

Alpha Engine: Designing an Automated Trading Engine

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The emergence of blockchain technology will transform the finance industry and give rise to a global marketplace with millions of traded financial instruments. The emergent digital economy necessitates fully automated trading strategies for managing assets and efficient price discovery. I propose a new approach to algorithmic investment management that yields profitable automated trading strategies. A paradigm change is proposed for the way time is defined in financial markets, based on intrinsic events. This definition lead to the uncovering of a large set of scaling laws. An additional guiding principle was found by embedding the trading model construction in an agent-base framework, inspired by the study of complex systems. The approach is a parsimonious method for building a new type of investment strategy that not only generates profits, but also provides liquidity to financial markets and does not have a priori restrictions on the amount of assets that are managed.