

Simple FX Simulator

Simple Guide

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This software is provided AS-IS. No guarantees are made or implied concerning it. It isn't even guaranteed to operate properly on all platforms, although it should work fine on many (if not most) Windows systems (XP, 2000, NT, etc.).

Caution:

Do not use while operating heavy equipment, while driving, or while sitting on the toilet.
May lead to premature death or an uncomfortable case of hemorrhoids.

Caveat:

This software was produced for my own personal educational purposes. It has been indispensable for my own personal learning and training in trading foreign exchange currencies. It has evolved to a point where I believe others may benefit from it as well. The ability to accelerate time and the particular nuances of this software make it ideal (in my opinion) for teaching/training purposes.

No official support is provided for this software. If you don't like it, don't use it. If it doesn't work well enough for you or contains bugs that you can't live with, use something else. If you can't figure it out, learn more by reading what is available through search engines on the internet. The price tag associated with this software is to cover my own time and effort in developing and making this software public. The price is therefore non-refundable. The price is miniscule compared to the training and "screen-time" it provides you.

I am open to suggestions to improve the software, but make no promises that such suggestions (or bug fixes) will actually be implemented in the future. Such modifications may be made as I have time, and as I see fit.

This Simple Guide is exactly that: simple. It is not intended to be an exhaustive manual, nor is it intended to teach you how to trade in foreign currencies (FX). I assume herein that you have at least a basic knowledge of FX trading. If you don't, get on the Internet and start reading. Everything you need to know is already out there. A site I personally feel is one of the best education centers is Trading Strategies. You can find it on the Internet at: www.trading-strategies.info.

This software uses (exclusively) candlestick charts for the price action and MACD as an indicator. Nothing else is used because that is all I use. Candlesticks are, in my opinion, far superior to all other charting methods. And MACD provides all the necessary information I need to make judicious intra-day trading decisions. Perhaps other indicators will be added in the future, but for now, that's all there is.

You can e-mail me if you like, but I can't promise I'll respond.

Above all else, I do hope that the software provides you with a safe venue upon which to develop, test and improve your trading strategies. As I said, it has been invaluable to me and has provided me with countless hours of "screen-time" or experience that has significantly improved my trading skill.

If the foregoing is reasonable and satisfies you, then read on... I'll run through the basics of the software and try to explain some of the nuances of its use.

A Simulator / Trainer

To learn FX trading (or any financial trading system), one must spend large amounts of time watching and learning price action. You cannot expect to learn how to trade successfully overnight or within just a few weeks. Anyone who claims this is not telling the whole truth.

It often takes *months* (or longer) of trading demo accounts and observing price action before you really obtain the necessary experience to begin doing well, consistently. Traders call it “screen-time.” The more time you spend viewing price action, the quicker you will learn how to trade successfully.

The problem with trading most demo accounts available through the various brokers is that it often takes considerable periods of time before anything of significance happens. You may wait an entire day in real-time, watching price action, before a suitable scenario materializes that fits your trading criteria.

To accelerate learning, the following features should be present in a simulator:

1. No prior knowledge of future price action. If you knew that at a specific date and time the U.S. would increase interest rates, then trading that date and time would prepare you psychologically for an appropriate price action response. If you knew that a specific date involved a significant news event of any kind (i.e. the French referendum where the Euro constitution was rejected), you would internalize that information and expect a specific outcome. Your trading would therefore be biased, even if only subconsciously. It is **imperative** that any trading system simulator/trainer **hide** vital information that you might use to determine future price action. This means, the software should **not** provide you with:
 - a. The date of the data being displayed (you can discern a great deal of information from the date, including the position of price action within long-term trends that you might be aware of).
 - b. Specifics concerning news events. Since you don't really know what the market reaction is going to be with any news event, it doesn't necessarily help to know what type of news is going to be released. All that is really important is that you understand the time the news is expected to be released. For the Euro, that time is typically at or near 6:00 and 9:00 UTC daily. For the U.S., it is often near 12:30 or 14:00 UTC daily. At those times, volatility often increases. In a simulation, any additional information may trigger memories that you could use to identify specific price action.
 - c. Long-term price action. For example, daily-price charts may give away historic trending information that could be used to identify the period of time selected for you to trade (and therefore what future price action will do). But daily charts are also important for determining trends within an intra-day environment. So although I don't personally strongly

recommend viewing the daily trends if you are familiar with longer-term historic trends, the option exists to plot daily candlestick charts.

2. The ability to accelerate time. You shouldn't need to sit, waiting hours for a particular trade to commence or end. If you want, you should have the ability to accelerate time within the simulator and observe price-action at an accelerated rate. The only drawback to this is that it may distort how you would really play a trade in real-time. If you have to wait hours for a trade to trigger, or for a trade to become profitable, there is a risk that you may prematurely close the trade in real-time trading. Accelerating time lessens that probability. Despite this drawback, the advantages of accelerating time (in my opinion) outweigh the disadvantages by a large margin.
3. The simulator should **randomly** (in other words, unpredictably) select a specific date in time for you to trade. The only choice you should have is what hour of the day to commence trading. You should not be able to choose the day or date, for the reasons already noted above (to prevent your determination of future price action).
4. The simulator should use a database consisting of no less than 1-minute data values. This way, as each minute is "played-back" to you, you can see price action form within the larger time intervals. For example, on the 15-minute charts, you would see each candlestick update 15 times before a new candlestick is formed. This helps provide you with an impression of realism that is essential if simulating real price action.

This simulator uses these features. It is based on no less than 1.5 years of actual historic 1-minute EUR/USD data. It randomly selects periods of time for you to trade. It can accelerate or decelerate time. And it hides the information that might be used to help you determine what future price action will do. This lets you concentrate on trading in a simulated environment that should be as close to reality as possible.

Starting the simulator

When the simulator is started, the following screen is presented:

Simple FX Simulator

General Settings

Starting Account Balance: 5000.00

Spread (in pips): 3

Margin required per 10k lot size: 50.00

MACD Settings

Short: 8

Long: 12

Signal: 8

Maintain Daily Account Totals

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no warranty, either express or implied. This
software is intended as an educational tool.
Use at your own risk.

www.spacew.com/fx

Done

Enter in the size of your account. Any number can be entered here. The number represents U.S. dollars.

Enter the spread (in pips, or units of 1/10,000 of a U.S. dollar) for the currency pair. The data used in this simulator is the EUR/USD, which (for most brokerages) means that the pip spread is about 3. But you can change this to any pip spread desired. The default is 3.

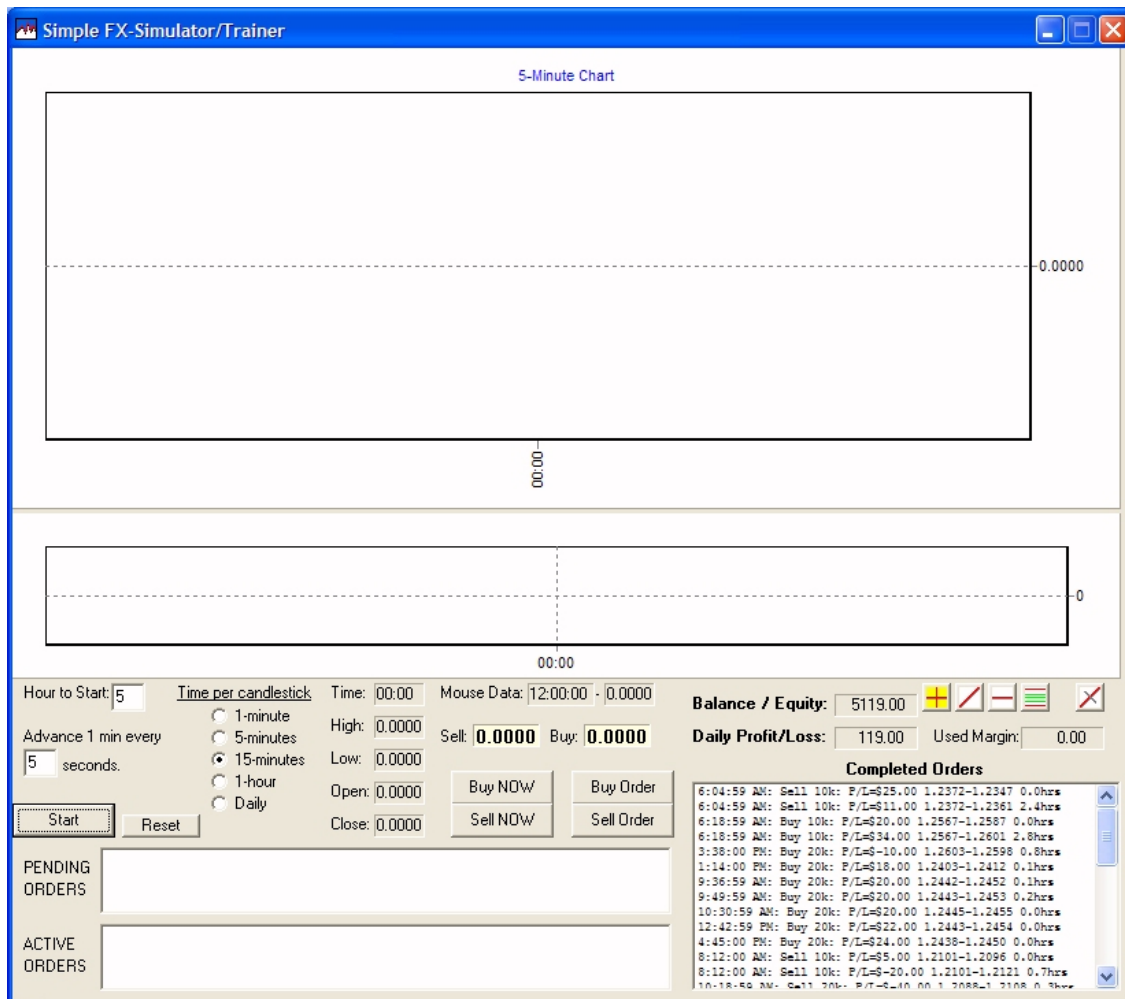
The Margin dictates how much equity you must have in your account per trade. The default is \$50.00 per 10,000 mini-lot size traded. This means that if you were to trade one lot of 10,000, you would need to have a minimum of \$50.00 in your account. To make a trade using 20,000, you would need a minimum of \$100.00 in your account.

The remaining options deal with the settings for the MACD chart. The default values are somewhat faster responding than the traditional MACD settings, which are used by longer-term traders.

The checkbox “Maintain Daily Account Totals” simply means that the software will keep track of how much is in your account each time you run the software. In other words, if you terminate the software and restart it later, your account balance will remain the same.

Main Screen

The main screen of the simulator/trainer looks like this when it is first fired up:



The simulator has not yet started. To start it, you must select the Hour to Start (in UTC or GMT time) and then click on the Start button. The system defaults to 5:00 UTC, which is near the start of the trading day for Europe.

This screen contains sample trades in the lower-right hand corner. Notice how the Balance/Equity of the account has been updated to include the results of each of the trades in the Completed Orders window. The overall profit/loss is also updated and displayed.

Once the Start button is clicked, the simulator commences normal operation and the screens update to something similar to the following:



The system randomly chooses a date within the database and slides the data forward until the current time coincides with the Hour to Start that you chose (in this case, 5:00 UTC). The bottom MACD chart is also displayed. Notice that the left-side of this chart is blank because the computation of MACD requires running averages that are not fully computed until later in the chart. Once fully computed, the MACD chart begins showing results. This is normal behavior.

MACD is an indicator that is used to help determine what future price action might be. I will not go into any details concerning it. Such a discussion is beyond the scope of this guide. There is a lot of information concerning MACD on the Internet.

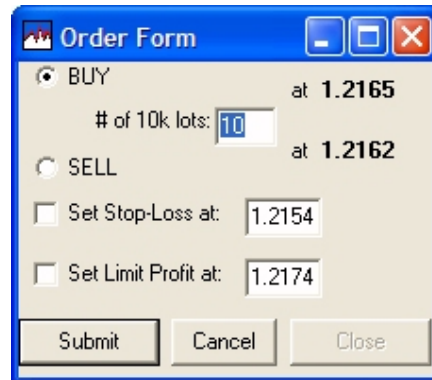
The central part of the chart shows the data value under the mouse cursor (the mouse is near the right-side of the chart by the two tall red and green candlesticks). The data value directly under the mouse corresponds to the price at 3:00 UTC, whereas the mouse pointer itself is actually positioned within the chart at the 2:58:10 UTC mark and is pointing at a price level of 1.2179.

The current SELL and BUY prices are indicated just above the buy and sell buttons. The current sell price is 1.2174 and the current buy price is 1.2177 (3 pip spread).

BUYing and SELLing

There are two ways to submit orders to the simulator. You can click on the BUY NOW or SELL NOW buttons if you want to buy or sell immediately. Or, you can click on the Buy Order or Sell Order buttons to submit an order that you want to trigger at a particular price level (rather than triggering immediately).

Clicking the Buy NOW or Sell NOW buttons displays the following window:

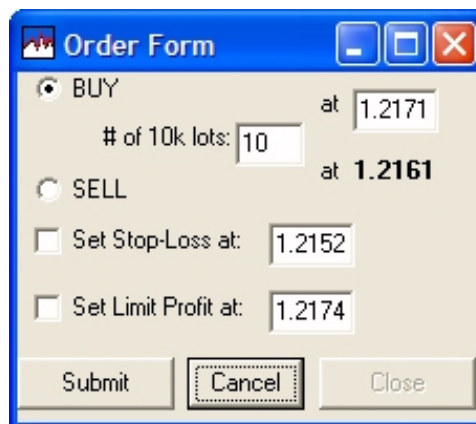


The screenshot shows a window titled "Order Form" with a blue title bar. It contains the following elements:

- A radio button labeled "BUY" is selected.
- To the right of the "BUY" radio button, the text "at 1.2165" is displayed.
- A text input field labeled "# of 10k lots:" contains the value "10".
- A radio button labeled "SELL" is unselected.
- To the right of the "SELL" radio button, the text "at 1.2162" is displayed.
- A checkbox labeled "Set Stop-Loss at:" is unselected, with a text input field containing "1.2154".
- A checkbox labeled "Set Limit Profit at:" is unselected, with a text input field containing "1.2174".
- At the bottom, there are three buttons: "Submit", "Cancel", and "Close".

Notice the BUY radio button is selected. To purchase NOW, simply select the number of 10k lots to purchase or sell and click the Submit button. You can also check the Stop-Loss box and/or the Limit box as you see fit to help minimize risk. As any respectable trader would suggest, each trade really should have a stop-loss. If you forget to set the stop-loss, you can always edit it after the trade has been submitted.

Clicking the Buy Order or Sell Order buttons displays the following window:



The screenshot shows a window titled "Order Form" with a blue title bar. It contains the following elements:

- A radio button labeled "BUY" is selected.
- To the right of the "BUY" radio button, the text "at 1.2171" is displayed.
- A text input field labeled "# of 10k lots:" contains the value "10".
- A radio button labeled "SELL" is unselected.
- To the right of the "SELL" radio button, the text "at 1.2161" is displayed.
- A checkbox labeled "Set Stop-Loss at:" is unselected, with a text input field containing "1.2152".
- A checkbox labeled "Set Limit Profit at:" is unselected, with a text input field containing "1.2174".
- At the bottom, there are three buttons: "Submit", "Cancel", and "Close".




Notice how similar the two windows above are. The only difference is that the Buy Order or Sell Order button produces a window where the Price at which the order should trigger is also displayed. Simply change the price to the level you want the order to trigger at, and adjust the number of 10k lots to buy/sell, then click the Submit button (don't forget to set a stop-loss – it's not required, but it's important to minimize your risk).

Depending on which buttons you click (to buy/sell NOW, or to buy/sell at a specific price level) will determine how the simulator responds. If you clicked the Buy or Sell NOW buttons, the order will immediately be activated and placed in the Active Orders window (at the bottom of the screen). If you clicked on the Buy or Sell Order buttons, the order will be placed within the Pending Orders window until the price reaches the target you have specified. Once the price reaches the specified target, the order will be activated and placed into the Active Orders window.


Note that you can use these buttons to place orders that will cancel/reverse existing orders. For example, if you have an active order where you bought two 10k lots, you could force the system to close out that order and reverse it by simply entering in a new order that will sell four 10k lots. Two of the four 10k lots will then cancel out the existing active order and the remaining two 10k lots will cause the simulator to enter a new sell order for the two 10k lots. This method can also be used to cause active orders to scale out. For example, if you have an order where you have sold three 10k lots and you want to scale out 2/3rds of that order, simply enter a new order where you buy two 10k lots and the simulator will close out 2/3rds of your active order.


Drawing Trend Lines

The Simple FX Simulator allows you to draw a few different types of trend lines (the most common ones). The procedure is as follows:

1. Click on one of the trend line buttons:
 - a.  - Draw a sloped line.
 - b.  - Draw a horizontal line.
 - c.  - Draw a series of Fibonacci lines.
2. After you click one of the buttons, it will turn yellow.
3. For sloped lines, move your mouse ABOVE or BELOW the data item you wish to start your sloped line at, then click your left mouse button once. Nothing will visually happen at this point, but the computer will remember where you clicked and will mark it internally as the start of your sloped line. If your mouse is positioned ABOVE the data item, the sloped line will start at the HIGH of the data item. If it is BELOW the data item, the sloped line will be drawn starting at the LOW of the data value.
4. For horizontal lines, click once ABOVE or BELOW the data item at which you want to draw the horizontal line. The line will be drawn at the HIGH of the data item (toward the right of the screen) if you clicked while the mouse was ABOVE the high of the data value. Conversely, it will be drawn at the LOW of the data value if you click while the mouse is BELOW the low of the data value.
5. For Fibonacci lines, see below.
6. For sloped lines, click your left mouse button a second time after you have positioned your mouse at the location where you want the first point joined to the second point (following the same idea as #3 above). Once you click the mouse a second time, the line will be drawn connecting the point where you clicked the


mouse the first time, to the point where you clicked the mouse the second time. It will also be extended into the future.

To draw Fibonacci lines, click on the  button, then move your mouse to the top of the range of prices and click your left mouse button. Nothing will visually happen at this stage. Next, move the mouse to the bottom of the price range and click the mouse button again. A series of horizontal Fibonacci lines will then be plotted on the chart at the levels representing the 0%, 38%, 50%, 68%, and 100% Fibonacci levels.

To delete lines, click on the  button. It will turn yellow. Next, position your mouse pointer very near (not necessarily on-top of, but very close to) the line you want to delete and click the left-mouse button. The line may or may not disappear on your first attempt. It's a bit touchy to work this feature, but it does work if you try repeatedly. If you can't get it to work, move your mouse to the extreme right-end of the line on the chart and try again. The further the mouse is away from the beginning of the line, the easier it usually is. It's a quirk that may be improved in the future, but it works well enough for now.

Trend lines are transposed across different time-charts. For example, if you draw a trend line on a 15-minute chart, and then click on the 5 minute charts, that same trend line will be redrawn on your new 5-minute chart, **provided that** the line does not fall outside the limits of the window. If the range of the 5-minute chart is similar to that of the 15-minute chart, you will see the trend line easily. Similarly for the hourly, daily and 1-minute charts. Thus, you do not have to draw multiple trend lines on each chart. Draw them on one chart and they will automatically appear on the others as well. Delete them from one chart and they will also disappear from the others.

Resetting the Simulator

When you want to start trading using a different randomly-selected day, simply click on the  (Reset) button. A dialog box will pop up asking you if you want to delete the items in the Completed Orders box. **IMPORTANT: If you do, you will lose all records of previous trades and your account Balance will be restored to its starting value! Once the previous trades have been deleted, they cannot be retrieved!** If you don't want to lose your previous trades, click the No button and a new trading day will be displayed without losing your existing completed trades.

Trading Weekends

As you know, the financial markets are open 24 hours a day, but close on Friday afternoon (North America time) and re-open on Sunday afternoon (North America time). During the weekends, prices remain fixed and do not move.

Since the simulator randomly selects a day to start trading, it is possible that the day selected may be during a time when the markets are closed.

If this happens, what you will see is a graph that looks like this:



Notice how the prices at the right-side of the chart have gone flat-lined. This means that the market has closed and the prices are fixed until they reopen on Sunday afternoon.

If you see this (and you will), simply reset the simulator (click the Reset button), then click on the Start button again. The simulator will then select a different day to start trading. This time, it should be a day that is tradable (but since it's random, it might not be).

Accelerating or Decelerating Trading Times

During a simulation session, you can speed up or slow down the rate at which time passes by adjusting the value inside the box that reads: "Advance 1-min every ____ seconds," where the "____" is an editable box. By default, the value is set at a value of 5. This means that by default, every 5 seconds of real-time causes the simulator to advance simulated time by 1 minute. If you adjust this value to 60 seconds, then simulator time and real-time will match (every 60 seconds of real-time will cause the simulator to advance in time by 1 minute).

To decelerate simulated time, increase the value to anything greater than 60. Increasing the value to 120 seconds, for example will cause one TWO minutes of real-time to pass while only ONE minute of simulated time will pass.

To accelerate simulated time, decrease the value to something less than 60. The default is 5, which means that simulated time is already accelerated by default. Decreasing the value to 1 second means that for every second of real-time, one minute of simulated time would pass. If that isn't fast enough for you, decrease this value further by specifying a value between zero and one. For example, specifying a value of 0.5 seconds would cause two minutes of simulated time to pass for every second of real-time. Similarly, a value of 0.1 seconds would cause TEN minutes of simulated time to pass for every second of real-time. A value of zero (or a blank value in this box) is internally interpreted as 1 second.

A Few Extra Notes

- Be careful about placing orders where large candlesticks represent the current price action. If you enter an order where the 1-minute candlestick touches your stop-loss value, your order might be accepted and then immediately closed without ever appearing in the “Active Orders” window. I have tried to minimize this by imposing restrictions on the stop-loss prices, but there may still be a few times when you run across this quirk.
- If the high or low of the 1-minute data reaches your order entry level, your order stop-loss level, or your order limit level, the implied action will be triggered. The high and low of the 1-minute data are used rather than the open/close levels.
- In general (and to attempt to mimic brokerage methods for realism), you will not be able to buy or sell at levels that are less than twice the pip spread from the current buy or sell price. Similarly, stop-loss orders will need to be at least twice the pip spread from the buy or sell price to be accepted.
- There is **no way** to determine what specific date the simulator chose for you to trade. Similarly, if you close down the software and restart it, there is absolutely **no way** to return to your last specific trading session. This is intentional and is designed so that each time you run the software, you are presented with something that will hopefully appear to be completely new to you. Of course, after you have played with the software boat-loads of times, it is possible you may run across trading sessions that you have traded before (and remember). If that’s the case, have fun and gorge yourself with profits – or click the Reset button and force the system to choose a different date that is less easily remembered.
- There is similarly, absolutely **no way** to rewind the trading environment or UNDO a particular trading action. Despite our wishful desires to sometimes rewind time and right a wrong trade, it can’t be done in the real-world and I have intentionally excluded these features from this simulator for the same reason. Too bad, so sad, if you missed a lucrative entry or failed to get out of a good trade before it turned around and became a rotten trade. Suck it up and don’t miss the next one! I wanted this simulator to be as unforgiving as real-life. Otherwise, I couldn’t honestly call it a simulation, could I? So be careful when you accelerate time in this simulator: if you accelerate it too rapidly and miss a good entry point, you can’t go backwards in time. Tough luck.
- **THERE ***IS*** A PAUSE FEATURE BUILT INTO THE SIMULATOR!** To pause the simulation after it has started, simply click on one of the Buy or Sell buttons (any one of the four buy and sell buttons will work). The simulation is automatically stopped (time stops flowing) when you are filling out the order forms. The simulation will resume when you either complete an order or click on the Cancel button. It comes in handy when the phone rings or when someone requires your immediate attention.

Software Bugs

I'm sure there are still bugs in the software. I have run across a few, but haven't been able to accurately reproduce them, and hence, can't eliminate them until I can reproduce them. If you find reproducible bugs, feel free to e-mail me (oler@spacew.com) the details of how to reproduce them. But don't expect me to fix the problems right away or on a whim. As I've stated earlier, I offer no support for this software. What you see is what you get. Upgrades containing fixed bugs or new features will likely be provided at minimal cost, and may not ever be provided if I can't find the time to do it.

Enjoy!

Above all else, my hope is that this simulator will help you to become a better, more disciplined and successful trader.

To many, this simulator may actually be used as a form of entertainment. To those who think of it as such, I say, have fun! It might be as addicting to some as Nintendo is to others, but will surely be more profitable!

Happy Trading!