



IB-Excel adapter

IB-Excel adapter is a version of *DataOutreach* customized for the Interactive-Brokers (IB) - Trader Workstation Server (TWS). DataOutreach is a publish/subscribe middleware from CyberXpert.

IB-Excel adapter connects Microsoft Excel (MSExcel) to IB-TWS and enables workbooks to subscribe and receive real-time updates using cell formulas. It is not a DDE service, still provides a flicker free, high-speed cell updates.

	A	B	C	D
1		<i>Last</i>	<i>Last Size</i>	
2	IBM	=ib_subscribe(\$A2, B\$1)	=ib_subscribe(\$A2, C\$1)	
3				

System Requirements

- Operating Systems: Window XP or Windows 2000
- MS Excel: 97, 2000, XP and 2003.

Software Installation

1. Run the self-extracting software package from http://www.cyberxpert.com/ib/IB_Excel_Adapter_0_8.exe.
2. Use the default directory "*C:\Program Files\CyberXpert\IB-Excel Adapter*". If you are changing the target directory, please make a note of it.
3. At the final step, you will be prompted for an Excel Add-In installation. If you encounter any problem during this step, please manually add the following add-in
<InstalledLocation>/addin/IB_Excel_Adapter.xla

IB Trader Workstation Settings

Enable TWS Screen -> Configure -> API -> "Enable ActiveX and Socket Client", and make sure TWS Screen -> Configure -> API -> Socket Port value is set to 7496.

IB-Excel adapter Settings

You can skip this step if you are running IB TWS in the same machine where you have installed IB-Excel adapter. If you are running IB TWS at another computer in your network, or running against a port other than 7496, then you need to configure IB-Excel adapter defined in <installed path>\config\IB_client.conf. Open this configuration file using Notepad, and set "server" and "port" values.



IB-Excel adapter

IB Subscriptions from MS Excel

The subscription formula is “= **ib_subscribe** (Symbol, Field)”. This formula can be in any cell, anywhere in a workbook. Symbol & Field values can be a cell reference too. If the Symbol is not well constructed or not listed in the given exchange, then you will see an error “#Invalid Symbol” in that cell. If the Field is not a valid field, then you will see “#Invalid Field”. Valid fields are *Bid, Bid Size, Ask, Ask Size, Last, Last Size, High, Low, Close, Volume, Position, Cost, Unrealized, and Realized*. Examples:

=ib_subscribe (“IBM”, “Position”)	=ib_subscribe (“IBM”, “Last ”)	=ib_subscribe (“IBM”, “Unrealized”)
-----------------------------------	--------------------------------	-------------------------------------

Symbol Formats

<i>Instrument Type</i>	<i>Symbol Format</i>	<i>Example</i>	<i>Default Exchange</i>
Stock	Ticker	IBM	SMART
Option – Call	ticker_expiration_strike_C	IBM_20050121_95_C	SMART
Option – Put	ticker_expiration_strike_P	IBM_20050121_95_P	SMART
Future & Index Future	ticker_expiration	ZN_20050617	ECBOT
Index	\$ticker	\$NDX.NASDAQ	SMART
Forex	foreign/native	AUS/USD	IDEAL

Two convenient functions are available for constructing option and future symbols.

=ib_option_symbol(ticker, expiration_date, strike_price, put_or_call) and
 =ib_future_symbol(ticker, expiration_date)

The default exchange can be overridden by including exchange name after the ticker symbol, as “Ticker.Exchange” (e.g., IBM.ARCA, NQ.GLOBEX_20050617).

The value after the last ‘.’ is considered as an exchange symbol. If your symbol has ‘.’, then include its exchange value. Some Canadian stocks have “.A” and “.B” suffix, in such cases include its traded exchange. Examples: “NV.A.TSE” and “NV.B.TSE”.

Base Currency: Get quotes in a currency by adding the currency symbol at the end of your subscription symbol (e.g., IBM/USD). Base currency defaults to a value ‘base_currency’ that is defined in the configuration file (<InstalledLocation>/conf/ib_client.conf). List out your FX currencies against the variable ‘monitored_currencies’ to disambiguate them from stock symbols. A subscription symbol is first checked in that list - if it is present then it is treated as a currency symbol, otherwise it is treated as a stock symbol.

Overriding a symbol type: A symbol may look like a stock, but it can be an index or an underlying of an option on a future contract. You can resolve this ambiguity by specifying the instrument’s type. The supported types are STK (stocks), OPT (option), IND (index), FUT (futures), FOP (option on a future) and CASH (currency). Example:

=ib_subscribe (“STK:IBM”, “Last”) =ib_subscribe (“FOP:ZN.ECBOT_20060616_90.00_C”, “Last”)



IB-Excel adapter

Resolving a contract definition: There may be more than one contract traded having same values at the same exchange. For example, JPY 12/08/2006 0.0072 Call at GLOBEX has two different local symbols: XJZ6 C0720 and JYZ6 C0720. In such cases, append its local symbol along with the underlying symbol: FOP:JPY.GLOBEX,XJZ6 C0720 and FOP:JPY.GLOBEX,JYZ6 C0720.

Account information:

You can get updates on your account's *NetLiquidation*, *SMA*, *Unrealized* and many more by providing "Account.Account#" and the field of interest; for example, to subscribe "NetLiquidation" amount use

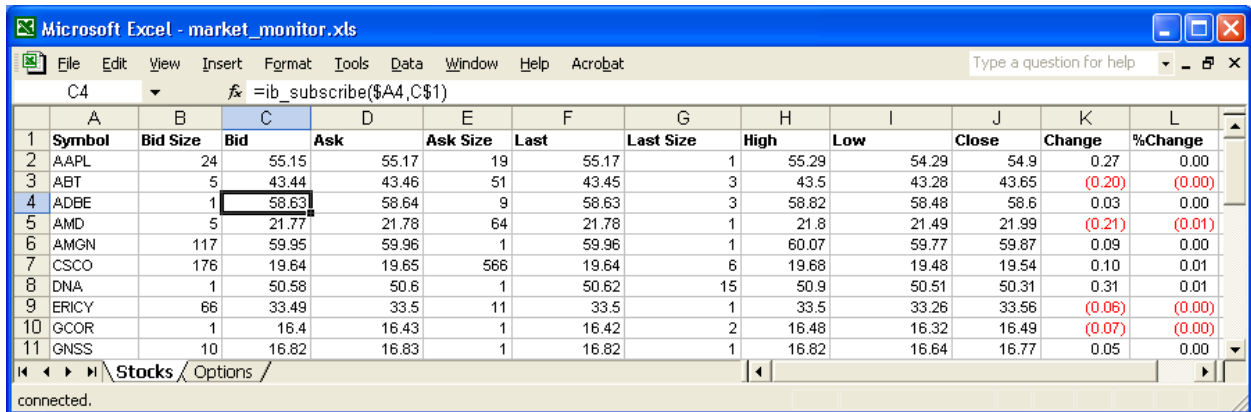
=ib_subscribe ("Account.U123456", "NetLiquidation")

List of supported Account fields are

<i>AccruedCash</i>	<i>AvailableFunds</i>	<i>BuyingPower</i>	<i>CashBalance</i>
<i>EquityWithLoanValue</i>	<i>ExcessLiquidity</i>	<i>FullAvailableFunds</i>	<i>FullExcessLiquidity</i>
<i>FullInitMarginReq</i>	<i>FullMaintMarginReq</i>	<i>FutureOptionValue</i>	<i>FuturesPNL</i>
<i>GrossPositionValue</i>	<i>InitMarginReq</i>	<i>MaintMarginReq</i>	<i>NetLiquidation</i>
<i>OptionMarketValue</i>	<i>PNL</i>	<i>RealizedPnL</i>	<i>RegTMargin</i>
<i>SMA</i>	<i>StockMarketValue</i>	<i>TotalCashBalance</i>	<i>TotalCashValue</i>
<i>UnalteredInitMarginReq</i>	<i>UnrealizedPnL</i>		

Demo workbook

A sample workbook having all the above instrument type can be found in the sample workbook "[<installed directory>/IB-Excel Adapter/demo/market_monitor.xls](#)".



Start TWS before opening a spreadsheet having subscription formulas. Connection is established on the first subscription, and TWS will prompt you with "Accept incoming connection attempt" popup. Click "Yes" and continue. Look for error messages in the MS Excel Status bar.

IB-Excel adapter



Uninstall Add-in

- Run uninstall from “Start -> All Programs -> CyberXpert IB-Excel Adapter -> Uninstall”.
- Open a MS-Excel workbook.
- From the menu bar, point to **Tools** and click **Add-Ins**. Add-In dialog box will appear.
- Disable “IB_Excel_Adapter”

Frequently asked questions

- *Why am I getting a “DLL not found” error message?*

This may be due to any of the following cases:

1. You may be running more than one Excel instance at the time of installation. Quit all working MSExcel applications and open them again.
2. MSExcel prompted you with “copy addin to your personal folder?” message, and you might have said, “Yes”. If you said “Yes”, only “IB_Excel_Adapter.xla” gets copied to your personal folder, and not all other associated files.

To solve this problem:

- a) Search for “IB_Excel_Adapter.xla” in your personal folder or in all local drives.
 - b) Delete “IB_Excel_Adapter.xla”
 - c) Open an MSExcel workbook. You will be prompted with “IB_Excel_Adapter.xla is not found” error message. Ignore this message and continue. Once Excel is up, select Tools, Addin, and deselect “IB_Excel_Adapter” in the add-in dialog box.
 - d) Close MS Excel applications.
 - e) Repeat the installation Steps.
- *Why am I getting Error message when adding IB_Excel_Adapter.xla?*

When you install an addin, MSExcel tries to add an entry in window’s registry, and will fail if your registry is write-protected. Contact your system administrator, and get it installed.

- *I am getting updates, but those updates repaint other workbook cells.*

If you have two workbooks opened within one Excel session, an update in the bottom workbook can disturb the one the top. You can overcome this by launching a new Excel session and keep it exclusively for IB subscriptions.

Registration

Thank you for using IB-Excel Adapter. Please leave your feedback in the IB -Freelance tool page. Feel free to contact us by email support@cyberxpert.com for any support issues.