AQUIS
TECHNOLOGIES

AMS

The Aquis Market Surveillance (AMS) system is the stand-alone market surveillance system designed and built *by* surveillance professionals, *for* surveillance professionals.

AMS is a specialist system which provides market surveillance requirement solutions for exchanges, investment banks and brokers. The system is based on the proven market surveillance solution for the world's fastest exchange, Aquis Exchange*. AMS is a new generation of surveillance system specifically designed to effectively monitor algorithmic and automated trading in addition to more traditional trading flow.

AMS delivers a comprehensive solution for real-time supervision of a fair and orderly market, detection of potential abuse and compliance with exchange/company rules. It provides powerful tools to monitor high message volume and graphically displays for efficient visual analysis and order-book reconstruction. A fully optimised suite of alerts have been designed for real-time and historical analysis.

Designed and developed by leading exchange and markets surveillance experts, AMS is used, amongst others, by Aquis Exchange, an investment firm approved and regulated by the UK Financial Conduct Authority (FCA). The system is fully compliant with European Securities and Markets Authority (ESMA) guidelines, and addresses the requirements of the Market Abuse Regulation and the relevant sections of MIFID II.

KEY SURVEILLANCE FUNCTIONALITY

AMS has been designed to provide complete system control to the surveillance teams with an organisation offering scalable, effective, simple and rapid information retrieval for efficient analysis of all market activity. Owing to its flexibility, this highly customisable surveillance solution can be adapted for implementation within any market or asset class. A key differentiating factor and advantage of this system is that the in-house surveillance experts have complete parameter control.
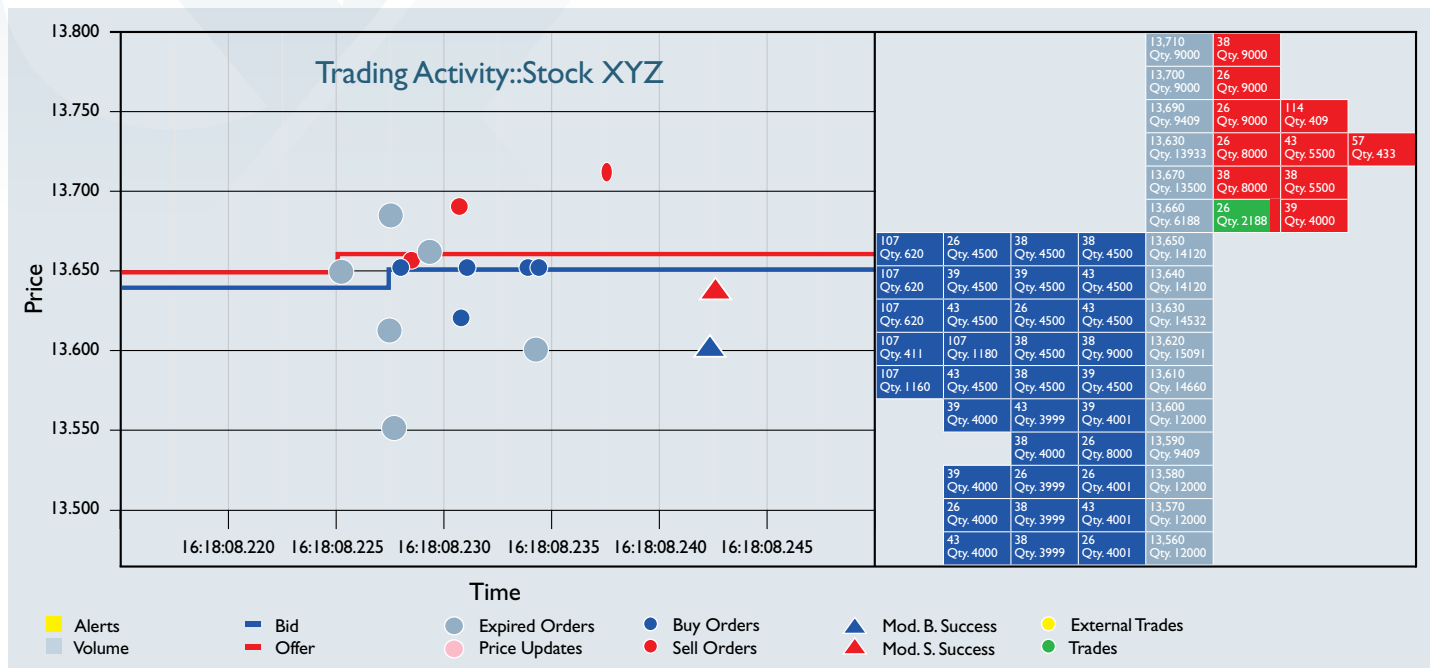
- **Unparalleled real-time capability** – The AMS processes above **130 million messages in under 6 seconds**.

- **Alert parameter calibration** – All alert parameters are easily adaptable and can be modified in real-time.

- **Real-time supervision** – The real-time alert stream identifies market volatility, disorderly trading conditions, potential breaches of exchange/company rules and specific market abuse scenarios.

- **Market abuse indicators** – Derived from complex algorithms and reflecting sophisticated alert logic. The alert suite can be divided into two sub-groups; Orderly Market alerts and Market Abuse alerts.

- **Order-book replay and visualisation** – Analysts can 'step through' the order book for a single consolidated view of all trading data. See opposite for market visualisation.

- **Message lifecycle display** – The system visualisation instantly displays the lifecycle of a specific order or trade in terms of submission, modification, cancellation and execution.

- **Multi asset class** – A suite of highly customisable alerts is offered, which can be configured to any asset class.

- **Case management** – During more detailed investigations information can be efficiently processed and saved chronologically.

- **MIS** – AMS offers powerful reporting tools to generate detailed records of alerts by type and user over a specified timeframe.

- **Sandbox** – Allows for re-runs, over historical periods, enabling deep integration and verification of calibration changes.

TIMELINE LONG TERM | GSKI | From: 22 Feb - To: 04 Mar | LOAD REPORT ▶

— External Trades   ◆ Internal Trades   ▬ Internal Volume
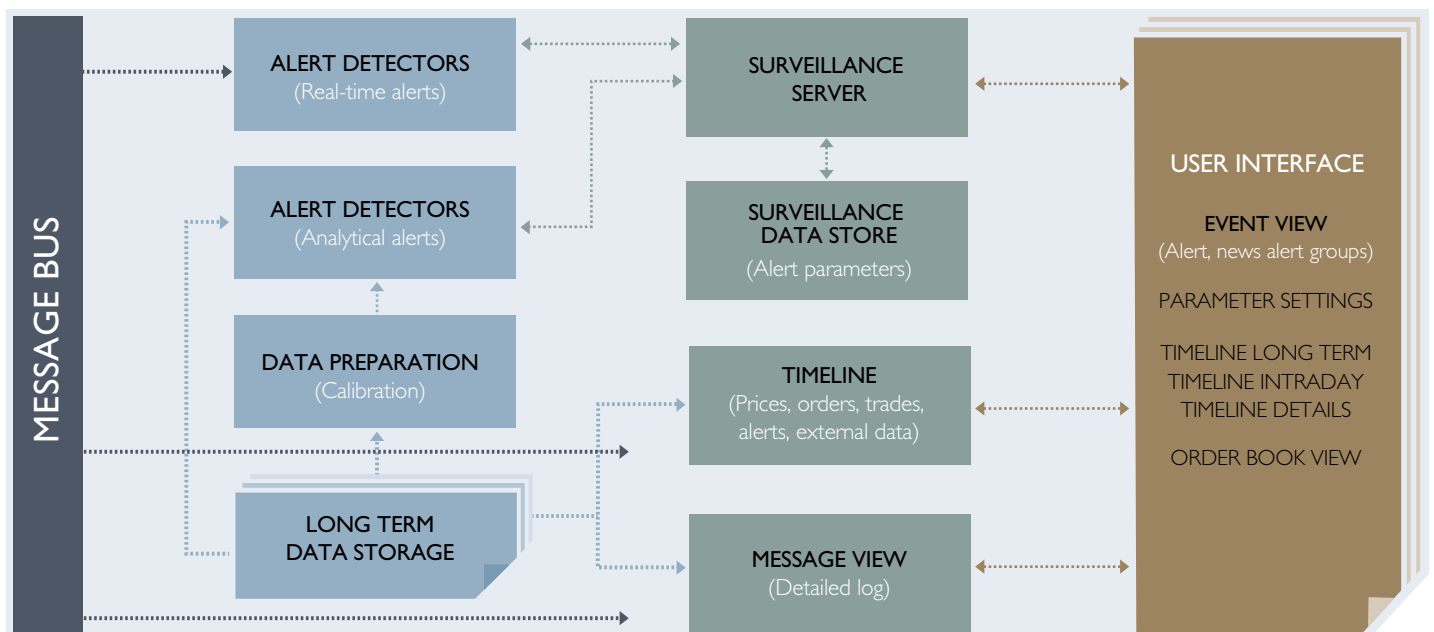
* Aquis Exchange, the pan-European subscription based equity trading system, operates a highly performant matching engine with average **round trip latency measuring under 17µs** in a wide range of market conditions.

TIMELINE AND ORDER BOOK GRAPHICS

The detailed timeline graphic and order-book replay functionality enables compliance officers to perform detailed step by step visualisation and analysis of the order book down to microsecond granularity.

Trading Activity::Stock XYZ

Price axis: 13.500, 13.550, 13.600, 13.650, 13.700, 13.750, 13.800

Time axis: 16:18:08.220, 16:18:08.225, 16:18:08.230, 16:18:08.235, 16:18:08.240, 16:18:08.245

Order book cells:

				13,710 Qty. 9000	38 Qty. 9000
				13,700 Qty. 9000	26 Qty. 9000
				13,690 Qty. 9409	26 Qty. 9000	114 Qty. 409
				13,630 Qty. 13933	26 Qty. 8000	43 Qty. 5500	57 Qty. 433
				13,670 Qty. 13500	38 Qty. 8000	38 Qty. 5500
				13,660 Qty. 6188	26 Qty. 2188	39 Qty. 4000
107 Qty. 620	26 Qty. 4500	38 Qty. 4500	38 Qty. 4500	13,650 Qty. 14120
107 Qty. 620	39 Qty. 4500	39 Qty. 4500	43 Qty. 4500	13,640 Qty. 14120
107 Qty. 620	43 Qty. 4500	26 Qty. 4500	43 Qty. 4500	13,630 Qty. 14532
107 Qty. 411	107 Qty. 1180	38 Qty. 4500	38 Qty. 9000	13,620 Qty. 15091
107 Qty. 1160	43 Qty. 4500	38 Qty. 4500	39 Qty. 4500	13,610 Qty. 14660
	39 Qty. 4000	43 Qty. 3999	39 Qty. 4001	13,600 Qty. 12000
		38 Qty. 4000	26 Qty. 8000	13,590 Qty. 9409
	39 Qty. 4000	26 Qty. 3999	26 Qty. 4001	13,580 Qty. 12000
	26 Qty. 4000	38 Qty. 3999	43 Qty. 4001	13,570 Qty. 12000
	43 Qty. 4000	38 Qty. 3999	26 Qty. 4001	13,560 Qty. 12000

Legend:
- Alerts
- Volume
- Bid
- Offer
- Expired Orders
- Price Updates
- Buy Orders
- Sell Orders
- Mod. B. Success
- Mod. S. Success
- External Trades
- Trades

THE AMS SYSTEM INFRASTRUCTURE

MESSAGE BUS

- ALERT DETECTORS (Real-time alerts)
- ALERT DETECTORS (Analytical alerts)
- DATA PREPARATION (Calibration)
- LONG TERM DATA STORAGE

- SURVEILLANCE SERVER
- SURVEILLANCE DATA STORE (Alert parameters)
- TIMELINE (Prices, orders, trades, alerts, external data)
- MESSAGE VIEW (Detailed log)

USER INTERFACE

EVENT VIEW (Alert, news alert groups)

PARAMETER SETTINGS

TIMELINE LONG TERM
TIMELINE INTRADAY
TIMELINE DETAILS

ORDER BOOK VIEW

CONTACT DETAILS

Sales
For sales enquiries, please email sales@aquis.eu or call **+44 20 3597 6311**

Post Sales
For general technical enquiries, please email **support@aquis.eu**

Communications
For press and marketing enquiries, please email **marketing@aquis.eu**