Mark Townsend

Profile

Team Lead/ .NET Lead/ Architect/ Project Manager. More than 10 years experience on the Microsoft stack working alone and in small teams in credit derivatives, equity derivatives and structured funds front office to back office. Advanced .NET skills, version 3.0 to 4.5, predominantly service side. Expert Excel and VBA skills, including teaching. Experience designing and building (small enterprise level) service oriented systems using WCF. Experience of lean techniques, stakeholder management, mentoring and leadership.

Employment

Aug 2011 to May 2015, J.P. Morgan, London
Mansart Technology Lead

This was a mixed role involving project, vendor and team management, guiding the business on technology issues, mentoring of colleagues, enterprise architecture and development on the Microsoft stack (.NET4, WCF, SQL Server 2008 R2). Some of the projects have included:

- Managed a team of up to 3 staff. Responsibilities included resource management and performance monitoring, objective setting and bi-annual appraisal process, acting as a point of escalation and authority, contributing to and resolving technical, project and people issues, setting the culture for the team. I drove the adoption of quality practices in the areas of continuous integration, SDLC, test coverage and peer review.
- Technical ownership of all the third party relationships (including external vendor) for Mansart. I was responsible for monitoring the performance of the third parties against their SLAs (and ad-hoc project specific agreements) and I was the technical contact for support and new issues for up to a dozen formal and informal relationships.
- Architecture and build for application exposing business data in spreadsheets using: Excel VBA, WCF, ExcelDNA, LINQ to SQL, Active Directory security and IIS. The Fund Managers required the flexibility of Excel to perform ad-hoc reporting and calculations as part of their day to day processes. The system replaced several brittle and insecure ETL steps with a spreadsheet function library increasing the productivity of the fund managers and removing a major potential error source.
- Managed a multi-year project to migrate all IO from legacy technologies (email/ ftp) to secure transmission (SFTP) using Rebex libraries, firm wide infrastructure and Control-M. Managed third party relationships, engagement with internal partners, nomination/ identification of information owners and re-assessment of information risk for data in transit. The result was a clean, secure, fully automated, monitored and auditable feed management process.
- Introduced the Kanban process to manage the technology workload. Limited the number of concurrent tasks tackled, exposed ‘work time’ vs ‘wait time’ metrics to the business, appointed business product owners for key applications, captured ownership, agreement and acceptance for every change. Published work status, the backlog and introduced a single way for business stakeholders to add items to the backlog. Introduced quarterly goal setting and fortnightly prioritization of technology workload with the business. These changes provided the business with the transparency they were lacking. As a consequence there was a notable improvement in trust between technology and the business and a greater engagement in the technology agenda from the business.
- Architecture and early build for risk reporting application using WCF, SQL Server 2008 and Asp Net interfacing to RiskMetrics. Adhering to the iDesign Method I designed and managed the build of an application which put in place a workflow around sourcing position data from the administrator, enriching that information with report metadata and pricing data, authoring the analysis instructions, transmission of data and recovery of results from the third party, persistence, distribution and presentation of the results. The system was projected to save 3 hours from a daily task and put the business in a position where it could scale this function (verification of UCITS compliance) from a single fund to multiple funds.
- Made a significant contribution to the closure of the Paris business and start up of the London business. Formalised the data retention requirements and managed the extraction and migration of the data in to the permanent store. This allowed Mansart to retire the application saving EUR20k per year over 5 years in licence fees and removed the technical burden of maintaining the application. Fully migrated database and application from physical Paris servers to virtual UK servers. This resulted in an ongoing monthly cost saving of EUR1500.

Outside this role, in my own time, I co-founded a volunteer initiative to teach Excel across the firm. I designed the curriculum, authored the majority of the material, recruited the volunteers and managed both the day to day and strategic aspects of the program. In 2014 the program delivered over 300 days of online and classroom training in 16 locations to wide acclaim. The program delivered the only cost effective class room training in a utility technology anywhere in the firm and planning was in place to apply the model to other technologies (mostly MS Office) and practices (communication, stakeholder management) saving the financial spend on vendors but also pivoting learning in the organisation to a ‘many to many (more)’ model and strengthening internal networks. I was given an award for ‘innovation at scale’ for my role in this program.

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Nov 2008 to Jul 2011, Royal Bank of Scotland, London
Equity Derivatives IT, Desk Aligned Technology

In this role the work was focussed on building RAD applications on the .NET stack for front office. The team was dispersed at the beginning of 2011 but for the final 6 months of its existence I was the de facto team leader.

- Developed a distributed correlation calculation system in .NET using WCF. The system used a desktop grid of agents to calculate correlations (Pearson) on demand. It was limited only by the universe of time series stored in Bloomberg and could compute basket and quanto correlations as well. The system was retro fitted in to the trading applications and used extensively by Structuring to back test new ideas. It reduced what was a manual, inflexible and error-prone process to a function call and was very useful to the front office.
- Wrote a system to optimize the business-wide liquidity profile. It used LINQ as the data access layer connecting to a SQL Server back end, an ASP.NET MVC intranet site for managing the cash and Spotfire and Excel as the reporting layer. The system contributed significantly to the process of netting cash credits and debits across the desks resulting in a lower total funding cost for Equity Derivatives.

Nov 2005 to Nov 2008, ABN AMRO NV, London
Quantitative Analytics, Rapid Application Development, Equity Derivatives

In this role I worked in a team supporting Equity Derivatives Trading, Structuring and Sales teams in London, Hong Kong and New York through the development and support of trading, PnL, pricing and risk applications.

- Wrote a spreadsheet application which closed expiring positions. At its peaks (typically triple witching) the application closed thousands of positions at the click of a button sourcing market data from Bloomberg and booking the closing trades in the accounting system. The application saved the TA's several hours a week.
- In close collaboration with the trader in Hong Kong I wrote index and single stock arbitrage spreadsheets. This family of spreadsheets enabled trading KOSPI futures and options and worked with ticking data from Bloomberg and Reuters. The sheets identified successful arbitrages (index vs the basket) and ranked them by profitability using a visual schema. Without the spreadsheets this business would not have been possible.

Feb 2004 to Nov 2005, Global Markets Consultants, London
Credit Derivatives Front Office - Rapid Application Development

In this role I worked on site at Deutsche Bank in the credit trading business developing and supporting tactical risk and PnL applications.

- Designed and delivered a series of spreadsheet calculators comparing single name CDS with Assets Swaps and Cash Bonds, identifying when mispricing existed between them and notifying traders of these opportunities. The calculators made extensive use of Bloomberg, Reuters and proprietary analytics.
- As part of a small team I made a significant contribution to the development of a programmable credit gamma calculator for single name CDS. Using VBA, XML, XSLT, Perl and proprietary analytics I delivered the harness which set up the gamma scenarios, ran them and exported the results on a curve by curve basis. The calculator was a key risk management application for the Flow Credit Trading desk.

Education

Vocational

Jan 2014, JP Morgan Chase
Emerging Leader, New Manager Program

July 2013, JP Morgan Chase
Project Management Program - internal

April 2013, iDesign, Juval Lowy
Architect's Master Class

Academic

October 2004 to September 2006, Cass Business School
MSc Mathematical Trading and Finance – part time

September 2001 to September 2002, University College, University of London
MSc Information Technology

September 1993 to June 1997, King's College, University of London
BSc Pharmacology: 2i (Hons)

September 1988 to July 1993, Old Swinford Hospital School, Stourbridge

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