



your software, your way.

Software to Handle 6 Million Transactions per Second

LMAX Global is an FCA regulated Broker for FX and part of the LMAX Exchange Group. LMAX Global offers brokers and professional traders the ability to trade on the LMAX Exchange central limit order book, offering tighter spreads on streaming firm liquidity from top tier banks and proprietary trading firms.

Background

LMAX (London Multi-Asset Exchange) wanted to create the world's fastest retail derivatives exchange using commodity hardware.

As a newly formed business, LMAX needed to build an expert team to achieve its ambitious goals in a highly competitive and strongly regulated financial market, whilst also ensuring that the solution developed conformed to the strict regulations defined by the FSA and subsequently FCA

Black Pepper supported LMAX all through the process of achieving FSA compliance, also providing a full service software development team to deliver the solution; from architecture and development through to quality assurance. Black Pepper stepped up and worked with LMAX to deliver its core exchange and helped grow its own internal development capabilities.

The key factors to developing the programme and successfully delivering the project were down to:



Agile software delivery: enabled iterative test driven development with a strong emphasis on continuous delivery for a high-quality result that was also flexible and adaptable to change.



Automated testing: ensured that the system met both its functional and non-functional requirements, and particularly to demonstrate its compliance with regulatory requirements.



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The benefits of this software can be seen by its results:

£100k



LMAX estimated that automated testing saved over £100K in manual regression testing effort in the first six months of the programme alone, and these savings would be multiplied many times over the life of the system.

The software was built to successfully handle 6 million transactions per second on a single thread, and hundreds of thousands of transactions with less than 1ms latency.

"Agile software delivery was the heart of this successful project."

John Cooke, Managing Director, Black Pepper Software

