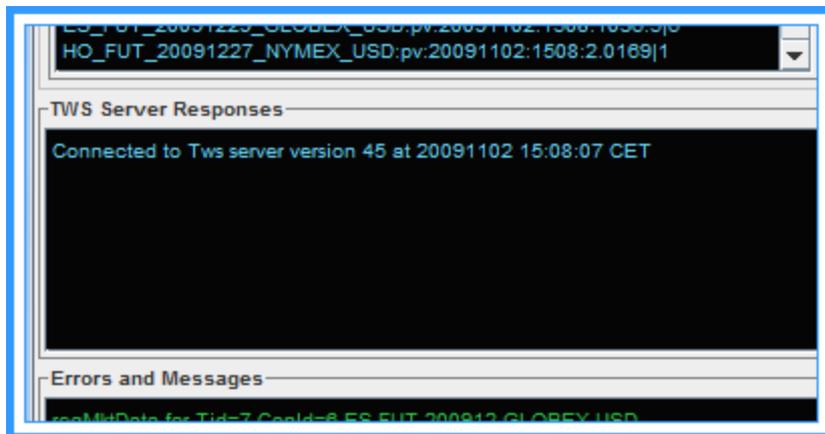
Then call 'Reset connection' from the File menu:



Afterwards the confirmation dialog shown below may appear in TWS; click **Yes** to confirm that you want to connect. Note that this dialog does not appear if the IP Address of your connection is local host (i. e. 127.0.0.1)



If the connection is successful, a message is displayed in the *TWS Server Responses* panel of SpreadIB as shown in the following figure:



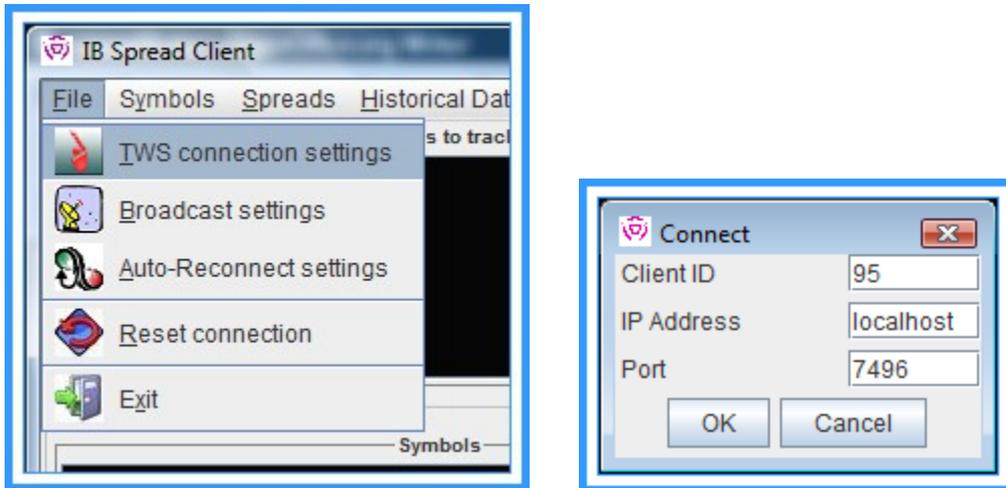
### An important information right here:

Per today, 2011 Dec 08<sup>th</sup>, SpreadIB is designed to operate 24 hours a day. However, it will not work probably unless you **exit and restart it once a day**. I'll change the operating mode to 24/7 as soon as my schedules allows.

### Step 3: configure SpreadIB

- TWS Connection Settings

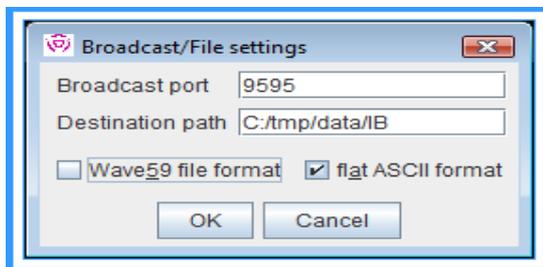
If you get above connection message, then you are done with this task.  
Otherwise open this dialog:



Here you can cross check that your settings of SpreadIB fit to TWS.  
The Client ID is an internal ID of TWS. If you don't like that number,  
then set it to anything else but don't use zero. This ID reserved for clients pro-  
cessing order requests to IB.

- Broadcast settings:

You will need this when you plan to stream price data to another application that  
can read it (like Wave59, TimingSolution, your App, ...).



#### **Wave59 users:**

set "Broadcast port" to the same value

as defined in Wave59 → File → Server Setup → IB Settings

check "Wave59 file format"

uncheck "flat ASCII format"

set "Destination path" according your Wave59 installation:

common paths are:

Windows XP:

C:/Program Files/Wave59 RT/data/IB

Windows Vista:

C:/Users/<your user name here>/AppData/Local/VirtualStore/Program Files/Wave59  
RT/data/IB

#### **ASCII file users:**

uncheck "Wave59 file format"

check "flat ASCII format"

set "Destination path" according your chart software for which data is retrieved.

There will be two types of files created:

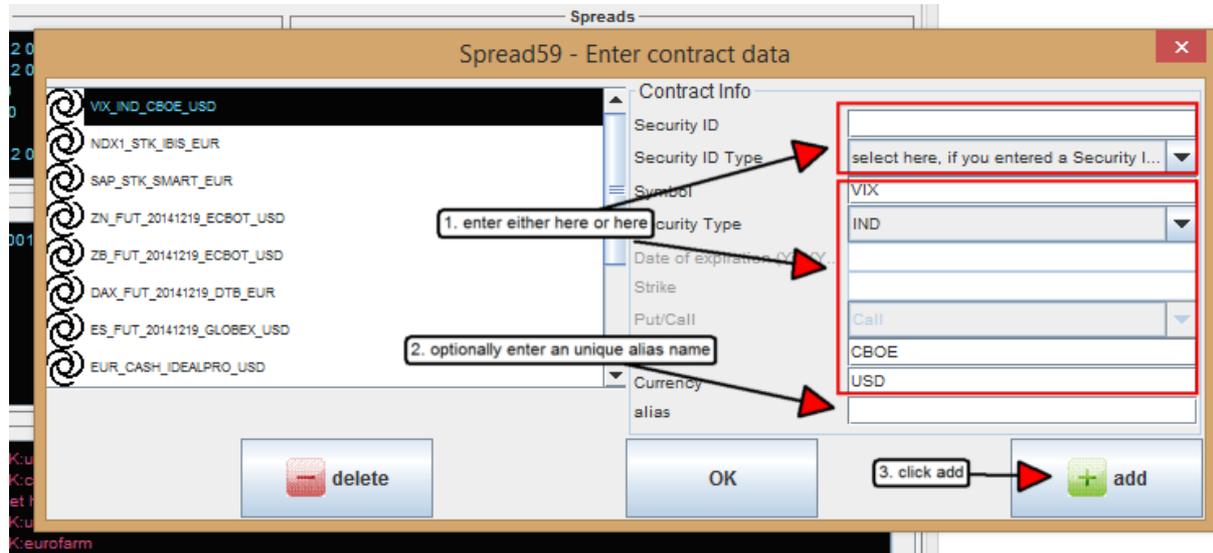
One type belong to .csv files that will hold the 1 minute bar history

The others are .ticks files that will hold the tick values.

The setting of "Broadcast port" can be left as is.

#### Step 4: add/delete symbols

Add symbols that should TWS request market data for:



To add a symbol, enter appropriate contract specifications into the right of the panel. There you may determine them in two ways:

1. Security ID & Security ID Type
2. Symbol & Security Type

Examples for PepsiCo Inc, in case you go the first possibility:

Security ID	Security ID Type
US7134481081	ISIN
713448108	CUSIP
2681511	SEDOL
PEP.N	RIC

(meta: ISIN and CUSIP seem to work quite well. However, I have not had any success with SEDOL and RIC to request contract details, though these two specifications exist on paper – at least).

Examples, if you chose to enter Symbol & Security Type:

Symbol	Security Type
PEP	STK
PEP	OPT
ES	FUT
EUR	CASH
XAUUSD	CMTDY
SPXA	IND

**Option for Wave59 Users:**

It's possible to store market data beyond a name which is different to the name predetermined by the symbol-type-exchange\_currency combination. This name can also be used to open a chart, and too, as a collector for contracts that will expire and subsequently switch to a new chart symbol name.

For instance: if you are charting price data for ES\_FUT\_20141219\_GLOBEX\_USD and additionally define an alias for that contract, let's say ES\_FUT\_GLOBEX\_USD, then market data will be stored in ES\_FUT\_20141219\_GLOBEX\_USD and also in ES\_FUT\_GLOBEX\_USD. However, the true contract will expire on 19<sup>th</sup> Dec. 2014. Then you need to switch your chart symbols to the next expiry which is ES\_FUT\_20150320\_GLOBEX\_USD, and still pass an alias for that contract ES\_FUT\_GLOBEX\_USD.

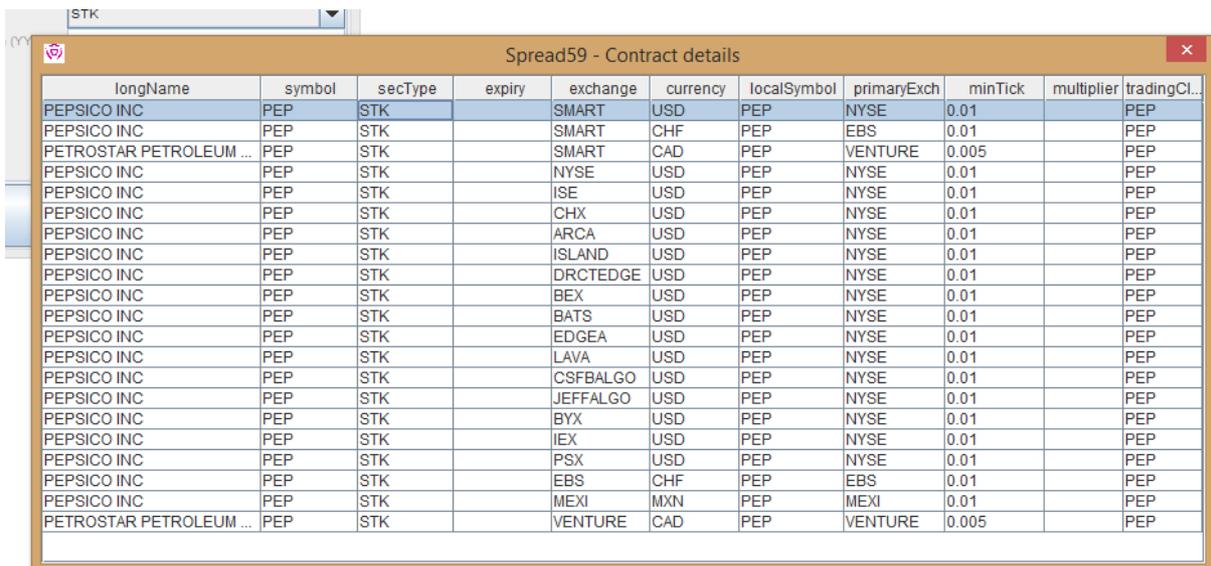
Now market data will be stored in ES\_FUT\_20150320\_GLOBEX\_USD and again in ES\_FUT\_GLOBEX\_USD.

This way you are able to have continuous contract data even though contracts switch every now and then.

Finally confirm "add".

Now SpreadIB will request all details for this contract at Interactive Brokers. This may take some time, especially if there are lots of informations accessible, as it's the case with options. Please be patient.

If IB associates more than one contract fitting your specifications, then a list will pop up, showing all available possibilities.



The screenshot shows a window titled "Spread59 - Contract details" with a table of contract information. The table has columns for longName, symbol, secType, expiry, exchange, currency, localSymbol, primaryExch, minTick, multiplier, and tradingCl... The data rows list various contracts for PEP (PEPSICO INC) traded on different exchanges like SMART, NYSE, EBS, VENTURE, etc.

longName	symbol	secType	expiry	exchange	currency	localSymbol	primaryExch	minTick	multiplier	tradingCl...
PEPSICO INC	PEP	STK		SMART	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		SMART	CHF	PEP	EBS	0.01		PEP
PETROSTAR PETROLEUM ...	PEP	STK		SMART	CAD	PEP	VENTURE	0.005		PEP
PEPSICO INC	PEP	STK		NYSE	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		ISE	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		CHX	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		ARCA	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		ISLAND	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		DRCTEDGE	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		BEX	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		BATS	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		EDGEA	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		LAVA	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		CSFBALGO	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		JEFFALGO	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		BYX	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		IEX	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		PSX	USD	PEP	NYSE	0.01		PEP
PEPSICO INC	PEP	STK		EBS	CHF	PEP	EBS	0.01		PEP
PEPSICO INC	PEP	STK		MEXI	MXN	PEP	MEXI	0.01		PEP
PETROSTAR PETROLEUM ...	PEP	STK		VENTURE	CAD	PEP	VENTURE	0.005		PEP

Above example shows that PEP is traded on different exchanges.

You can change the width of the columns as you need it by grabbing the vertical line in the title row.

Select the contract which is qualifying your needs by double-clicking the appropriate row.

Then the selected contract will be placed on the left list of the "Spread59 - Enter contract data" dialog, indicating that market data will be recorded for this contract.

Note: If your specifications qualify for a single contract only, then you will not be shown a list of contract details. It's not necessary to do that. For example:

specify Symbol "EUR", Security Type "CASH" and Currency "JPY", or  
enter Symbol "SPXA", Security Type "IND", or  
Symbol "ES", Security Type "FUT", Expiry "201412" or  
Symbol "DAX", Security Type "OPT", Strike "10000.0", Put, ...

To modify a symbol, select one from the list, modify it and afterwards click onto the "add" button. This will create a new symbol request.

To delete a symbol select it from the list on the left, afterwards click the "delete" button.

When finished, then press "OK".

*Please note that all changes take effect immediately for consistency reasons. So this list is kind of "what you see is what you get".*

*Also note: symbol names are always elongated to show all their important attributes.*

## Step 5: add/modify/delete spreads

If you want to trace prices for spreads, then you must enter them into this dialog:

Action	Ratio	Contract	Multiplier
buy	1	DAX_FUT_20091218_DTB_EUR	25
sell	1	ES_FUT_20091229_GLOBEX_USD	50

adding spreads:

1. Enter a spread name into the text field below the OK-button. You can call your spread whatever you like, but keeping things simple, a good name involves the symbols the spread is built of. Click **"add"** after you defined the name of the spread.
2. Next you need to define what the spread looks like.  
If, for instance, your spread is "buy 3 contracts YM" and "sell 1 contract Rus-  
sel2000" then you'd enter this data into the table designated by "Legs".  
Specify the first leg of your spread. Select "buy" into column "Action" of the first  
row, then enter "3" into the "Ratio" column, select the appropriate contract for YM  
from the list given in column "Contract" and finally, that is very important, enter  
the point value of a single YM contract.  
Next do the same for the Russel2000 in the second row. Select "sell" for "Action"  
in the second row, set "Ratio" to 1, in "Contract" select the symbol name for Rus-  
sel2000 and – again important – set the point value of the future contract into  
column "Multiplier".
3. Leave the last field edited. So click or TAB into the next field of the table.  
This indicates that you are done with your legs definition.

deleting spreads:

Select a spread from the list at the left of the panel and click the "delete" button.

modifying spreads:

1. select a spread from the list and adjust the legs as required.
2. Don't forget to leave the last modified field of the table. Otherwise changes done within this field are discarded.

When done with the spreads, then leave that panel by clicking "OK".