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***Active Investment Management, Smart Beta, and Factor Investing:
The Impact of Niche FinTech Data Management Solutions...
Hidden FinTech Gem # 1 – ActiveViam's ActivePivot...***

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Introduction:

In our introductory article, we introduced the fundamental concepts of Active Investment Management, SmartBeta, and Factor Investing.

In parallel, we emphasized the importance of key niche FinTech data management solutions.

In this article, we introduce a New York City based software firm called "ActiveViam" which offers a very unique and powerful analytical platform called "ActivePivot" that complements other key applications for buy side firms; such as OMS, portfolio management, risk management, position keeping, and related systems.

Before getting into this unique ActiveViam offering, we will also consider some of the key goals of Active Investment Management.

Of course, the holy grail of investment management is "Alpha", which is referred to as "excess returns", this is a measure of performance at a fundamental level. Alpha is often used in conjunction with Beta, which aids in gauging volatility and risk. It is considered in the context of active return on investment, gauging performance against market indices or benchmarks; representing the market's movement on a broader scale.

While many would think that the turnkey all-inclusive OMS providers solutions and managed services would cover all requirements to facilitate efficient trade processing, portfolio management, performance attribution, and the rest of the trading lifecycle; many buy side IT and business professionals feel that these vendors applications fall short in real-time risk management and position keeping as they strive to achieve the objectives in their quest for the Alpha edge.

Hidden Niche FinTech Gem # 1 – ActiveViam's ActivePivot...Efficient Real-Time Position Management and Risk Management for Optimized and Active Investment Management...

At this juncture, we are confident that data management is critical to Active Investment Management, Smart Beta, and Factor Investing.

The gentle balance of generating Alpha, excess returns, while keeping risk at bay; is no easy task.

In speaking with many senior buy side IT and business people, we reiterate that the OMS vendors provide a great deal of value to this endeavor but not quite enough at

times;. They fall short when it comes to the complexities of efficient data management -- not only from a volume and aggregation perspective, but also from a market timing perspective.

When one considers the vast amount of data that goes into calculations such as VaR, especially with the ability to incrementally adjust the calculations as positions are continuously updated intra-day, this becomes a very complex problem.

We are confident that the OMS vendor community would respond, “yes”, we can handle real-time risk management and such, but there are some serious counterpoints here to consider.

First, the back-end systems for OMS platforms are typically relational data stores, which even if optimized with indexes and hardware platforms, may not be the best choices for performance.

Also, if an asset manager does not adopt a “best of breed” approach, does their risk increase if their tightly-coupled platform needed to have parts swapped out?

Let’s look at the history of data management and specifically E.F. Codd’s Online Analytical Processing (OLAP) concept.

In the early implementations of OLAP the rap against it was that it was only valuable for historical analyses and not real-time dynamic data updates; as the “cube” would need to be brought down and refreshed.

This type of solution would not meet the demands of a real-time risk management and position keeping and investment management approaches as detailed in this series.

The challenge here is – how do the investment manager’s systems handle large data volume crunching intra-day – during trading hours with sub-second response times?

ActiveViam has an answer with ActivePivot's real-time in-memory multi-dimensional OLAP engine.

ActivePivot combines the promise of the traditional OLAP cubes, but further extends this concept to in-memory storage, offering the investment management firm the ability to take intra-day data refreshes instantaneously without having to bring down the cube!

To illustrate the value proposition, considering having to load historical PnL, reference data, attribution data, trade OMS, reports, and other information; while consuming real-time market data feeds, news, position data, etc.; the investment manager now achieves the promise of real-time risk management and position keeping, which are key pillars for efficient Active Investment Management, Smart Beta, and Factor Investing!

The skeptic might inquiry – how can so much data fit in-memory? What about drilling into the details of the PnL data? Would performance be affected?

The team at ActiveViam is at the forefront of data compression, aggregation and intelligent analytics to squeeze every drop of performance out the hardware, thus enabling massive data sets to fit into its in-memory cube and providing continuous analytics, without the loss of granularity. The system can sustain continuous updates to the raw analytical data, delivering real-time metrics to the users while allowing them to drill down to any level of detail, pivot and analyze the data across any dimensions they wish as well as run what-if simulations all without any noticeable lag in response times.

In case you may feel this is theory rather than reality, ActivePivot is used by a multitude of buy side, sell side, exchanges, and investment banks; to empower front office trading desk operations with real-time analytics that lets traders make better trading and hedging decisions, analyze risk and P&L, automate the monitoring and enforcement of limits, and perform pre-deal checking.

If there is anyone, who can comprehend the importance and challenges on delivering a real-time risk management, it is co-founder Mr. Allen Whipple.

“With ActivePivot, we built an in-memory open OLAP platform that efficiently stores all the data needed to support sub-second risk management calculations, while balancing the ability to optimize intraday operations with instantaneous portfolio management trading decisions.

ActivePivot is an ideal value-add, operational data management system to complement investment management platforms – OMS, PM, EMS, attribution, valuation, risk management, positions data, market data, reporting, etc. – to aggregate all data in memory to produce immediate and efficient IBOR operations.

As part of ActiveViam’s strategy, “We partner with third-party FinTech solution companies so that our Customers and vendor alliances can plug-in their valuation and attribution analytical libraries into our open OLAP architecture. We make it simple to integrate ActivePivot with OMS, EMS, risk engines and other applications to provide the real-time OLAP capabilities that we have brought to the marketplace...” explains Mr. Whipple.

While accessing massive amounts of data fast and efficiently is the top priority for ActiveViam, providing flexibility is a close second. With that in mind, ActiveViam designed their systems to allow data to be accessed the way investment managers want and need to access their data. Users may use their cutting-edge web UI - ActiveUI, MS-Excel, other third party products, a custom-built portal of their own design, or any combination thereof.

Not limited to just risk management, ActivePivot provides portfolio managers with real-time Credit, Liquidity, Margining and Optimization capabilities; either for interactive analysis or, through ActiveMonitor, to provide continuous notifications and workflow around any limits or constraints imposed on the portfolios.

“End Users have total freedom to not only slice and dice their analytics along any axes of interest, but also to define their own continuously monitored stop-loss, limits or any risk tolerances they wish through a simple drag and drop interface”, adds Mr. Whipple.

As it relates to quantitative risk management models, ActivePivot can provide CVA, PFE, VaR and margining calculations and variations within sub-second response time; as is highlighted in the case studies on the company’s web site.

ActivePivot aggregates all data elements required to enable real-time risk management across any asset classes. It is an agnostic platform that adapts to the clients existing infrastructure and delivers continuous analytical intelligence for better trading and investment decision making.

In closing, we highly recommend engaging ActiveViam to learn more about their solutions to optimize your real time risk management, position keeping, and Alpha edge.

About ActiveViam...www.activeviam.com

ActiveViam provides operational analytics solutions to business users in need of timely decision-making over fast-moving data. Our unique value comes into play in time-sensitive and data-intensive business processes that require operational, corrective or predictive decision making to better steer the business.

Created in 2005, ActiveViam is a privately owned company with offices in Paris, London, New York, Hong Kong and Singapore. With more than a hundred live implementations in large international groups, the company serves customers operating in time-sensitive and data-intensive environments such as financial services, custodians and exchanges, retail, and supply chain organizations.

About Verrazano Consulting Solutions LLC – www.verrazano-consulting.com

Verrazano Consulting Solutions LLC is a business advisory and systems implementation global consultancy, with deep subject matter expertise in niche financial services applications and key standards and industry mandates.

Our firm provides a unique methodology called “ISOTOPE” to ensure business and IT unified solutions are delivered to our Customers.

Our subject matter experts have a unique combination of extensive lines of business functional domain knowledge, across various market segments involving key business processes and niche financial services applications and standards-based expertise to provide the maximum value to our Customers.

Our global Customers include Tier 1 and Tier 2 financial services organizations and the treasury departments of Fortune 100 and Fortune 500 corporations.