

Real Trading of Machine Developed Trading Systems

Twenty-two months of
real market experience
using 100% machine
generated Trading
Systems

The quest for 2% per month

I'm a programmer by trade (30+ years)

Started with Tradestation in 2009

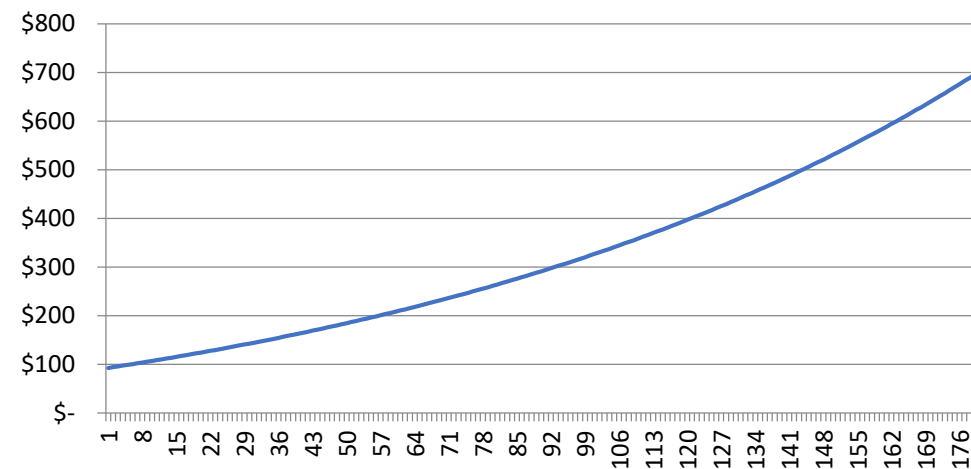
Started writing automated systems using Easy Language

- All of the common indicators (MA, MACD, RSI)
 - Most of the un-common indicators
- Stacked indicators / Candlesticks / Patterns
- I built hundreds of systems – most were never deployed

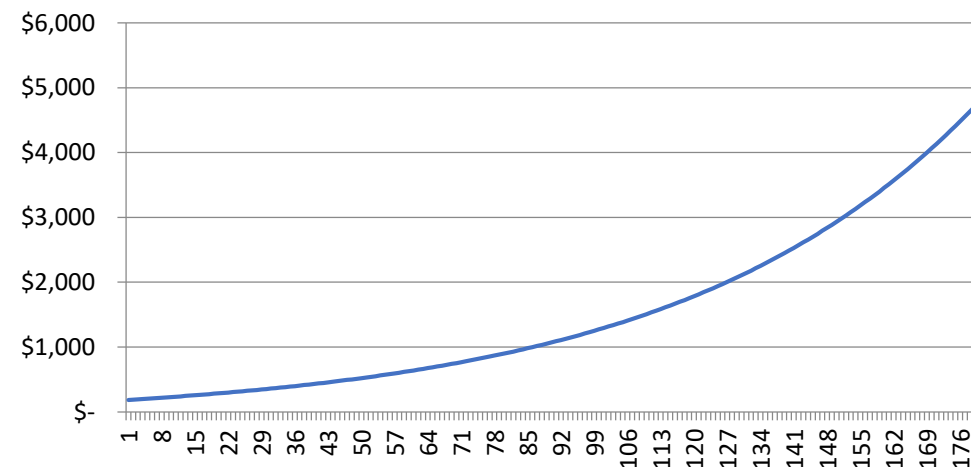
Purchased many trading systems – I spent thousands...

- Only one I can recommend would be X2 at <http://www.technicaltradingindicators.com>

Monthly Income (1% ARR)



Monthly Income (2% ARR)



Expected Results

Results from purchased and my systems...

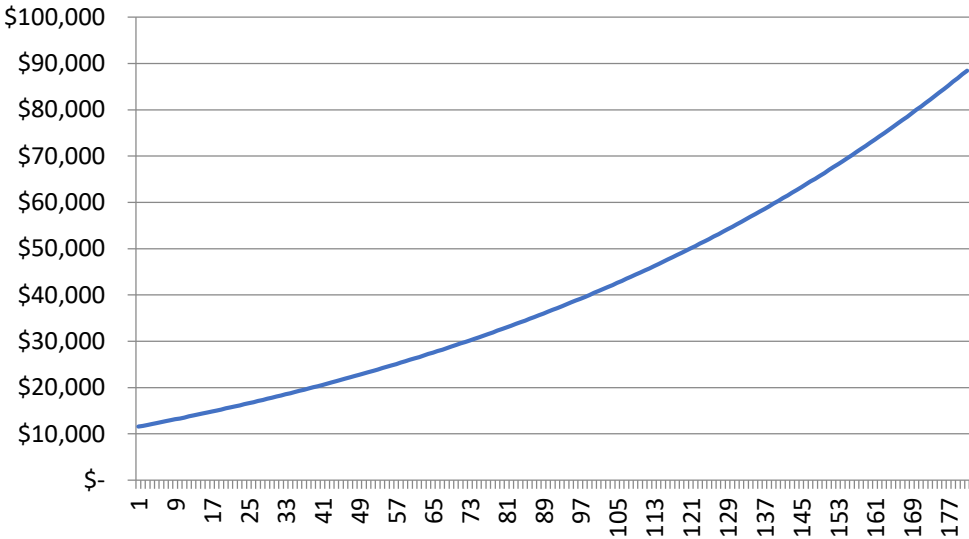
In a word... Poor

Very inconsistent

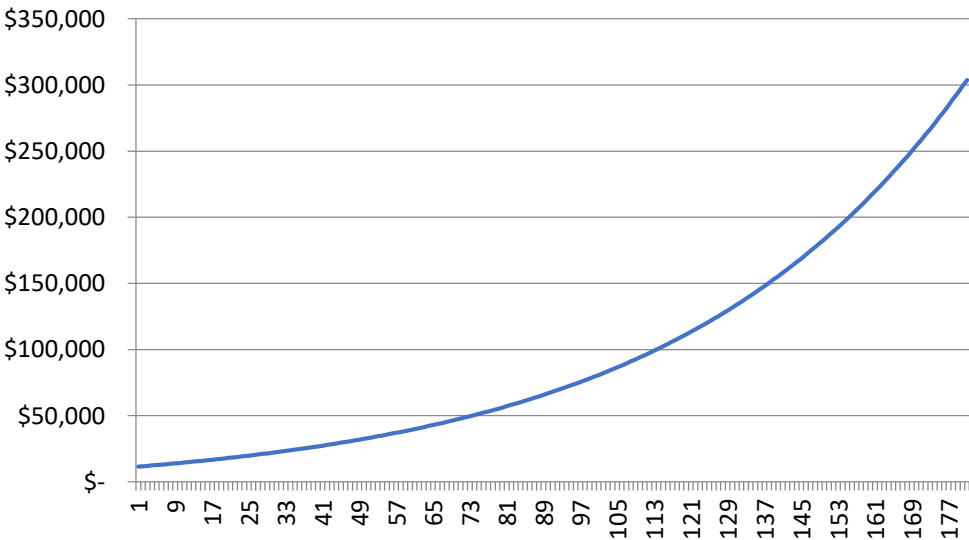
As I programmed
around the drawdowns
I would lose even more
in profits

“It must be that
indicator.” Find a new
one...

Account Value (1% ARR)



Account Value (2% ARR)



The move to computer generated trading systems...

Volume of effort

In the past 2 years my computer have built, evaluated, evolved and ranked hundreds of millions of trading systems. I build system 24/7/365.

Mathematics

The systems generated include TAN, COS, SQRT, use of Infinity. These are not the mathematics I was using when I developed my systems.

Evaluation data

I looked for patterns based on analysis techniques. Put an RSI on a graph and looked for patterns to trade. Limited to what I could see or identify.

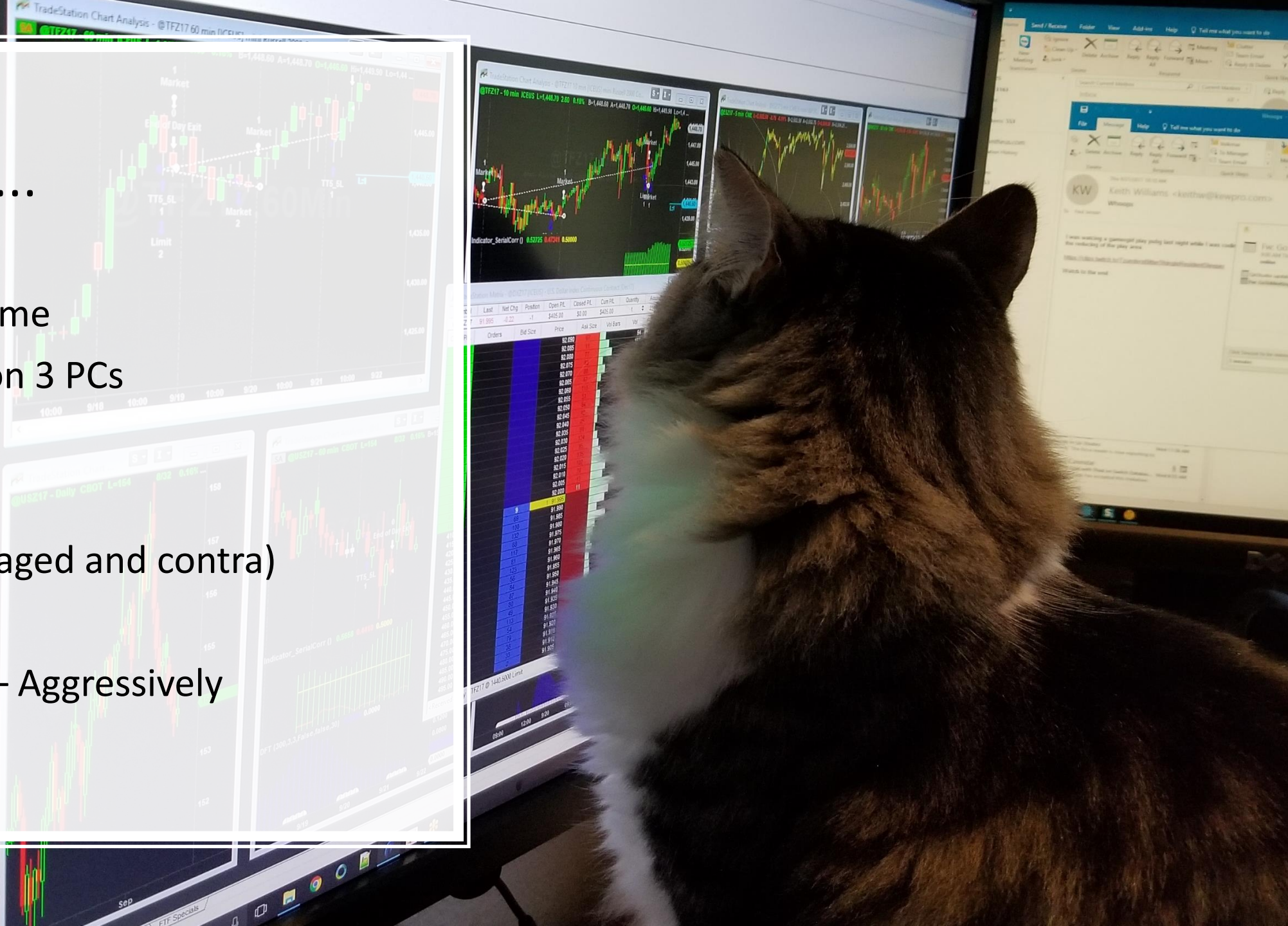
Discoveries...

- You will have draw downs
 - Usually a year's profits
- There are unlimited markets
 - Move on
- Take easy profits
 - Take singles and doubles to the bank
- Stops yield poor results
 - All my tests prove it
- Less from more
 - I have an army!

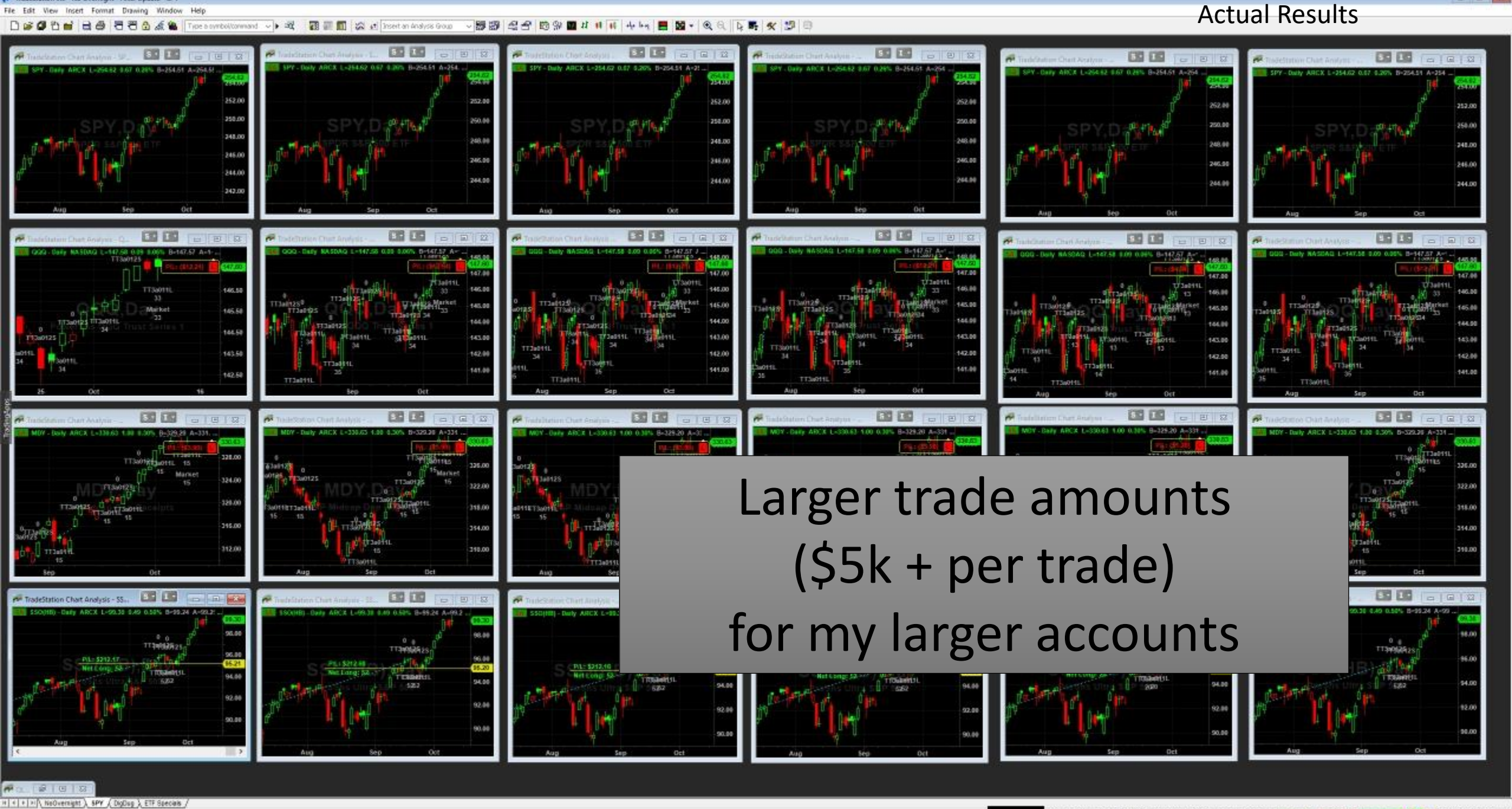
- Automated Trading systems are:
 - Patient
 - Fearless
 - Memoryless
 - Low cost (to run)
 - Isolated
 - Independent
 - Almost reliable
- **Leverage those traits!**

My setup...

- Work from home
- Tradestation on 3 PCs
- TSL
- 11 Accounts
- 40 ETFs (leveraged and contra)
- Long Only
- Trading Style – Aggressively conservative







Actual Results

Annual

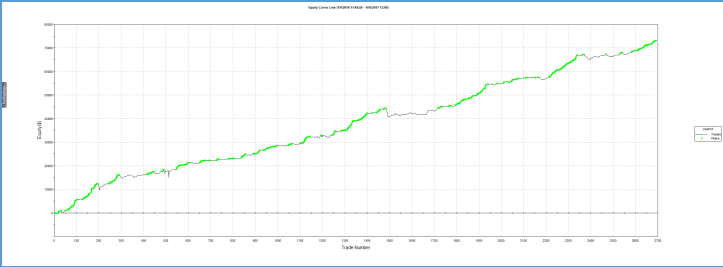
TradeStation Periodical Returns: Annual

Mark-To-Market Period Analysis:

Period	Net Profit	% Gain	Profit Factor	# Trades	% Profitable
Last 12 month	\$45,461.55	19.95%	2.62	1,727	68.67%
1/1/2017	\$41,049.26	17.67%	2.94	1,480	70.20%
1/1/2016	\$32,274.97	16.14%	2.05	1,348	68.84%

Mark-To-Market Rolling Period Analysis:

Period	Net Profit	% Gain	Profit Factor	# Trades	% Profitable
1/1/2017 - Today	\$41,049.26	15.02%	2.94	1,480	70.20%
1/1/2016 - 1/1/2017	\$73,318.83	36.66%	2.50	2,691	69.83%



	All Trades	Long Trades	Short Trades
Total Net Profit	\$73,318.83	\$74,120.14	(\$801.30)
Gross Profit	\$122,253.50	\$119,651.80	\$2,601.70
Gross Loss	(\$48,934.67)	(\$45,531.67)	(\$3,403.00)
Profit Factor	2.50	2.63	0.76
Roll Over Credit	\$0.00	\$0.00	\$0.00
Open Position P/L	\$0.00	\$0.00	\$0.00
Select Total Net Profit	\$63,936.58	\$63,831.88	\$104.70
Select Gross Profit	\$102,784.29	\$102,204.60	\$579.70
Select Gross Loss	(\$38,847.72)	(\$38,372.72)	(\$475.00)
Select Profit Factor	2.65	2.66	1.22
Adjusted Total Net Profit	\$68,781.25	\$69,755.60	(\$4,269.73)
Adjusted Gross Profit	\$119,433.18	\$116,887.09	\$1,539.56
Adjusted Gross Loss	(\$50,651.94)	(\$47,131.49)	(\$5,809.28)
Adjusted Profit Factor	2.36	2.48	0.27
Total Number of Trades	2,691	2,683	8
Percent Profitable	69.83%	69.81%	75.00%
Winning Trades	1,879	1,873	6
Losing Trades	812	810	2
Even Trades	0	0	0
Avg. Trade Net Profit	\$27.25	\$27.63	(\$100.16)
Avg. Winning Trade	\$65.06	\$63.88	\$433.62
Avg. Losing Trade	(\$60.26)	(\$36.21)	(\$1,701.50)
Ratio Avg. Win/Avg. Loss	1.08	1.14	0.25
Largest Winning Trade	\$1,976.00	\$1,976.00	\$1,072.00
Largest Losing Trade	(\$2,928.00)	(\$1,516.52)	(\$2,928.00)
Largest Winner as % of Gross Profit	1.62%	1.65%	41.20%
Largest Loser as % of Gross Loss	5.98%	3.33%	86.04%
Net Profit as % of Largest Loss	2,504.06%	4,887.51%	-27.37%
Select Net Profit as % of Largest Loss	2,183.63%	4,209.10%	3.58%
Adjusted Net Profit as % of Largest Loss	2,349.09%	4,599.72%	-145.82%
Max. Consecutive Winning Trades	57	57	3
Max. Consecutive Losing Trades	18	18	1
Max. Shares/Contracts Held	n/a	n/a	n/a
Total Shares/Contracts Held	86,250	86,139	111
Account Size Required	n/a	n/a	n/a
Total Commission	\$5,002.54	\$4,928.54	\$74.00
Return on Initial Capital	36.66%		
Annual Rate of Return	17.88%		
Buy & Hold Return	40.12%		
Return on Account	n/a		
Avg. Monthly Return	\$3,330.60		
Std. Deviation of Monthly Return	\$3,287.21		
Return Retracement Ratio	81.69		
RINA Index	n/a		
Sharpe Ratio	n/a		
K-Ratio	-0.07		
Trading Period	1 Year, 8 Months, 28 days, 1 hour, 17 Minutes		
Percent of Time in the Market	78.00%		
Time in the Market	1 Year, 4 Months, 9 days, 16 hours, 20 Minutes		
Longest Flat Period	22 days, 19 hours, 39 Minutes		
Max. Equity Run-up(Daily)	\$75,827.53		
Date of Max. Equity Run-up	10/5/2017 13:00		
Max. Equity Run-up as % of Initial Capital	37.91%		

My results since Jan 2016

Annual



TradeStation Periodical Returns: Annual

Mark-To-Market Period Analysis:

Period	Net Profit	% Gain	Profit Factor	# Trades	% Profitable
Last 12 month	\$45,461.55	19.95%	2.62	1,727	68.67%
1/1/2017	\$41,049.26	17.67%	2.94	1,480	70.20%
1/1/2016	\$32,274.97	16.14%	2.05	1,348	68.84%

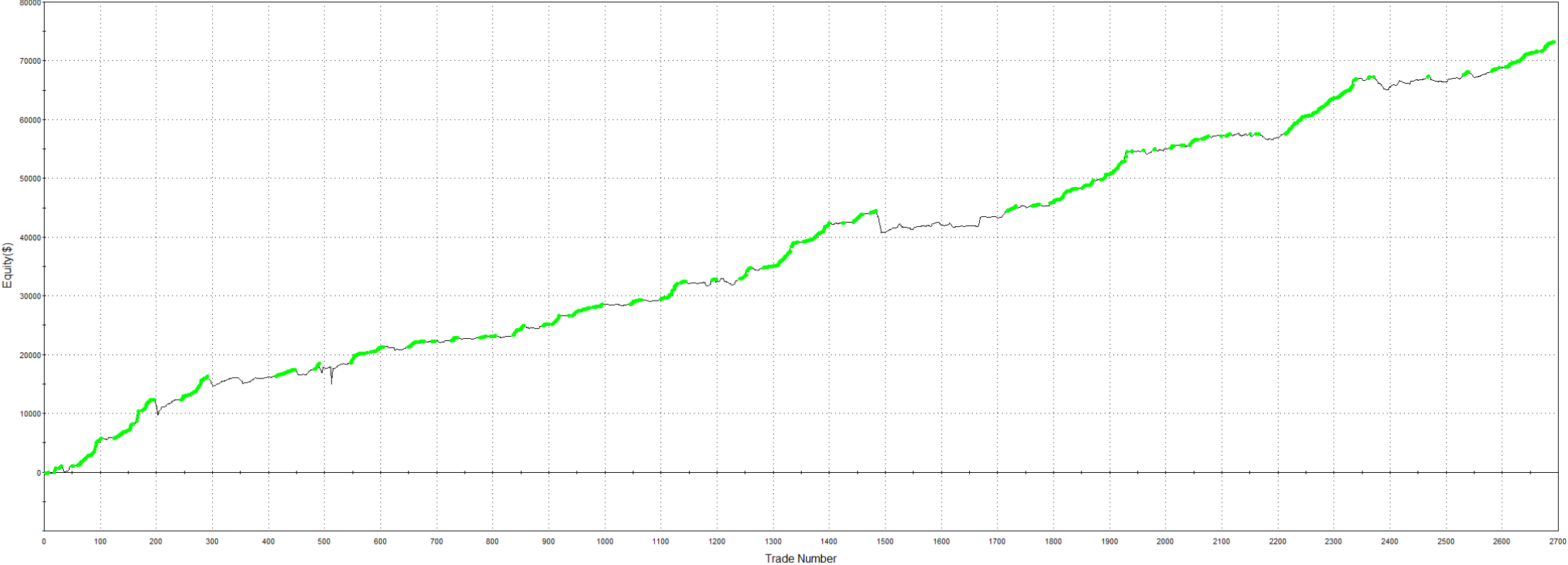
Mark-To-Market Rolling Period Analysis:

Period	Net Profit	% Gain	Profit Factor	# Trades	% Profitable
1/1/2017 - Today	\$41,049.26	15.02%	2.94	1,480	70.20%
1/1/2016 - 1/1/2017	\$73,318.83	36.66%	2.50	2,691	69.83%

Actual Results

TradingApp

Equity Curve Line (1/6/2016 11:42:58 - 10/5/2017 13:00)



Actual Results

	All Trades	Long Trades	Short Trades
Total Net Profit	\$73,318.83	\$74,120.14	(\$801.30)
Gross Profit	\$122,253.50	\$119,651.80	\$2,601.70
Gross Loss	(\$48,934.67)	(\$45,531.67)	(\$3,403.00)
Profit Factor	2.50	2.63	0.76
Roll Over Credit	\$0.00	\$0.00	\$0.00
Open Position P/L	\$0.00	\$0.00	\$0.00
Select Total Net Profit	\$63,936.58	\$63,831.88	\$104.70
Select Gross Profit	\$102,784.29	\$102,204.60	\$579.70
Select Gross Loss	(\$38,847.72)	(\$38,372.72)	(\$475.00)
Select Profit Factor	2.65	2.66	1.22
Adjusted Total Net Profit	\$68,781.25	\$69,755.60	(\$4,269.73)
Adjusted Gross Profit	\$119,433.18	\$116,887.09	\$1,539.56
Adjusted Gross Loss	(\$50,651.94)	(\$47,131.49)	(\$5,809.28)
Adjusted Profit Factor	2.36	2.48	0.27
Total Number of Trades	2,691	2,683	8
Percent Profitable	69.83%	69.81%	75.00%
Winning Trades	1,879	1,873	6
Losing Trades	812	810	2
Even Trades	0	0	0
Avg. Trade Net Profit	\$27.25	\$27.63	(\$100.16)
Avg. Winning Trade	\$65.06	\$63.88	\$433.62
Avg. Losing Trade	(\$60.26)	(\$56.21)	(\$1,701.50)
Ratio Avg. Win:Avg. Loss	1.08	1.14	0.25
Largest Winning Trade	\$1,976.00	\$1,976.00	\$1,072.00
Largest Losing Trade	(\$2,928.00)	(\$1,516.52)	(\$2,928.00)
Largest Winner as % of Gross Profit	1.62%	1.65%	41.20%
Largest Loser as % of Gross Loss	5.98%	3.33%	86.04%
Net Profit as % of Largest Loss	2,504.06%	4,887.51%	-27.37%
Select Net Profit as % of Largest Loss	2,183.63%	4,209.10%	3.58%
Adjusted Net Profit as % of Largest Loss	2,349.09%	4,599.72%	-145.82%
Max. Consecutive Winning Trades	57	57	3
Max. Consecutive Losing Trades	18	18	1
Max. Shares/Contracts Held	n/a	n/a	n/a
Total Shares/Contracts Held	86,250	86,139	111
Account Size Required	n/a	n/a	n/a
Total Commission	\$5,002.54	\$4,928.54	\$74.00
Return on Initial Capital	36.66%		
Annual Rate of Return	17.88%		
Buy & Hold Return	40.12%		
Return on Account	n/a		
Avg. Monthly Return	\$3,330.60		
Std. Deviation of Monthly Return	\$3,287.21		
Return Retracement Ratio	81.69		
RINA Index	n/a		
Sharpe Ratio	n/a		
K-Ratio	-0.07		
Trading Period	1 Year, 8 Months, 28 days, 1 hour, 17 Minutes		
Percent of Time in the Market	78.00%		
Time in the Market	1 Year, 4 Months, 9 days, 16 hours, 20 Minutes		
Longest Flat Period	22 days, 19 hours, 39 Minutes		
Max. Equity Run-up(Daily)	\$75,827.53		
Date of Max. Equity Run-up	10/5/2017 13:00		
Max. Equity Run-up as % of Initial Capital	37.91%		

Expected Results

TradeStation Strategy Performance Report - NUGT Daily (12/8/2010-10/10/2017)			
Display: Column View			
TradeStation Performance Summary			
	All Trades	Long Trades	Short Trades
Total Net Profit	\$431.58	\$431.58	\$0.00
Gross Profit	\$472.30	\$472.30	\$0.00
Gross Loss	(\$40.72)	(\$40.72)	\$0.00
Profit Factor	11.60	11.60	n/a
Roll Over Credit	\$0.00	\$0.00	\$0.00
Open Position P/L	\$0.00	\$0.00	\$0.00
Select Total Net Profit	\$431.58	\$431.58	\$0.00
Select Gross Profit	\$472.30	\$472.30	\$0.00
Select Gross Loss	(\$40.72)	(\$40.72)	\$0.00
Select Profit Factor	11.60	11.60	n/a
Adjusted Total Net Profit	\$291.42	\$291.42	\$0.00
Adjusted Gross Profit	\$350.35	\$350.35	\$0.00
Adjusted Gross Loss	(\$58.93)	(\$58.93)	\$0.00
Adjusted Profit Factor	5.95	5.95	n/a
Total Number of Trades	20	20	0
Percent Profitable	75.00%	75.00%	0.00%
Winning Trades	15	15	0
Losing Trades	5	5	0
Even Trades	0	0	0
Avg. Trade Net Profit	\$21.58	\$21.58	\$0.00
Avg. Winning Trade	\$31.49	\$31.49	\$0.00
Avg. Losing Trade	(\$8.14)	(\$8.14)	\$0.00
Ratio Avg. Win:Avg. Loss	3.87	3.87	n/a
Largest Winning Trade	\$84.40	\$84.40	\$0.00
Largest Losing Trade	(\$11.36)	(\$11.36)	\$0.00
Largest Winner as % of Gross Profit	17.87%	17.87%	n/a
Largest Loser as % of Gross Loss	27.90%	27.90%	n/a
Net Profit as % of Largest Loss	3,799.12%	3,799.12%	n/a
Select Net Profit as % of Largest Loss	3,799.12%	3,799.12%	n/a
Adjusted Net Profit as % of Largest Loss	2,565.34%	2,565.34%	n/a
Max. Consecutive Winning Trades	6	6	0
Max. Consecutive Losing Trades	1	1	0
Avg. Bars in Total Trades	3.75	3.75	0.00
Avg. Bars in Winning Trades	4.20	4.20	0.00
Avg. Bars in Losing Trades	2.40	2.40	0.00
Avg. Bars in Even Trades	0.00	0.00	0.00
Max. Shares/Contracts Held	24	24	0
Total Shares/Contracts Held	184	184	0
Account Size Required	\$11.36	\$11.36	\$0.00
Total Slippage	\$0.00	\$0.00	\$0.00
Total Commission	\$40.00	\$40.00	\$0.00
Return on Initial Capital	86.32%		
Annual Rate of Return	9.66%		
Buy & Hold Return	-91.43%		
Return on Account	3,799.12%		
Avg. Monthly Return	\$23.98		
Std. Deviation of Monthly Return	\$23.69		
Return Retracement Ratio	25.67		
RNA Index	591.85		
Sharpe Ratio	0.93		
K-Ratio	0.84		
Trading Period	6 Years, 5 Months, 7 days		
Percent of Time in the Market	2.68%		
Time in the Market	2 Months, 2 days		
Longest Flat Period	230 days		
Max. Equity Run-up	\$467.58		
Date of Max. Equity Run-up	7/12/2017 13:00		
Max. Equity Run-up as % of Initial Capital	93.52%		
Max. Drawdown (Intra-day Peak to Valley)			
Value	(\$118.88)	(\$118.88)	\$0.00
Date	9/11/2015 13:00		
as % of Initial Capital	23.78%	23.78%	0.00%

NUGT – Triple Gold Miner ETF

- Daily Bars
- Long Only
- Fitness Function: Net Profit / StdDev Return
- Trade Type: Next Bars Open
- Preprocessor: Mixed Trend / Counter Trend
- Trading Amount: \$500
- Results:
 - 9.66% ARR
 - 2.68% Time in Market (7 days a year)
 - \$119 Max Draw Down (23% of trade amount)
 - 3.75 Average days in trade
 - \$21.58 Average Trade (4.3%)
 - 11.60 Profit Factor
 - 75% Profitable
 - 3.87 Win/Loss Ratio
 - NUGT was down 91% during the trading period

TradeStation Strategy Performance Report - NUGT Daily (12/8/2010-10/10/2017)

Account (USD) ALL Data

Equity Curve Line

Equity Curve Line - NUGT Daily(12/8/2010 13:00 - 10/10/2017 13:00)

The graph displays the equity curve for the NUGT Daily strategy. The y-axis represents Equity in dollars, ranging from 0 to 500. The x-axis represents the Trade Number, ranging from 1 to 20. The equity starts at approximately \$60, dips slightly at trade 2, then rises steadily to about \$430 by trade 20.

Trade Number	Equity (\$)
1	60
2	55
3	70
4	70
5	95
6	135
7	145
8	145
9	140
10	180
11	170
12	200
13	240
14	235
15	250
16	245
17	275
18	360
19	405
20	430

Performance Summary Trade Analysis Trades List Periodical Returns Performance Graphs Trade Graphs Settings

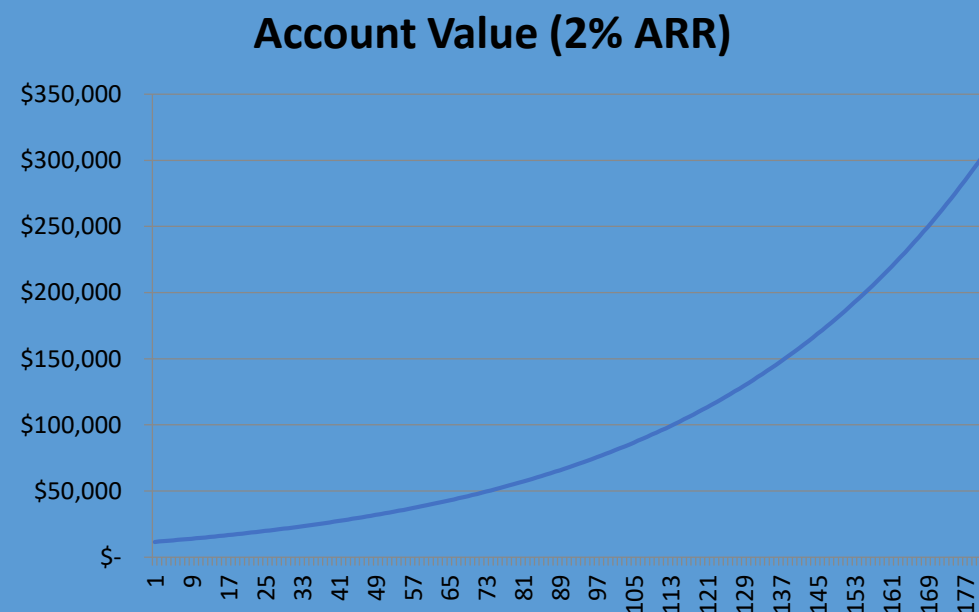
Code for NUGT

NUGT

Going forward...

- Continue towards the 2% per month goal
- Continue to replace systems with best of the best systems.
- Reduce the problems caused by Tradestation
- Keep TSL running 24/7/365
- Create a Hedge Fund / Endowment

- FUTURES Market
 - 20% per month
 - < 20% draw down



Tip for automated traders...(never trade on a tip!)

- S&P 500 over the DOW 30
 - Larger markets tend to work better in automated systems
- Trade with the market
 - Market is up 80% of the time
- Inverse VIX ETFs
 - Check out ZIV, XIV, SVXY
- Visa / Mastercard

• Build an
army of
your own!