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FIX Antenna C++

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FIX Antenna™ C++ is specifically designed to deliver high performance. It can deliver over 60,000 messages per second on a single CPU and has been benchmarked at 30,000 messages per second across 200 sessions. This level of performance means it is an ideal solution for exchanges, sell sides and program trading operations. FIX Antenna C++ FIX engine is currently deployed in some of the most demanding environments in the world.

All libraries/servers are pre-configured for and certified with multiple exchanges. Our products come with a 24x7 support provided worldwide.

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Feature	Description
High throughput / low latency	The highest performing FIX engine in existence. Adds up to **16** microseconds' latency on 100 Mbps network with persistence and **6** microseconds' latency on 100 Mbps network without persistence. Allows configuring sending/receiving prioritization for session. In transient mode it can deliver over **115,000** messages per second.
Supports standard FIX	• 100% FIX standard compliance: ○ FIX 4.0, 4.1, 4.2, 4.3, 4.4, 5.0, 5.0 SP1, 5.0 SP2 ○ FAST 1.1, 2.0 • Message validation • Customizable FIX protocol. Create your own FIX dialect e.g. defined extra field for a message, change “required” attribute, etc. in a friendly XML format • Multiple session management ○ Supports up to 200 concurrent sessions on a single instance on recommended hardware. ○ Each session can be configured separately. FIX Dialect can be configured for session • Guaranteed delivery ○ Relies on the store and forward technique ○ Flat files are used for persistence to achieve maximum performance • Standard FIX routing based on DeliverTo and OnBehalfOf fields
Delivery modes	• Later delivery mode allows unsent messages to be stored in queue and delivered later when connection is re-established • Rejecting mode allows messages, which cannot be sent during some reasonable time (customizable), to be rejected

Feature	Description
Highly customizable FIX session level	• Different modes of handling sequence number during logon and reconnect • Intraday logout tolerance • Custom logon message • Force sequence number reset on logon
Security	• Standard FIX authorization utilizing username and password fields in FIX Logon message • FIX encryption to work in non-private networks: DES and PGP-DES-MD5 schemes • SSL
Reliability vs. performance	• Supports transient sessions, which do not use any persistence. This significantly increases performance giving up recovery
Performance tuning	• Ability to enable or disable Nagle's algorithm to minimize latency or maximize throughput • Ability to configure (or turn off) the number of messages to be joined in a bunch before sending • Ability to dedicate threads for session for sending and receiving data, to minimize overhead on context switching
Monitoring and administration	• Built-in remote monitoring and administrative interface for sessions monitoring and management • Rich monitoring and administration GUI out of the box
Message composition API	• FIX flat message model — generic model to work with the abstract FIXMessage class via fields and groups getters and setters, which gives the highest performance • FIX object model — each FIX message type is a class with FIX fields as members, using intellisense to make working with FIX business object more pleasant
Integration	• User-friendly intuitive pure ANSI C++ public interface • Is supplied as a dynamic library (.dll) for Windows or a shared object dynamic library(.so) for Linux
Message composition API	The package includes: • Library • Header files • Programmer's Guide • API Guide • Quick start sample • Echo Server sample • Simple Client sample • Benchmarks • CME Globex client sample

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