

Documentation for Trinprice

Three versions available

- **Demoversion:** During a 30-day test-period collect data for up to 2 securities.
- **Reduced version:** If you register you will get a key, which allows you to activate the reduced version: During a 30-day test-period collect data for up to 10 securities.
- **Full version:** If you want to use Trinprice after the 30-day test-period you can buy a license key.

Installation

Software prerequisites:

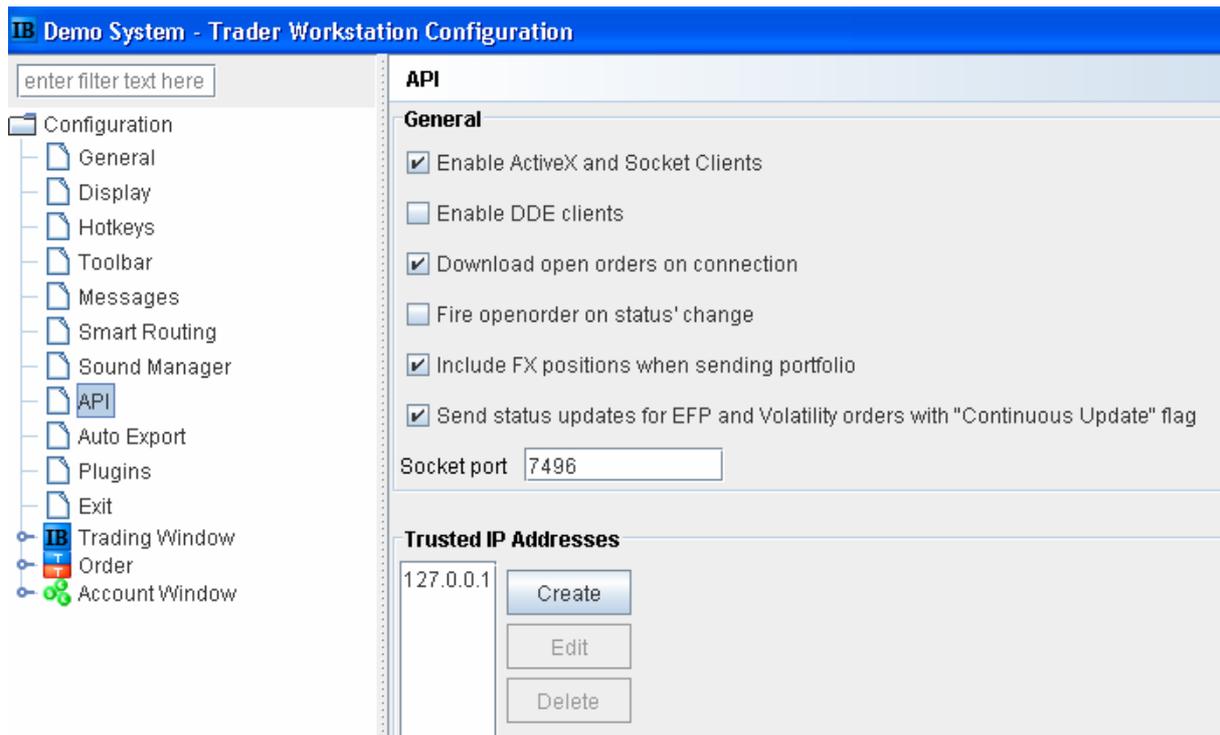
- Windows® XP
- * Microsoft .Net Framework 2.0
- * Microsoft SQL Server™ 2005 Express Edition (If you have installed the regular edition of Microsoft SQL Server™ 2005 ask us for a different version of Trinprice)
- + IB Trader WorkstationSM
- + Interactive Brokers API

* (will be installed automatically from Microsoft-website during installation if not yet installed on your PC)

+ (download and install these programs by yourself from www.InteractiveBrokers.com)

Configuring the Interactive Brokers API:

1. Before Trinprice can connect to the IB Trader WorkstationSM (TWS) you have to start it and click in the menu on **Configure/API/Trusted IP Addresses...**
2. You should see the following screen:
3. Enable “Enable ActiveX and Socket Clients” as shown
4. Click on the “Create”-Button and enter 127.0.0.1 (This will allow your computer to connect to the API)



Installation steps:

1. Read our End User License Agreement on our website and accept it if you agree to it. If you do not agree, do not install it!
2. **If this is not the first time that Trinprice is installed on your computer and you already have databases which you want continue to use, make a backup of these databases (Files “Portfolio.mdf” and “Quotes.mdf”) in order to minimize the risk of overwriting your existing databases with the new and empty databases delivered with the installation package.**
3. Click on the Install-button or download the installation file-package, unzip it into an empty folder and click on setup.exe.
4. Now the installation package will check whether the Microsoft .Net Framework 2.0 and Microsoft SQL Server™ 2005 Express Edition are already installed on your computer and if not install them from the Microsoft website.
5. During the installation of Microsoft SQL Server™ 2005 Express Edition you will be guided through several screens. Just leave the default selections (standard instance name and windows authorization).
6. After successful installation of these components Trinprice should will start in the Demo-mode.
7. Now Trinprice tries to find any existing databases from earlier Trinprice-installations. If it cannot find them it asks you whether it should copy the 2 empty databases from the execution directory (Portfolio.mdf and quotes.mdf) to the application directory.

Known limitations:

- **1 Symbol = 1 Database table.** In the current version of Trinprice you cannot store data for several contract months or option contracts for the same symbol at the same time, e.g. for the symbol “EUR” you can only store one contract at a time. You might start with the Euro September 2007 contract and then switch to the next contract at

some later time, but the prices will be stored in the same table. In other words for the symbol "IBM" you cannot store data for several option contracts at the same time. The demo- and reduced versions are restricted to 2 and 20 securities respectively. IBSM normally allows you to receive 100 market data lines at a time. There is no fixed limit for symbols in the full version of the program.

- The maximal database size in Microsoft SQL Server™ 2005 Express Edition is **4GB**. If you need more, you have to get a license for Microsoft SQL Server™ 2005 or create separate databases.
- **Only Lastprice and Lastsize.** Trinprice only stores Lastprice and Lastsize together with **your computer's local time**. The IBSM-TWS sends separate tickprice and ticksize messages which are repeated snapshots of market activity (See the discussions in the IB-API-Forum on this subject). Your data will look like this:

Your system time: "pdate" "pclose" (prize) "vol" (size)

2006-09-08 16:36:20.317	1.267	1
2006-09-08 16:36:22.270	1.2671	1
2006-09-08 16:36:34.277	1.267	3
2006-09-08 16:36:34.757	1.2671	1
2006-09-08 16:36:39.757	1.267	3
2006-09-08 16:36:40.257	1.2671	2
2006-09-08 16:36:45.313	1.267	8
2006-09-08 16:36:48.607	1.2671	1
2006-09-08 16:36:49.267	1.267	4

Future releases of Trinprice will allow you to store 5 sec realtime bars provided by IB. In this case further columns for open, low and high will be filled as well.

The main form

Here you can start and stop requesting data from the TWS.

Before you request market data, make sure the following:

1. You have already entered securities in the "Security List" form.
2. Start TWS if it is not running already.
3. Your computer is in the list of trusted IP-Addresses of the TWS (if not you have to click on Yes when TWS asks you whether to allow the connection)
4. On the main Form check the "Connect"-Box to connect the program to the TWS via the TWS-API, if not connected already.
5. In the message box at the bottom of the main form the following message from the TWS should appear: "Market data farm connection is OK"
6. Now you can click on "Start receiving current data"

7. During market hours you should now see the quotes streaming in (Systemtime Symbol prize– vol).

If you click on “Start receiving current data” a request for market data is made to the TWS for all securities in your list, for which you have checked the “Request market data” box on the “Edit securities” form.

Securities

On the form „Main“ click on View/ Edit Securities to open the form „Security list.”

Before being able to request market or historical data you have to enter the securities for which you want to get either current or historical data (5 sec realtime bars will be available later).

Click on “Add new security” to enter a new security or click on existing securities in the list to edit them. If you enter a symbol and go to the next entry-field the tablename-entry-field will be filled with your symbol. If your symbol contains a dot “.” It will be removed so HHI.HK becomes HHIHK. Please avoid other special characters like “-“ or “:” in symbol-names, because this might lead to confusion in the interpretation of SQL-queries.

On the “Edit Security” form you can describe the securities and by activating the box “Request market data” include them into the set of securities for which you want current data.

For futures contracts you can decide at which day you want the program to switch months. After having given symbol, and expiry you can click on “Request contract data from TWS now” to have the program get data like last trading day and others from the TWS (The program has to be connected to the TWS for that, see “The main Form”). In the textbox “months” you have to enter the months which you want to use. The program does not check whether the contracts in this list exist. Once the program has got the last trading day for the expiry you entered you can enter the number of days before the last trading day where you want to switch months. This switching day will also be used for historical data requests unless you specify a certain month on the historical data form.

Do not forget to click on “Apply changes” to save your entries.

Historical data

On the form „Main“ click on View/Historical Data to open the form „Historical Data.”

A word on historical data from IBSM :

This feature is not meant to build up a large historical price database. You can rather use it for filling gaps in your data or for getting a prize base (e.g. 23 days) necessary to calculate your indicators for newly entered securities.

Use the 30 day evaluation period to find out, whether you can get what you expect! There also are a lot of messages about IBSM IB-historical data in the IBSM user forum.

Data for a security might not be available at all or only for a certain period, only selected futures contract months, or only in certain bar sizes. Furthermore IBSM historical data servers are sometimes not available and IBSM also has put a time restriction in order to protect its servers from too much load (only 1 request every 10 seconds and only 2000 bars per request).

On the form „Historical Data.” Make the following specifications:

“Which Securities?”

Here you can enter:

“IBM”: the symbol of one of your securities (only securities that you entered in the “Edit securities dialogue”)

“all” : all your securities

“STK”: all your stocks

“OPT”: all your options

“FUT”: all your futures

If you specify “all” or “STK” all your symbols are being worked through in alphabetical order beginning with “A”. If you want to start at another point in the alphabet (e.g. after an interruption while doing “IBM”) you could enter “IBA” to tell Trinprice to take all tables which come in the alphabet after “IBA”.

“For which time period?”

Here you specify the time period for which you want to retrieve historical data.

If you want the data from Startdate and Enddate activate “Use both dates”.

Instead of entering a Startdate, you can also have it calculated using:

- the last quote in your database of certain security
- the Enddate minus a certain amount of minutes or days, e.g. if you want all data available enter 365 days.
-

“What kind of data?”

Here you can specify barsize and other parameters. See the IB API-Documentation for what these specifications mean. If you want only bars with trades choose “TRADES” and “Bars with Volume > 0 only”.

If you choose other “What to Show”-types you have to deactivate “Bars with Volume > 0 only”. If “Bars with Volume > 0 only” is activated the weighted average price-parameter is saved, if not, the value which is returned for the Open-parameter, because at the time this was written the weighted average price-parameter was found to be empty for types other than “TRADES”.

Futures contract months

If you decide to retrieve data for futures you can let the program decide which months to take according to the specifications (switching days) you have made in the “Edit security” dialogue or you enter can enter a month in the field “Contract month” e.g. 200708. Leave it blank if you want the program to select the months.

If you see, that no data are returned for the contracts calculated by the program you can try to get charts in the TWS for your requested time period. There you can see, for which months there are data available (Expired contracts) and you might have to split up your request for data into several requests with specific months entered in the “Contract month” field.

Starting the request: Click on “Request historic data”

Stopping the request: Click on “Stop request”

You will see that your request will be split up into several backtickjobs in order to fulfill the the rules of the IB-interface.

While the retrieval of historical data proceeds you can go back to the other forms and do other things there.

The databases

Trinprice stores your security specifications which you enter via the “Edit Security” form in a database-file named “Portfolio.mdf”, the prizes received from the TWS in another database-file named “Quotes.mdf”. In addition to the main database files 2 log-files will be created by the database management system “portfolio_log.ldf” and “quotes_log.ldf”. The default location of these files is the user specific application directory C:\Documents and Settings\\Local Settings\Application Data\Trinhof Limited\Trinprice to where they are copied during the first installation of Trinprice. If you select View/Options you can select another folder where you want to have your databases. In this case you have to **copy your database files to the selected folder by yourself before starting Trinprice again**. This location is stored in your user-specific configuration-file. These **4 files** are your valuable data once you have started working with Trinprice, so **make sure to make backups of these files frequently**. You should always keep several and also older versions of your backups on several media, because it can happen that a data error is reported only weeks after

it occurred and working backups are already overwritten. The SQL Server™ Management Studio Express tool (see the next point) supports you in several ways in this respect (e.g. automatic backups or data integrity checks). If you use the example Excel®-spreadsheet then you have to copy it together with the database files to the new folder.

Before you can copy your databases to another place or start a backup within SQL Server™ Management Studio Express **you have to close Trinprice.**

It is planned to offer interfaces to other relational database management systems in the future.

Viewing and editing your data

Trinprice has in its current version **no** function to view or edit your price data, but you can access your data tables directly with the free database management tool SQL Server™ Management Studio Express that you can download from the Microsoft-website <http://msdn.microsoft.com/vstudio/express/sql/download>. SQL Server™ Management Studio Express is contained in the “Microsoft SQL Server™ 2005 Express Edition Toolkit” that you can download from that page. If you have not yet installed the SQL Server™ 2005 Express Edition itself (what is done during installation of Trinprice) you can download the “SQL Server™ 2005 Express Edition with Advanced Services SP2”.

Note: Before you can open your databases within SQL Server™ Management Studio Express you have to close the Trinprice program or other applications (e.g. worksheets) that are connected to your databases.

Another way to retrieve and view (but not to edit or correct!) your price data constitutes the sample Excel®-worksheet trinprice.xls.

Deinstallation

To uninstall Trinprice got to : Start / Control Panel/ Add or Remove Programs then click on “Trinprice” and then on the Change/Remove-Button. Please note that the Microsoft SQL Server™ 2005 Express Edition is not removed when you remove Trinprice.

Make sure to copy your databases to another folder (if you want to keep your pricedata) before removing Trinprice, because these databases are initially copied to the Trinprice application Folder, which will be removed during deinstallation.

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