

Delivering Integrated Risk Management Solutions Fast with a Limited Budget

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Amber Tolat, President, Masfin



THE NEED

The regulatory climate for small to mid-size financial operations has changed. Regulators are now applying more rigor in their examination of the risk management practices of smaller institutions. This means those firms no longer have as much latitude as before in meeting the reporting requirements set by regulators. As a result, regulatory risk management requirements have become a more important driver in setting current corporate IT strategy in smaller financial operations.

With tighter time constraints and without the 8-figure risk management systems budgets of the largest banks, mid-size institutions have been turning in growing numbers to a new kind of solution provider with expertise in delivering risk management solutions quickly and at economic cost using a component-based approach. One of the beneficiaries of this trend has been Masfin Consulting, Inc., a New York based firm. Recently, the New York branch of a leading German financial institution engaged Masfin's Risk Management Group to deliver an integrated risk management solution.

COMPANY OVERVIEW

Masfin Consulting, Inc., founded by financial industry veterans, has built a proven record in cleaning, normalizing and integrating financial systems and data, resulting in sound frameworks

for both risk management, and for other systems used by the financial industry. It has applied this solid infrastructure approach towards building enterprise-wide risk management systems, workflow automation systems for entire product areas, as well as comprehensive implementations for the front-office, mid-office, operations and finance areas in both the dealing and insurance industries.

Over the last two years, more and more small to mid-sized institutions and US branches of foreign firms have approached Masfin's Risk Management Group to assist with implementations of enterprise-wide risk management systems - for both market and credit risk. With the growing demands placed on internal IT units due to regulatory requirements, applying automation to manage the traditionally time-consuming tasks of data collection, cleansing and normalization has become more critical to generating timely risk management numbers.

To meet customer needs in the most efficient way, Masfin applies an internally developed set of systems interfacing and systems/data integration tools, called RisQ-Tools, to address the complex IT needs of financial enterprises. Masfin's proprietary project management method employs aggressive prototyping, iterative project phases (rather than the waterfall approach) and very small project teams to ensure successful completion of risk management consulting projects - on time and on, or under, budget.

REQUIREMENTS

The global risk committee in the head office of a large German bank set an aggressive time-table for its New York office to build an enterprise-wide risk management system that integrated the fixed income, money market, foreign exchange, precious metals, equity and structured finance operations of the branch. The head of risk management in the New York office engaged Masfin to work with his risk management analysts to create the solution. The client was looking for a consolidated, timely and accurate solution that included:

- Positions
- Transactions
- Cash-flow projections
- Scenario analysis
- DVO1s and Greeks for their portfolios across several businesses to give the bank an overview of their economic Profit/Loss and Risk
- Independent portfolio and price verification in order to quantify risk

The raw source data was stored in 'silos' with a complete absence of any structure for Transactions/ Positions, Security/ Financial Instruments, Counterparty or other static data. The systems were disparate, which made the task of collection, reconciliation and normalization formidable.

Case Study *continued*

THE SOLUTION

Masfin integrated the company's data from the various disparate systems including Opics, FISTS, Murex, Kondor+, Devon and ADP to form a Risk data-mart. Masfin used its RisQ-Tools, a set of micro-project components, to help boot-strap the project. At the core of RisQ-Tools is its normalized financial database, which serves as the link between source systems; providing transaction/ position, market, other static data, as well as systems performing risk analysis (see Figure 1).

This data had to be transformed, cleaned and reconciled before it could be useful. Masfin developed algorithms to compute cash-flows and scenario analysis for various instruments spanning

from fixed income, foreign exchange, precious metals, equity to derivatives, using some of the financial models included in the comprehensive financial analytics library of FINCAD Developer, from FINCAD.

Why did Masfin choose FINCAD? Masfin surveyed all the major financial analytics products available and compared several. Based on accuracy, ease of integration, cost, extensibility and vendor support, Masfin found that FINCAD Developer, by FINCAD, offered the best overall value. FINCAD's comprehensive set of industry standard analytics covering all asset classes and derivatives in a single environment, coupled with its ease of integration to the application software using the variety of APIs supplied with it, made the decision

to use FINCAD that much easier. FINCAD's analytics offering fit well within a Masfin solution - plus risk managers could use the user-friendly FINCAD XL add-in application to do additional custom analytics using exactly the same financial models with the data provided from the Risk data-mart.

Masfin president, Amber Tolat, remarked, "FINCAD's products are the best source of industry standard, proven analytics for designing risk management systems for our clients. FINCAD is clearly an expert in its field; so it only makes sense for us and our clients to capitalize on that."

Masfin also developed the content and layout for risk and regulatory reports.

The OLAP Screen based on Risk data-mart displays several dimensions for reporting and avoids having to re-write queries over and over again (see Figure 2).

Features include:

- Consolidated reporting to "slice and dice" the data at different granularity and across several dimensions on the fly is done by automatically generating ad hoc query requests behind the scene.
- The reports can be aggregated across several source systems, instrument types, and hierarchies from Portfolio/Trader to entities/ groups and regions.
- Can set up feeds to down-stream applications.
- This Viewer brings to the front the power of the data-model representation on the back.

An OLAP tool was also put in place to make it easier for non-technical users to run the reports and to 'slice-n-dice' the data. Market data was obtained from Reuters® and Bloomberg® data feeds to meet the requirement of an independent market data source. In addition, Masfin implemented procedures to support daily operations and reporting, and built an interface to RiskMetrics.

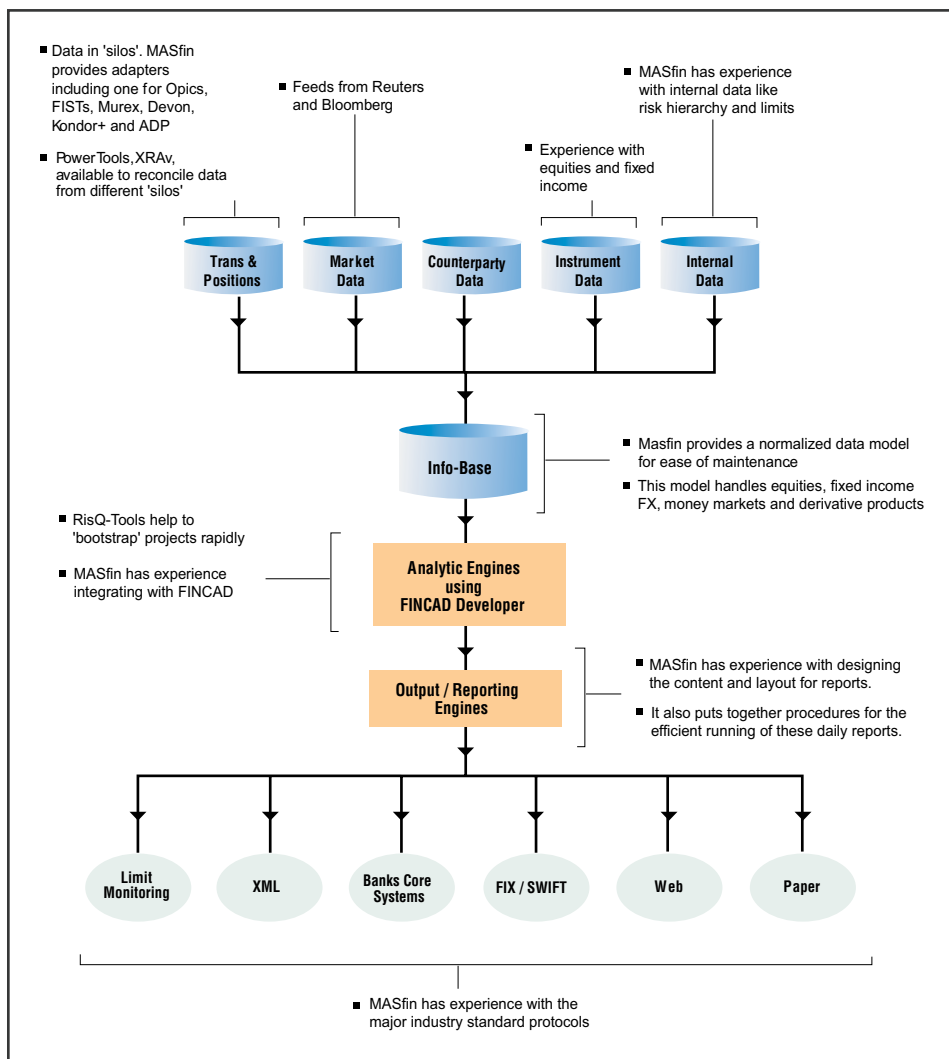


Figure 1

Case Study *continued*

BENEFITS OF THE SOLUTION

The first reports that integrated with the source systems were made available within three weeks of the project start date. After only six months, all systems had been integrated to report vital risk numbers based on a sound and solid data and systems management platform, which can now be extended to deliver much more involved analysis. The main benefits of the solution were:

- It gave the New York branch the ability to meet Corporate Global Risk Committee's standards.
- The project was completed on time and under budget.
- Reports can now be generated to meet the needs of several business functions besides risk management, including finance, traders and senior management.
- The New York branch can now meet SEC and federal regulatory requirements.
- The ease of maintenance resulting from designing the data model and systems as components means the system can continue to be easily evolved as necessary and it now feeds the bank's core systems.

TECHNOLOGY

As part of the solution, Microsoft® Visual Studio, Visual Basic 6, Oracle, Crystal Reports and Power-designer were used. Masfin's RisQ-Tools components helped rapidly prototype and then build the application. Market data feeds were obtained from Reuters and Bloomberg. Analytics from FINCAD Developer by FINCAD were used.



Figure 2

Corporate Headquarters
Central City, Suite 1750
13450 102nd Avenue
Surrey, BC V3T 5X3 Canada

EMEA Sales & Client Service Center
Block 4, Blackrock Business Park
Carysfort Avenue, Blackrock
Co Dublin, Ireland

USA/Canada 1.800.304.0702
Europe 00.800.304.07020
London +44.20.7495.3334
Dublin +353.1.400.3100
Elsewhere +1.604.957.1200
Fax +1.604.957.1201
Email info@fincad.com

