MIK Fund Solutions

1633 Broadway
28th Floor
New York, NY 10019
212-468-2000
www.mikfs.com

Client Case Studies

CONTENTS

OVERVIEW

This document covers two specific case studies, each of which highlights different business scenarios in conjunction with the unique solutions that MIK implemented. In addition, for each case study, the Business Impact section highlights how MIK's solutions ultimately provided the answer to the clients' needs.

CASE STUDY 1: NEW LAUNCH OF $500 MILLION+ LONG/SHORT MARKET NEUTRAL FUND

BACKGROUND

The client is a Long/Short equity hedge fund launched in 2008. The fund launched with assets of over $500 million. It allocates capital across multiple portfolio managers. The firm's strategies cover global equity markets, and managers pursue multiple fundamental and quantitative strategies across these markets. This client approached MIK four months prior to its soft launch as it needed to build out a portfolio management platform for its managers for day one of its operation.

PROBLEM STATEMENT

This client wanted sophisticated trading, portfolio management and risk management tools in place from the start.

The firm intended to use significant leverage in the management of its market-neutral portfolio, but with this leverage came the need to tightly monitor P&L, and control portfolio risk at multiple levels and on a real-time basis. Each portfolio manager wanted detailed intra-day views, and the founder/Chief Investment Officer wanted the ability to view all managers' portfolios intra-day, (at both a summary and detail level). The CIO also wanted pro-active alerts when exposure levels approached or crossed pre-defined limits, or when investment decisions went against managers. In addition to intra-day views, the client needed to maintain and report on end-of-day and historical P&L, risk and exposure information for all managers and for the firm.

Next, the client wanted to provide managers with the ability to initiate orders and adjust exposure on their portfolios quickly, and have these orders automatically sent to the order management system (OMS). Managers also needed their real-time view to show the status of these orders and executions and how the trading activity was impacting intra-day exposure, risk and P&L.

Prior to its launch, the client was in the process of putting in place Eze Castle for trading, Advent Geneva for accounting and both Risk Metrics and Barra for risk management. Each of these platforms has a unique way of maintaining and sharing its data (web service, flat file, direct API, etc.). The solution that they required needed to integrate seamlessly with all of these platforms in order to provide managers with timely and accurate information for their investment decisions, and with minimal impact to the operations and accounting teams.

Lastly, the firm needed to limit access to the individual portfolios for certain users, while simultaneously allowing risk officers and senior management access to all information at both the manager and firm level.

MIK SOLUTIONS

As mentioned above, MIK was brought in four months prior to the firm's launch, and was involved in the discussions around the client's vision for its technology platform, and provided input around definition of the workflows and data-flows.

MIK customized and implemented its **Data Warehouse** solution for the client, based on their specific data needs, trading strategy and business model. This warehouse allows the client to properly store all of its portfolio-related data in a single location. MIK incorporated position and P&L data from Geneva, transaction data from Eze Castle, risk data from both Barra and Risk Metrics and market data from Bloomberg. We also customized and implemented the middleware necessary for each of these applications to share data with the Data Warehouse.

Included in the Data Warehouse is an integrated **Security Master**. The security master component of the warehouse provides the client the ability to keep security-level data in sync across its multiple vendor systems, and within the warehouse. It also allows them to gather and store market and research data on all relevant securities.

Once the Data Warehouse and Security Master were in place, MIK customized and implemented its **Real-Time Portfolio Monitor** solution, which provides users with the ability to see a completely integrated view of their portfolio. Along with the real-time P&L information, MIK incorporated exposure calculations, upside/downside price target thresholds, exposure information and liquidity limits and alerts. The customization also incorporated Risk Metrics data such as VaR, stress tests, correlations, etc. into the Portfolio Monitor.

In addition, the Real-time Portfolio Monitor implementation incorporated two-way integration with the client's order management system (Eze Castle). This integration allows managers to model the portfolio and adjust exposure on individual positions and/or baskets with minimal time and effort, and automatically create and push orders to the OMS for execution. Further integration with the OMS provides information in the Portfolio Monitor about how much of each order has been completed, and how these intra-day trades are impacting portfolio P&L, exposure and risk. (Managers even have a "one-click" capability for taking their fund exposure down to zero.)

The Data Warehouse also provided users with the ability to produce end-of-day P&L attribution reports, and end-of-month investor-level reporting. Users are also able to view historical information on both open and closed positions. The richness of the interface allows users to view information at various summary and detail levels, and provides drill-down and roll-up capabilities within the views.

All functionality implemented by MIK included user permissioning features and related maintenance screens to allow senior management to control portfolio and firm level views of the data. Such permissioning enables the client to provide managers with all of the functionality they need, while also maintaining security around both fund and firm-level data. Furthermore, the founder is able to have the necessary summary and detail information needed to maintain the stringent risk controls necessary for the success of his fund.

BUSINESS IMPACT

MIK was able to help the fund's founder, realize the vision he had in terms of fund strategy, quantitative analysis of the investments, the use of leverage and control of risk over these components. Without MIK's Data Warehouse, Security Master and the Real-Time Portfolio Monitor, the client might have been able to deal with one or two of these components, but not all of them. Such limitations could have negatively impacted the founder's business model and required additional resources on the risk, operations and accounting teams.

MIK was able to build all of the necessary components (Data Warehouse, Security Master, EOD reporting and Real-Time Portfolio Monitor) and perform the necessary integration with all of the firm's vendors in a very short time. This enabled the firm to launch with core functionality in place, and to successfully execute hundreds of trades in its first day of operation.   In effect, MIK translated the client's creative vision into technical components and software modules, and created a single platform with timely access to trading, risk, accounting and market-related portfolio information and analysis. No "out-of-the-box" solution could have accomplished what the client and MIK did.

Given the specificity of the founder's vision, it would have taken the client much longer to build all of the MIK components, (and at a much greater cost,) and these components would not have been in place on Day 1.

With full transparency in design and code, MIK worked with the risk team, accounting team and IT project managers, and empowered the existing staff with the skills and knowledge necessary to take ownership over the implemented solutions. And with MIK's help, the client was able to better control the growth and specialization of its Technology team. MIK has had a tremendous relationship with the IT staff from the day we started, as well as all of the firm's technology vendors.

MIK has continued to work with this client on subsequent projects, based on the overwhelming success of the Data Warehouse, EOD reporting and Real-time Portfolio Monitor projects.

PROJECT SCOPE AND TIMING

Core functionality - (Data Warehouse, Security Master and Real-Time Portfolio Monitor):   4 months

New features and enhancements – (more sophisticated integration with OMS, auto-trade execution, more sophisticated quantitative reports and views, and other proprietary functionality): 8 months and ongoing

BACKGROUND

A well-established single-manager, $2 billion dollar, global multi-strategy hedge fund had outgrown its existing portfolio data-related workflows and reporting, and had reached the outer limits of Excel's capabilities with respect to portfolio and position analysis.

PROBLEM STATEMENT

The client's established process for creating portfolio management and operational reporting on a daily basis had grown more and more complicated and time-consuming as managers and analysts added new requests, as the funds' structure and holdings grew in size and complexity and as historical data accumulated. The report-creation-process could not be kicked off until the next business morning, and reports were not typically ready for distribution until after the market open. (Sometimes as late as 11 am.) These delays had the potential to cause downstream trading issues if errors were not caught prior to market open.

The report creation process involved collection of position data from Geneva and market data from Bloomberg, (including Greeks, betas, volatilities, etc.) and linking these data elements manually in Excel. The client also maintained certain custom, security-level tags in Excel only, and the ongoing maintenance needs around such data had the potential to cause accuracy issues with the client's daily reporting.

In addition, the complexities of the daily process were such that any historical data analysis was too cumbersome to produce on a regular basis, and could only be produced after month-end.

The increasing use of OTC derivatives was also causing issues as accounting information stored in Geneva was not enough to calculate the necessary exposure information required by the manager to control security and portfolio level risk.

Lastly, the portfolio manager and the investment staff had new initiatives in mind for better and more sophisticated reporting and analysis of the portfolio, but the CFO and Middle Office team could not move forward with these initiatives without first finding a better way to handle their existing data and reporting requirements. The client realized that they needed to leverage software to improve data quality, efficiency and accuracy.

MIK SOLUTIONS

After evaluating the client's current processes and reporting, MIK customized and implemented its **Data Warehouse** solution and integrated the warehouse with the client's Geneva data. We also incorporated Bloomberg data into the warehouse to enrich the **Security Master** information extracted from Geneva.

The client's end-of-day dataflow processes were automated and existing report sets were replicated using the Data Warehouse information, (with substantial functional improvements). MIK customized the report sets to enable drill-down functionality on specific report components. Users can see the position-level details of specific roll-up

categories within the portfolio, and this capability is valuable to both the portfolio manager and middle office personnel as it provides more detail for both portfolio analysis as well as any reconciliation.

MIK also customized and implemented a step-by-step, end-of-day process that allows the user to review exceptions and outliers found in the data capture phase. Users can review exceptions and move forward in the process, or correct these exceptions in the source systems and re-run the EOD process at any time. Once the review process has been completed, all reporting is generated automatically and available via the MIK-designed intranet site, or reporting can be distributed via email with a single mouse-click.

Lastly, MIK worked with the client to create custom calculations and reporting around the firm's proprietary beta and exposure calculations.

BUSINESS IMPACT

MIK's implementation of the Data Warehouse and end-of-day reporting has had a significant impact on the business of this hedge fund. The firm now has a true end-of-day process, and all portfolio reporting is available same day. The ability to store data (Geneva, Bloomberg and custom data) in the warehouse, as opposed to a spreadsheet has also improved the accuracy of all reporting.

In addition, the client now has the flexibility to produce analysis on historical data, which was impossible to do in Excel. Historical reporting is available to all permissioned users via the firm's intranet, and the data warehouse refreshes historical data from the source systems in order to keep the reporting in sync.

The portfolio manager now has access to more information about his fund's composition and risk, his analyst's performance and this information is available more quickly and with better precision.

MIK also helped the client to implement custom calculations on various data elements within the portfolio. Prior to MIK's involvement, these custom calculations were not completely reliable and were not available as part of the standard reporting package.

The implementation of the data warehouse has also given the client a proper storage medium for their portfolio data and facilitated data back-ups and business continuity in a disaster recovery situation.

The client was so satisfied with the work that they have decided to implement MIK's Portfolio Monitor solution to produce all of the aforementioned analysis in real-time.

PROJECT SCOPE AND TIMING

Core functionality - (Data Warehouse, Security Master and End-of-Day Reporting):   3 months

New features and enhancements – (better integration with prime brokers, the accounting and trading systems, Real-Time Portfolio Monitor, etc.): 2 month and ongoing