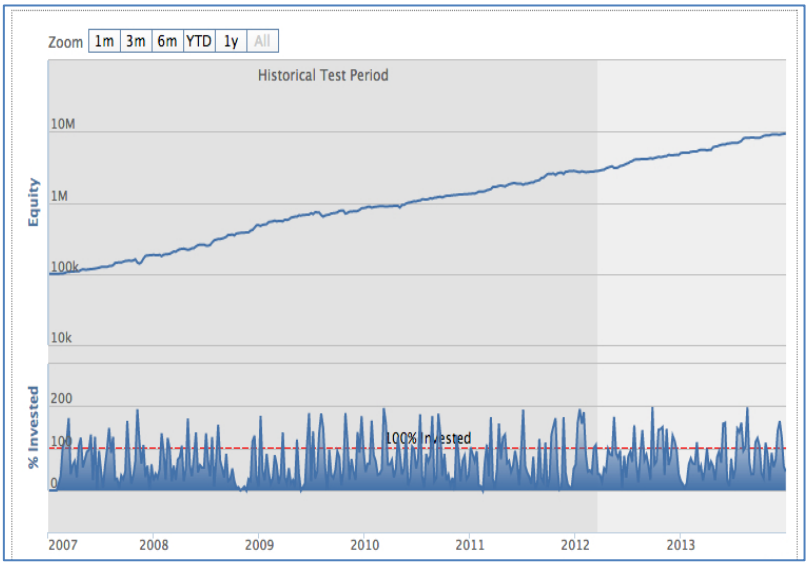
OmniVest News

Portfolio Wizard Released! August 6, 2014

"I have great news – our first OmniVest Professional Tool, Portfolio Wizard has been released! Pro Tool owners are now applying the tool to their OmniVest accounts.

OmniVest is built around the Portfolio of Strategies concept. Trading multiple Strategies has been proven to be far superior to trading any single Strategy.

Since launching OmniVest, we have enhanced it with many powerful tools for all users, including Strategy Lab and Dynamic Lists. In this newsletter, Mark Holstius shares his results using these resources.



This Dynamic Portfolio was built by Mark Holstius using Strategies he created in Strategy Lab, powered by the new Portfolio Wizard.

But what Mark and Steve Mayo realized, and showed through their spreadsheet experiments was, even better results could be achieved by "switching" between Portfolios based on performance.

In March we began building the Equity Curve Analyzer – the basic building block of Portfolio Wizard and Portfolio Balancer. In this newsletter, we will explore the science of the approach and analysis results we are now seeing.

"ECA is a giant leap forward! As far as I know, there is no other trading system like it available to and affordable by individual consumers."
– JB, OmniVest forum

"Hit it out of the ball park!" – Juan Vega

In this issue...

Predicting the Future with ECA.....2
by Steve Mayo

Advanced but Easy-to-Use.....7
Overview of Portfolio Wizard

Building Better Strategies.....8
by Mark Holstius

Additional News.....11
Accolades for ECA
Omni Portfolios
Special Offer

Predicting the Future with ECA

"With the Equity Curve Analyzer, Nirvana has created a product that appears to be able to predict the future." – Steve Mayo

Steve Mayo is a clinical scientist who has worked with Mark Holstius, Larry Luck, LD Newby and the Nirvana technical team to develop and test the ECA tool set. In this article, Steve talks about why this technology has the power to change the way people invest in the markets…

Validating the Equity Curve Analyzer

By Steven W. Mayo, PharmD, CCRA, PMP

"Hi, I'm Steve Mayo. Like many of you, I've been a Nirvana customer and Nirvana Club Member for many years. I'm also a (minor) investor in Omni Traders International because I believe in the company and the future of the Portfolios of Strategies Concept. I am not a Nirvana employee, just an avid fan of its products and how they help my investments.

Most of my time is spent working to help bring innovative life-saving new medical technologies to patients that so desperately need them. With that same mindset, I created a website, OmniVesting.com, to help people achieve financial healing as well.

Given my work in medical research, I look at things from a scientific perspective, only trusting results that have statistical validity. Back in early-2013 when Mark and I started looking at ways to build the best possible portfolios, I insited we use statistical validations to ensure we weren't curve-fitting or, as we say in Texas, just 'gettin' lucky'.

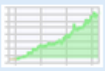
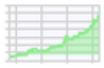
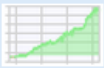
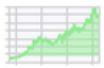
After running thousands of experiments in Excel, we became convinced that a score (using what is now called an evaluation function) calculated on the equity curve could be highly predictive in the next timeframe. As with a new drug or medical device, it provides a direct impact that can be scientifically quantified, thus giving a far better insight as to future performance. In less technical terms, it is far better for predicting future performance than traditional back testing.

This was about the time Ed contacted us about building a switching tool for OmniVest. After collaborating on the tool with the team Ed assembled, and actually getting the beta version of the tool and working with it for some time, I have to say we have been pretty much blown away by what we are seeing. The website article reprinted below is about some of the statistical studies I did on ECA. That scientific validation what gave me the confidence to say that ECA has dramatically expanded the potential of OmniVest to improve people's financial lives.

Reprinted from www.OmniVesting.com

Back in March, when I first proposed using a predictive function, calculated on the equity curve, for switching to a potentially higher-performing portfolio each month, I presented the results of a Monte Carlo simulation. That analysis, showing statistical significance at the three-sigma level (i.e., with 99.7% confidence, one can say the results are not due to random chance), providing initial evidence that this switching technique can improve trading performance. Can I now provide the same statistical validity on the finished product?

My original predictive switching prototype was built in Excel. My hard-working friend, Mark Holstius, added automation and we were then able to process enough data for that Monte Carlo simulation. But, given that spreadsheet's number crunching limitations, we were only able to test monthly switching between a few static portfolios.

Enabled	Alloc (Clear ↓)	Equity (Clear →)	Strategy (Apply →)	%Wins	TPM (15)	CAR (30)	MDD	Avg MDD	%/Trade	Avg %Inv (<100)	Type
☐	%		R17-B-PRS*	67.6 %	17.7	46.2 %	20.3 %	15.0 %	18.9 %	59.3 %	Custom Delete
☐	%		R20-B-PRS*	67.0 %	19.5	42.6 %	31.5 %	16.2 %	18.6 %	65.1 %	Custom Delete
☐	%		R5-B-ELS100	67.2 %	20.8	41.5 %	24.7 %	13.9 %	18.9 %	66.3 %	OmniVest
☐	%		R5-B-PRS*	65.3 %	31.3	42.7 %	31.4 %	19.1 %	17.9 %	99.4 %	Custom Delete
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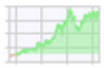
☐	%		R7-L-PRS*	66.0 %	32.8	34.0 %	42.2 %	23.9 %	17.7 %	92.6 %	Custom Delete

Standard OmniVest Strategies used in the test.

Having accepted our proposal and greatly expanded upon my original concept, Nirvana's Equity Curve Analyzer (ECA) is far more powerful. It not only does predictive (true walk-forward) switching, but it also selects strategies and builds a dynamic portfolio on-the-fly for forward-month trading, processing billions of possible combinations along the way. Read more about the innovative process at http://www.omnivesting.com/111/8/10-equity-curve-analyzer

Simulation:

Simulation Start Date: 7/3/2007 Simulation Starting Balance: $100,000.00
Simulation End Date: 7/11/2014 Use today's date
Set simulation range: YTD Prior: 1mo 3mo 6mo 1yr 2yr 3yr 4yr 5yr

Settings:

Buying Power %: 200
Settlement Wait Days (IRA accounts): 0
Allow settings to reduce trade size:
Trade selection ordered by: Alphabetic
Maximum Long Allocation %: 0
Maximum Short Allocation %: 0
Maximum Exposure % per Symbol: 25
Max Strategies trading the Same Symbol: 2
Minimum Trade Size: 100 Number of Shares
Minimum Trade Size: 2000 Dollar Value
Minimum Trade Size: 0 %
Max Trade Size as % of Avg Daily Volume: 5
Long Minimum Price per Share: 5
Long Maximum Price per Share: 0
Short Minimum Price per Share: 5
Short Maximum Price per Share: 0
Min Average Daily Volume: 1000000
Increase Trade Size to at Least: 5000 dollar value.
Share Rounding: None to nearest 0 shares.

Commissions:

Stocks: 0.004 $ per Share
0.0000 $ per Share over 0 shares.
0.0000 $ per Trade max.
1.0000 $ per Trade Min.

With no hope of running a Monte Carlo simulation on billions of possible combinations, I had to alter the original testing methodology. This new experimental approach still has limitations on how extensively the results from a specific set of strategies can be extrapolated to other sets of strategies, but given ECA's much higher returns relative to the initial prototype, it's much easier to see the distinctive improvement in portfolio performance, even without applying any statistical tests.

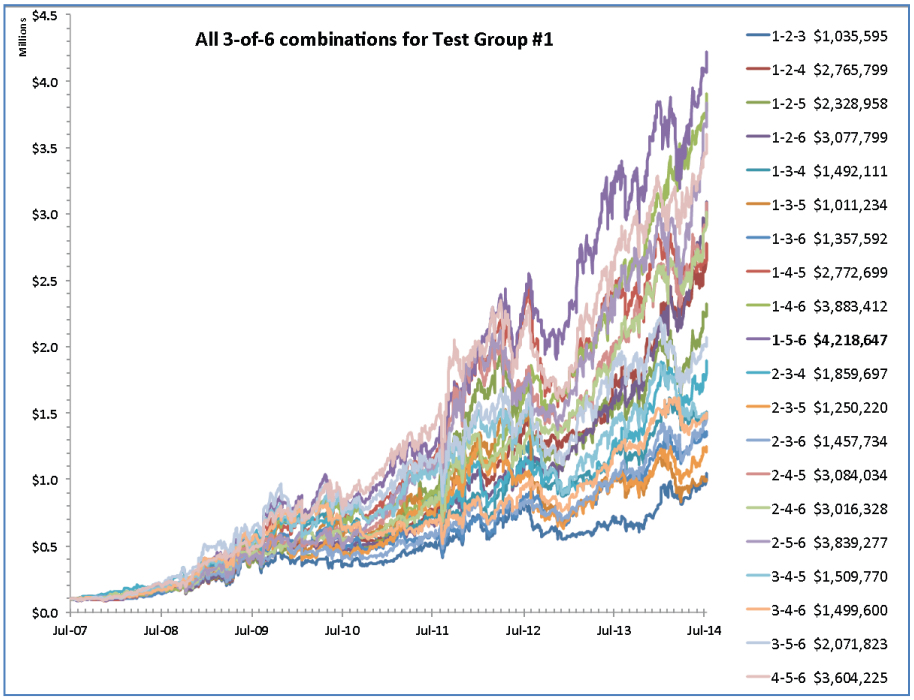
For this first experiment, I used six "plain vanilla" strategies, each at 20% per-trade default allocation. I basically selected this set because I could easily filter them out of the hundreds of strategies I've built.

These six all have at least 15 trades per month (TPM) and a CAR (compound annual return) greater than 30% over my 7-year test period. I also filtered on Average Percent Invested of under 100% in an attempt to limit the influence of trade-filtering bias, i.e., trying to reduce the number of times that the %Invested hits the 200% equity ceiling forcing OmniVest to discard potential trades.

The settings I used are shown here.

To further limit the degrees of freedom, I did not use any conditional filters, but to reduce survivorship bias, I did use the PRS* and ELS100* dynamic lists. There are 20 possible 3-strategy combinations that can be assembled from these six strategies, a reasonable number for which I could compile all 20 equity curves.

Using the full power of OmniVest, Mark and I have been able to build some stunning high-return, low-volatility equity curves in the tens-of-millions range over this same 7-year time frame, but that generally requires using condition filters and a much larger number of carefully-selected strategies. Other than filtering for six good-performing strategies, there was no optimization or pre-testing of this selection. I purposely sought to duplicate the scenario that new OmniVest users might experience in their first encounter with this new tool.



The graph to the left shows the equity curves for all 20 possible 3-of-6 strategy combinations. Using minimal account-level filters and 200% leverage on the initial $100,000 starting investment, these portfolios generate an ending equity over 7 years of between $1.0 and $4.2 million, with a modified Calmar ratio (7-year CAR divided by 7-year MDD) ranging between 0.84 and 2.36.

It is worth pointing out that this period includes the 2008 market correction, yet notably all 20 of these "plain vanilla" OmniVest portfolios are already profitable despite that sharp market drawdown. The S&P-500 had a CAR of about 6.1% (SD: 21.2%) over this same period.

Across the entire 20-combination static portfolio population, the average return was 54.9% (SD: 10%) with a MDD of 37.9 (SD: 7%) and a resulting Calmar of 1.52 (SD: 0.48). This is analogous to what the average performance that would be achieved using random chance to pick any three-strategy combination - essentially the same technique used in Monte Carlo simulation. This provides a reasonable comparison with the prototype validation study. At the 3-sigma level (by adding 3 standard deviations), the HIGHEST EXPECTED return from a random strategy selection would be 84.9%. The highest expected Calmar would be 2.96.

Using ECA to Perform the Tests

I then used ECA to assemble a dynamic 3-strategy portfolio for each of 66 evaluation functions (EFs). This collection of functions was compiled based on my non-newbie knowledge of OmniScript (some possible selection bias in how I wrote the functions and which indicators I chose) but with no attempt to optimize the selection or any of the component parameters (such as the fast/slow measurements used in an MACD function). It was basically a list of as many functions as I could think of while trying to create a representative sample of the type of functions that can be written. Most of these will become the default functions so a new user will not need to know OmniScript.

This population of EFs had an ending equity value ranging from $1.1M (CAR: 41.1%) to $9.1M (CAR: 89.9%) with an MDD from 51.2% to 29.4% (Calmar: 0.8 to 3.06). The worst-performing evaluation-function-derived dynamic portfolio basically matched the worst-possible static combination, clearly showing that not all EFs are beneficial and some may even be detrimental to performance. But, it also clearly shows that the evaluation function is having a big impact, exactly the effect we were trying to achieve.

Here's the exciting part!

There was a statistically significant difference (p=0.03, 2-tailed, unpaired t-test) between the mean return (both in ending equity and CAR as well as MDD and Calmar) for the 66 dynamic equity curves derived using those 66 evaluation functions as compared to the mean return for the 20 exhaustively-derived static permutations.

For this particular set of strategies and evaluation functions at least, this means that the creation of dynamic portfolios via the application of evaluation functions to the strategy equity curves is definitely improving the results in a meaningful way. Specifically, the mean CAR increased from 54.9% to 61.8% and the mean Calmar increased from 1.52 to 2.54. But, you don't need statistics to see it in the accompanying equity curves.

These results are from hard switching (via having both the dynamic entries and exits boxes checked), meaning at the end of each month all open trades for the current set of strategies are closed and all in-effect trades from the new set of strategies are immediately entered at the current price. This technique -- called hard-switching as opposed to the more gradual transition of simply letting open trades reach their trading-plan-defined endpoints -- potentially incurs higher commission costs but intuitively should allow the portfolio to more quickly respond to changes.

Surprisingly, the difference between using hard and soft-transition was, on average, only a 2% improvement in ending equity (hard switching was slightly better, commissions included), which did not reach statistical significance (p=0.22), meaning that 2% improvement using hard switching is likely just random chance. Therefore, for preliminary testing purposes, it should be fine to use only the soft-transition approach; and then look at hard-switching for the final testing. However, this suggestion should be revisited once switching of portfolios (as opposed to this switching of strategies) becomes available.

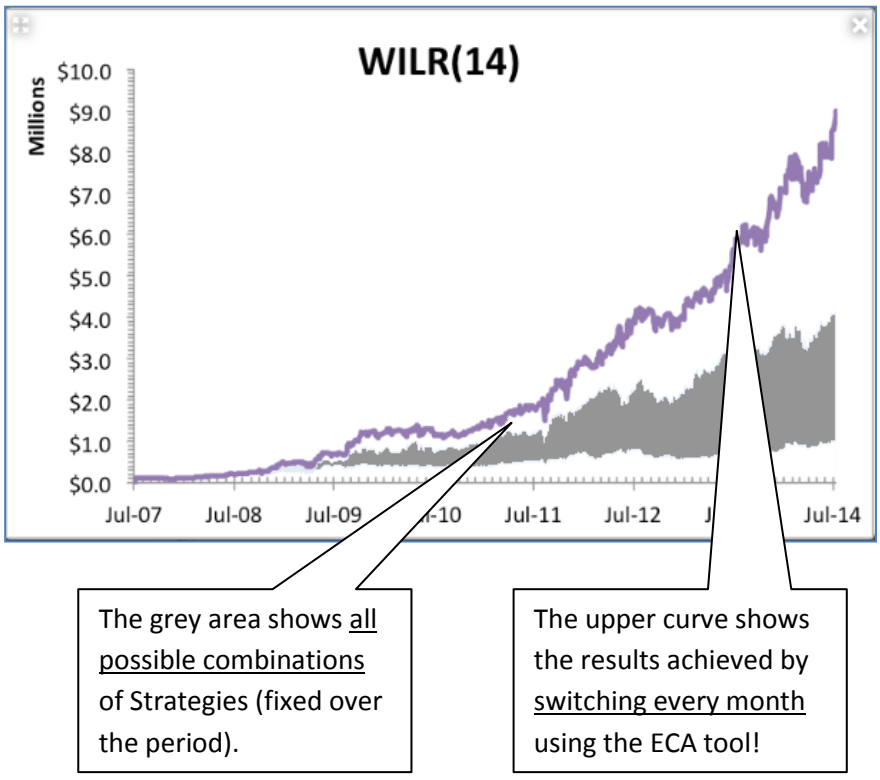
Statistical Evidence

In the graph to the right, the grey area is the equity curve range spanned by all permutations of static portfolios. In other words, all possible combinations of Strategies during the 7 year period with no switching..

The purple line shows the ECA run using the Williams %R Indicator as a "predictor" of future performance.

We quickly see that the ECA approach reached an ending equity of $9 million – which is twice the ending equity of ANY combination of 3 Strategies could have produced. Think about the significance of this.

This was achieved using a simple indicator (Williams %R) on the equity curve each month, with the highest value used to determine which 3 Strategies would be used the next month.



What about using different indicators ("evaluation functions") to predict performance?

Testing Multiple Evaluation Functions

On this page, we see the results of testing a total of 14 different Evaluation Functions. In each case, the highest value of the EF, applied to the Equity Curve at the start of each month determines the top 3 Strategies that are used for trading in the next month.

The two lines on each graph are the dynamic-portfolio equity curves (red line is hard-switching, blue is soft transition). As mentioned earlier, results did not improve that much with hard-switching.

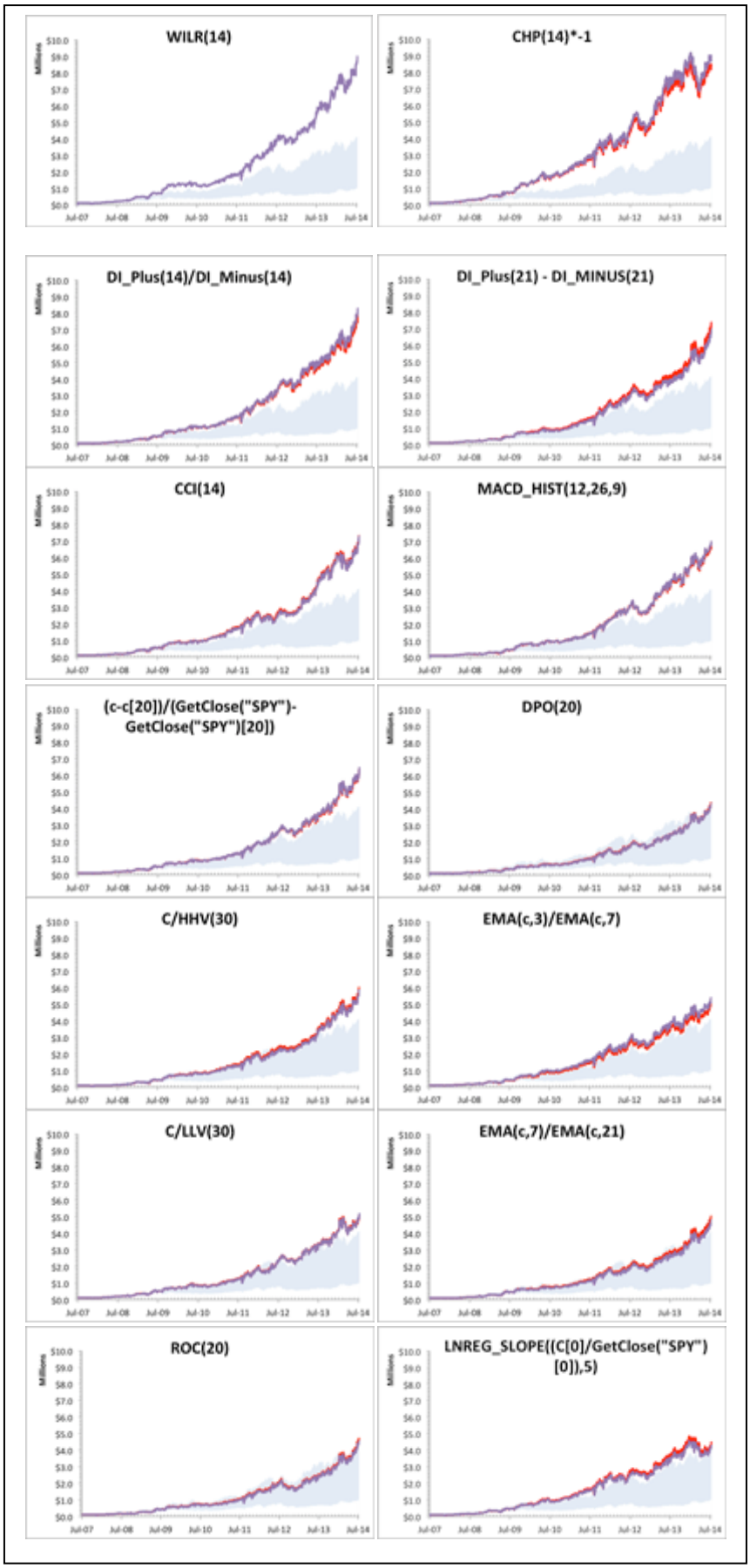
Referring back to that Monte Carlo approach used in the prototype validation, the top five (5) dynamic, function-derived portfolios all beat random chance by at least 3 sigma!

This experiment needs to be repeated with different sets of strategies, but these preliminary findings provide compelling statistically-valid evidence that ECA can significantly improve trading performance.

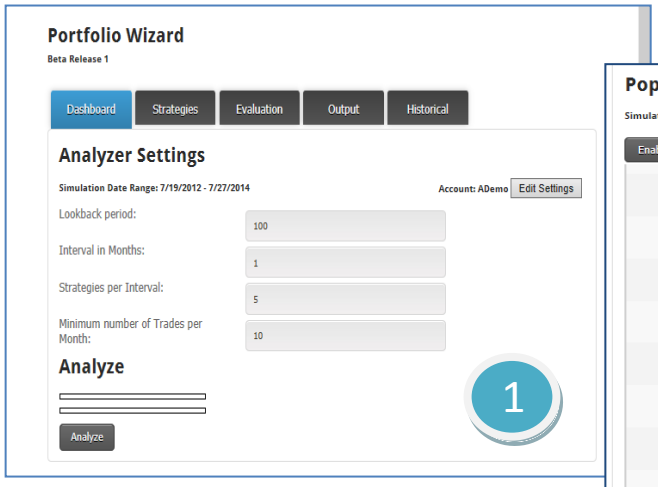
If we can get this doubling performance with just a "plain vanilla" set of strategies, imagine what we will see with custom, better-tuned strategies.

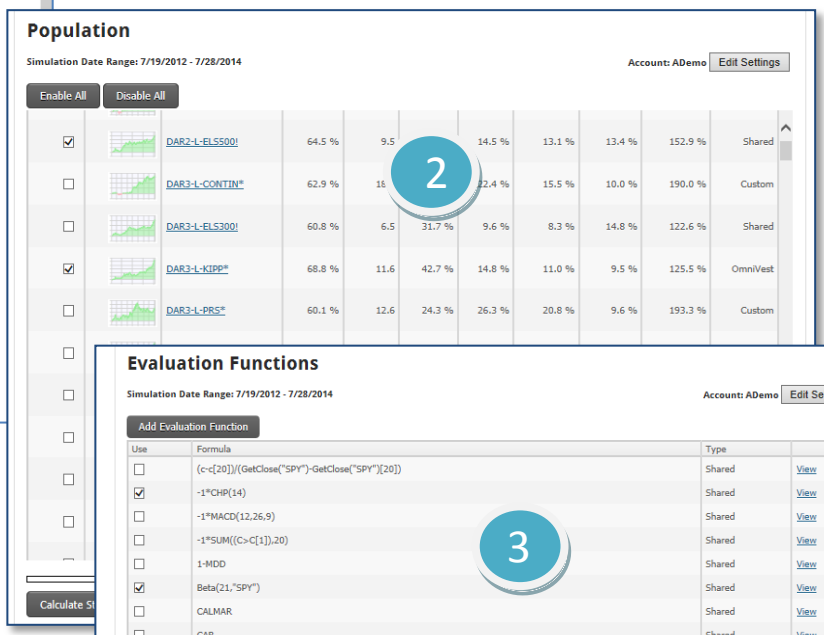
It all portends a lucrative future for us OmniVestors!

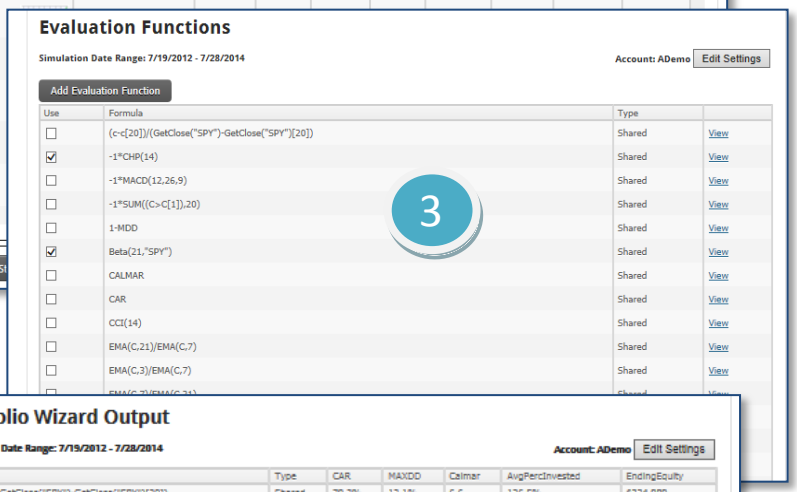
"…this preliminary finding provides compelling statistically-valid evidence that ECA can significantly improve trading performance."



Portfolio Wizard – The *Easiest* Advanced Tool Ever!

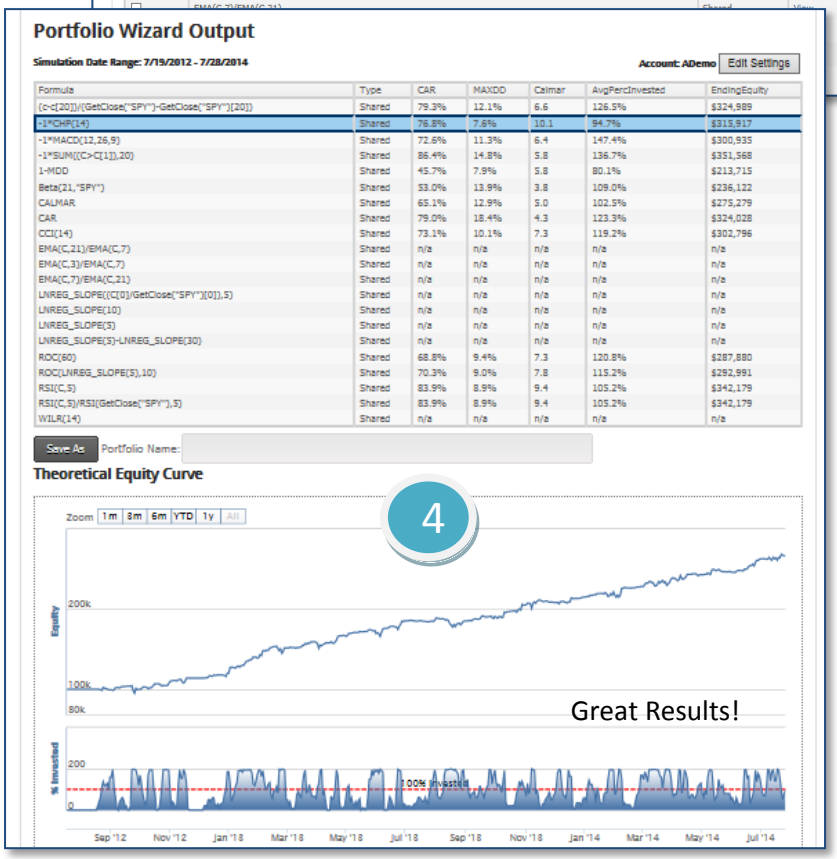


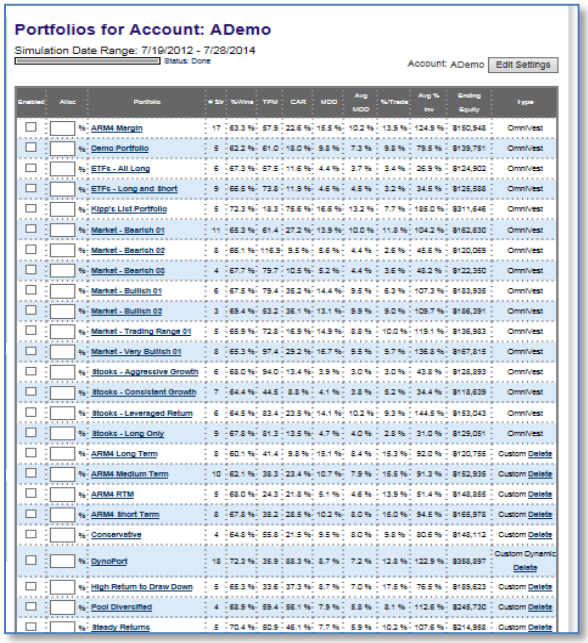




Build a Dynamic Portfolio in just 5 Easy Steps.

1. Establish a few simple settings.
2. Select Strategies (or **ALL**)
3. Select Eval. Functions (or **ALL**)
4. Examine Output Performance for each Evaluation Function to select best Return, lowest Draw Down or highest Hit Rate.
5. SAVE AS a New Portfolio.





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Use the new Portfolio just like any other Portfolio, and/or combine them to achieve higher levels of investment.

Building Better Strategies for ECA

by Mark Holstius {retired airline pilot}

"Steve Mayo has done a fabulous job of validating the statistical significance of using Evaluation Functions, while I've been running extensive combinations applying those Functions against different lists of Strategies to learn how the ECA "responds".

In a nutshell, we're in "discovery mode", but the combination of talent and ideas of everyone using Omnivest who likes to "tinker" with the knobs and settings should produce outstanding results in the near future.

The following results are from very early stage experiments. I'm sure there are better paths to discover. The forum will be a great place to share those discoveries, and Elite Trader will be a great place to share the profits… New Tools from Nirvana make this possible…

With these new tools, we now have 3 significant ways to improve the performance of Omnivest;

1) Dynamic Lists that use scripts to select the stocks each day.

2) Custom Strategies that affect when the stocks in a strategy enter/exit trades.

3) Evaluation Functions that ECA uses to dynamically select a new set of strategies each month.

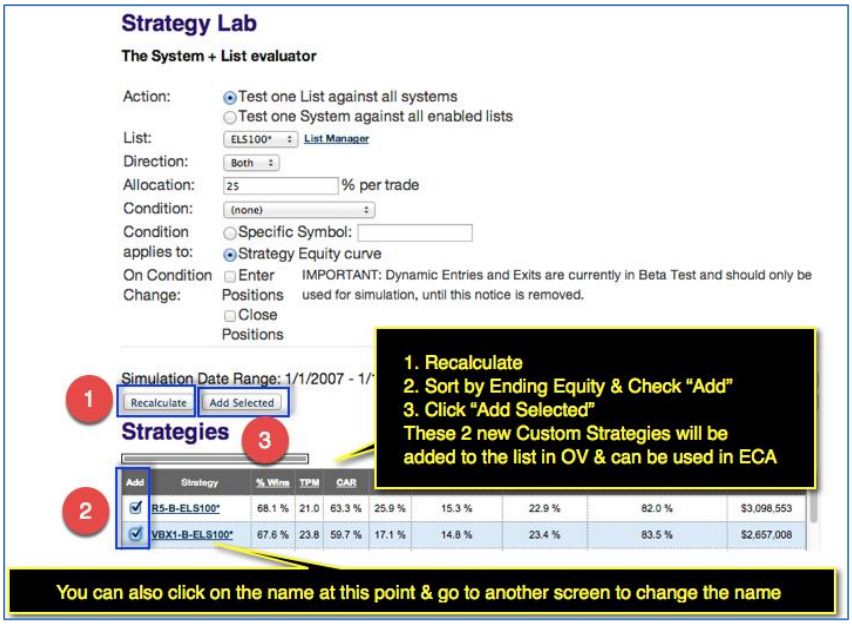
Every one of these capabilities increases the complexity / # of possible outcomes – but also brings the potential to increase the profitability of the resultant combinations. The goal will be to find the combination that works best for each of us, whether the target is "High Risk / High Return" in a margin account or "Low Risk / Steady Returns" in an IRA. The combinations are literally infinite, but here are some basic things I've discovered in the past few months…

Build Custom Strategies with Dynamic Lists

The **Dynamic Lists** provided in OV do a great job of alleviating the problem of "survivorship bias" and add credibility (and performance) to historical simulations. I've obtained good results using the ones provided by Nirvana in my testing, and want to do more research into building new ones when I have time.

The pairing of Strategies with Dynamic Lists using **Strategy Lab** makes it possible to build "pools" of **Custom Strategies** as the "Population" for the Portfolio Wizard powered by ECA. Using those "pools" definitely improves results (see page 10 – Ed).

Creating Custom Strategies with Dynamic Lists in OmniVest is easy. The image to the right shows the 3 simple steps that are used.



Using the Nirvana Dynamic Lists, it's very easy to create new Strategies with high performance. This page shows a comparison of an original OmniVest Strategy versus a similar one created in Strategy Lab using the ELS100* Dynamic List.

The upper image on the right shows the statistics and equity curve for the standard VBX1-L-ELS. The lower image shows the same VBX1 System paired with ELS100*. The new Dynamic List increased Ending Equity by nearly 12 times!

Continued on page 10…

New Strategies and Evaluation Functions Being Added to OmniVest

by Ed Downs

Thanks, Mark! You have truly been making maximum use of Strategy Lab to build incredible Portfolios with Custom Strategies, many of which you have shown in the OmniVest Forum. Awesome stuff!

Here at Nirvana, we are continuing to add new Dynamic Lists, Systems, and Evaluation Functions to enhance the platform with "canned" Strategies and other assets so our Pro users can just "Push the Button" in Portfolio Wizard and get the best possible results.

There are many areas of research that we are pursuing, thanks to the power of these new tools. Pro Owners can also create their own Dynamic Lists. The possibilities are endless!

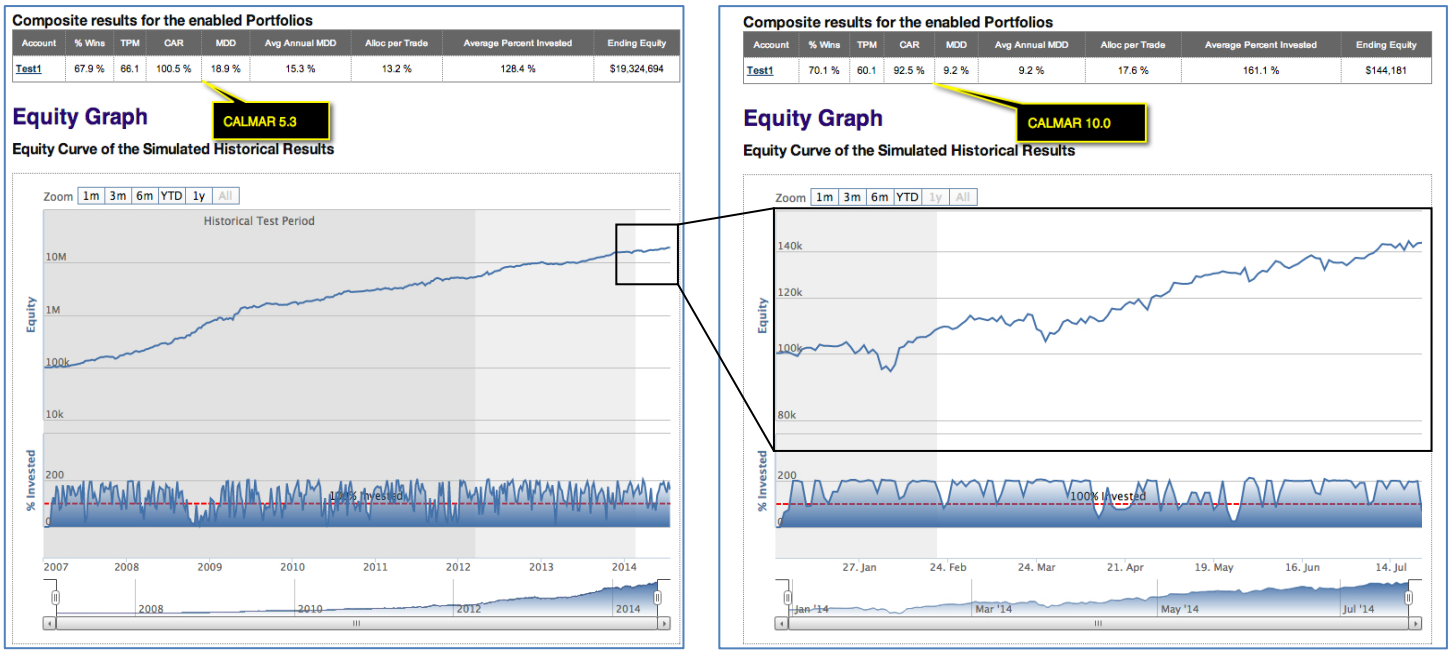
Thanks for sharing your work and results. You have really shown what users can do with OmniVest, and I know you and Steve are just getting started! Very exciting indeed.

Thanks again.. – Ed

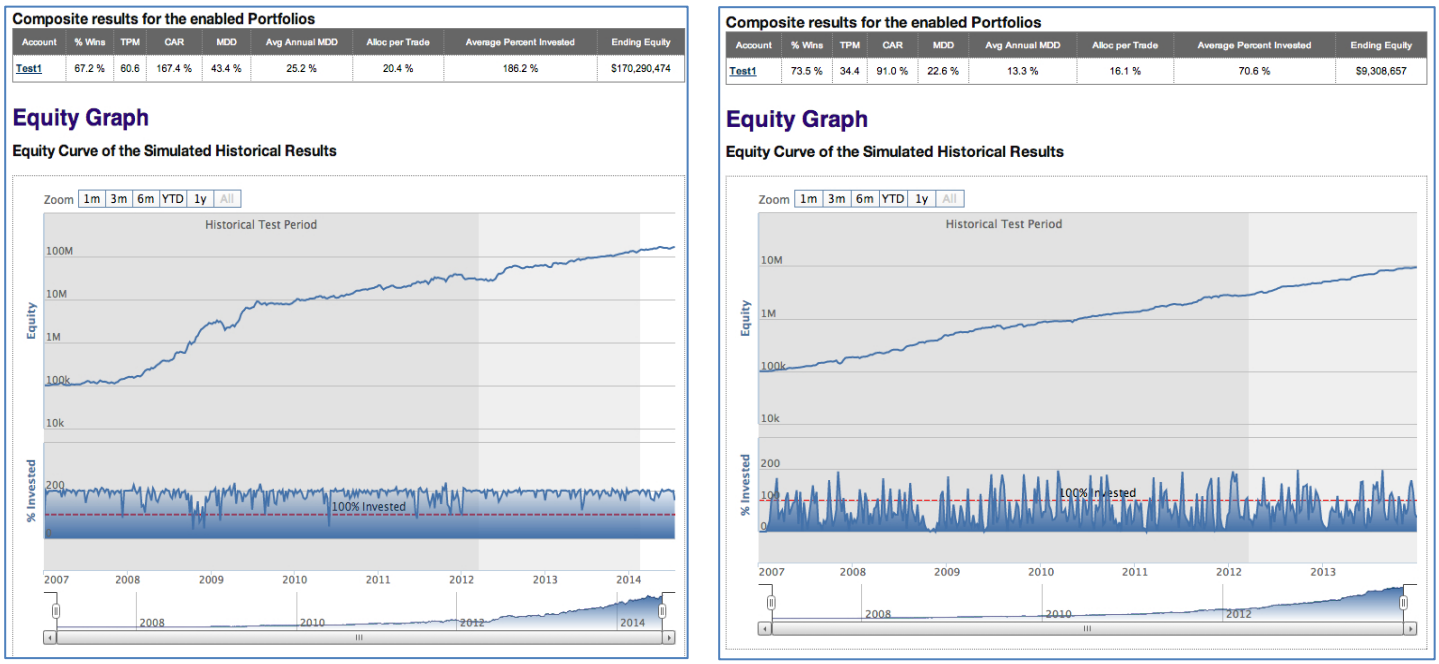
Putting it All Together

Mark's article, continued from prior page

Here are some examples from a few of the Portfolios I've built using the ECA and Custom Strategies from Strategy Lab.



The above Portfolio was created with a set of Strategies built in Strategy Lab. We see the last 7 years on the left and most recent 7 months shown in the curve to the right. This year, the Portfolio has achieved a Calmar Ratio of 10.



I've gotten even higher Equity totals, but I'm trying to find a robust balance of factors. For those thinking in terms of high ending Equity, the curve on the left is the result from combining **MULTIPLE Dynamic Portfolios** in an account. (All my examples use my "standard" Account settings – see my full article on OmniVesting.com). <u>And yes, that's $170 Million Ending Equity</u>.

Steve & I also created "smooth curve" Portfolio using the ECA, which is shown on the right. Refining this type of Portfolio will be a priority for Steve & I, and these new tools will make it possible. Best of luck in your research and trading… Mark

Accolades for ECA

OmniVest Forum

"I have been involved with OmniVest from the beginning. I have watched the product continually improve over the past 2 years.

For anyone considering Omnivest, my $0.02... OmniVest is the BEST product for automated trading - PERIOD. Your investment in OmniVest (and Nirvana Systems) will possibly be the BEST dollar EVER spent on trading software, systems, or education. Don't let this opportunity pass you by."

Cheers, Keith McIntyre

"I couldn't agree more Keith, what Ed and the Nirvana team have created is amazing. And they never rest on their laurels, they are always looking to improve it."

Sean Cornell

"I've been with Nirvana since 1997 and have tried several other products along the way ...like TradeStation, SuperCharts, AIQ, and others. But thru the years, I've always stuck with Nirvana ...always impressed with their products. **But with OV, TP, and ECA, they've hit it out of the ball park!** Thanks Ed and Team for a truly amazing product."

Juan Vega

"I have been a Nirvana customer and Omnitrader user for about 17 years. Over that time the service I have received from you and your team has been exemplary. 2 years later I can say it was, in fact, dirt cheap and possibly one of the best investments I have ever made."

Regards, Steve Leurman

"... I've used Trading Markets' "The Machine" (developed by Larry Connors), Prodigio, a major broker's scripting and scanning tools, a proprietary private product, and also tried TradeStation, AIQ, and some others that proved unsatisfying.

ECA is a giant leap forward! Its comparative advantages, and integrity of walk-forward intelligent selection of Strategies, are exceptional. **As far as I know, there is no other trading system like it available to and affordable by individual consumers.**"

JB

Additional OmniVest News

Coming: Omni Portfolios

A new set of Portfolios is being developed for all OmniVest users called Omni Portfolios, featuring special Industry Group and Theme Portfolios. OmniVest Pro Owners will be able to use the coming **Portfolio Balancer** to switch between their own Portfolios and these new specialized Portfolios. Release is expected September 2014.

Director's Club

Just 5 openings remain.

The Director's Club was started as a group of users who are advancing the State of the Art of OmniVest. Specialized portfolios are provided that leverage the knowledge of the Nirvana team.

There are currently 5 seats remaining in The Director's Club. Ask about this special group when you call Nirvana Sales.

Pro Tools Special Offer

The Pro Tools include:

- *Portfolio Wizard – Released*
- Portfolio Balancer – nearing release
- Pro Language Tools

The Pro Tools set will sell for $5,000, but for a limited time is available for just $2,495.*

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