

# Trade Series Management (TSM)

Automated Strategy Based Trading Software & Algorithms  
for Financial Markets

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## **Introduction to TRADE SERIES MANAGEMENT (TSM) Theory**

TSM Theory is the latest development the implementation of purely Strategy Based Trading Systems (SBTS) that do not require any historical data or predictive analysis to successfully generate substantial profits. TSM Theory was originally developed to manage good trades and rescue poor trades generated by human traders or automated systems using whatever methodology or trading system they desire. Once a market position is open the TSM watches the trade and either allows profits to ride or it implements a variety of sophisticated hedging algorithms to dramatically increase the probability of exiting all of the positions taken with a higher magnitude of winning trades than losing trades.

The TSM was specifically designed to provide a solution to mitigate the most pressing problems that face institutional traders and money managers once a position is taken in the market.

- When should I take profits, where should I place my stop losses?
- How do I recover from this poor position that I've taken?
- How often do I have to monitor these positions and who will manage these positions for me while I am performing the ordinary tasks that are required of me during my day to day life?"

The TSM can be used as:

1. A trading tool (POSITION MANAGER MODE) to manage the positions taken by live or robot traders who manually place trades based on technical or fundamental market entry methods that generate buy or sell signals.
2. A stand-alone trading system (STAND ALONE MODE) without any input from any trading other system.

One of the most favorable aspects of the TSM is that it can also be integrated into existing automated or manual trading systems and can turn losing systems into winners. The TSM literally manages trades and risk for the money manager.

The TSM consists of four separate components (the fourth component is optional):

1. The Trade Execution & Management Software (TEMS)
2. The Underlying Algorithms (UA)
3. The User Interface (UI)
4. Trading signals input from any combination of automated or human based traders (TS) (*OPTIONAL*)

Initial back testing and testing on demo accounts in the FOREX market demonstrate that using TSM and existing algorithms is so powerful that it can rescue bad positions taken in the market so consistently that the system does not need to be provided with any human or automated trading signals in order to generate higher than average profitable trading. The TSM can literally take random positions in the market, 24hrs per day, 7 days per

week, letting profits ride on favorable positions and successfully rescuing bad positions, resulting in a higher magnitude of winning trades than losing trades.

The current algorithms (UA) run by the TEMS are based on communications signal theory. The algorithms literally create proprietary black boxes that look at the incoming market price data as a communications signal which is then filtered in order to engage in trading that substantially lowers the probability of experiencing a losing series of trades.

TSM Theory is a new way of looking at trading and it is considered by experts to be the greatest unexplored frontier of systematized market trading since the advent of the personal computer. Rather than trying to predict what a market will do and to predict what potentially profitable trades to take, TSM Theory concerns itself with the problem of what to do with losing positions regardless of what fundamental or technical or human trading method is used.

*The goal of TSM theory is not to win all trades, but to generate a higher magnitude of winning trades than losing trades by rescuing bad trading decisions.*

Using TSM theory provides the experienced trader with the luxury of simply having to manage risk rather than having to be right on every prediction and trade.

Although the TSM is currently built for use in FOREX markets, the TSM algorithms will work in any market where a person can go long or short at the same time. As of January 2010, TSM v1.0 has undergone live testing on live accounts by a small group of experienced institutional FOREX traders who were invited to experiment with the system. This document provides an overview of the test results. A project is currently being undertaken to adapt the system for use in other financial markets including futures, securities and options, and for use by traders of any experience level.

### **Position Manager Mode TSM**

Traders who manually place their entry orders can use the TSM to place their orders letting the TSM mitigate their exit strategy. If a trade moves against a user the TSM will choose from a proprietary set of algorithms to enter a series of hedging trades that will dramatically increase the probability of the user exiting all of the positions opened by the TSM with a net profit rather than leaving the trader to wonder what the market might do next and where they should place a stop loss or take profit. In a nutshell the TSM "rescues" bad trades automatically, regardless of market activity while the trader tends to other business. Those who enter their trades manually can simply use the TSM to enter the position, establish a take profit point and then walk away in a "fire and forget" fashion leaving the TSM to deal with any unexpected or adverse market behavior using the TSM's own proprietary methods.

A manual trader that uses the TSM will no longer have to "baby sit" their trade entries and can go to sleep or take care of other business until the trade either succeeds as planned or until the TSM has opened a series of positions that, when closed simultaneously, exit with a net profit (i.e. winnings generated from the positions

taken automatically by the TSM outweigh the losing trades). The psychological advantages gained by traders that use the TSM provides the confidence to consider more elaborate pyramid strategies or to let the profits ride longer because the trader can rely on the TSM to implement a logical, systematic strategy to deal with any existing open positions taken by the trader should the market move against those trades. The automatic plans implemented by TSM give manual traders the confidence to take more risky positions. Because the TSM is designed specifically to "rescue" bad trades it can literally turn losing trading methods into winners.

### **Stand Alone TSM**

The TSM is designed to "rescue" bad trades. As such, one would think that if the TSM is designed well then, in theory, a user should be able to randomly enter trades using the TSM, going long or short at any time and the TSM should run its course, exiting each trade series that the TSM automatically generates with a net profit. In fact, this is exactly what has been demonstrated in live TSM trading. Therefore, the TSM has been designed to run automatically in a "Stand Alone Mode" where the TSM goes long and short simultaneously and automatically every time the market moves X pips in either direction. Thus the TSM is always in the market exploiting any and all market movements regardless of market direction or changes in market direction.

### **Trading Faults (Trade Series Faults)**

The TSM substantially lowers the probability that the user will suffer any loss over any series of entries even if the user opens positions at random points in the market, however, the TSM is not a panacea. Traders using the TSM can still lose money in accounts if a TSM Trading Fault occurs. The TSM works best whenever the market is either trending in any direction or when there is high volatility. In the current revision of the TSM problems can occur that lead to losses called trading faults. Using the current algorithms, trading faults are extraordinarily rare and occur only when too many positions are taken by the TSM while the market is in a trading range where there is not enough volatility or trending. Normally, experienced traders have more than 24 to 48 hours in advance to recognize the condition for a potential trading fault to occur and shut the system down temporarily to avoid the fault. A system shut down will cause the system to hedge its own trades out of the market. The trader can then resume trading when sufficient market trending or volatility returns in any direction(s) or just before a market event is expected to occur that will temporarily increase volatility (such as the Non-Farm report). Traders can turn the system back on if they see the market reacting without having to predict when it may react. Another solution to the problem is for the human trader to manually intervene and simply act as a risk manager to hedge out any particular series that appears to be accumulating too much risk. This is a much easier task for most money managers than trying to predict when they should trade themselves. The system will continue to trade over the losing series until it accumulates more profit that outweighs the hedged trade series.

It is extraordinarily unlikely that a user of the TSM will cause a Trading Fault to occur by using the TSM to enter several trades at a time manually. Using the TSM to initiate trade orders on the edge of a trading range band or using virtually any other style of trading system would enable the trader to make a mistake and still have the TSM generate a winning series of trades - with the probability of generating a Trading Fault being extraordinarily low (estimated to be on the order of less than .001%).

In the current revision of the system, Trading Faults are rare and are manageable. Subsequent revisions of the TSM will seek to further reduce the occurrence of Trading Faults and provide new algorithms and eliminate the need for any manual intervention at all.

### **Conclusion**

In its current form the TSM can be used by experienced traders to augment their own trading systems or it can be used to leverage volatile and unpredictable market swings to generate profits with substantially reduced risks to the trader. The TSM turns winning trading systems in to more profitable, safer systems and gives the trader the confidence to let profits ride before exiting positions. The TSM turns marginable trading systems into winners, and substantially lowers the risk of losing trades while enabling the trader to get up and walk away from the trading desk to handle other matters leaving the TSM to mitigate positions taken by the trader while the trader after they "fire and forget" their trades.

The next generation of the TSM scheduled for release will not require any manual intervention or oversight by the user when running in Stand Alone Mode. The next generation of TSM will incorporate logic that will avoid trade series faults automatically and will therefore require no human intervention and very little trading experience to use the system. The next generation TSM will be able to run in any financial market where positions can be opened in one or more financial products simultaneously that can hedge against each other, including stocks, bonds, futures, options, etc...

## Appendix A – Live Trading Accounts Testing Results

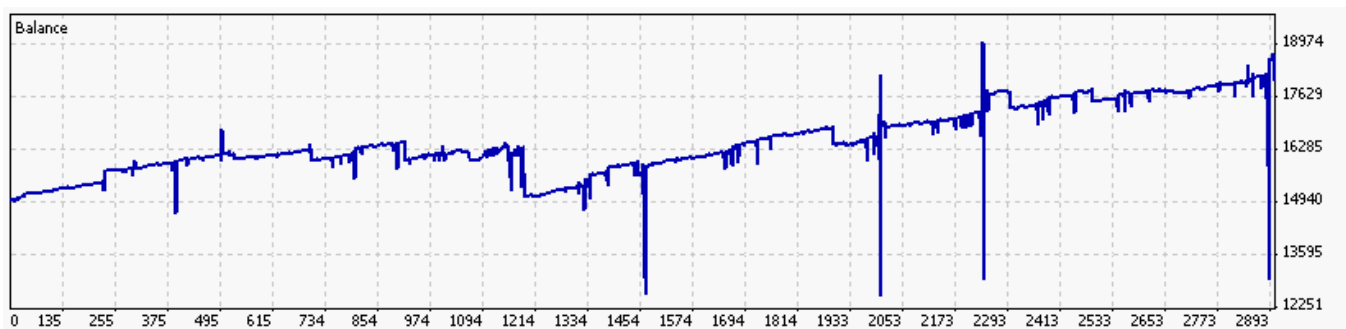
### Performance Benchmarks of Stand Alone TSM

The results below are based on Version 1.0 of the TSM developed in MetaTrader (MT4) Language in for the retail FOREX market.

1. Two months of trading EUR/USD from 2-18-2010 thru 4-15-2010 using the “Basic Signal Filter” algorithm in TSM with opening trade strength 0.05 of a standard LOT and opening balance the base currency USD (Forex.com MT4 Live Account):

**NOTE: Opening Balance \$14,990 downward movements are withdraws totaling \$3,219.20.**

**Net Balance: \$11,770.80. \*\*NOTE: Downward Balance Spikes represent the simultaneous closing of profitable trade series, from losing trades to winners.**



#### SUMMARY (MT4) Live Account (Forex.com):

Deposit/Withdrawal: 11,777.80 Credit Facility: 0.00

Closed Trade P/L: 6,280.27 Floating P/L: -215.71 Margin: 191.10

Balance: 18,058.07 Equity: 17,842.36 Free Margin: 17,651.26

Gross Profit: 79,099.72 Gross Loss: 72,819.45 Total Net Profit: 6,280.27

Profit Factor: 1.09 Expected Payoff: 2.18

Absolute Drawdown: 2,416.38

Total Trades: 2879

Short Positions (won %): 1433 (57.43%) Long Positions (won %): 1446 (63.21%)

Profit Trades (% of total): 1737 (60.33%) Loss trades (% of total): 1142 (39.67%)

Largest profit trade: 5,520.00 loss trade: -6,057.60

Average profit trade: 45.54 loss trade: -63.76

Maximum consecutive wins (\$): 21 (79.61) consecutive losses (\$): 13 (-5.90)

Maximal consecutive profit (count): 5,650.40 (2) consecutive loss (count): -6,057.60 (1) Average consecutive wins: 2 consecutive losses: 1

**Appendix A – Live Trading Accounts Testing Results**

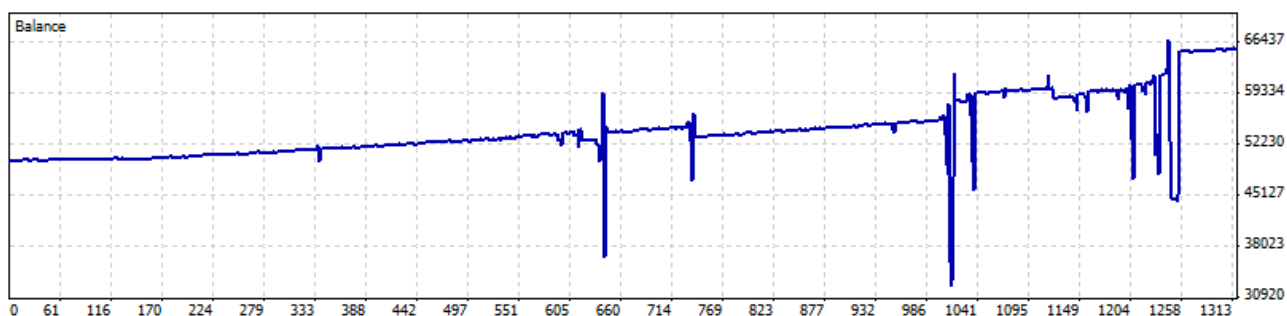
**Performance Benchmarks of Stand Alone TSM**

The results below are based on Version 1.0 of the TSM developed in MetaTrader (MT4) Language in for the retail FOREX market.

2. Four weeks of trading EUR/USD from 4-22-2010 thru 6-5-2010 using the “Basic Signal Filter” algorithm in TSM with opening trade strength 0.05 of a standard LOT and opening balance the base currency USD (Forex.com MT4 Live Account):

**\*NOTE: Opening Balance \$49,970.52 downward movements are withdraws totaling \$3,155.22.**

**Net Balance: \$46,815.30. \*\*NOTE: Downward Balance Spikes represent the simultaneous closing of profitable trade series, from losing trades to winners.**



**SUMMARY (MT4) Live Account (Forex.com):**

Deposit/Withdrawal: 46,815.30    Credit Facility: 0.00  
 Closed Trade P/L: 18,781.28    Floating P/L: -3,128.34    Margin: 3,802.46  
 Balance: 65,596.58    Equity: 62,468.24    Free Margin: 58,665.78

Gross Profit: 232,804.83    Gross Loss: 214,023.55    Total Net Profit: 18,781.28  
 Profit Factor: 1.09    Expected Payoff: 14.37  
 Absolute Drawdown: 17,342.15

Total Trades: 1307    Short Positions (won %):658 (68.84%)    Long Positions (won %):649 (48.84%)  
 Profit Trades (% of total): 770 (58.91%)    Loss trades (% of total): 537 (41.09%)

Largest profit trade: 19,910.40    loss trade: -22,828.80  
 Average profit trade: 302.34    loss trade: -398.55

Maximum consecutive wins (\$): 9 (421.03)    consecutive losses (\$): 5 (-7.83)  
 Maximal consecutive profit (count): 29,415.20 (3)    consecutive loss (count): -25,159.80 (3)  
 Average consecutive wins: 2    consecutive losses: 1



## Appendix A – Live Trading Accounts Testing Results

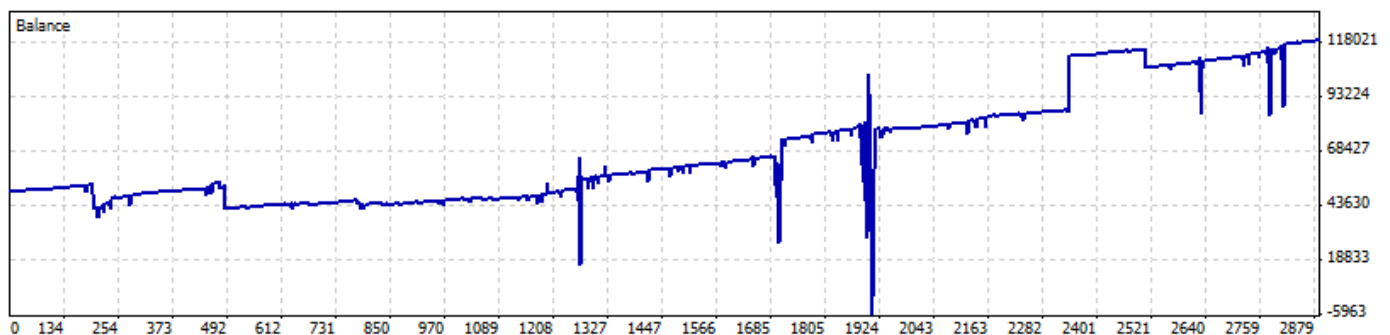
## Performance Benchmarks of Stand Alone TSM

The results below are based on Version 1.0 of the TSM developed in MetaTrader (MT4) Language in for the retail FOREX market.

3. Six weeks of trading EUR/USD from 3-8-2010 thru 5-7-2010 using the “Basic Signal Filter” algorithm in TSM with opening trade strength 0.5 of a standard LOT and opening balance the base currency USD (ACM Advanced Currency Markets, MT4 Live Account):

**\*NOTE: Opening Balance \$50,000.00 USD vertical drops and steps are withdraws and then deposits netting \$55,711.26.**

**\*\*NOTE: Downward Balance Spikes represent the simultaneous closing of profitable trade series, from losing trades to winners. This account was traded with maximum utilization of 50% of the account which appears as drawdown.**

**SUMMARY (MT4) Live Account (ACM, Advanced Currency Markets):**

**Deposit/Withdrawal: 55,711.26** Credit Facility: 0.00

**Closed Trade P/L: 63,556.15** Floating P/L: -4,675.97 Margin: 1,446.81

Balance: 119,267.41 Equity: 114,591.44 Free Margin: 113,144.63

Gross Profit: 877,454.92 Gross Loss: 813,898.77 Total Net Profit: 63,556.15

Profit Factor: 1.08 Expected Payoff: 22.14

Absolute Drawdown: 65,091.70 (\*\* Traded with maximum account utilization for testing, allowing full 50% drawdown)

Total Trades: 2871 Short Positions (won %): 1475 (67.86%) Long Positions (won %): 1396 (44.20%)

Profit Trades (% of total): 1,618 (56.36%) Loss trades (% of total): 1,253 (43.64%)

Largest profit trade: 17,479.19 loss trade: -20,850.35

Average profit trade: 542.31 loss trade: -649.56

Maximum consecutive wins (\$): 8 (94,713.15) consecutive losses (\$): 7 (-118,937.08)

Maximal consecutive profit (count): 94,713.15 (8) consecutive loss (count): -118,937.08 (7)

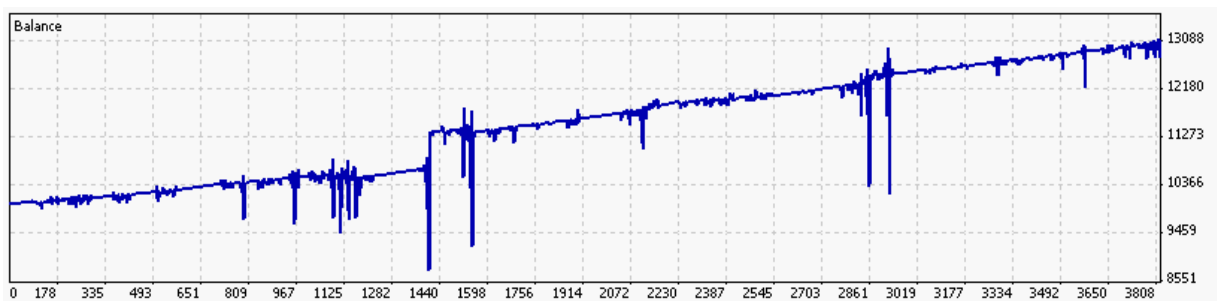
Average consecutive wins: 2 consecutive losses: 2

## Appendix B – Example Back Testing Results

### Performance Benchmarks of Stand Alone TSM

Back tests are simulated trading using historical price data downloaded from the brokerage firms. Back tests have a tendency to portray a trading method in a very favorable light compared to live trading, but the following back tests are provided in order to provide the reader with the personality of the TSM running in Stand Alone mode. The results below are based on Version 1.0 of the TSM developed in MetaTrader (MT4) Language in for the retail FOREX market.

1. Two weeks of trading EUR/USD from 5-12-2010 thru 5-27-2010 using the “Molasses Filter” algorithm in TSM with opening trade strength 0.8 of a standard LOT and opening balance of \$20,000 the base currency USD (Forex.com MT4 Terminal and database). **\*\*NOTE: Downward Balance Spikes represent the simultaneous closing of profitable trade series, from losing trades to winners.**



#### SUMMARY (MT4) Back Test (Forex.com):

**Deposit/Withdrawal: 10 000.00** Credit Facility: 0.00

**Closed Trade P/L: 3,096.53** Floating P/L: -139.60 Margin: 141.16

Balance: 13,096.53 Equity: 12 956.93 Free Margin: 12 815.77

Gross Profit: 61,717.79 Gross Loss: 58,621.26 Total Net Profit: 3,096.53

Profit Factor: 1.05 Expected Payoff: 0.81

Absolute Drawdown: 1,794.25

Total Trades: 3,803 Short Positions (won %): 1927 (69.07%) Long Positions (won %): 1876 (63.86%)

Profit Trades (% of total): 2,529 (66.50%) Loss trades (% of total): 1,274 (33.50%)

Largest profit trade: 2 208.00 loss trade: -2 290.80

Average profit trade: 24.40 loss trade: -46.01

Maximum consecutive wins (\$): 18 (15.50) consecutive losses (\$): 6 (-159.16)

Maximal consecutive profit (count): 2,603.11 (4) consecutive loss (count): -2 451.80 (2)

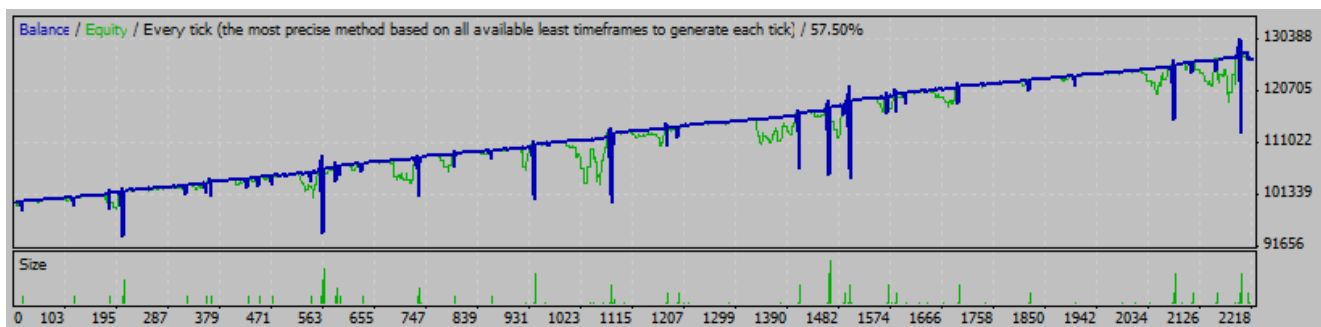
Average consecutive wins: 3 consecutive losses: 2

## Appendix B – Example Back Testing Results

### Performance Benchmarks of Stand Alone TSM

Back tests are simulated trading using historical price data downloaded from the brokerage firms. Back tests have a tendency to portray a trading method in a very favorable light compared to live trading, but the following back tests are provided in order to provide the reader with the personality of the TSM running in Stand Alone mode. The results below are based on V1.0 of the TSM developed in MetaTrader (MT4) Language in for the retail FOREX market.

1. Two weeks of trading EUR/USD from 5-3-2010 thru 5-28-2010 using the “Basic Signal Filter” algorithm in TSM with opening trade strength 0.8 of a standard LOT and opening balance of \$20,000 the base currency USD (Fxdd.com MT4 Terminal and database). **\*\*NOTE: Downward Balance Spikes represent the simultaneous closing of profitable trade series, from losing trades to winners.**



#### SUMMARY (MT4) Back Test (Fxdd.com):

Initial deposit 100,000.00

Total net profit: 26,508.99 Gross profit 26,4409.60 Gross loss -23,7900.61

Profit factor 1.11 Expected payoff 11.97

Absolute drawdown 4,823.15

Total trades 2,215 Short positions (won %) 1,229 (60.78%) Long positions (won %) 986 (55.88%)

Profit trades (% of total) 1298 (58.60%) Loss trades (% of total) 917 (41.40%)

Largest profit trade 14,845.11 loss trade -15,731.40

Average profit trade 203.71 loss trade -259.43

Maximum consecutive wins (profit in money) 14 (1128.00) consecutive losses (loss in money) 11 (-1441.80)

Maximal consecutive profit (count of wins) 14,869.71 (3) consecutive loss (count of losses) -17,560.20 (2)

Average consecutive wins 4 consecutive losses 2