



it's about time

# Stream for Kx

## High-Volume, High-Velocity Streaming Analytics Platform

Stream for Kx enables users to capture, store and analyze massive volumes of streaming data. It provides an enterprise-ready, high-performance, fully integrated yet simple platform for capturing and analyzing data that contrasts with the complexity and cost of alternative approaches.

Incorporating a Lambda/HTAP architecture for seamlessly combining real-time and historical data sources, a rich library of analytics for easier data processing and a flexible visualization layer for self-service analysis it offer a complete platform for not merely coping with the Big Data Challenge but for exploiting the opportunities it provides. Stream for Kx supports on-premises, hosted and cloud deployments to offer maximum flexibility and cost efficiency.



**Performance** - Queries and functions are executed on commodity hardware at unrivalled speeds, providing the business with the ability to make more informed decisions faster and at a fraction of the cost of large appliance applications. Tick-capture and streaming data is analyzed and enriched in real time to produce live indicators of current conditions for further action.

**Powerful Analytics** - Stream for Kx includes powerful programming functionality, which allows clients to express and execute complex concepts readily, using a comprehensive set of key words and functions.

**Event Processing** - Stream for Kx offers real-time event engines for cleansing, enriching, aggregating and triggering events. It allows clients to parse and process millions of records per second. The customizable alerts module includes email, message publication and visual alerting based on user defined events.

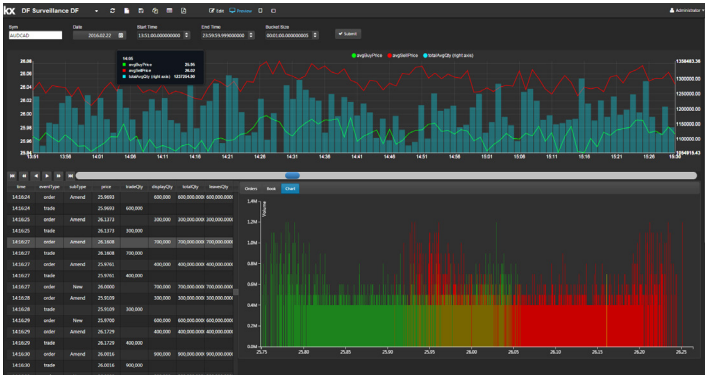
## At a Glance



Stream for Kx is a powerful integrated platform for capturing, processing and visualizing high-volume, high-velocity streaming analytics.

## The Kx Advantage

- Complex Event Processing for real time data capture and analysis across multiple data sources
- In-memory computing supporting "compute then store" for faster, instant results
- Low latency messaging for high speed data capture and distribution
- Lambda Architecture/HTAP for combined analysis of real-time and historical data
- In-memory data grid for high performance, distributed computing
- Optimised for time series data using columnar storage and built-in temporal data types
- Single Integrated software stack for quicker, easier implementation and lower TCO
- Integrated real-time visualisation and enabling self-service Business Intelligence
- Built-in resilience and fault tolerance capabilities



## Integrated Real-time Visualisation

Out-of-the-box HTML5 dashboards provide feature-rich visualization and control tools including powerful OLAP drill-down features and query builders. Dashboards can be effortlessly customized and extended for specific event processing, monitoring and research requirements. Dashboards can be shared across the web or entitled to individual users.

## Connectivity

Open architecture supporting easy integration to multiple data sources and formats. Covers all major 3rd party financial data vendors, exchanges, liquidity venues and direct market access brokers. APIs to .NET, Java, C, C++, Python, ODBC, Matlab, Excel with Feedhandler SDK and development framework for bespoke requirements.

## Mission Critical, Enterprise Ready Deployment

Enforce rigid access control using entitlement checking and permissioning at data and entity levels. Deploy failover and replication methods for enabling Hot-Hot and Hot-Warm failover capabilities to ensure quality service. Fully Scalable modular architecture offers the ability to scale vertically or horizontally across machines.

## Powerful Analytics

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## About Kx

Kx has been the software leader for complex analytics on massive-scale streaming data for over two decades. The Kx technology is an established and trusted standard for trading, surveillance and research in financial services. Kx has emerged as the elegant, integrated solution to the analytic needs of the Pharma, Retail, Utilities and High Tech Manufacturing industries scaling effortlessly to the data challenges of the Internet of Things.

Kx is a division of First Derivatives plc. Listed on the London Stock Exchange [FDP:LN] First Derivatives is a specialist software and consulting organization with a uninterrupted track record of customer success and profitable growth since it was listed in 2002.

## Time-Series Analysis

Data management is powered by the market-leading Kx database technology, with built-in temporal data types and time-series query primitives.

## Sample Applications

**Quantitative Research** - run trade, quote and fundamental analysis on large datasets to produce trading indicators. Calculate consolidated risk exposures and P&L profiles with alerts, visualization tools including heat maps and drilldown.

**Website Monitoring and Cyber Security** - align real-time web metrics with stored historical data to form profiles of client usage, new trends and emerging security threats.

**Market Surveillance and Analytics** - implement trading control alerts related to in-house and regulatory requirements and transaction cost analysis using real-time and historical benchmarks to measure execution performance and value.

**Internet of Things** - Realtime capture and processing of data generated by sensors in machines, homes, cars, smart meters, mobile phones and other devices.

**Preventative Maintenance** - collect, analyse and correlate diagnostic statistics on devices and components to accurately determine mean-time-to-failure, inter-dependencies and optimal replacement strategies.

## Kx in Action

### Visualize and Explore Data

- Kx Dashboards
- Kx Analyst

### Control, Deploy & Monitor

- Control for Kx
- Stream for Kx
- Kx for Monitoring

### Industry Solutions

- Finance
- Surveillance
- Algo
- Flow
- Pharma
- Utilities & IoT

### Head Office

3 Canal Quay,  
Newry,  
BT35 6BP  
N. Ireland  
+44 (0)283 025 2242

### London

Cannon Green Building,  
1 Suffolk Lane,  
EC4R 0AY  
United Kingdom  
+44 (0)207 337 1210

### New York

45 Broadway,  
NY 10006  
USA  
+1 (212) 447-6700

### Singapore

One Raffles Quay,  
North Tower,  
#30-03  
048583  
Singapore  
+65 6592 1960

### Sydney

22 Pitt Street,  
NSW 2000  
Australia  
+61 (02) 9236 5700

### Toronto

31 Lakeshore Road East,  
Mississauga, ON,  
L5G 4V5  
Canada  
+1 289-329-0636

### Tokyo

Sanno Park Tower,  
2-11-1 Nagata-cho,  
Chiyoda-ku,  
100-6162  
Japan  
+81 (0)36 205 3494