### Paul Stannard

IT Consultant / Software Developer, London, UK

paul.stannard@gmail.com

|  |
| --- |
| Career Summary C#/WPF developer with experience of leading the delivery of desktop trading applications to the finance and energy sectors.  With over 20 years (contracting since 2005), I have a background in 3 tier architecture and full stack development, with a specialisation in WPF/Rx desktop development since 2010.  High level of product ownership due to lead roles, facing business stakeholders.  Experience across numerous business streams which have presented a variety of challenges from rapid delivery of prototypes and optimisation tools (Shell and BP) to providing robust, low latency solutions in a business-critical environment (FX e-commerce). Very high coding standards to ensure a clear and easily maintainable code base with adherence to best practices in design (SOLID, MVVM, Prism/ MEF) and delivery (TDD/Agile/SCRUM).  Has also been responsible for all stages of development cycle through to Azure pipelines and packaging for desktop deployment. |

|  |
| --- |
| Key Skills **Current Languages / Middleware :** Strong Core C#/.NET since 2005, .NET Core, Strong WPF and Reactive Extensions since Apr’10. Reactive UI.  **3rd Party WPF Controls**: strong DevExpress, Infragistics, Telerik  **Past Experience:** Visual C++, WinForms, Web Services (05-06), .NET Remoting, WSE and Microsoft Enterprise Library, MQ Series, MSMQ, TIBRV , C (1996 – 2000), WCF, SQL Server  **Design Patterns and Methodologies :** SOLID, MVVM with PRISM/MEF, Unity, NUnit, NMock, TDD, Agile/Scrum, BDD  **Devops :** Azure Pipelines, MS Teams, Jira, Click Once/MSIX packaging |

|  |
| --- |
| Education BEng (Hons) 2:1 Building Services Engineering, University of Liverpool, 1995.  A Levels : Maths, Economics, Design. |

**Sep’18 – Current: Shell Trading (Contract – WPF)**

**Downstream Pricing – lead UI Dev**

Implemented a new desktop application (DSP) for the oil derivatives trading desk as replacement for a legacy Excel spreadsheet solution. This involved development of a new price grid component with capability to display 150+ curves at sub second update frequency.

Since the DSP application represented a migration from Excel, it was important to provide the flexibility of various aggregation and calculation features together with in-grid editing (price and margins) and trading controls.

This was achieved with significant customisation of Dev Express controls, and extensive use of Rx to provide a flexible but also reactive user experience during periods of high frequency price updates.

The application has been developed in collaboration with a small server dev team (2) with direct reporting to business stakeholders in oil derivatives trading.

**July’17 – Sep’18: Citigroup (Contract), e-FX Velocity UI Senior Dev**

Responsible for UI enhancements of the Citi Velocity e-FX Trading Platform (WPF). The team comprises 25+ developers (UI and Server) across 3 regions. Given the profile of the platform, significant attention is given to code quality and system performance. All UI development is done to strict coding standings in adherence to SOLID principles and subject to rigorous code reviews.

Significant developments:

* Ongoing performance enhancements to maintain a highly reactive UI during high load. Particular attention to usage of RX.
* Implemented a new UI validation model which would enable users to diagnose and resolve pricing and booking issues from the trade entry UI.
* Enhanced workflow for benchmark orders.
* Facilitation of NDFs by existing price model and risk allocation.

**Feb’16 – July’17 : BP (Contract), Stock Progression UI dev lead**

Developed a new desktop UI (WPF) component which provides capability to manage and predict stock levels across fuel grades and terminals. The component comprises an editable data grid (DevExpress) to allow the user to enter various ‘what-if’ scenarios whilst handling real-time update notifications of certain shipments or stock activity events. Reactive Extensions are used with an MVVM framework to provide a responsive UI within a testable code base.

**Nov’14 – Jan’16 : BP (Contract), Voyage Optimisation dev lead**

Responsible for the UI development of a new WPF client optimisation tool (Voyage Calculator) which enables the Front Office Global Oil business to realise optimisation opportunities in terms of vessel routing.

These opportunities may arise from simple cases of cost reduction where a vessel speed may be adjusted according to speed/fuel usage data, GPS location and demurrage costs.

In more complex cases, Voyage Calculator can analyse and compare alternative routing scenarios enabling traders and operational staff to explore opportunities for more significant cost savings or revenue gain.

Key role responsibilities:

* Sole responsibility for all development and framework decisions.
* Agreeing functional scope with the PM for each release iteration.
* Delegation and review of development tasks outsourced to other development resources.

**May’14 – Nov’14 : BP (Contract), Commodities Trading dev lead**

Lead developer for a new WPF Client application which enables BP to manage its CSO (Compulsory Stock Obligations) across all European regions. Worked in close collaboration with key stakeholders from the Oil Trading business to establish system requirements.

This process involved analysis of the original Excel based tools which were used to manage CSO.

The application (CSO Manager) is developed in .NET 4.0 with a WPF/MVVM/Prism framework. It interfaces with a WCF service layer providing the required CRUD operations to a SQL Server database.

This was a fixed cost contract which gave me 6 months to build a system to provide the following:

* Entry of contracts, stocks provisions, and legal obligations across regions.
* Optimisation of obligation allocations using stock conversion and offshore allowances.
* Position management to show stock compliance, forecasting at regional and European levels.
* Invoice and contract generation.

Key role responsibilities:

* Sole responsibility for achieving a development complete CSO client application for delivery to production.
* Driving the requirements gathering process from learning the business model to present screen mocks using Balsamiq and basic WPF prototypes.
* Managing user expectations and setting delivery milestones.
* Re-use and enhancement of existing code libraries within BP to assist with early delivery of phase one release
* Weekly sprint planning and progress meetings with business sponsor(s).

**May’13 – Jan’14 : Royal Bank of Canada (Contract),FX UI/WPF developer**

Worked within a team of 6 developers to build a new trade quote blotter and position management screen (Edge) for the trading and sales desks. The Blotter makes heavy use of RX / multithreading to bridge real time price updates from the server layer with a reactive WPF UI. The team uses a strong Agile/Scrum methodology.

* Worked on streaming and buffering of quote updates in the blotter grid.
* Custom filtering to allow users to customise blotter views. This involved customised controls to allow fast text entry and search/lookup functionality of various parameters.
* Extended the quote blotter to facilitate Dealer Intervention of quotes. It is business critical that this process is robust and maintains UI responsiveness in cases of high system load.
* Collaboration with spot desk to design and develop the Dealer Intervention UI with an emphasis on fast and clear price entry/amendment.

**Jan ‘12 – May ‘13 : CIBC (Contract), Risk UI / WPF developer**

Responsible for the UI development of a cross-asset risk management system. Migrated code base from WinForms to WPF with DevExpress controls.

* Worked on development of a new MVVM framework.
* Developed a user control library for use across all new WPF screens.
* Developed a structure management screen for the IR Derivatives desk . The screen is built on top of the MVVM framework to facilitate entry of IR and Basis swaps.

**Apr ‘10 – Dec ‘11: BNP Paribas(Contract),FX E-Commerce WPF developer**

Responsible for development of a number of tools used to support the trader and sales desk E-Commerce business.

* Developed a new Trade Allocation Tool (TAG) in WPF/MVVM for the sales desk to manage trade workflow from the FXConnect portal. The key goal was to give users the ability to allocate hedging, apply added value markup besides other deal enrichment actions, quickly and efficiently.
* Developed a new FX pricing UI/WPF application to display real-time prices and provide management of all pricing aspects, skews, spreads, handover, indicative etc. The global userbase is over 300 users.

**Aug’09 – Apr‘10 : Credit Suisse (Contract), Equity Swaps Winforms UI / Cashflow Server side developer**

Implemented changes to the cashflow calculation engine server as part of the ‘Cash Consistency’ project. The changes focused on reconstructing some of the existing cash postings generation and also re-routing the flow to other downstream systems. Development was C#/.NET3.5.

**Nov 2006 – Aug 2009: RBS/ABN Amro (Contract), Portfolio Swaps Winforms and Server developer**

Developed new features on a swaps trading system developed in C# on .NET 2.0 with an MSMQ messaging layer and .NET Remoting for client / server communication layer. The database is SQL Server 2005. Most developments involved front to back changes (UI/Server/db).

* Design and development of STP (straight through processing) trade workflow sub-system used by trading desk and middle office.
* Implemented automated processing of corporate actions. Involved new UI, extension of service layer and DB schema changes.

# May 2005 – Nov 2006 : BNP Paribas (Contract), .NET FX Options developer

Part of a small team to design and build a new trade workflow system (ICAT) for an FXOptions trading system (Soho). Development was in C# / .NET 1.1 with a WinForms front end and a Web Services based deal persistence layer. Developed a ‘smart client’ framework for on request loading of components.

# May 1998 –April 2005 : Developer , BNP Paribas (Permanent)

Full Stack developer across E-Commerce (FX) and Equity derivatives.

Predominantly C++ server and MFC front end with emphasis on multi-threaded development.

Significant developments included components for FX pricing, position management, trade capture and workflow .

# August 1996 – May 1998 Developer, Sema Group (Telecoms)

Development tasks related to enhancements of a Customer Care and Billing system written in C on a VMS platform. Worked on a range of components related to call record processing , billing and customer maintenance.