

## **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 6.3.0

- ✓ UI for balances on exchange and in custody
- ✓ Blockchain transfers UI and API
- Fireblocks integration for balances and transfers
- Multi-level portfolio hierarchies
- ✔ Real-time portfolio reporting on single or multi-portfolio level
- New adapters
  - Bitcoin Suisse
  - Eqonex
  - Bitpanda
  - FTX
  - Huobi Derivatives
  - CoinMarketCap
- Order management
  - Configurable pre-trade checks
  - Limit price support for TWAP, VWAP and POV execution algos
  - Support for order properties via UI
- ✓ Other
  - Multi-account support for historical data services
  - Replacement of the internal Esper CEP engine with project reactor

## Version 6.2.1

- New Exchange Adapters
  - Sino
  - Live Rates

#### PRODUCT UPDATES | 19 JULY 2021

## Version 6.2

- Trading data and performance visualizations
  - Portfolio value dashboard
  - Custom metrics visualization
- New adapters
  - Binance Futures
  - Poloniex
  - Sino
- Separation of venue adapters into separately deployable components
- ✓ Identity and access management through Keycloak
- Browser-based configuration UI
- Multi account support
- ✓ New execution algos
  - Market Sweep
  - Sniper
  - Percentage of Volume
  - lceberg
- Extended inbound FIX interface with support for
  - RFQ
  - Market data
  - Algo order
- New example strategy
  - EMA Kotlin strategy
- Bond trading capabilities
  - DV01 calculation
  - Nelson-Siegel interpolation
  - Coupon frequency
  - Bond rating
- ✓ Other
  - Support for Java 11
  - Generic events extension

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## **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)
- ✓ 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
  - IBOrderldSynchronizer

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- 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

#### PRODUCT UPDATES | 19 JULY 2021

- ✓ 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

#### PRODUCT UPDATES | 19 JULY 2021

- 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

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- ✓ 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

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- ✔ 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



## 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

