it’s about time

Kx for Algos

Low latency algorithmic trading platform

Based on a proven, scalable Complex Event Processing (CEP) architecture, Kx for Algos provides the performance and flexibility to research, engineer, test and deploy a wide range of proprietary trading strategies and manage associated risk in real-time. Strategies may be tested and refined using a built-in exchange simulator before being released to production.

Unified Solution - Each installation provides a complete suite of algorithimic trading functionality, including data capture and management, strategy development, execution management, matching engines and backtesting. Out-of-the-box dashboards provide feature-rich visualization and control tools which can be effortlessly customized and extended for specifc trading, monitoring and research requirements.

Performance - Kx for Algos harnesses the power of the market-leading Kx database technology and connectivity to deliver unrivalled productivity and performance.

Time-Series Analytics - Kx for Algos offers powerful research and programming functionality which supports many types of data including temporal types. Clients leverage the unique power of the time-series functions to query, align and filter massive amounts of time-series data.

Market Simulation - A market simulation framework with a sophisticated exchange order-matching engine has the ability to monitor the performance and market impact of strategies. Thousands of strategy parameters can be tested in parallel and distributions modelled.

Analytics Library - Data loaders, end-of-day processes and runtime analytics are part of the package and can be injected into any process. Standard analytics include book building, aggregation, VWAP, TWAP and other benchmarks.

At a Glance

Kx for Algos is a fully integrated, enterprise-wide, algorithmic trading platform for strategy development and trading.

The Kx Advantage

- High performance stream processing platform for developing, testing and executing algorithmic trading strategies
- Extendible analytics library to accelerate implementation and enable customized strategy development
- Strategy controller for profiling, developing and managing trading strategies
- Rich, customizable visualisation though integrated HTML5 dashboards
- Market replay facility to backtest and calibrate algorithms against historical and simulated data
- Connectivity to major data vendors, liquidity sources and trading applications
- High performance, low latency processing powered by Kx technology
- Single Integrated software stack for quicker, easier implementation and lower TCO
- Built in resilience and fault tolerance capabilities

Strategy Controller

IDE for profiling and debugging, enabling rapid strategy development and optimization. Development and testing framework significantly reduces time-to-market.

Generic method of defining strategy parameter names and data types with the capability to define event handlers for market data events and special strategy control events.

Strategy Controller allows full GUI control of strategies.

Alerts module includes email and visual alerting based on system health.

Order Management and Risk Control

Allows strategies to query order state or define event handlers for execution interface replies. Limits engine provides P&L and pre-order limit checks.

Publishes derived events that reflect the current order status, amount filled, aggregated position and P&L for each strategy instance /instrument combination.

Smart Order Routing (SOR) algorithims can be easily defined.

Configurable FIX engine for order entry and market data which is fully integrated with the order management process.

Backtesting

Market data replay of millions of records per second from disk, allowing users to test strategy performance across many variables and parameters.

Transparent real-time view of all order status and backtest progress.

All data persisted for ex-post analysis of market data and latency metrics.

Backtesting and exchange simulator modules enable rapid development and strategy optimization.

Connectivity

Covers all major third-party vendors including Bloomberg, Thomson Reuters, Activ, ION, Currenex, Lava, EBS, Hotspot and Spryware.

Connectivity through the main exchanges, liquidity venues and direct market access brokers.

Bespoke handlers can be built using any of the available APIs or using the Delta Feedhandler Java/C++ SDK.

APIs and application support includes .NET, Java, C, C++, Python, ODBC, Matlab, Excel and R.

Sample Use Cases:

Sell-side Execution Desk - multi-asset client execution service using Kx for Algos to manage client orders. Large parent orders are executed at the most optimal venue and time ensuring best price is achieved while simultaneously monitoring credit limits and reporting benchmarks.

Buy-side Portfolio Management - an Equity Long/Short Trading group, running both high-volume and longer term positions employs Kx for Algos to research, execute and manage their strategies as well as any associated risk.

Proprietary Trading Firm - team of experienced traders establishing new firm and seeking to reduce their time-to-market. Their focus is on business strategies while their data management, research, execution and hosting requirements are managed by FD.

FX Market Maker - managed consuming bank and retail liquidity from FD's Kx for Flow platform, the market making firm uses Kx for Algos to run counterparty profiles, execution strategies and manage warehousing risk in a single seamless system.

Regulator - enables profiling and certification of strategies and their market impact, along with sophisticated surveillance.

Head Office	London	New York	Singapore	Sydney	Toronto	Tokyo
3 Canal Quay, Newry, BT35 6BP N. Ireland +44 (0)283 025 2242	Cannon Green Building, 1 Suffolk Lane, EC4R 0AY United Kingdom +44 (0)207 337 1210	45 Broadway, NY 10006 USA +1 (212) 447-6700	55 Market Street, 048941 Singapore +65 6592 1960	22 Pitt Street, NSW 2000 Australia +61 (02) 9236 5700	1599 Hurontario Street, Mississauga, On, L5G 4S1 Canada +1 289-329-0636	Sanno Park Tower, 2-11-1 Nagata-cho, Chiyoda-ku, 100-6162 Japan +81 (0)36 205 3494

Contact us at sales@kx.com or visit www.kx.com