

C++ API Quick Reference

This Quick Reference assumes that you are comfortable downloading and installing software.

1. Download and Install the API Software

Ensure that TWS is closed before you begin.

- a. From the IB homepage, on the **Trading** menu, select *API Solutions*.
- b. Click the **IB API** button to display the IB API page, then find your operating system (Windows, MAC or Unix) and click *Download latest version*.
- c. Click Save or Save File in the Download dialog, then choose the location on your computer in which to save the installation file, (**InstallAX_XXX.exe**, where **XXX** is the API version number). Choose a location that you will remember, such as your Windows Desktop if you are using Windows.
- d. Run the installation file from the "save" location in the previous step and follow the instructions in the installation wizard to install the software. Be sure to accept the default Destination Folder, which is where the C++ API and Test Client sample application will be installed.

2. Configure TWS to Support the C++ API

- a. Open TWS and log into your account.
- b. On the TWS Edit menu, select *Global Configuration*.
- c. Select *API* in the left pane, then click *Settings*. then check *Enable ActiveX and Socket Clients*.

3. Install a C++ IDE

Before you can run our C++ API sample application, or create your own TWS C++ API sample application, we recommend installing Microsoft Visual Studio, available from Microsoft, or any similar Integrated Development Environment (IDE) that supports the C++ programming language.

4. Run the C++ API Sample Application

Our TWS C++ API software comes with a pre-built sample application. To run this sample application:

- a. Log into TWS.
- b. Go to your TWS API installation folder (typically C:\IB_API_X_XX, where X_XX is the API version number), then open the *TestSocketClient\Release* folder.
- c. Run the file named **client2.exe**.

You can open the C++ sample application from within Microsoft Visual Studio 2008 or your favorite C++ development environment. For detailed instructions, see the [API Reference Guide](#), available from the Application Programming Interfaces page on our web site.

If you have any problems running the sample application, contact our API Support Team at api@interactivebrokers.com.

TWS C++ API Reference

The C++ API's EClientSocket class sends messages to the TWS, while the EWrapper class receives data from TWS.

To do this:	Call EClientSocket function(s):	And receive TWS data from EWrapper functions(s):
Connect to TWS	eConnect()	None
Disconnect from TWS	disconnect()	connectionClosed()
Get market data	reqMktData()	tickPrice() tickSize() tickOptionComputation() tickGeneric() tickString() tickEFP()
Get market depth	reqMktDepth()	updateMktDepth() updateMktDepthL2()
Get historical data	reqHistoricalData()	historicalData()
Get real time bars	reqRealTimeBars()	realtimeBar()
Get the current system time on the server	reqCurrentTime()	currentTime()
Subscribe to a market scanner	reqScannerSubscription() reqScannerParameters()	scannerData() scannerParameters() scannerDataEnd()
Get pre-trade commissions and margin information	placeOrder(), with whatIf parameter turned on	orderStatus()
Place an order	placeOrder()	orderStatus()
Exercise options	exerciseOptions()	None
Get contract details	reqContractDetails()	contractDetails() contractDetailsEnd()
Get a list of open orders that were placed from this client	reqOpenOrders()	openOrder() orderStatus()
Get a list of all open orders placed from this and other clients	reqAllOpenOrders()	openOrder() orderStatus()
Automatically associate a new TWS order with the client	reqAutoOpenOrders()	openOrder() orderStatus()
Get account values, portfolio, and last update time information	reqAcctUpdates()	updateAccountTime() updateAccountValue() updatePortfolio()
Get a list of the day's execution reports	reqExecutions()	execDetails() execDetailsEnd()
Receive IB news bulletins	reqNewsBulletins()	updateNewsBulletin()
Get the version of TWS to which the application is connected	setLogLevel()	None
Get a list of Financial Advisor (FA) managed account codes	reqManagedAccts()	managedAccounts()
Get FA configuration information	requestFA()	receiveFA()
Modify FA configuration information	replaceFA()	receiveFA()
Get Reuters global fundamental data	reqFundamentalData()	fundamentalData()