Dave: Hi my name is Dave Goodboy, I am executive producer of Real World Trading. Today, I am pleased to be joined with Aaron Schindler. Aaron is a CTA who actively trades in the short term. He has experienced substantial returns over the last several years, despite a few dramatic drawdowns. Let’s get rolling to see what we can learn.

Aaron: Hi Dave, thanks for the invitation.

Dave: Sure, lets start at the beginning. I know you were in academia for a while and then you stepped into trading, can you tell us a little bit about your history?

Aaron: I actually have a physics background;. I went to MIT as an undergraduate, then went to UC Berkeley also majoring in physics. I got my masters in particle physics and was working on my PhD. I was doing research at FermiLab outside of Chicago. I dropped out of the PhD. program and went to work with Monroe Trout in downtown Chicago.

Dave: What triggered that radical change from particle physics to trading?

Aaron: Well, I was on the experimental side of particle physics. People involved in theory do a lot of equations on the blackboard, and write papers and teach. Experimental physicists build experiments, collect data, analyze data, write papers and do some teaching, too. Part of my job as an experimental physicist was working with technicians and building these experiments with a lot of soldering, and the use of hands on electronics. Another part of my job was taking the resulting computer data files and writing programs to analyze them looking for signatures for new particles, or other things that we were studying. I really liked the part of programming and data analysis. I found out that working for Monroe Trout in quantitative finance, that I could get a job doing exactly that. So when I went to go work for him, I was writing programs analyzing market data, instead of physics data. I read your interview with Emanuel Derman with interest since we are from the same field.

Dave: Right, I believe Dr. Derman was on the theoretical end of things, however, but same field. How did you hook up with a legendary trader like Monroe Trout? He’s in Market Wizards and is considered one of the greats.

Aaron: It was through a head hunter in Chicago, actually.

Dave: How long were you with Trout Trading?

Aaron: I was with Monroe for about one year in Chicago, and then he moved much of his operation to Bermuda. I moved with him to Bermuda and continued working with him there for a couple more years. This was in the mid-90s.

Dave: Was the switch in careers difficult?
Aaron: No. Instead of programming in Fortran to analyze physics data I was writing programs in C to analyze market data. Learning about the futures, options, and currency markets was fascinating.

Dave: What did you do next?

Aaron: Well, I took a detour into insurance and reinsurance where I was an actuary for several years. I first went to work for a reinsurance company in Bermuda. They were looking for someone with derivatives experience. Someone that could hedge balance sheet risk, and also someone who knew about various commodities that were traded on the futures exchanges. During my years as an actuary, I developed my risk management philosophy. At Trout Trading I learned how to create futures trading strategies and as an actuary I learned risk management.

Dave: I see, those two positions came together, leading you to start your own firm.

Aaron: Right, after working for the reinsurance company in Bermuda for a few years, my wife and I moved from Bermuda back to the Midwest. There I went to work for an auto insurance company near Chicago. They were bought out and I was without a job in early 2000. So I started trading on my own at that point, and worked on developing trading strategies. In September of 2001, I became a CTA and started managing money for other people.

Dave: For our members who may not know, can you please explain what a CTA is?

Aaron: A CTA is a Commodities Trading Advisor. It is a designation of the CFTC, who regulates futures trading, just as the SEC regulates equity trading.

Dave: What is involved in becoming a CTA?

Aaron: It’s similar to the process a stock broker would go through. There is a test you take to make sure you understand the mechanics of the market.

Dave: Ok, so Schindler Trading, as a CTA, can manage both a fund and separate accounts for its clients?

Aaron: Correct. We manage futures trading accounts on behalf of institutions and individuals. The set of strategies we use in trading and managing these accounts is called the Schindler Trading Program. We trade about half a dozen futures contracts in trying to make money for our investors.

Dave: What futures instruments do you trade?
Aaron: In the equity markets, we trade the NASDAQ and the German Dax Index. We trade the 10 year Treasury note, the Euro-dollar exchange rate, the VIX volatility index, and most recently we have been trading crude oil. All these are futures, of course.

Dave: Can you tell us a little bit about the methodology that you use in a general sense?

Aaron: Sure, we typically use short term trading strategies. We avoid the long term trend-following strategies that other CTAs use. They try to jump on a bull or bear market and ride it for a few months. What I try to do is a short term trade that is 1-3 days on average. We are just trying to capture the ripples on those longer term waves.

Dave: Is this automated trading or is it actually you placing the trade?

Aaron: The strategies are 100% automated. The realtime market data comes from eSignal. The strategies are coded in eSignal EFS script. When a trade is triggered, the trade is sent out directly through the Interactive Broker’s programming interface, via DynaOrder, and is executed automatically. All the contracts we trade are on electronic exchanges. So from my office to the exchange, the trades are executed automatically without human intervention.

Dave: Do you monitor the computer’s activity while it is working?

Aaron: During the day I do monitor it, but allow the computer to execute. At night, the German Dax trades starting at 2am, so the computer trades unattended. I do have an alarm that goes off just in case the data feed goes down or the link to the exchange goes down, so I can get up and make sure things get back on track. The most common reason I need to get up because of the alarm is usually just a simple internet connection problem.

Dave: When you guys are trading the NASDAQ futures, do you trade the E-Mini or full contract?

Aaron: I trade the E-Minis. I originally wasn’t sure whether to trade the E-Mini or the large contract, so I traded them both side by side and watched my results. The better fills and less slippage in the E-mini more than made up for having to pay 5 times more commission.

Dave: What is the average size of a trade you would make?

Aaron: Well, today we got out of a 207 lot trade. That is for an account with $2 million under management.

Dave: Do you find any liquidity issues with that size?

Aaron: I don’t just blast a market order into the market. The computer program uses limit orders to execute trades over a period of several minutes. If we are trying to execute
a trade after hours or early in the morning, we will work it for 30 to 60 minutes or so by scaling into it a bit at a time. When we get out we can use the same approach. Many times where there is lots of liquidity we can get out in a matter of seconds. But sometimes we will use a limit order with a profit target for example, and get out that way.

Dave: I know you said you guys are not trend traders and are more short term. What is your opinion of trend trading?

Aaron: Many of the large CTAs use trend following with a holding period of weeks to months. It’s a proven strategy. I consider it to be another asset class: stocks, bonds, real estate, and long term trend following. There is also alternative investments like the Schindler Trading program that are uncorrelated to all of those.

Dave: Can you give us a couple of basic ideas from your trading strategy?

Aaron: Well, some of the thing I love to look at are inter-market relationships. For example crude oil, I believe, is a China play. China is driving up the price of crude oil by adding that little extra bit of demand that pushes up the prices. It’s hard to quantify these things and make them into a systematic strategy, but that is one example of inter-market relationships. My suggestion to the readers is try whatever you think works, but do it in a systematic, scientific way. Try to program your trading ideas with some sort of programming language like TradeStation, or Wealthlab, or E-Signal. From there, backtest it and get some hard statistics to see if it works or not. Make sure your method is tested and make sure it works.

Dave: What specific indicators do you relay on?

Aaron: We have several different indicators in our strategy from trend following to mean reverting. The philosophy behind mean reverting is the idea behind overbought/oversold. The idea is that something has moved too far too fast and it’s due for a retracement. We have indicators, like stochastics, that look at that. Take a set of indicators you think work and try to combine them and backtest them and measure their performance.

Dave: Ok, I see you use technical analysis when you trade. Are you purely a technical trader?

Aaron: We use technical analysis and fundamental analysis. With the VIX strategy, we have a valuation model that underlies our trades. We don’t categorize ourselves as either technical analysts or fundamental analysts, but we do categorize ourselves as systematic traders, not discretionary. You can be systematic about your fundamental analysis. Maybe your indicators are P/E ratios, market capitalizations, or industry sectors. Or you can have a systematic technical analysis strategy. Whatever our indicators, we always want to be systematic. We want to be able to quantify things, measure things as trades progress, be able to take data and see how well things are doing. This is done so if things aren’t living up to our expectations we can cancel a strategy.
Dave: I notice in your returns you have really awesome highs and then some deep drawdowns. How do you mentally handle these significant drawdowns?

Aaron: Yes, our returns are quite volatile. The drawdowns are the worst part of trading, but they are inevitable. No trading strategy wins all the time. How I handle it is that my wife is very supportive. After a bad day of big losses, I feel lousy, but there are 266 trading days in a year. I tell myself that in six months from now I won’t even remember that down day. It will just be a point in a data set at that time. I try to focus on the big picture. Over time, the trading program has done quite well and I expect it will continue to do well. It will have its ups and downs, but I have taught myself to not worry so much about what happens within the last 24 hours.

Dave: Do you have any advice for someone that is in college right now that wants to become a CTA?

Aaron: Take a quantitative major if you are able to. I use a lot of statistics like hypothesis testing, and Monte Carlo simulation. So anything that is of a quantitative discipline that is going to teach you to be computer literate and how to program is something worth looking at.

Dave: How do you use Monte Carlo simulation in your trading?

Aaron: Monte Carlo simulation is a statistical tool. The primary way we use it is to monitor a strategy. For example, after we have made 100 trades in a market, we have a set of data. We can then sample from the data set over and over again to build up a trading record that didn’t actually happen, but could have potentially happened.

Dave: It’s a tool to compare actual results with the model?

Aaron: Exactly, We can then compare that hypothetical track record to some back tested results and to the actual results, and they should all match. If they don’t match, and the real time trading is doing significantly poorly, then we can only assume that that strategy needs to stop being traded.

Dave: How specifically do you use Monte Carlo simulation to develop strategies?

Aaron: When we develop a new strategy, we divide our historical data into two data sets, the in-sample and the out of sample sets. We then do our “curve fitting” and parameter adjustments using our in-sample data set.

Dave: Can you give a specific, real world example of what you mean?
Aaron: Sure, for example, if we were to develop a NADSAQ E-mini strategy and had 10 years of historical data, we would take that 10 years of data and divide it into two parts, say two 5 year periods. One becomes the in-sample data, and the other becomes the out of sample data. We develop our strategy using the in-sample data. We will run our strategy with different parameters and different indicators over this in-sample data many times. Our final strategy will likely it will work real well on this in-sample data because it was built specifically to do well during this in-sample period. But…we want to make sure it does well in the real world before we trade with it. So we take the virgin out of sample data, and run our strategy on it. Then we get a real indication of how our strategy does on data that wasn’t used to create it.

Dave: I like it. ‘What can be tested, must be tested” is one of my favorite quotes from Victor Niederhoffer. Sounds like you feel the same way.

Aaron: Correct. Hopefully our strategy is also profitable on the out of sample data, or else we throw out the strategy and go back to the drawing board. When we run the strategy on that out of sample data, we will get a large sample of hypothetical trades. We then take those hypothetical trades and plug them into a Monte Carlo simulation to develop a whole range of what could actually happen if we trade the strategy going forward.

Dave: Generally, the systematic aspect is the most important part of trading, more so than even your trading strategy being technical or fundamental?

Aaron: Correct. Socrates said, ‘The unexamined life is a life not worth living.’ I say ‘The unexamined strategy is a strategy not worth trading.’

Dave: Do you have any last words for our readers?

Aaron: Sure. If you trade yourself, try to be as quantitative as possible with your trades. Keep records of your entries and exits. As you build up your trading data you’ll be able to see what kind of trades are most profitable. Maybe you do better on the short side or in a particular industry or market. Study your records so you can focus on your strengths. And if you are looking to outsource your trading to a professional, please consider Schindler Trading. You can find out more about us at www.schindlertrading.com. Feel free to email us at info@schindlertrading.com.

Dave: Those are all great words of wisdom, thanks for joining me today!

Aaron: My pleasure, let’s do it again soon.