



QUALITY TRADING SOLUTIONS

EXCHANGE SYSTEM AIXECUTE EXCHANGE MADE SIMPLE

INFORMATION BROCHURE

aixecute

Exchange	Trading	CTS	TSS	Last Price	Last	BSize	Bid	Ask	Order	...
XVTX	CHF	TRD	OPN	18:08:21	4'306.00	93'249	4'304.000	4'306.000	95'211	...
XVTX	CHF	TRD	OPN	18:07:55	2'175.00	537	2'173.000	2'175.000	551	...
XVTX	CHF	TRD		18:08:25	5'060.00	1'008	5'040.000	5'060.000	627	...
XVTX	CHF	TRD	OPN	18:07:17	2'043.00	1'252	2'024.000	2'043.000	1'100	...
XVTX	CHF	TRD	OPN	18:08:29	998.50	2'417	998.500	1'000.000	571	...
XVTX	CHF	TRD	OPN	18:07:53	66.15	1'224	66.000	66.150	60	...
XVTX	CHF	TRD	OPN	18:08:00	91.80	23'330	91.800	91.850	2'625	...
XVTX	CHF	TRD	OPN	18:05:55	10.03	2'019	10.000	10.030	475	...
XVTX	CHF	TRD	OPN	18:07:50	52.85	1'732	52.850	53.100	60	...

EXCHANGE MADE SIMPLE

Our exchange system AIXECUTE is a complete exchange solution which integrates all necessary components. This avoids long and complex integration of various software products. AIXECUTE is the ideal solution for banks wanting to run their own internal market place, or exchanges covering all asset classes. The product is scalable for larger volumes.

AIXECUTE has everything you require:

MATCHING ENGINE - THE HEART OF AN EXCHANGE SYSTEM

The Matching Engine brings together all buy and sell orders according to the rules and priorities set by the stock exchange. The powerful set of rules processes the information from the orders in a split second, determines the new state of order book and the best bid and ask prices. Order book states such as 'Stop Trading' can be activated for special orders or when certain predefined conditions occur, which require clarification between buyer and seller. Of course, the common order types are supported.

INTERFACES TO MARKET DATA VENDORS

All market data can be sent from the stock exchange to vendors (Bloomberg, Reuters, Telekurs) in real time, allowing price data to be published worldwide in real time (subject to any local regulations). We can provide interfaces to other vendors depending on customer requirements.

TRADING FRONT END

We can provide the user interface of our powerful trading system for customers of the stock exchange. With the trading front end customers are able to manage their orders at the exchange. More information is available on our website www.macd.com under Offering.

FIX CONNECTIVITY

Integrating other existing trading systems with our FIX interface is straightforward. We already support a number of established platforms. Additional connections can be implemented on request.

The screenshot displays the AIXECUTE Operations Client interface. It features a navigation pane on the left with categories like 'Static Data', 'Security History', 'Security Cash Flow Event', 'Security Indices', 'Security Index Descriptions', 'Security Sectors', 'Security Qualification Queries', 'Calendar', 'Users', and 'Qualified Investor Pins'. Below this is a filter section with criteria for 'isin', 'exchangeId', and 'currency'. An alerts section is also visible. The main area shows a table of order book data with columns for 'Update T...', 'Security Short Name', 'Order Book St...', 'Internal Order Book State', 'Order Book State Start', 'Order Book State End', 'Best Buy Price', 'Best Sell Price', 'Curr...', 'Exchange...', and 'Internal Or...'. A 'Details for Order Book' window is open, showing a 'Trading Halt Order Book' section with options for 'Until further notice', 'For 15 minutes', and 'Until [date time]'. It also displays 'Update Time', 'Security Short Name', 'Order Book State', and 'Internal Order Book State'. To the right, an 'OrderBookPosition' window shows 'Buy Side' and 'Sell Side' tables with columns for 'Level', 'Number Of ...', 'Size', and 'Price'.

AIXECUTE Operations Client

OPERATIONS CLIENT - THE COCKPIT OF THE STOCK EXCHANGE

The Operations Client controls and monitors market activity. It provides an overview of the transactions and support functions for the market operations team. You have access to master data, such as trade opening times and can manage your instruments and indices. Manual actions such as 'Stop Trading' can be initiated with this tool, any automatic 'Stop Trading' events can also be tracked. All other operations tasks can be monitored initiated from here.

INDEX CALCULATION

AIXECUTE supports the calculation of indices based on specially defined values of a desired group of listed companies. This includes ongoing automatic calculation and dissemination of index data to the vendors as well as updating the information on the stock exchange website in real time.

LINK TO SETTLEMENT

All transactions can be automatically transferred to the connected settlement organisation, or some securities can be marked for manual settlement and are excluded from the automatic settlement process.

REPORTING

Certain actions, such as off-exchange trades where price discovery took place, can be subject to reporting obligation by the local regulators. A dedicated entry dialog on the stock exchange website allows the entry of appropriate information for all types of financial transactions. These are automatically processed in AIXECUTE and will be distributed to the relevant regulatory authorities as required.

WEBSITE-HOSTING

The exchange website allows you to present your stock market brand. Of course, the instruments information is available and current prices and other market events are visible as well. We not only create your exchange website according to your requirements, we also handle the administration and the maintenance work for you.

INVOICING

The invoicing provides automatic compilation of all chargeable transactions per stock exchange member.

RUNNING AIXECUTE

AIXECUTE can be implemented in two different ways:

INSOURCING - RUN AT CLIENT'S SITE

AIXECUTE can be run in the clients own data centre. In this solution the software is installed at the client's site. The client monitors the connection themselves or, alternatively, delegates this to MACD with remote access.

OUTSOURCING - HOSTING BY MACD

The ASP model (Application Software Provider) includes a connection to AIXECUTE which enables access to all markets available in the GLOX network. This model is cost efficient because the IT footprint remains very small. MACD runs, maintains and monitors the systems and can react immediately. Our dual-site model with two data centres ensures very high reliability and availability of the system.

Using a hosted solution has a range of benefits:

- ✓ **MONITORING**
We have a fully automated alert and alarm system that ensures that we can pro-actively address problems as they occur.
- ✓ **HARDWARE**
We buy, maintain and replace hardware as part of the fixed price.

- ✓ **UPGRADES**
We perform necessary software and hardware updates to ensure that the systems remain up to date.
- ✓ **RESOURCES**
Save costs through shared resources with other customers. An example is market connectivity where we maintain the exchange connection and thereby reduce your infrastructure.
- ✓ **NETWORK EFFECT**
Our customers can benefit by establishing links to other customers in our trading network. For example, a bank may act as a broker to other customers for a specific asset class. Or an exchange might benefit from our customer base as potential new participants.
- ✓ **ENVIRONMENT**
Through shared resources and modern virtualisation techniques, we are able to match the energy usage to the required performance. In this way the total energy use can be significantly reduced.

SERVICE AND SUPPORT

Our highly motivated and very well educated support and development team is experienced in helping you with issues. Our team in Maur and Urdorf (Zurich) attends personally to your concerns.





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Not only on the first trading day but also for example for system changes or a migration we are happy to visit you personally to consult and ensure a smooth process. Of course we also visit you regularly to collect your feedback and to ensure your satisfaction.

SHAPING THE FUTURE WITH MACD!

Take advantage of our many years of knowledge in the securities trading sector and our comprehensive offering:

- ✓ We create process analyses.
- ✓ We carry out feasibility studies.
- ✓ We plan your individual project.
- ✓ We develop the software.
- ✓ We take over the hosting.
- ✓ We advise and train you.
- ✓ We support you personally.

ABOUT MACD

As specialist for electronic trading, MACD has been successfully developing products and services for financial institutions for more than 20 years.

The company is market leader in trading connectivity in Switzerland. More than 60 banks and exchanges across Europe trust in the comprehensive range of services in software development, project management, consulting, hosting and support.

Around 40 IT engineers, computer scientists and economists are working on innovative solutions at locations in England, Germany and Switzerland.

Since 2004 MACD has been a member of the [FIX Trading Community](#), where George Macdonald, CEO MACD has been involved in various roles, including director.

www.macd.com