IBGateway
Software Guide

FIX CTCI Connections

ions to IB over the Internet. It is a piece
engine and IB. The software also can
er Workstation API does. Coding
in this manual. For details on
the following URL...

operability/DDE_Config

ort 4001.

One will
only. The

Interactive Brokers
The Professional's Gateway to the World's Markets

Revision 2.0 – May 5, 2008

Contents

About the IBGateway Client

The IBGateway client software acts as a bridge between your FIX engine and IB, and allows for FIX CTCI connections over the Internet. The software can be also be used with the TWS APIs to deliver market data, using the same protocol as the Trader Workstation. A list of the API market data functions supported through the IBGateway is included on the last page of this document.

NOTE: When you use the API functions, the IBGateway software takes the place of TWS, consequently you do not need to have a TWS session running.

The gateway client communicates over the internet using SSL on TCP port 4001. Firewall permissions may need to be made for that port.

It is important to note that separate accounts are required for **FIX order routing** and **API market data requests,** and the IB Gateway Login box provides two separate login areas.

There are "throughput limits" at the gateway, and the client will be warned if it exceeds the predefined limits. The limits and warnings are as follows:

- **Limit**: If more than 50 messages per second or 33000 bytes per second are sent…

- **Warning**: Initially, user defined warning messages will be sent via FIX (35=U, 58=Text String describing the warning, and 6040=34 for the first two warnings). If the "throughput limits" are exceeded a third time, the socket will be broken.

Downloading the Gateway Client

The gateway client is a java program which will allow it to run on any machine that has the Java Runtime Environment installed on it. IB recommends using JRE 6 or higher, which can be downloaded directly from Sun Microsystems at www.java.com .

Click here to download the gateway client software.

Configuring and Running the IBGateway Client

Save the downloaded files to a directory of your choice. From a DOS window, cd to the file directory and enter the following instruction to start the IBGateway software:

```
java -Xmx128M -cp gwclient.jar ibgateway.GWClient
```

You will get a window similar to the one below. The arrows show the API-related settings. First configure your settings file, and then log in using the **Market Data** login area.
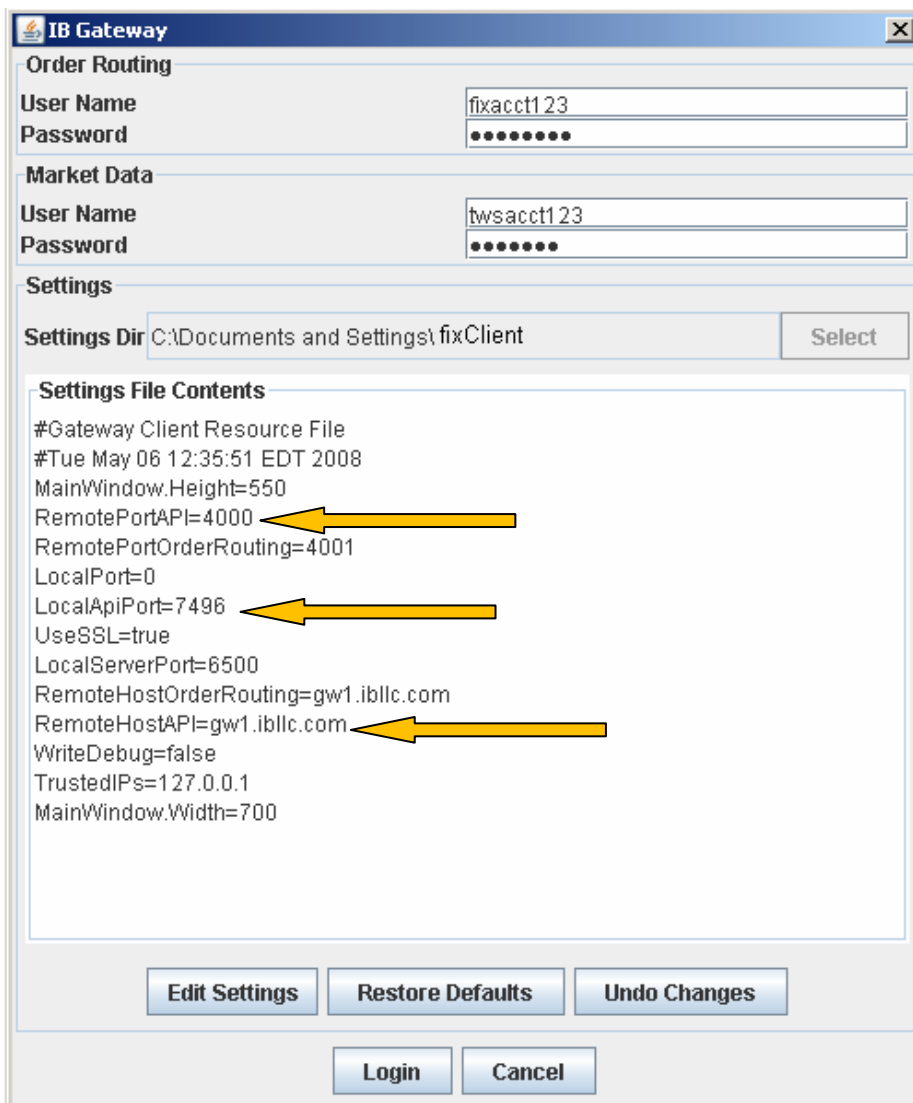
To modify settings, click the **Edit Settings** button. When finished, click the **Save Settings** button (*Edit Settings* changes to *Save Settings*).

Settings Fields

|	
MainWindow.Height=550	**Window height setting**
RemotePortAPI=4000	**Target port for API (must be 4000)**
RemotePortOrderRouting=4001	**Target port for Orders (must be 4001)**
LocalPort=0	**Local outboud port to IB (0=anything)**
LocalApiPort=7496	**API connects to GWC on this port**
UseSSL=true	**Enables SSL encryption**
LocalServerPort=6500	**FIX engine connects to GWC on this port**
RemoteHostOrderRouting=gw1.ibllc.com	**Order host (must be gw1.ibllc.com)**
RemoteHostAPI=gw1.ibllc.com	**API host (must be gw1.ibllc.com)**
WriteDebug=false	**Turns on/off debug files**
TrustedIPs=127.0.0.1	**Sets 'trusted' IP address for API**
MainWindow.Width=700	**Window width setting**

After you save your settings, you can log into your CTCI order routing and/or TWS market data accounts by entering the appropriate username and password for each. Click **Login** to establish the connection to our servers.

You can now connect your FIX engine or API software to the IBGateway client. You will see a screen that looks like the one below. Status indicators show the status of the connections to and from the IBGateway client.

Note that for CTCI FIX order routing, the client will connect and then disconnect until a FIX engine is connected to it on the user's side.
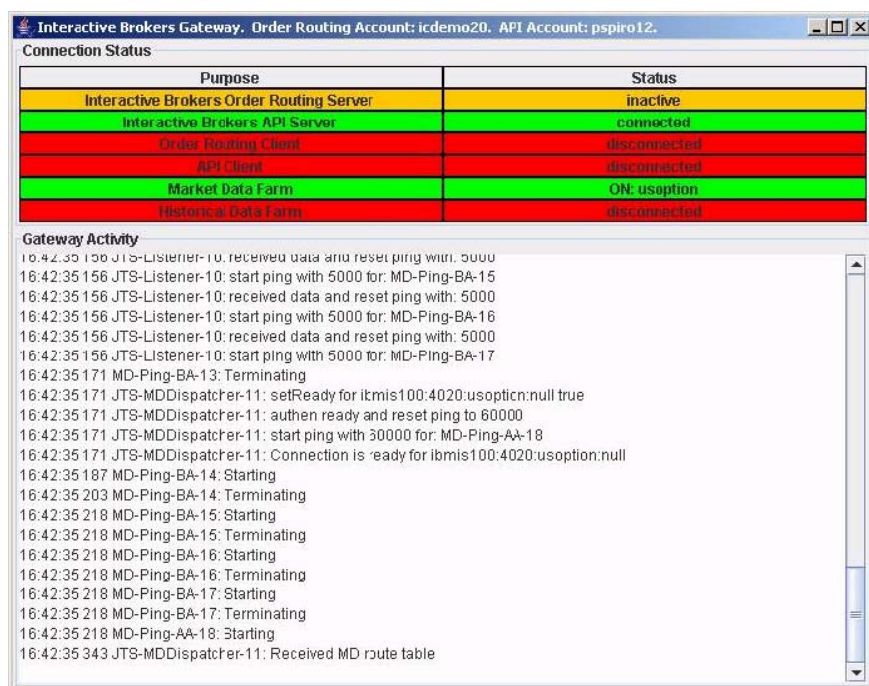
Once the FIX engine and API client software have successfully connected to the client software, your screen will look like this:
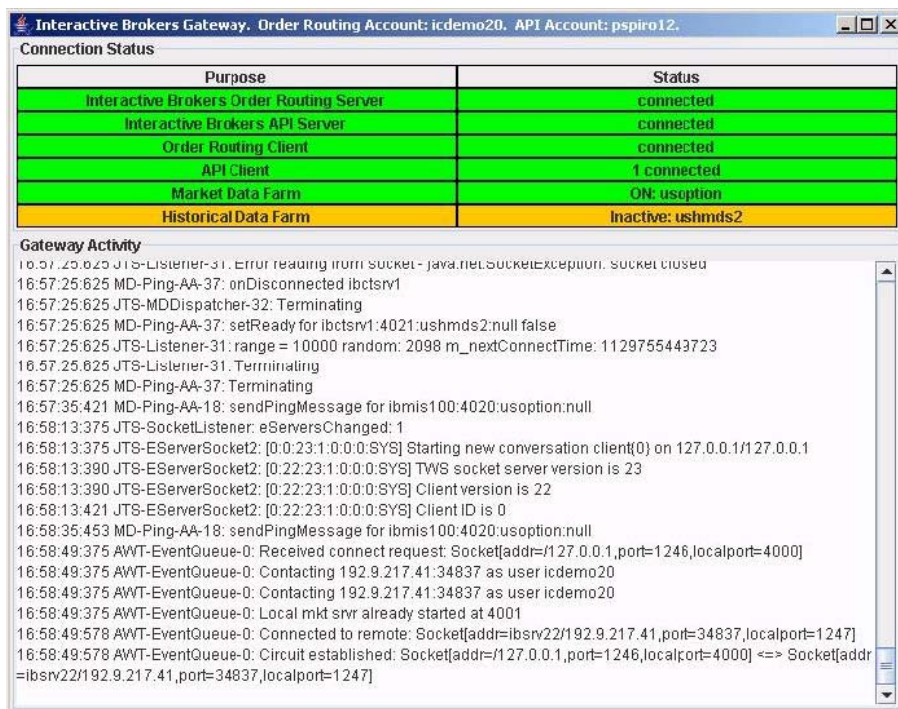
The Historical Data Farm indicator will only show green when a historical market data request or scanner subscription has been made, as is shown in the following screenshot:
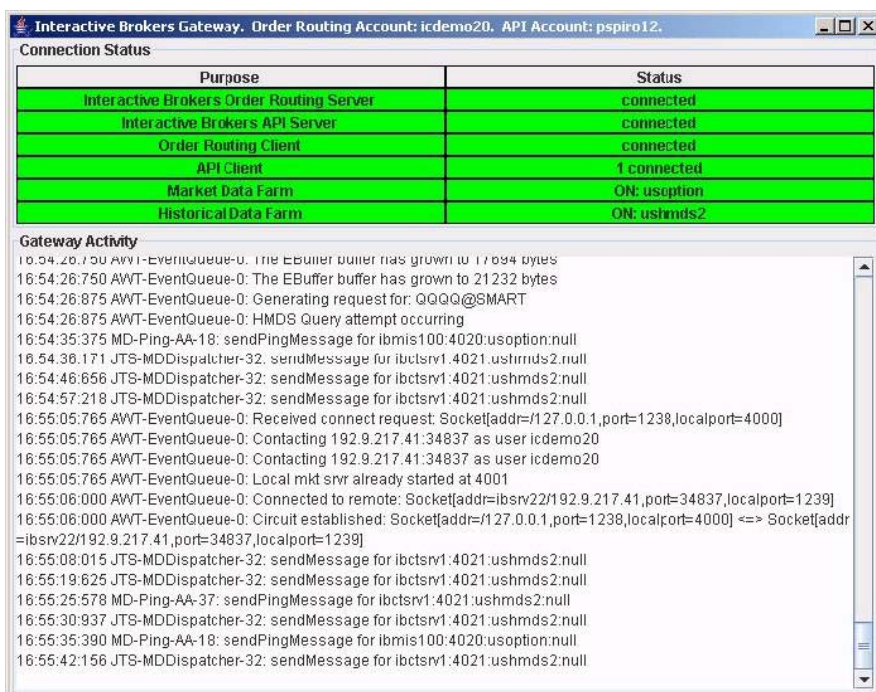
The screenshot below shows that the local FIX engine and API client have disconnected:

Purpose	Status
Interactive Brokers Order Routing Server	inactive
Interactive Brokers API Server	connected
Order Routing Client	disconnected
API Client	disconnected
Market Data Farm	ON: usoption
Historical Data Farm	Inactive: ushmds2

Gateway Activity

```
16:56:48:078 JTS-EServerSocket1: [0:22:23:1:0:0:0:SYS] Ending conversation with client{0} at 127.0.0.1/127.0.0.1
16:56:48:078 JTS-EServerSocket1: eServersChanged: 0
16:56:48:078 JTS-EServerSocket1: checking market data and cleaning maps
16:56:48:078 JTS-EServerSocket1: eServersChanged: 0
16:56:49:500 JTS-MDDispatcher-32: sendMessage for ibctsrv1:4021:ushmds2:null
16:57:00:703 JTS-MDDispatcher-32: sendMessage for ibctsrv1:4021:ushmds2:null
16:57:12:000 JTS-MDDispatcher-32: sendMessage for ibctsrv1:4021:ushmds2:null
16:57:23:343 JTS-MDDispatcher-32: sendMessage for ibctsrv1:4021:ushmds2:null
16:57:25:609 MD-Ping-AA-37: Closing hmds dormant connection ushmds2
16:57:25:625 MD-Ping-AA-37: m_disconnectTime 1129755445625
16:57:25:625 MD-Ping-AA-37: Disconnecting
16:57:25:625 JTS-Listener-31: Error reading from socket - java.net.SocketException: socket closed
16:57:25:625 MD-Ping-AA-37: onDisconnected ibctsrv1
16:57:25:625 JTS-MDDispatcher-32: Terminating
16:57:25:625 MD-Ping-AA-37: setReady for ibctsrv1:4021:ushmds2:null false
16:57:25:625 JTS-Listener-31: range = 10000 random: 2098 m_nextConnectTime: 1129755443723
16:57:25:625 JTS-Listener-31: Terminating
16:57:25:625 MD-Ping-AA-37: Terminating
16:57:35:421 MD-Ping-AA-18: sendPingMessage for ibmis100:4020:usoption:null
```

API Messages Supported by the IBGateway Client

At this time, the following API market data functions are supported by the IBGateway client:

- **Request Contract Details**

- **Request Market Data**

- **Cancel Market Data**

- **Request Market Depth**

- **Cancel Market Depth**

- **Request Historical Data**

- **Cancel Historical Data**

- **Request Scanner Subscription**

- **Cancel Scanner Subscription**

- **Request Scanner Parameters**

- **Request Account Updates**

To find details on using the above methods, please refer to the **API Users' Guide.**