Kx for Pharma

Accelerating R&D through Big Data

Data analysis is obviously crucial to R&D, but equally crucial is the supporting data management functionality to source, validate and process the raw data along with the tools for visualizing and exploring its content. There is no shortage of these technologies, the problem is getting them to work together. Kx makes it easier by providing them in a single integrated platform. Fast, easy and powerful.

Kx has long been the leader in providing this functionality to the financial markets where the requirements for modeling, simulating and back-testing over massive volumes of data are similar to those for pharmaceuticals. With open interfaces to complementary tools for bespoke analytics, along with powerful Dashboards, Kx for Pharma provides the necessary speed, capacity, flexibility and usability to harness the power of big data in accelerating R&D.

Performance

Queries and functions are executed on commodity hardware at unrivalled speeds providing the business with the ability to make informed decisions faster at a fraction of the cost of large, specialized equipment. In-memory processing, vector algorithmic and columnar-based storage all contribute to high-performance, low-latency processing of data.

Rich Visualization

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 testing, monitoring and research requirements. Dashboards can be shared across user groups or entitled to individual users.
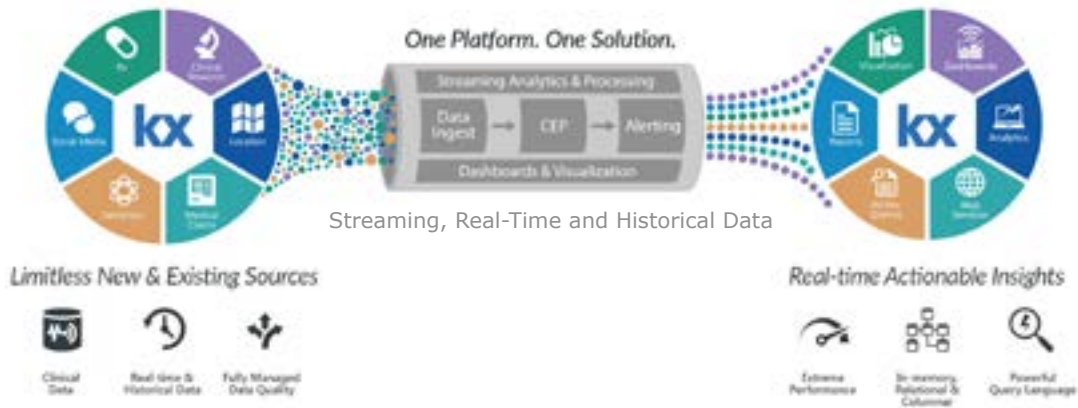
At a Glance

Kx is a powerful database platform designed to capture, store and quickly analyze large volumes of data.

The Kx Advantage

- Stream processing platform with in-built Complex Event Processing

- Ability to capture, store and process petabytes of data

- Extendible analytics library for analyzing historical and real-time data

- Rich customizable visualization through HTML 5 dashboards enabling self-service Business Intelligence

- Integration API with SDK for incorporating proprietary sources

- High performance, low latency processing powered by Kx technology

- Single integrated software platform for quicker, easier implementation, lower cost and reduced TCO

- Enterprise features, security, auditing, logging, multi-tenacy, archiving and compression

- Deploy on-premises or in the cloud

Kx for Pharma

One Platform. One Solution.

Streaming, Real-Time and Historical Data

Limitless New & Existing Sources

Clinical Data | Real time & Historical Data | Fully Managed Data Quality

Real-time Actionable Insights

Extreme Performance | In-memory, Relational & Columnar | Powerful Query Language

Real-time Monitoring

Enables real-time analysis of trial results, user feedback and clinical observations to identify unexpected side effects or potential safety issues. Analyze consumption patterns for brand management and patent protection from rogue distribution of replica product. Monitor production schedules and operating environments to identify process or equipment failures including faulty sensors, temperature spikes and CPU overloads.

Fully Scalable

Modular architecture offers the ability to scale vertically or horizontally across machines. Kx consistently outperforms other databases in speed, reliability and overall TCO enabling pharmaceutical companies to run large scale simulations that offer improved accuracy and increased acceptance of results by auditors and regulators.

Optimized Storage

In-memory engines and on-disk databases employ an elegant columnar data storage architecture. Flexible compression configuration facilitates tuning and optimization of compressed data. Administration tools allow firms to manage ever-growing datasets in a straightforward manner.

Openness

Includes APIs to a range of other languages and processing environments such as Python, R, Matlab, Excel and Mathematica. Interfaces to C#, JavaScript and ODBC databases are also provided. Visualization tools include Dashboards for Kx to provide consolidated visibility into Kx and other in-house data sources.

Powerful Analytics

The Kx platform includes a powerful programming language that enables clients to define complex analytics and simulations. It includes built-in temporal data types, geospatial support and is particularly optimized for processing time-series data and supports "what if" analysis on factors like weather, disease outbreaks and economic data.

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.

Kx in Action

Visualize and Explore Data
- Dashboards for Kx
- Analyst for Kx

Control, Deploy & Monitor
- Control for Kx
- Stream for Kx
- Kx for Monitoring

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

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