PERFORMANCE THINKING & TECHNOLOGIES

Kinetic Investment

The Next Generation Trading & Investment Environment

H. Seth Berlin
sberlin@p-t-t.com
(612) 605-1503
www.p-t-t.com

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From 1980 To Today

1980 was a year of momentous changes for Wall Street investment firms and trading desks. A spreadsheet app named Visicalc was creating "Screen Envy" across firms as early adopters created a buzz with the analytical prowess of personal computing.   The U.S. federal deficit was $900B. Dallas was the top-rated television show. The Star Wars sequel, The Empire Strikes Back, captured the minds and wallets of audiences worldwide.
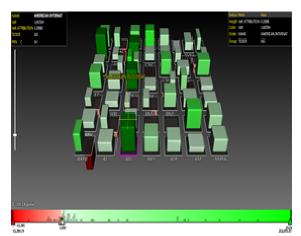
Fast forward thirty-three years. The U.S. federal deficit is $17T. Dallas's next generation is back on TV and five additional Star Wars movies have been released. So much has changed. However, the basic look and feel of an investment environment remains as it did in the early 1980's…..until today.

We are now at flex point that can shape the 4P's (performance, process, people, and philosophy) for the next generation of trading environments. This intersection accounts for the evolution of computer technology, big data, the human-computing interface, and algorithmic trading. I call this vision the *Kinetic Investment Environment.*

What is the Kinetic Investment Environment?

To understand the Kinetic Investment Environment, you have to view an investment environment in terms of the 4P's. Let's start out with the first P, **Performance.** Performance in a kinetic environment is all about creating the biggest brain possible. A multi-sensory interactive Trade Room serves as the eyes and executive center of an investment environment.   The room is one big tactile, visual display. Wave your hand, point to a ticker, and point to the wall. The latest economic news and tick data is posted to the trade wall. The more brains the better as the Trade Room is designed to leverage a team's collective brain power.

The second P, **Process,** is all about the visual engineering of a repeatable and rigorous process. Visual engineering uses advancements in data warehouses, analytic engines, and visual dashboards. Need to understand risk in a portfolio….pull up a color-coded heatmap showing Component VaR. Want to understand how a change in interest rates affects dollar duration? Pull up a 3-D visual model of simulated yield curve. If a portfolio position starts to blink red, drill-down into details about correlation.
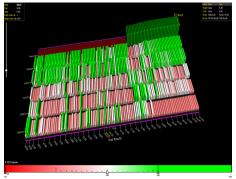
Changes are not just about the power of visual dashboards. It's about using tools in a consistent manner. Templates are mandatory during the evaluation of a new investment and serve as the basis for ongoing portfolio management. Because the templates are objects, underlying data, algorithm code, and analytics are stored together in a trade data warehouse. Meta-data is also maintained and searchable so that trade objects can be referenced, duplicated, and stress-tested.

The third and most important P is for **People**. People generate, evaluate, synthesize, and curate investment ideas. The old school need for only PMs and Investment Analysts on a team is dead. In a

kinetic environment, financial analysis is complemented by pattern analysis across massive data streams and combined into visual analytics. This new investment team includes skills in data analysis, modeling, simulation, and content presentation. Risk and compliance are incorporated as front-end activity via visual dashboards.

The last P of the Kinetic Environment is *Philosophy*. Although complex technologies are used, the philosophy is simple. It's about telling a good story. The people and technology translate collective data points into a cohesive visual story. The story can be recited from analyst to CIO and from investment committee to investor.
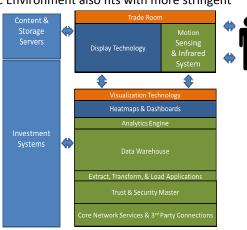
Why Change? Why Now?

There are many reasons to lean into the Kinetic Investment Environment but the most compelling reason is differentiation. This environment complements your most important resource, People, and challenges them to build a creative investment environment. The Kinetic Environment also fits with more stringent operational and risk protocols via templates and heatmaps.

The Path To A Kinetic Environment – Leveraging Existing Infrastructure

While the quickest path to a Kinetic Environment is the replacement of existing tools and technologies, most firms are not in a position to decommission large swaths of investment technology. The good news is that existing investments can be leveraged with modest outlays. Most firms have a solid foundation in database and data warehouse technologies. These can easily be integrated with advanced analytics and dashboard technology.

From 2013 onwards

In the age of information arbitrage, simplification is power. This simplification is achieved visually. The investment team evolves to include financial modeling, data, and content skills. The end product is a cohesive rule-based investment architecture that is theme-dependent and managed by a highly motivated, interactive team. It's not the 1980's anymore. It's time to align the investment environment with the needs of modern information arbitrage.

Kinetic Investment Environment Deployment Path

Define future state Kinetic platform → **Evaluate** current-state tools → **Upgrade** and implement visual tools/processes → **Deploy** executive Trade Room technologies