

Running pTrader (FTS Trader Classic Version Only)

- pTrader lets you mix and match real world prices with a price discovery problem in regular FTS markets.
- It also lets you impose override controls on trading such as
 - automatically buying and selling if prices drift outside of some predetermined range or
 - setting a spread automatically.

To use pTrader requires first a simple modification to the Trading Case Spreadsheet that you are using. This is a protection against students launching pTrader in a normal trading session because pTrader is really just regular trader with some additional features turned on. Once you launch trader as a pTrader then you can link to an Excel workbook to feed the FTS markets real time prices or control the market from remote. To see how click on the hyperlink in 1 or 2 below.

1. Control the prices, information, introduce live prices etc., from remote. For example this lets you override the rules of the double auction by forcing the current bid/ask or last traded price in the market. To see how click on [feeding real time prices and other controls.](#)
2. Control running the market from remote (you must be running market on a PC with an externally visible IP address for this, otherwise you can only control the market from any PC on your school's intranet which is also useful). To see how click on [remote control.](#)

In the instructions below we first provide the steps for launching pTrader and then we review 1. and 2. above.

Step 1: Setting up Passwords on the Trading Case Spreadsheet

For your protection when running pTrader **you must use a password feature.** Setting up passwords is easy and works as follows:

First, download the case workbook, e.g. ftsStandard.xls from <http://www.ftsnet.com/ftscases.htm> You can also access this page from the FTS System Manager when you login as a moderator and select the FTS Market from the dropdown.

Save the case file workbook.

Next open this workbook in Excel. You will see that each spreadsheet in the workbook has a tab that corresponds to a trading case name (e.g., B01, B02 etc.).

Click on the Tab of the spreadsheet that corresponds to the Trading Case you want to run.

Step 2: In this step you will create the passwords required before you can run pTrader. We will create passwords for multiple pTraders in the following example, because different pTraders can be used for different functions (e.g., controlling the market from

different locations such as from home and from a hotel room if you are traveling during a weekend trading session!).

Suppose you are running B01 and you want to make use of three pTraders – one in the office, one at home and one just in case! Another reason why you may want multiple pTraders is because you can also feed the market with additional information if desired. That is, pTrader serves two important functions:

- a) Remote control
- b) Feed information and or prices into a trading session.

In step 2, before you can launch pTrader you need to create passwords in Cell B19 of the spreadsheet for the trading case you are running. So give focus to ftsStandard.xls and click on B01 (the first sheet) to modify trading case B01. Enter the password(s) into Cell B19 directly of the case spreadsheet file. Suppose you want to set up three pTraders. You can enter the three passwords as follows:

Example: Cell B19 enter the following: testx/testy/testz

That is, the backslash lets you enter multiple pTrader passwords. If you only want to launch one pTrader just enter one password without a backslash.

Step 3: Next launch the ftsMarket from the Virtual Classroom page and this time click on the button Find Excel Spreadsheet, then once it locates the spreadsheet ftsStandard.xls then select B01 (or the case you are running) from the drop down.

Click OK and either save the books as directed or cancel until you get to the screen titled: Market Server. Now you must click on **Allow Connections** and then click on the button labeled: **Click when all traders have connected**.

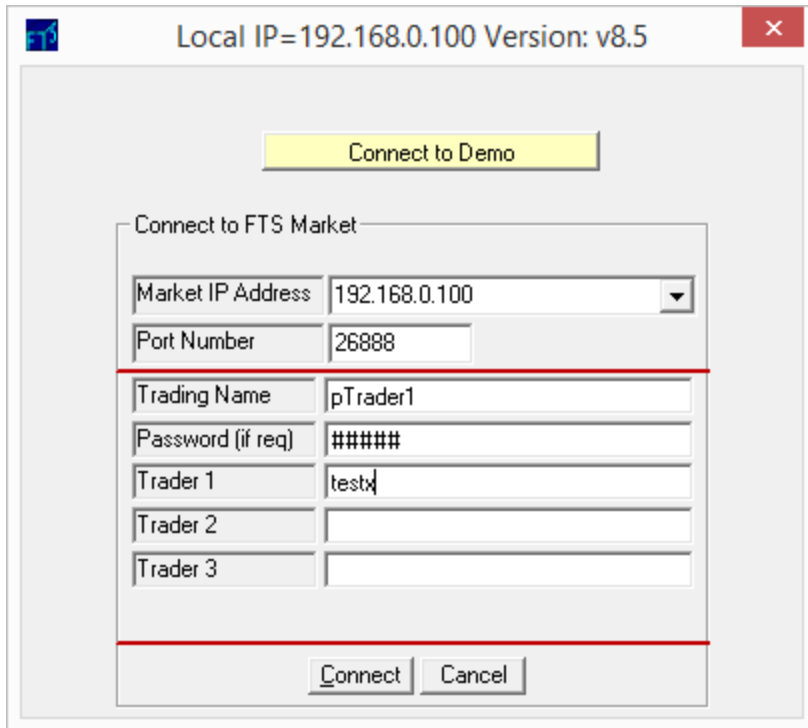
It doesn't matter at this stage that no traders have actually connected because you are getting the market ready for connections. Now you should see the opening Market Screen with the Initialize button live.

Step 4: Launch the **classic** ftsTrader.exe from the Virtual Classroom page as normal. By following the log-in instructions below, you will convert the regular FTS Trader program into pTrader.

Logging In:

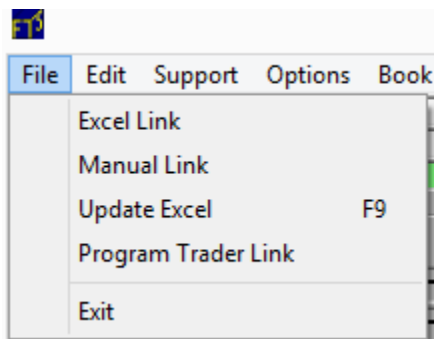
You launch the regular trader as usual but login as follows:

For the first pTrader use pTrader1 as your trading name, and enter testx as the password and also after Trader1:



For the second pTrader, the trading name would be pTrader2 and the password and Trader1 would be testy.

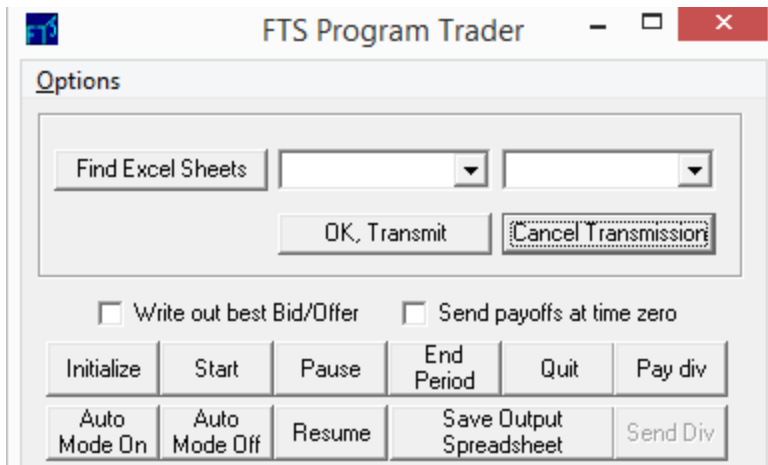
After you connect to the market, you can link to the spreadsheet that gives you control over the market from the File menu of the FTS Trader:



Exploiting the Power of pTrader

1. Remote Control of the Market

Click on the File menu item and then select the submenu item above (Program Trader Link). The following screen appears:



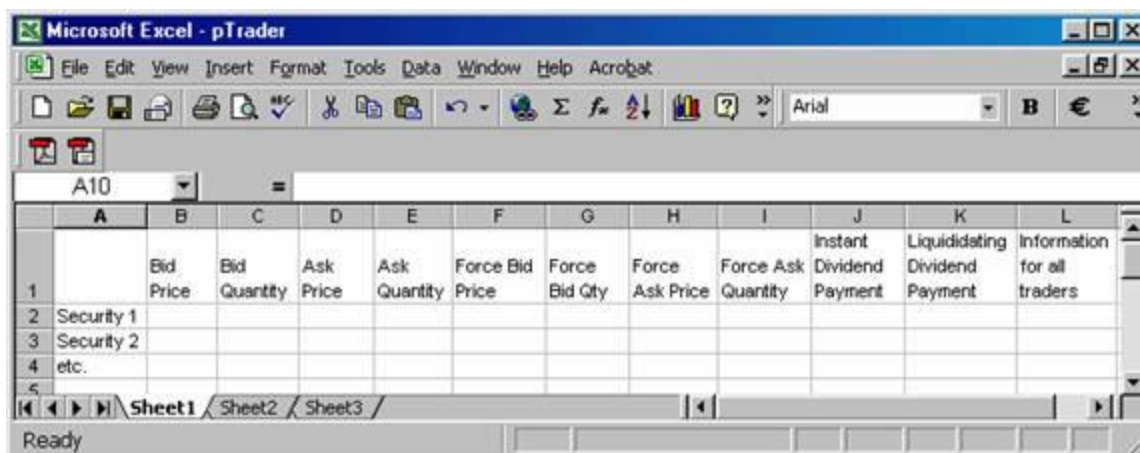
The bottom part of this screen is a control panel that lets you control running the market from remote. You will see the familiar commands. *You do not need to click on Find Excel Sheets if you are only using the FTS Program Trader for remote control.* If you want to control information, prices or other things then this will require the use of spreadsheet. In this section 1 we review Remote Control, then in section 2 below we review using the spreadsheet.

You can Initialize, Start, Pause, End Period, Quit, change to Auto mode, change to Manual Mode, Resume, and Save Output to Spreadsheet for back up purposes. All this can be done from your office, home or hotel suite with the market itself running elsewhere! So once you start a weekend trading session from your office you do not have to go into the office to control the market if any changes are required. Also don't forget you can run the entire market in auto mode with periods set to 24-hours or longer so that the market runs itself without pTrader! The Auto Mode on/off lets you toggle between auto mode and manual mode.

For example, suppose you are running a weekend trading session that has two periods corresponding to two 24-hour sessions. At the end of period 2 you want the market to stop so that it displays the final marked positions to traders. In this case you will want to start with Auto mode on but during period 2 turn auto mode off so the market waits for another response at the end of the trial (i.e., period 2).

2. Controlling Information, Prices, Live Prices from real world markets etc.,

First, construct and open the following spreadsheet. In the example provided it is a spreadsheet for a 2-security case but it is easy to add securities to match the number provided on the case. You can download the sample [pTrader.xlsx](#) by clicking on the hypertext.



Each of the above fields represents data you can send to the market.

Example 1: Bid Price Bid Qty Ask Price Ask Quantity are all numbers that you can ensure are always in the book. For example, suppose you are running a weekend trading session and out of hours two traders collude to trade security 1 at a price of \$100,000 for 10,000 units at a time. That is, one trader chooses to lose a lot to let the other trader win. To stop this you can place limits on the lowest/highest ask/bid by using pTrader and entering the numbers in the spreadsheet. The “Program” trader will ensure that your bounds are preserved. You can also change the values in the spreadsheet at any time and pTrader will automatically transmit the changed value in the spreadsheet for you to the market.

These fields preserve the book so it does not “bump” any better bid or ask out of the system.

Example 2: Suppose you want to by pass the rules of the double auction (i.e., increasing bids/decreasing asks). For example, you can link Excel to the real world markets and feed in live prices into the FTS Market cases if you want. This lets students make market on derivatives etc., where the underlying price comes from the real world markets.

So Force Bid/Ask etc., overrides the rules of the double auction book. So if the real world prices changes (i.e., go up or down) these prices are immediately reflected in the FTS markets when you use the Force Bid/Ask grouping. Again upon change pTrader will feed the new prices to the market.

For example, Excel lets you parse data from the web directly and have it refresh in approximate real time (i.e., every 1-minute, 2-minutes etc., as specified by the user). By using pTrader and linking the Force Data cells to the cell in Excel that is retrieving the real world prices you can feed these real world prices into the FTS Markets. Now traders can make market on derivatives defined on the real world underlying for example.

The final set of columns above control the following aspects:

Instant Dividend Payment: During a period you can pay a dividend at any time but the position continues.

Liquidating Dividend Payment: In this case a final dividend is paid (which could be zero for an out of the money derivative) and the position is liquidated at this dividend. That is, the security in question expires or dies.

Information for All Traders: This lets you transmit public messages to the market. Whatever is typed into the cell is transmitted to all traders in the market. Of course the cell can be linked to some other cells containing news.

Bottom line pTrader provides you with a lot of flexibility for expanding your use of the FTS markets in the classroom.