This article is going to discuss the methodology that I am following regarding my 'live' Portfolio123 portfolios. I'll also discuss the returns I have achieved since I started investing using Portfolio123.

Methodology

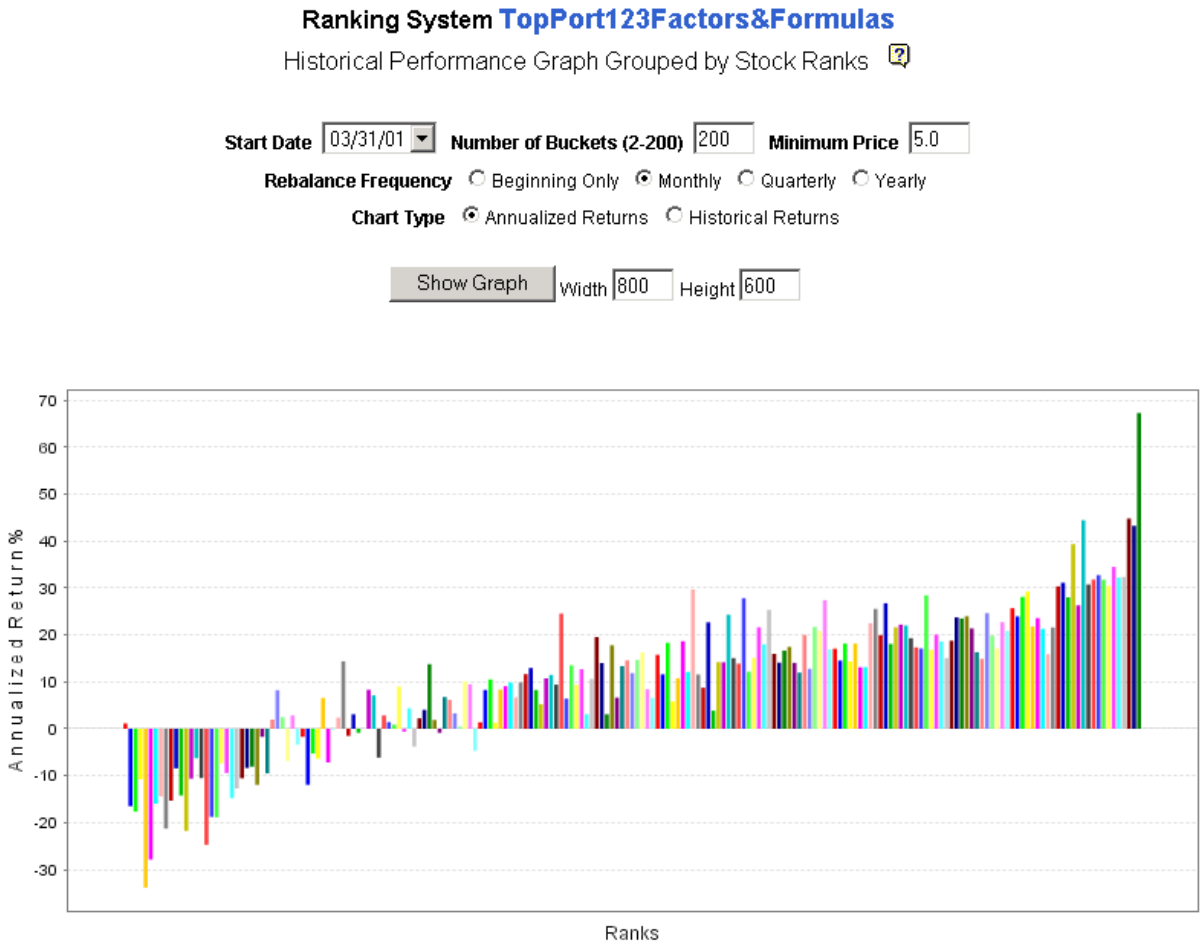
The most important component of your portfolios in the ranking system. My portfolios use ranking systems that I either created from scratch or created by modifying a public ranking system.

How I Created My Ranking Systems

- Created an Excel file containing a list of over 300 factors and formulas.
- Used a software testing tool to automatically create a ranking system for each individual factor and formula.
- Used the Performance graphing feature to create graphs for each of the 300 ranking systems and pasted these graphs into a Microsoft Word file.
- Manually reviewed these 300 graphs and selected those that had poor returns for the lower ranks and very high returns for the upper ranks.
- Created ranking systems made up from the top performing factors.
- Ran Performance charts of the multi-factor ranking systems to optimize the weights assigned to each factor.
- Ran simulations to optimize the buy and sell rules.

Most likely, nobody reading this has access to the tool I was using to do this research. But you don't need it since I posted a Word document containing the 300 or so performance graphs on the Portfolio123 Yahoo group site so that everyone can use them when creating their own ranking systems. We have had some problems with people not being able to open the documents from the web site. If this happens to you, just email using the Portfolio123 email feature and I will email the charts to you.

The performance graph below is for one of the ranking systems I created and put out in the public section so that everyone can use it. What the graph shows is that the stocks that ranked in the top .5% for this ranking system returned about 68% annually since 3/31/01.



Currently I have 7 Portfolio123 portfolios that have money invested in them.

- 3 are sector specific (1 health, 2 energy) with 2 or 3 stocks in each.
- 2 are diversified across sectors and are highly optimized. They hold 3 or 4 stocks each.
- 2 are diversified across sectors and are less optimized. They hold from 5 to 10 stocks at any given time.

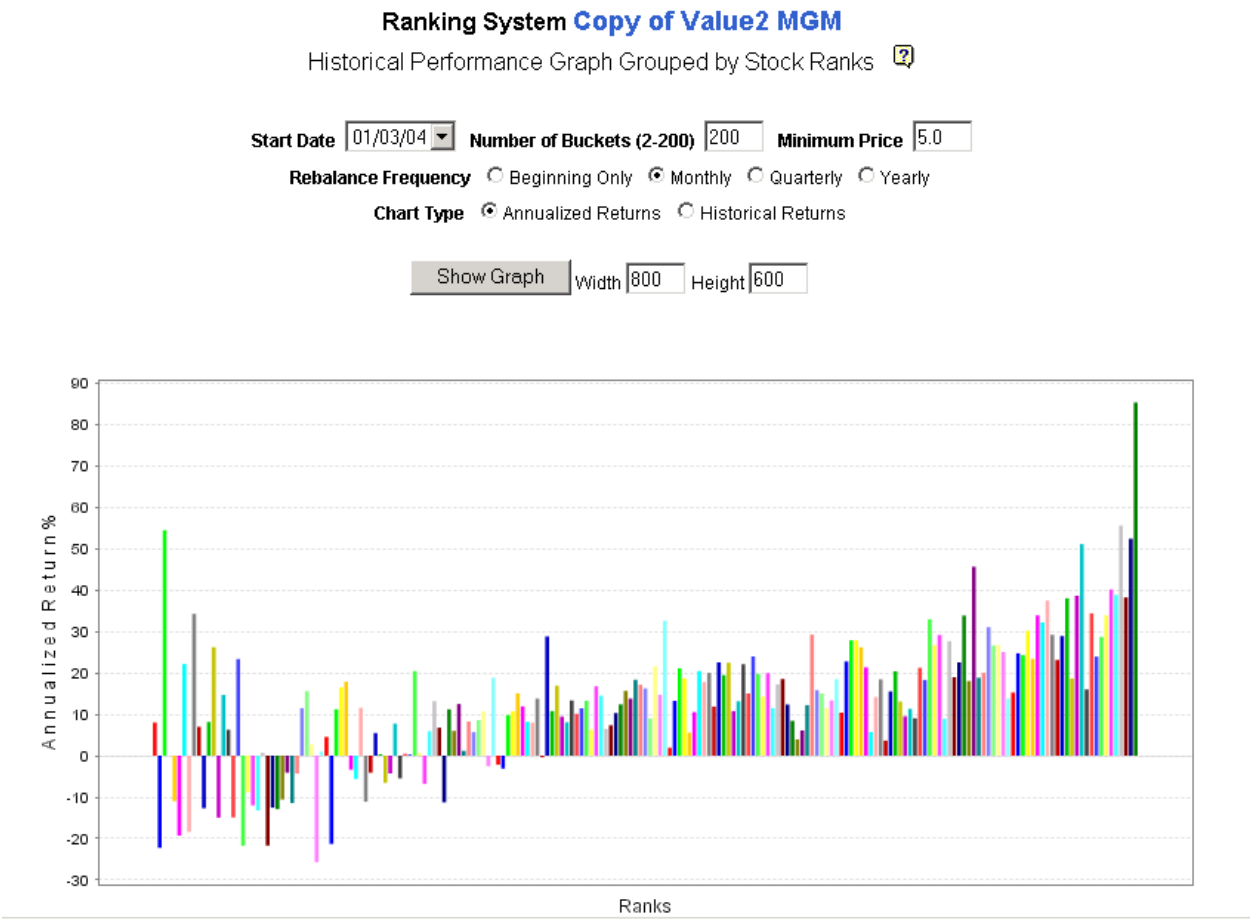
My portfolio hold a total of 28 stocks at this time. 28 stocks might require too much maintenance and trading costs for most people, but I hold the majority of these in a FolioFn account. FolioFn lets you enter trades that execute at the market price during the 2 'window trades' every day. And there is no commission for each trade so you can be well diversified even if you have a small account. Microcaps and illiquid stocks are purchased in other accounts.

The reason for having multiple portfolios is because each utilizes a different ranking system and buy rules. Some of the ranking systems are more heavily weighted toward growth and some are have more weight on value criteria. The buy rules also contain a mixture of requirements for growth, value, relative strength, market cap and liquidity factors. I only buy a few stocks for each ranking system because the whole idea of the ranking system is to allow you to find the best of the best stocks based on the ranking system criteria.

The time required to manage 7 portfolios is not much different then if I only had 1 or 2 since Portfolio123 automatically ranks the stocks and tells you how much of each stock to buy and sell in each portfolio.

Most of my portfolios have buy rules that limit the total percentage of the portfolios value that can be invested in any one sector. An example of this rule is “SecWeight < 35” which would guarantee that no more than 35% of the portfolio will be in any one sector. The exception to this would be if the portfolio purchased stocks in a given sector and those stocks rose in value faster than the other stocks in the portfolio. In this case you could end up with more than 35% in that sector.

When I am deciding how many stocks to hold in a portfolio, the first thing I do is create a 200 bar performance graph for the ranking system. You do this using the Performance feature in the Ranking System section of the site. If the first 2 or 3 bars show a much greater performance than the rest of the bars, then the chances are that this ranking system will be most successful with portfolios that hold 3 or 4 stocks. The graph below is an example of a highly optimized ranking system.



If there is a distinctive but gradual incline in the graph's bars and the top 10-20 bars show the best returns, then the portfolio should perform better with 5 to 10 stocks. For example, the returns might be similar with 3 stocks or 8 stocks, but the drawdowns will be much lower with 8 stocks. A portfolio with 20 stocks might also perform well, but then the time required to manage all those stocks would prohibit you from having multiple portfolios. The exceptions will be cases where you have highly selective buy rules for the portfolio. In those cases, portfolios with fewer stocks usually perform better. The chart below shows a ranking system that is likely to be a good candidate for a 5-10 stock portfolio.

Ranking System Balanced4

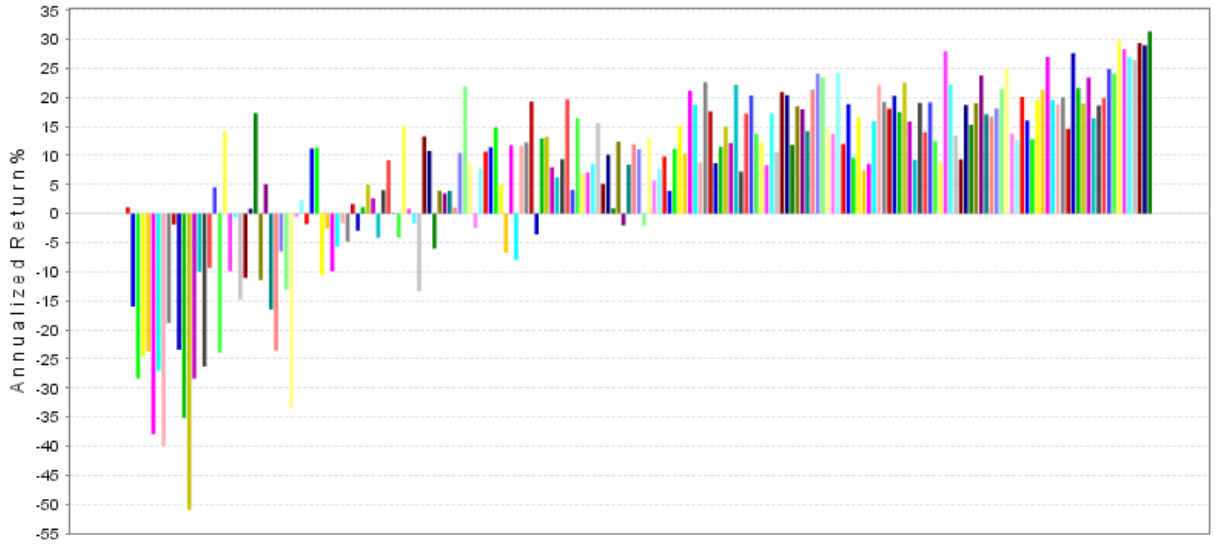
Historical Performance Graph Grouped by Stock Ranks

Start Date 03/31/01 **Number of Buckets (2-200)** 200 **Minimum Price** 5.0

Rebalance Frequency Beginning Only Monthly Quarterly Yearly

Chart Type Annualized Returns Historical Returns

Show Graph Width 800 Height 600



If you create a ranking system where the top 10% are not much better than the rest of the bars, then the ranking system needs to be improved. Again, there are always exceptions to the rule. I have a portfolio where the ranking system shows that the top 10% of the bars are about the same as the rest of the bars. But the buy rules for this portfolio require very low Price to Cash Flow. When these buy rules are combined with the ranking system then portfolios with 3-5 stocks show back test results with annual returns over 200%. If you increase it to 10 stocks then the returns are cut in half.

When looking at a ranking system, I create at least 2 performance charts for each ranking system. One uses a start date that covers all the data available (3/31/01) and the other has the start date set to 1 year ago. The idea is that you want to make sure the ranking system performed well in both periods. Don't be too critical in judging the 1 year results since those results are based on only 12 buy period (assuming you selected a monthly Rebalance Frequency) and tend to be choppy. If you want further verification, you can create 4 performance charts for each period. Use starting dates that are 1 week apart (i.e. 3/31/01, 4/8/01, 4/15/01 and 4/21/01) and set the Rebalance Frequency to "Monthly".

The table below contains the results from an experiment I did where I selected some portfolios and then ran one simulation for a 3 stock portfolio, one for a 4 stock portfolio,

etc. up to 10 stocks. The rows are broken down into 2 sections called ‘Highly Optimized’ and ‘Less Optimized’ based on how the performance charts for the ranking system looked. The best results for each row are in bold. As you can see, the pattern is that the more optimized the ranking system is, the few stocks you should have in the portfolio. Also, 3-6 stock portfolios had the highest returns for 8 out of the 10 systems.

Setup for the simulations was as follows:
$25,000 starting value
$7 flat commission
Slippage of .5%
I used the default Buy & Sell rules except in cases where SectorWt or IndustryWt rules were too strict to buy any stocks in 3 stock simulations. In those cases, I increase the percentage allowed in each sector to 50%. Some of the portfolios had the liquidity Buy rules like “PctAvgDailyTot(5) < 10”. Because of the changes to the Buy rules and the liquidity factors only being used in some of the simulations, you cannot use this table to determine which portfolios had the best returns in 2004. The purpose is only to show how each simulation did with different numbers of stocks being held.

Backtesting Results for the period 1/3/04 – 1/1/05

# of stocks held ->	3			4			5			6			7			8			9			10		
Portfolio	**Ret**	**DD**	**#B**	**Ret**	**DD**	**#B**	**Ret**	**DD**	**#B**	**Ret**	**DD**	**#B**	**Ret**	**DD**	**#B**	**Ret**	**DD**	**#B**	**Ret**	**DD**	**#B**	**Ret**	**DD**	**#B**
Highly Optimized																								
Dennys MitkoValue2 (Value2MGM)	**134**	**19**	**12**	121	19	21	120	16	25	102	15	40	124	14	48	104	15	51	106	14	55	93	15	70
D&D Consistent Gainer (TopPort123Factors&Formulas)	32	40	17	**61**	**23**	**19**	41	29	24	42	20	29	33	21	30	30	27	39	43	23	43	51	18	46
Value w/Momentum (Momentum Value)	132	14	8	43	21	21	118	12	21	**143**	**10**	**32**	128	12	35	86	11	42	109	9	46	97	9	54
Dans TF1(TFCombo1)	44	29	17	110	33	23	105	27	32	**113**	**20**	**41**	98	22	53	99	15	53	87	16	56	102	14	70
Less Optimized																								
Balanced Mid Cap (Balanced 4)	14	20	8	10	24	12	30	18	11	**38**	**14**	**12**	31	14	15	30	12	17	28	12	20	30	12	21
Garp FolioFn Stocks (Balanced 4)	**62**	**21**	**4**	52	18	5	45	17	6	41	23	7	31	22	8	22	23	9	24	21	10	24	20	11
Garp Top Ranked (Balanced 4)	32	20	12	24	22	18	**38**	**13**	**21**	28	14	26	18	17	33	20	16	39	26	14	44	20	17	53
Garp Small cap (Balanced 4)	6	25	11	-4	31	14	10	27	15	14	27	18	26	23	19	**30**	**24**	**22**	26	21	22	27	21	24
Technamental Large Cap (Technamental)	13	19	3	18	14	4	13	11	5	18	11	6	24	11	7	31	11	8	**38**	**10**	**9**	36	10	10
Value 25 cap500M (ValueRank)	**27**	**12**	**3**	6	17	4	8	13	5	12	14	6	12	12	7	15	9	8	25	15	9	26	12	10

Portfolios in *italics* are not public at this time.

Column Labels:
Ret = Annual Returns
DD = Maximum Drawdown
TO = Turnover
B = Number of buys made during the period.

Once you have a general idea as to how many stocks your portfolio should hold, then you can start running simulations to backtest your portfolio with various buy/sell rules and numbers of stocks held to determine the combination that gives you the best returns and lowest drawdowns while keeping turnover in a range you are comfortable with.

In summary, you can increase your returns while reducing your risk through diversification by:

- Creating multiple portfolios.
- Utilizing a different ranking system in each portfolio.
- Hold an average of 4 or 5 stocks in each portfolio and no more than 10 in any one portfolio.
- Determining the approximate number of stocks held in each portfolio based on how optimized the ranking system and buy/sell rules are.
- Running backtests to determine the optimal buy/sell rules and number of stocks held.
- Diversifying across sectors.

My Portfolio123 Results

Before I started using Portfolio123, I was investing using a ranking system that I created in Excel based on data from Stock Investor Pro. I had built the Stock Investor Pro ranking system based on what I had read in various investing books. When I ran the single factor ranking system performance charts that I mentioned earlier in this article, the results showed that many of the factors that the 'experts' had said were the most important in determining a stocks performance actually had very little affect on the stocks performance. This is why my Stock Investor Pro system had performed poorly.

I was using the Stock Investor Pro system until the end of August in 2004 when I started using Portfolio123 for selecting my stocks.

It was taking me about 2 hours every weekend to setup the data and run the ranking system for the Stock Investor Pro system I was using. Portfolio123 lets me do the same ranking in about 5 minutes a week and I also get the benefits of having automated buy and sell criteria.

For each stock that is recommended by the portfolios, I spend a few minutes checking the chart for each stock. If there are any big jumps, declines or flat spots in the last 6 months, then I do further research to determine why they occurred. I eliminate any stocks that had some event that makes my ranking system results invalid. For example, if the company is being acquired or just lost a big customer. There are also a few industries that I won't buy based on my thoughts regarding what point those industries are in their business cycle. If they pass these test then I buy them.

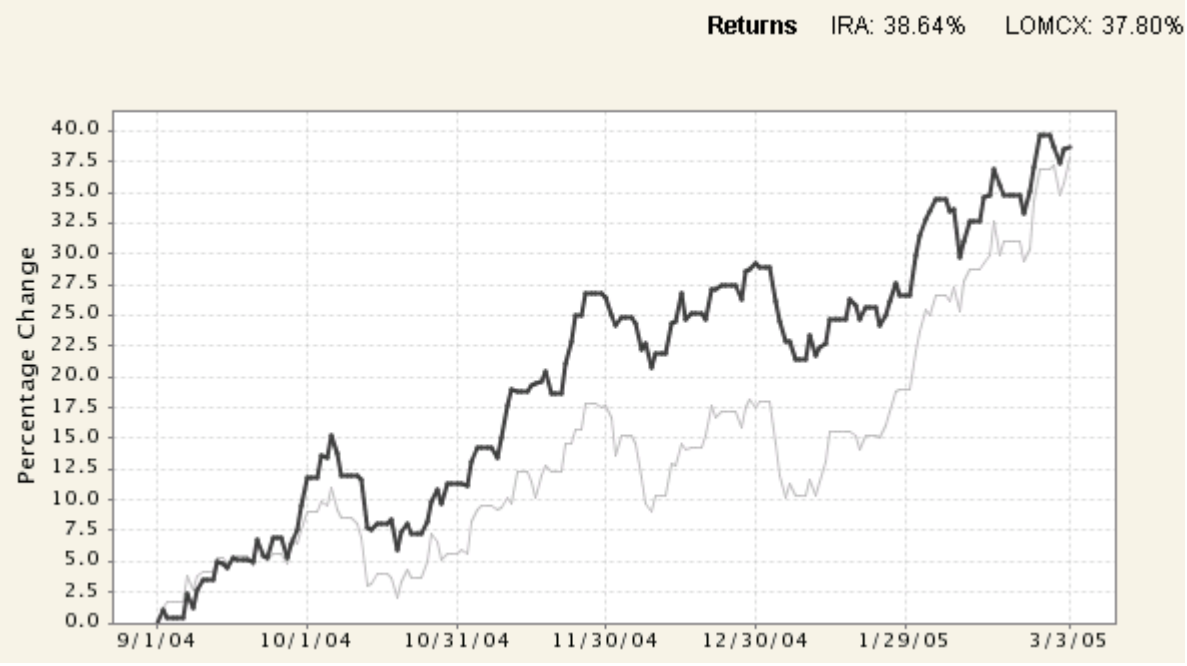
This chart shows the returns for my main account which is with FolioFn. As you can see from the chart, I was barely beating the market for most of 2004 and then when I switched to Portfolio123 at the end of August, my performance improved dramatically.

Since my portfolios are holding mostly small caps at this time, comparing my returns to the S&P500 like I did above is not “apples to apples” so I compared my Portfolio123 results to the S&P600 Small Cap index in the chart below. The chart starts on 9/1/04 which is when I started using Portfolio123.

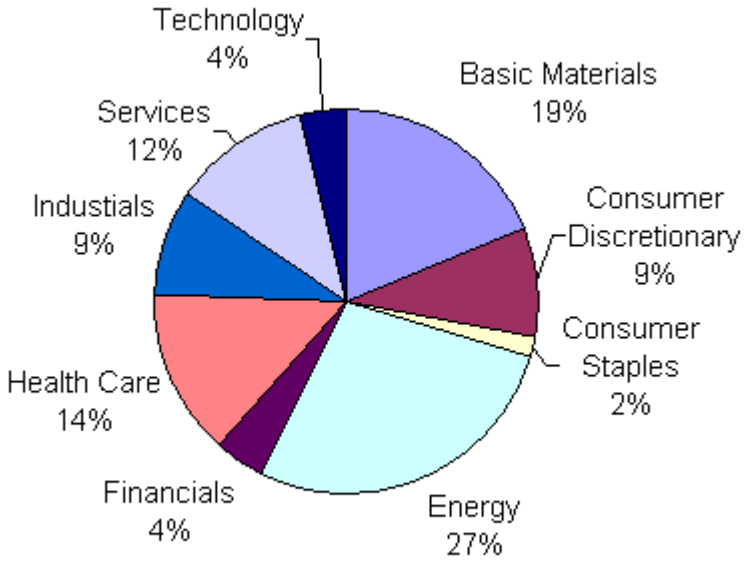
The last performance chart that I want to show you is the comparison on my Portfolio123 results to the mutual funds with the highest 1 year returns according to MSN's fund screener. I eliminated all the sector funds and foreign funds so that the comparison would be valid. Then I took the top 5 remaining funds. I then created a chart on BigCharts for all 5 of those funds for the period 9/1/04 – 3/4/05 since that is the period that I am going to compare my results to. During that period, LOMCX had the best return.

Then I created a comparison chart in FolioFn that shows my returns compared to LOMCX. As you can see, my returns since I started using Portfolio123 have beat the top ranked fund.

My Performance vs. the top ranked non-sector specific US mutual fund

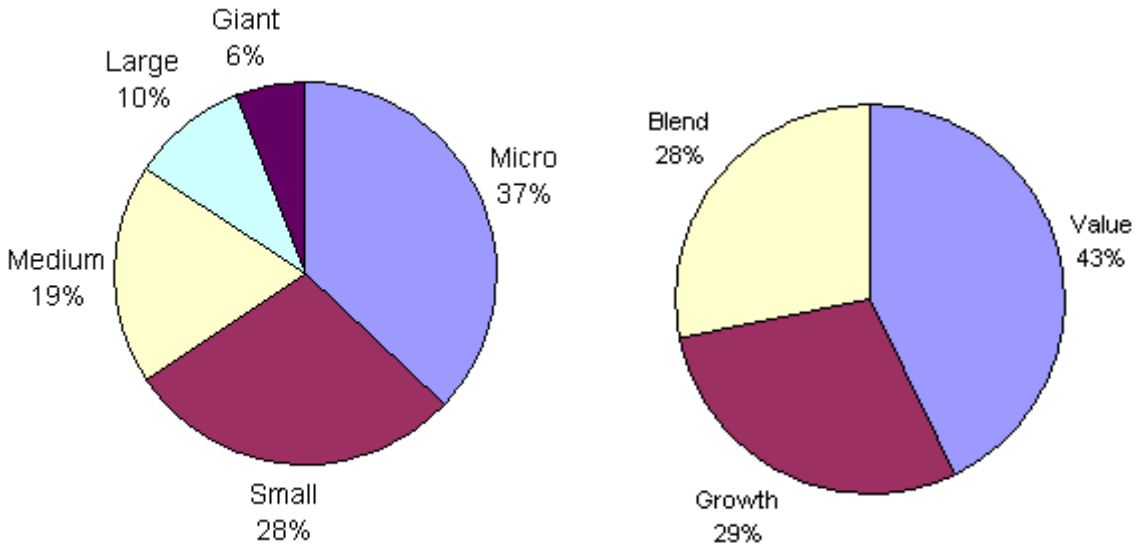


You may be wondering if the performance was due to my taking big risks in certain sectors or holding high beta stocks. I created the chart below to show you that my current holdings are pretty well diversified across sectors. Portfolio123 lets you add a buy rule to your portfolios that limits the percentage of your portfolios value that will be invested in any individual sector and/or industry.



You will notice that I am overweight energy. This is by design. I started overweighing the Energy sector by creating sector specific portfolios at the end of January.

As the charts below show, I am also fairly well diversified by category (growth/blend/value) but I am overweight small caps. This is also by design since some of my portfolios have Buy rules that restrict them to small cap stocks only. Once the small caps stop leading the market, I'll remove those small cap restrictions so that I get a higher percentage of mid and large caps. As far as beta goes, the average beta for the stocks I am holding is .91 (according to the FolioFn site).



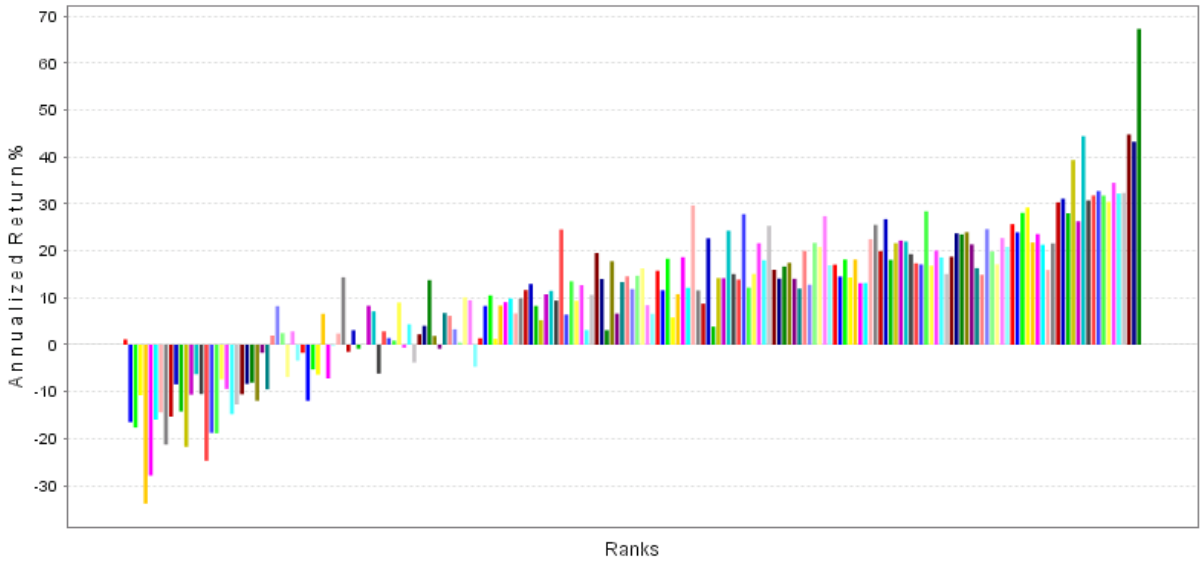
I hope that you found this article useful. So far I'm very happy with my returns using the Portfolio123 site. There is a weekly email that goes out every week to all the members that shows the top 5 portfolios for the last week and the last month. Some of the returns are just amazing! If you have seen the email then you know what I mean. I'm looking forward to refining my systems further so that I can get into the same league as them.

If anyone has any questions or comment, please email me using the Portfolio123 email feature or post you question/comment on the community message boards.

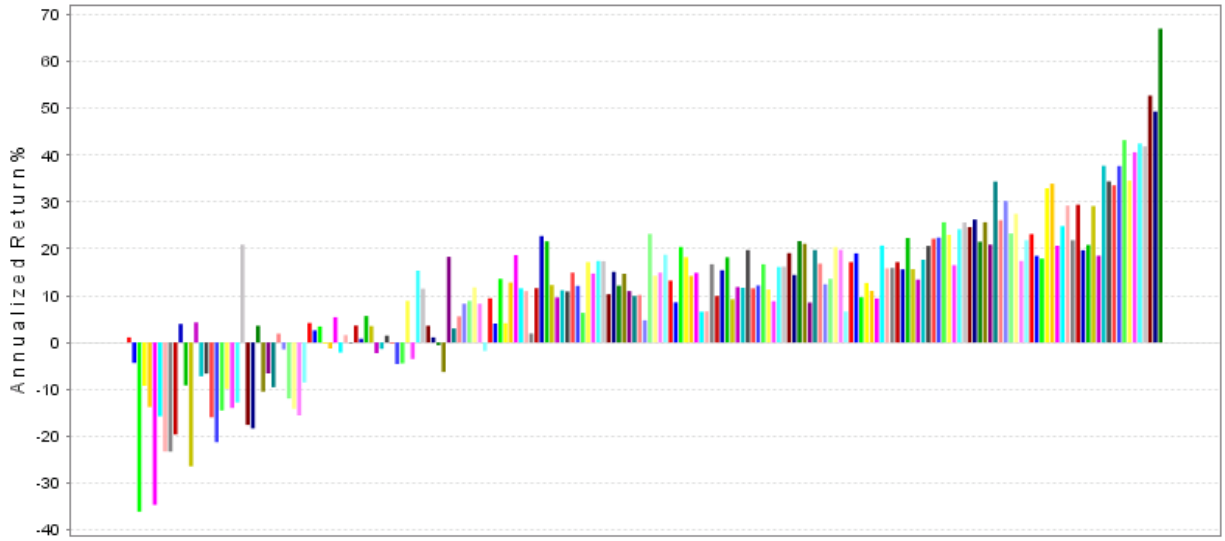
Below are the "all dates" performance charts for the ranking systems that I used as examples in the 1-10 stock performance table. I included them so that you can see why I categorized some as Highly Optimized and other as Less Optimized.

All the charts start on 3/31/01, have 200 bars, minimum price of $5 and Monthly Rebalance frequency.

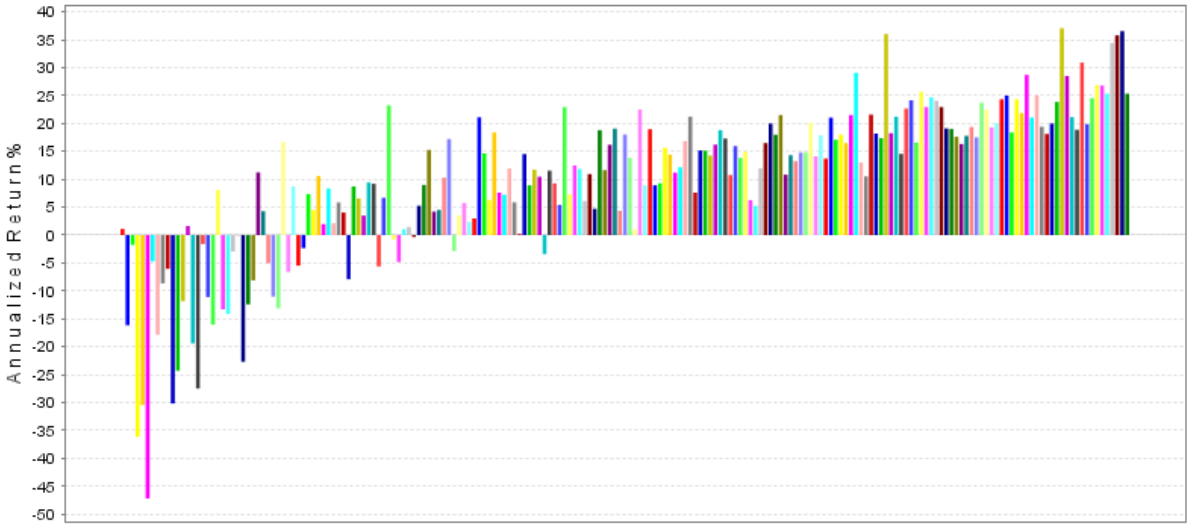
TopPort123Factors&Formulas



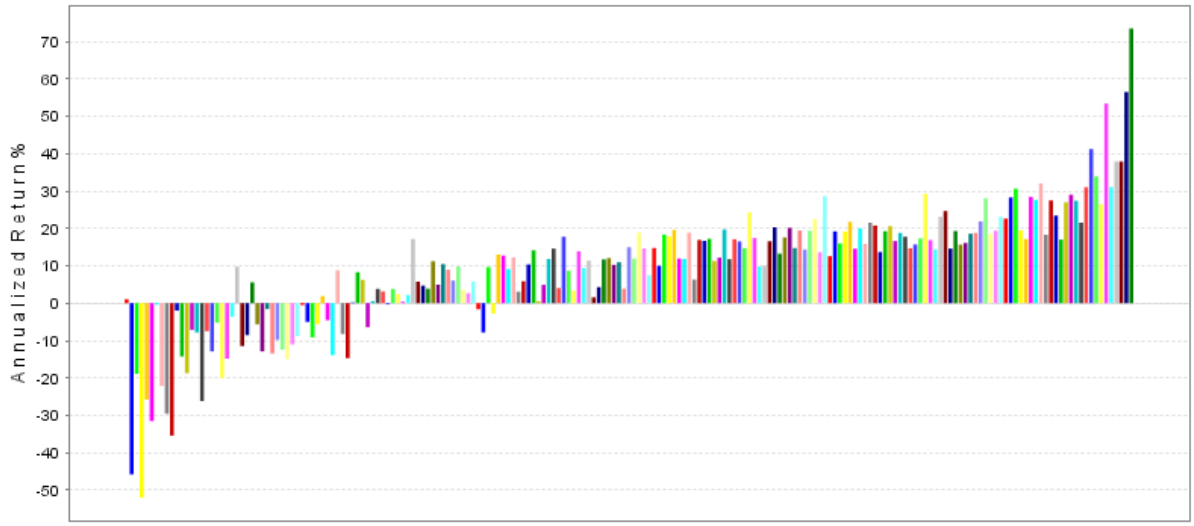
TFCombo-1



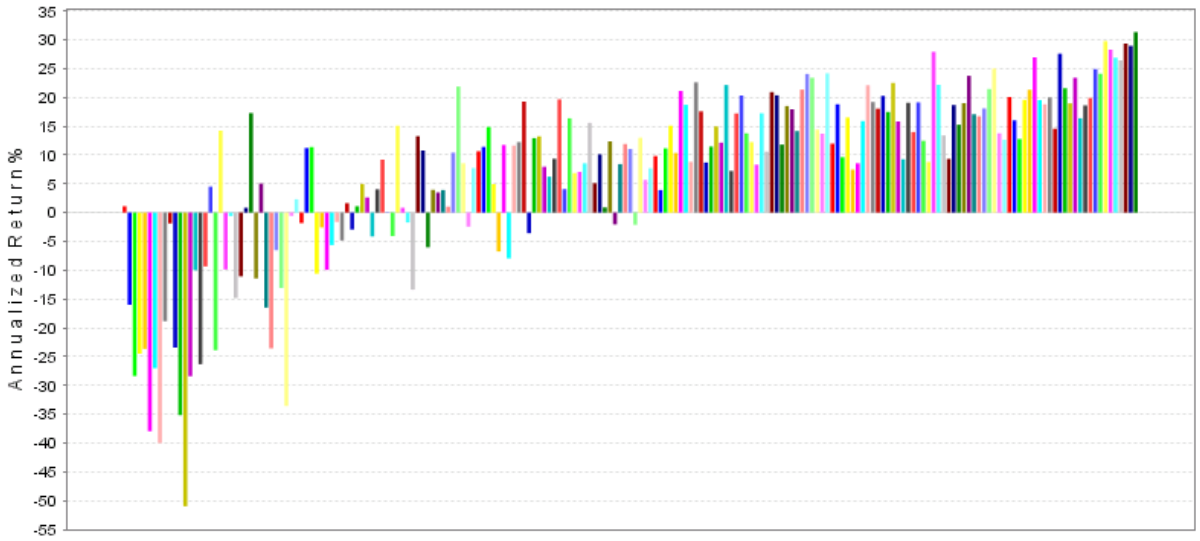
Value Rank



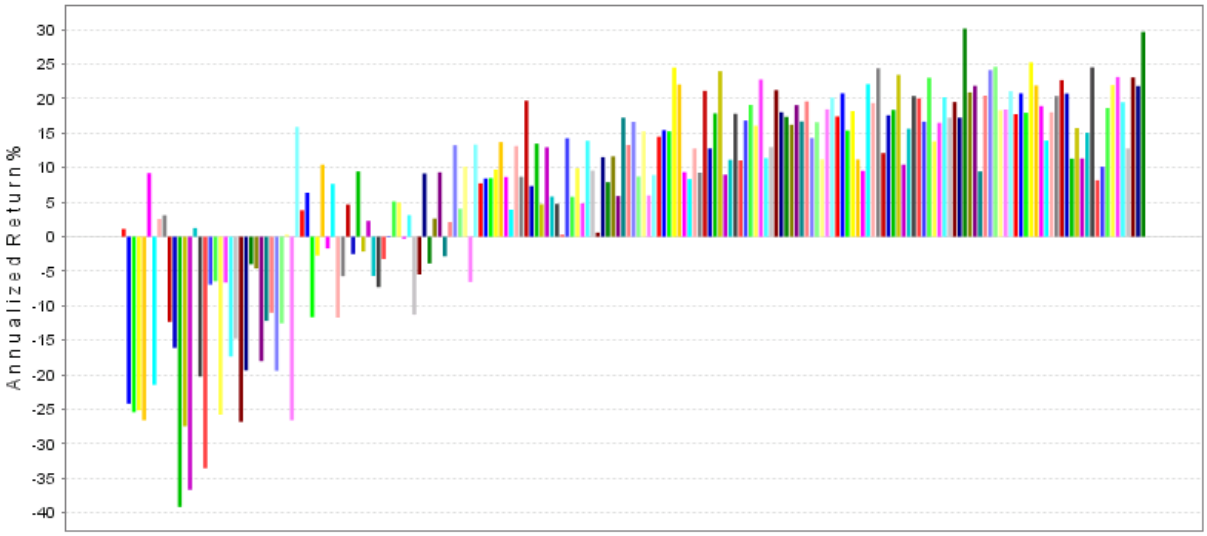
Copy of Value2 MGM



Balanced4



Technamental



Momentum Value