



Design Criteria
and
Product Description



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Azaries Algorithms

Azaries Summary Description

A straightforward description for Azaries is an 'Ensemble' Algorithm.

Azaries contains active and passive algorithm components. Each component that is meeting (or leading up to) profitable periods is active (i.e. being used live) while others in lower profitability periods are in passive status. A proprietary indicator is used to monitor upcoming periods.

This is designed to exploit the weaknesses and strengths of methodologies that all have profitable and non-profitable periods. In other words, use them when working and avoid them when not.

This approach avoids the temptation to have overly complex methods (usually quant methods) that stop working abruptly without warning.

All calculations/indicators/methods have tendencies to work for short periods (like 6 months) and then stop. Complex methods also tend to have immediate bias which is akin to modified back testing.

All calculation components are monitored. This means that rebalancing by current results is continuous, thus, making an ensemble of active components. The same is applied to symbol sets. Both symbols and monitored active components (algorithms) are 'spinning' in and constantly out of use. (Patents applied for)

In addition to the current ensemble, potential modifiers can influence the active components to manage and inform the trader of their progressive effects. For example, an Azaries resistance area may be upcoming.

These are composed of additional variable rule sets that are 'inside' the algorithm. This includes repositioning of stops and limits, interim take profit levels and re-entry conditions. Variations include technical analysis calculators for support, resistance, divergence, and convergence (hidden and visible).

All variables are in a state of constant flux to maximise opportunities so that the mathematical certainties of results variation are biased to remove below-average results.

Settings related to all variables are set to match individual risk tolerance, trade frequency and market.



Azaries design criteria.

The original design criteria set out to create an Algorithmic system that maximised returns while minimising risk. Ten crucial criteria were identified.

1. Low-risk exposure, circa real at less than 5% overall.
 - a. Not reliant on averaging in.
 - b. Risk limited to all trade entries, no large drawdowns.
2. A steady equity curve without uncontrolled losses or risk.
3. No reliance on:
 - a. Single large monthly returns or weeks that offsets all others.
 - b. Individual large stock gains in a day. i.e., bias from the 'lucky' symbol moves.
 - c. Variable position sizing.
4. On-going A.I. based individual algorithm discovery and monitoring managing a stable of around 28 computations.
5. Designed for sizing capital of £1m or more.
 - a. Position sized to allow 25 concurrent positions of equal size.
6. Identifies trades both long and short trading portfolios similarly.
7. Produces profits under any market conditions.
8. Targets 50% per annum returns on capital.
9. Trade symbols that are highly liquid
 - a. Minimum volume of 500k shares per day
 - b. \$10b market cap, usually higher.
 - c. Target list of stocks of the 'Nasdaq 100' type.
10. A whole algorithm that selects and manages all positions.
 - a. Multiple trades must have adjustments in real-time.
 - b. Can be linked to automatic trading systems.



How to understand what Azaries does.

Azaries seeks to identify trades in either direction whether long or short. Azaries is not intraday trading, it is designed to perform over periods of 2-20 days.

The selection criteria are varied such that when price action follows a predetermined path, an alert is issued. That may or may not follow through to algorithm fruition and the trade is signalled. Daily alerts are simply partial algorithm completions and do not measure bias until signals result.

The resulting signals are a portfolio of stock trades that when combined provide a group (collection) that performs in their identified direction. Each spins in and out of the portfolio during any 12 month period. The group generally outperforms market averages. These trades determine the Azaries open portfolio whatever the broader market does.

For example, in a trending down market, shorts will steadily increase in profitability while any (and if) longs are stopped out whether in profit or not. Overall profits will be derived from the continuing short trades. This is an ongoing Azaries process.

After a sustained period, around 20-25 positions can be open. They will usually have bias long or short, the types of a lower number being akin to an insurance policy. Maintaining open positions mitigates any positions stopped out and also maintains the smoothest equity curve possible.

Monitoring List Creation.

Azaries is designed to watch around 150-200 stock symbols. Selecting the list has many variations, such as market, volatility, stock price, liquidity, sectors and trade volume.

Azaries uses the NASDAQ 150 and some NYSE high market capitalisation and higher volatility stocks.

The Azaries list freely is available here:

<https://www.azaries.com/azaries-subscribe.html>





How Azaries acts in all market conditions

Generally, the 6 long computations together with their accompanying modifiers, filters, parameters and price action requirements are in a constant status of watching for alerts.

This means that long trades will be identified whatever the market is doing. The same is applicable to short trades.

In this way, Azaries exactly adapts to market conditions maintaining a live portfolio very closely aligned to market conditions. Azaries very quickly adapts.

The current stock list is freely available at:

<https://azaries.com/downloads/AzariesCurrentSymbolList.xlsx>

The computational mechanisms.

Azaries runs 6 short and 6 long computational formulas live at any given time. Azaries also consists of further formulas (around 8 short and 8 long) that are monitored (since discovered) for consistent profitability thresholds.

If any live formula falls below a pre-determined success rate, another replaces it. See also 'How Azaries Works' Video available vis the Azaries web site.

<https://www.azaries.com/video/HowAzariesWorks.mp4>

The Azaries portfolio

Running trades are the live portfolio. Its composition reflects the computational results.

Both long and short positions are likely at any given time. Occasionally the portfolio consists of unidirectional trades, i.e., all long or all short.

As time progress the portfolio 'morphs' according to trades that are stopped out and others that continue. For example, in a falling market, shorts continue and longs are stopped out. In a rising market, longs continue and shorts are stopped out.



Azaries trading rules allow for taking profits from larger gains, while placing orders for re-entry should the direction continue. (See trading rules).

Similarly, stop positions are modified daily. Throughout the morphing process, the portfolio retains a bias to overall market direction.

Various proprietary modifiers and influences adjust the portfolio, also daily.

It is a planned process that expects trades to be exited and precalculated levels while other continue, thus ensuring that risk is minimal and profits maximised.

A word about the mathematics of averages

Azaries research always maintains a 'raw' objective 80%-win rate for any live computation over a minimum of 12 months. This often translates into a 70% live market rate allowing for slippage, gaps, margins etc.

Even so, there will be 'outliers' and periods of variation either way. Trading all Azaries signals tends to moderate the impact of variable periods in either direction.

If trading subsets of the main Algorithm, variations can be increasingly pronounced due to the average of fewer positions being affected.

This works both ways. For example, measuring results over any sampling period of 100 trades, variations can be seen to expected levels.

Historical results show many periods where there are 89% wins and some at 48% as the inevitable averages play out.

Reflecting the mathematics to lower sampling rates, then it's inevitable that the swings will be more pronounced.

There is a wealth of information available in Azaries training videos.

<https://www.azaries.com/azaries-training.html>



What makes Azaries a superior approach?

1. The Azaries algorithm is a 'whole' approach. This means that price action has to follow the desired price direction to complete the algorithm. Simply saying that XYZ should be 'long' is not sufficient.
2. Algorithmic trading does not 'stop' when a trade is entered. A range of variable Azaries rules manages each trade to maximise profits. Only when the trade has been completed is the task of the algorithm complete.
3. Variability and Adaption. Different market conditions require different market alignments. For example, setting entry points that mirror overall market price moves.
4. Convergence with volatility. Market volatility can vary significantly. For example, a reading of 48 (March 2020) is 3.5 times less volatile periods. Each calculation (long and short) is aligned to market volatility.
5. Extremely low risk. The maximum risk is limited to the first day of any trade. For example, a 5% stop in a trade that is sized to 4% of capital, is a risk of 0.2% of funds. This reduces to zero when the trade is in profit. It also reduces to an average of 0.1% from the second day. Drawdowns are very low.
6. Automated proprietary influences. Convergence and divergence to a momentum oscillation accurately calculate price vs indicator movement. This means the price has to follow a predetermined pattern to remain confluent with overall price action.
7. Price support and resistance areas identified by proprietary methodologies. These proprietary calculations clearly identify 'horizontal' chart lines of support and resistance which are influences of potential trades and running trades. This means exits, re-entries, and limits can be easily identified.
8. Discovery A.I. (an Ensemble method) identifies newly found patterns that lead to profitable trades. Human knowledge inputs speed the process. (Human Artificial Intelligence).

This is a continuous process using prime A.I. techniques (e.g. neural nets, statistical approaches) to maintain individual calculators (12 live, 12 supporting).

The monitoring process keeps the algorithm in line with the most profitable. (Raw target success is 80%).