AlgoTrader

PRODUCT UPDATES | 13 JULY 2020

Release Notes

We are constantly adding new features to extend the AlgoTrader funcionality and make it more efficient – to provide our clients with the best possible trading experience.

Find below the list of our latest release notes including recent changes in AlgoTrader.

Version 6.1

- Redesigned UI for desktop and mobile devices
- New adapters
  - Refinitiv Elektron
  - Bloomberg Tradebook
  - Gemini
  - LMAX Digital
  - Bittrex
  - eToroX
  - Blockfills
  - Crypto Broker
  - Enigma Securities
- Execution Algo & Smart Order Routing UI
- REST API extensions
  - Rate Limit endpoint
  - Health Check endpoint
  - New Marketdata subscription endpoint
- System monitoring capabilities for
  - Performance (e.g. Tick-to-Trade)
  - System Health-State
  - Resource consumption (e.g. CPU usage, SQL queries and HTTP calls)

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- New example strategies
  - Market maker strategy
  - Relative Strength Index (RSI) strategy
- Other
  - Full order book support during back tests
  - Inbound FIX API support for execution algos
  - Fee handling functionality
  - Smart routing for simple orders
  - Decommissioning of the Coinigy adapter

Version 6.0

- New adapters
  - Deribit
  - Huobi
  - OKEx & OKCoin
  - Kraken
  - BitHump
- Level II order book
  - Level II order book for all adapters/exchanges
  - Order book UI
  - Order book events available to strategies
  - Aggregated order book across exchanges
  - Execution algo exchange selection based on order book data
- Integration of Hazelcast Cache
  - Replacement of the previous Level Zero Cache
- Example strategies
  - NLP strategy
  - Short Strangle strategy
  - Delta Hedge strategy
- Other
  - Reference data can now be downloaded automatically upon startup
  - Subscribe and unsubscribe during InfluxDB based back tests

Version 5.2

- Generic events
  - Full support for generic events that can contain (i.e. corporate actions, external signals, alternative data, and news / social-media-sentiment data)
  - Strategies can subscribe to these events for analysis and signal generation
  - Generic events can be persisted in InfluxDB

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- OTC RFQ Functionality
  – Full support for RFQ (Request for Quote) processes
- New adapters
  – Intrinio
  – Binance
- User Interface extensions
  – Visualization of orders and execution in the TradingView chart
  – Integrated RFQ functionalities
- Historical data management
  – Persistence of Trade and Quote into InfluxDB
- Example strategies
  – Spreader example strategy

Version 5.1

- Strategy development
  – Full Python support

Version 5.0

- Order Execution
  – Smart order routing (SOR) execution algos
  – Algo order entry UI
  – Algo order parent / child display
  – Algo order persistence
  – Display Algo Order State in UI
  – Order Custom Pre-Trade checks
- New adapter related extensions
  – Crypto-adapter order reconciliation on WebSocket reconnect
  – Generic inbound FIX interface
  – Handling of crypto Fees
  – Support for crypto withdrawals & deposit address query
  – Encryption of API keys
  – Support non spot-cryptos with CoinAPI
  – Make send, cancel & modify order non-blocking

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- New adapters
  - coinbase Prime & Pro (GDAX) adapter
  - Exante
- Strategy development
  - Python strategy live trading support
  - Subscribe to Account/Deposit events via WebSocket
  - JSON based properties on all Entities
- AlgoTrader UI
  - Reference data management UI
  - Historical data management UI
  - Display of CashBalances in the UI
  - Perpetual swaps P&L calculation
  - Add Trade Action to Market Data & Position table
- Others
  - Migrate UI Entities to TypeScript
  - Spring profile validation on startup
  - Disseminate LifeCycleEvents event to strategies running in distributed mode
  - Run flyway-migration on startup
  - Eliminiate FutureFamily, OptionFamily, GenericFutureFamily and BondFamily
  - Merge FeedType, Broker and OrderServiceType
  - Upgrade to Java 8 Date/Time API

Version 4.5

- User Interface extensions
  - Allow Trading View chart to display data from historical data adapters
  - Switch UI tables to AG Grid
  - Switch UI to TypeScript
  - Add React DataGrid update throttling
  - Enable CSV Export
  - Improve security search experience
  - Show execution algo properties in the UI

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- New Adapters
  - PrimeXM
  - SocGen
  - Bitflyer
  - Bitfinex
  - Bitstamp
  - Binance
  - BitMEX
  - CoinAPI
  - CoinMarketCap
- Historical Data Management
  - CoinAPI historical data download
- New Adapters Related Features
  - Implemented crypto margin and exchange trading
  - Balances download
  - Withdrawal of cryptocurrencies
  - Fees can be configured in %
  - Currency code mappings
  - Automatic connection gap detection
  - Automatic reconnect
  - Rest and WebSocket message synchronization
- New execution algos
  - TWAP
  - VWAP
- Others
  - Use Swagger for REST API documentation

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Version 4.0

- Major Changes
  - InfluxDB integration
  - Cryptocurrency trading through Coinigy
  - Support HTML customizations
- New Adapters
  - Coinigy
  - QuantHouse
  - Nexus Prime
  - UBS
  - Quandl
- Historical Data Management
  - use InfluxDB time-series-database
  - Quandl Historical Data Download
- Market Data
  - QuantHouse low latency market data
  - Live data recording
  - Ad-hoc bar aggreation
  - Propagate BidVO, AskVO and TradeVO events to strategies
- Domain Model
  - Decimal quantities on Orders, Transactions, Positions, etc.
- Order Processing
  - ExecutionModel
  - Support OrderCompletion events for AlgoOrders
  - PositionMutationEvent
- Backtesting
  - Stream Historical Data from InfluxDB
  - Base Strategy Name
- IB Interface
  - Process IB RTVolume
  - IB calendar spread support
  - IBOrderIdSynchronizer

- Archetypes
  - algotrader-archetype-simple
  - algotrader-archetype-esper
- Example Strategies
  - EMA strategy
  - Random strategy
  - HTML5 based example strategy monitoring

Version 3.0

- Major Changes
  - HTML5 based web frontend
  - Docker based installation and deployment
  - Excel based back test report
  - Execution algo API redesign
- New execution algos
  - VWAP
  - Target position
  - Trailing limit
- Installation & Deployment
  - Use of Flyway command line
  - Generate separate assemblies for client & core
- Domain Model
  - Added CNH, CZK, DKK, HUF, ILS, MXN currencies
  - Generate VOBuilders
- Database
  - Security family & security mapping changed to one table per hierarchy
  - Updated database sample data
- Esper
  - Added ExponentialMovingAverage function
  - Engine callback API redesign
- Futures & Options
  - Added future monthYear

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- Market Data
  - CvsTypeCoercer to accept yyyy-MM-dd HH:mm:ss format
  - Market data price normalization
- Adapters
  - Added DropCopy for TT & LMAX
- Events & Messaging
  - Added embedded ActiveMQ message broker
  - Added Websocket infrastructure
- Processes & Networking
  - Added embedded Jetty HTTP server
  - Added optional TLS transport security & BASIC auth

Version 2.3

- Strategy Development
  - Support for strategy groups
  - Added local MarketDataCache
  - Simplified strategy starters
- Adapters
  - Added Trading Technologies Fix interface (trading, market data & reference data)
  - Added Fortex Fix interface (trading & market data)
  - Added FIX session life cycle events
  - Add Trading status events for LMAX
  - Redesigned IB interface
  - Added suport for fix-jdbc-message-store
  - Support custom logging per Fix session
- Event Handling
  - Added event dispatch framework
  - Added event listeners
  - Added strategy life cycle events (INIT, PREFEED, START & EXIT)
  - All events are now ValueObjects
- Distributed Cache Manager
  - LookupService now uses CacheManager instead of DAO's
  - CacheManager / GenericDao are now available to strategies

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- New entity / VO generation framework
  - Added Entity Visitors
  - Entities, Entity Interfaces, Value Objects and Entity to VO Converters are now generated using Hibernate tools
  - Entity identifiers now use long instead of int
  - Enhanced equals and hashCode methods
- New DAO Framework
  - AbstractDAO is now base class of all DAO's
  - Finders have been moved to Hibernate.hbm.xml
- Esper Enhancements
  - Enhanced syntax for Esper statement subscribers
  - Esper Engine is now configured through Spring
  - Replaced EngineLocator with Spring EngineManager
  - Strategy initModules and runModules are now configured through Spring
  - Spring Services are now available to Esper statements directly
- Order Management Enhancements
  - Replaced Esper based OpenOrderWindow with Java based OrderRegistry
  - SlicingOrder: assure minimum quantity on the last slice
  - Exchange can now be set directly on an Order
  - OrderStatus events now include lastQuantity attribute
- Miscellaneous Enhancements
  - Migration to Spring Configuration annotations
  - Harmonized date / time formats
  - New Entity Security Reference
  - GoogleFincanceDownloader
  - Enhanced reset service
  - New Reports TradeReport & PortfolioReport
  - Updated DB sample data
  - Remove margin / exit value from position
  - Remove support for server side close position
  - Trading hour definitions are now optional
  - Client now shows unrealizedPnL & FX Exposure

- 3rd Party Library Upgrades
  - Java 1.8
  - Esper 5.2.0 (5.3.0?)
  - Hibernate 4.x
  - Spring from 3.x to 4.x
  - Log4J 2.x

Version 2.2

- Additional Fix Trading and Market Data Interface
  - LMAX
  - FXCM
  - Currenex
  - DukasCopy (added market data interface)
- Add Calendar Service, Exchange, Trading Hours and Holidays)
- Eclipse based strategy creation wizard
- Eclipse based config editor
- New configuration manager
- Support custom order properties
- Generic symbology resolver
- Persist order and order status to database
- Report Manager
- Weekly options
- Market-on-open, limit-on-open, market-on-close and limit-on-close
- Order completion event
- Order recovery
- In-process exchange simulator
- Add flyway for database migration
- Add csv diff tool
- 3rd Party Library updates (Esper 5.1.0)

Version 2.1

- New Instruments: Bond, Fund & Commodity
- Overhaul AlgoTrader Reference Data Manager (based on Grails)
- RealTick Fix interface
- Fix market data interface
- Enable multiple concurrent market data streams
- AlgoTrader Maven Archetype to generate new projects
- Embedded in-memory DataSource based on H2 database
- Bloomberg Historical data and security retriever interface
- BreakOut Example Strategy
- Allow broker specific parameters (e.g. commissions)
- More flexibility on market data file naming
- ManagementService: allow securityId, symbol, isin, bbgid, ric and conid for security definition
- Switch from LIFO to average cost
- East-to-Borrow list for stocks
- Overhaul Esper Engine management (EngineLocator, Engine, AbstractEngine and EngineImpl)
- Overhaul Spring Proxy generation
- Enable client specific code generation based on UML
- 3rd Party Library updates (Esper 4.11.0)

Version 2.0

- Multi Account Handling
- Bloomberg Market Data Interface
- Level-Zero Cache
- New Execution Algorithm "Disbtributional"
- InteractiveBrokers Financial Advisors Handling over FIX
- SABR Option Pricing Engine
- Single-JVM Live-Trading Mode
- Eclipse Colorer Integration
- Support for Global Industry Classification Standard (GICS)
- Relate Component to Combination instead of Security
- DocBook based documentation
- Add JavaDoc Comments

- Client Expert Mode
- 3rd Party Library updates:
  - Esper 4.9
  - Spring Framework 3.2.3
  - Spring Integration 2.2.4
  - Hibernate 3.6.10

Version 1.12

- Esper 4.8
- Use Spring integration for mail reconciliation
- Esper Threading
- Hibernate Locking
- Portfolio Value Restoring
- OpenPositionCallback / ClosePositionCallback
- Generic approach for Bars and Ticks
- FIX
  - FIX 4.4
  - DukasCopy Fix interface
  - Init orderId from log-file
  - Weekly Fix logon/logoff
- Client
  - Markers, Annotations, Description & Crosshair
  - Monitoring & Rechability Checking & Notifications
- Market Data Snapshots
- Strategy Properties
- Market Data Gap Checking
- Position Realized P/L
- Handle crossed spreads

Version 1.11

- Reconciliation (IB / RBS / UI)
- SimpleOrders vs AlgoOrders (e.g. SlicingOrder)
- Fix Interface

- OrderPreference
- PorfolioValue logging and charting
- MailMessageReceiver
- AndroMDA 3.4
- ForexFuture / FX Hedging by ForexFuture

Version 1.10

- GenericEvents
- Update Charting Functionality (add Indicators & Bars)
- JMX over SSL

Version 1.9

- SyntheticSecurities (Combinations / SyntheticIndices)
- AlgoTraderSSHClient
- PropertyService / PropertyHolder / Property
- Improve Hibernate Sessions Handling / Caching
- Metrics Logging
- PortfolioService
- General performance optimizations

Version 1.8

- IncrementalLimitOrder
- HistoricalDataService HistoricalBars
- MBean annotations
- SecurityFamily TickSizePattern
- Measurement & MeasurementService

Version 1.7

- Update ServiceLocation & configuration
- Separation of code into core and common
- Update account functionality
- Reconciliation
- OrderValidation
- TWS 921.5 / IB Gateway 921.5 / IB Client 9.65 / IBController 2.9.0
- Esper 4.5

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Version 1.6

- TickCallback and OrderCallback
- Combinations & allocations
- Asynchronous event propagation using ActiveMQ
- Convert Model to UML2.0
- Esper 4.4

Version 1.5

- async Order & MarketDataService
- Esper 4.3

Version 1.4

- GenericFutures
- Cash balances & FX-equalization
- Management service diagrams
- MarketDataEvents (Bars, Bid, Ask & Trade)
- AndroMDA 3.4 SNAPSHOT
- Maven 2
- Esper 4.2

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About AlgoTrader
AlgoTrader is the global institutional leader in algorithmic trading and execution infrastructure for both digital and traditional assets.