

Integrated Transactional and E-Comms Monitoring for More Effective Surveillance

THE KX ADVANTAGE

- First and second lines of defense -real-time, risk-based, regulatory and holistic surveillance on the same platform.
- Reduction in false positives through dynamic behavioral analysis, risk profiling and alert calibration.
- Extensive library of scenarios across all asset classes.
- E-Comms monitoring captures trader behavioral data across emails, chat, online internet forum, and voice.
- Comprehensive workflow, case management and reporting.
- Configure to your own requirements from analytics to models to workflow and reporting.

Banks, exchanges and regulators around the globe are increasingly turning to KX for a more dynamic approach to gaining insight into the behavior of multiple focus points including traders, clients, brokers, market participants and of increasing importance real-time monitoring of algorithms. Built on technology chosen by top global banks for their high frequency trading systems, KX Surveillance solutions are designed in collaboration with market participants to give analysts and business users a comprehensive view of relevant market activity.

The KX platform captures and analyzes massive amounts of information at the most granular level including but not limited to trades, quotes, orders and market data, together with E-Comms and payments for anti-money laundering (AML) monitoring - all on a single platform. Behavioral analysis together with out of the box and user-defined models, delivers a combination of risk based and dynamically calibrated alert based monitoring. Delivered with a complete library of Market Abuse Regulations (MAR), E-Comms and AML models, new models can be added and easily incorporated into the comprehensive alert, workflow and case management infrastructure with full contextualized investigation tools.

The solution is built on a comprehensive data management platform that ingests, validates, and consolidates data centrally for consistent and correlated reuse across the enterprise to enable it to be augmented with traditional and machine learning analytics. Visualization dashboards give first and second line analysts tools to identify highest risk entities and get a deep contextual analysis of the causes of alerts. Scenario specific dashboards, such as market replay, used to reconstruct trading history, keep relevant data at analysts' fingertips. Importantly KX Surveillance is highly flexible, allowing new models, risk scoring techniques and visualization of risks to be implemented either by the client or by KX.

For more information please contact: sales@kx.com or visit www.kx.com

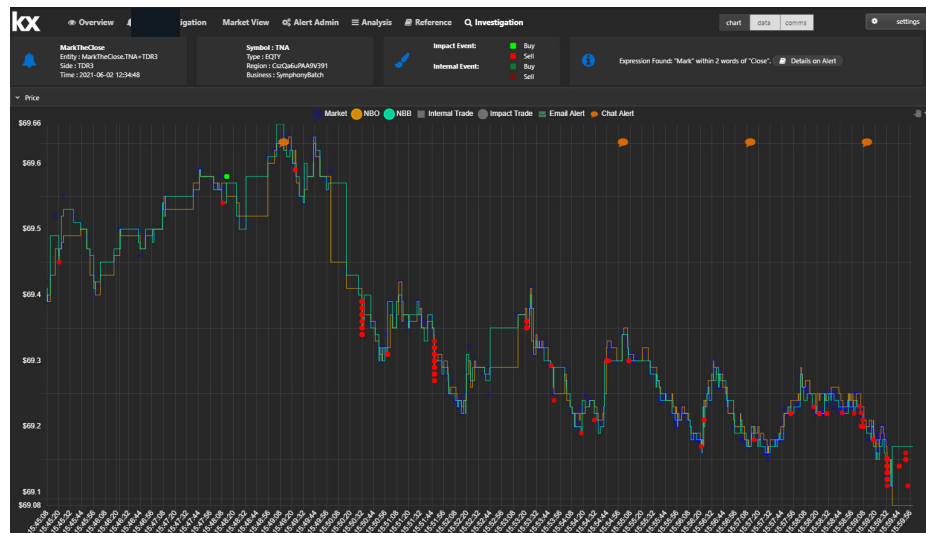
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KX SURVEILLANCE

INTEGRATED TRADE AND E-COMMS SURVEILLANCE

KX offers an integrated approach to detecting and investigating financial crime that enables organizations to correlate activities across multiple channels, both trade and electronic communications, in search of evidence of collusion, insider dealing and other forms of malintent. KX's flexible infrastructure allows for broad capture of structured and unstructured data across, emails, chat applications, online forums, and voice. When coupled with trades, news, and other transactional activity, provide context and deeper insights into potentially suspicious activity that regulators now expect organizations to include in their oversight. For more detailed investigation, KX leverages NLP and machine learning techniques to enable more expansive and automated analysis across large volumes of communications. All results are presented in a unified Action Tracker case management module that supports triage, disposition, and case investigations with end-to-end visibility on all data sources and events.



DYNAMIC ALERTS FRAMEWORK AND DATA DRIVEN BENCHMARKS

Alerts Framework is a powerful and highly flexible engine using both real-time and historical data. Alerts are generated by analysing events using out of the box or user defined models with configurable parameters. The Benchmark Framework automatically updates parameters within certain alert scenarios based upon region, product, trader significantly reducing the operational overhead of configuring for different markets or regions.

BROAD REGULATORY COVERAGE

KX provides scenarios that are tested and proven over many years in some of the most challenging compliance environments. We have developed an extensive library of scenarios for detecting and alerting in potential cases of market abuse, insider trading, and broader financial crime. Using these included KX scenarios, our customers have improved their enforcement results across the board.

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KX SURVEILLANCE

CASE MANAGEMENT

KX has a flexible workflow tool to cater to your organization’s surveillance business processes. This case management framework allows clients to easily customize their alerts and case management workflows, capturing additional key information such as emails, announcements or any other relevant files.

TransactTime	Alert ID	Alert	Queue	Asset Class	Instrument	Assignee	Entity Value	Alert Instance	Ranking	ML Score
2020-01-01 08:	1130	unusualTradePriceMov	Open	equity	2222.SE		2222.SE+SAU_demoTrad: UTPM15: demo alert_3365i		Low	0.5
2020-01-01 09:	1097	spoofing	In Analysis	equity	2222.SE		2222.SE+SAU_demoTrad: SPG15: demo alert (TZ)_33i		High	9.07
2020-01-01 09:	1099	spoofing	In Analysis	equity	2222.SE		2222.SE+SAU_demoTrad: UTPM15: demo alert_3365i		High	7.55
2020-01-01 09:	1131	unusualTradePriceMov	Open	equity	2222.SE		2222.SE+SAU_demoTrad: UTPM15: demo alert_3365i		Low	0.49
2020-01-01 10:	1100	spoofing	Open	equity	2222.SE	Alexander	2222.SE+SAU_demoTrad: SPG15: demo alert (TZ)_33i		High	7.65
2020-01-01 10:	1142	baitAndSwitch	Open	equity	GAZP.MM		GAZP.MM+MICEX_demo BS27A: demo alert TOT_33i		High	7.84
2020-01-01 10:	1143	unusualTradePriceMov	Escalated	equity	2222.SE	locals	2222.SE+SAU_demoTrad: UTPM15: demo alert_3365i		Low	0.85
2020-01-01 10:	1144	unusualTradePriceMov	Escalated	equity	2222.SE	locals	2222.SE+SAU_demoTrad: UTPM15: demo alert_3365i		Low	0.74
2020-01-01 10:	1145	unusualTradePriceMov	Escalated	equity	2222.SE	locals	2222.SE+SAU_demoTrad: UTPM15: demo alert_3365i		Low	0.81
2020-01-01 11:	1146	unusualTradePriceMov	Escalated	equity	2222.SE	locals	2222.SE+SAU_demoTrad: UTPM15: demo alert_3365i		Low	0.02
2020-01-01 11:	1147	unusualTradePriceMov	Open	equity	2222.SE		2222.SE+SAU_demoTrad: UTPM15: demo alert_3365i		Low	0.2
2020-01-01 11:	1157	baitAndSwitch	Open	equity	GAZP.MM		GAZP.MM+MICEX_demo BS27A: demo alert TOT_33i		High	10.12
2020-01-01 11:	1065	orderToTrade	Open	equity	2222.SE		2222.SE+SAU_demoTrad: OTTB: demo alert (TZ)_336i		Low	0.12

BACKTESTING AND MARKET REPLAY

Regulators and bank compliance departments are dealing with ever increasing volumes of complex trading data which makes identifying anomalies difficult. With KX it is possible to backtest many years of trading data to efficiently calibrate scenarios together with increased use of machine learning to maximise detection of irregular behaviour whilst minimizing false positives.

ENHANCED SURVEILLANCE

Traditional surveillance techniques are based on monitoring and alerts for individual incidents of market abuse, which upon further review may lead to wider investigations, referred to as a bottom-up fundamental approach. Because KX has the capability to look at vast amounts of data to find anomalies, business users can use a thematic top-down approach, which gives broader intelligence for monitoring market abuse.