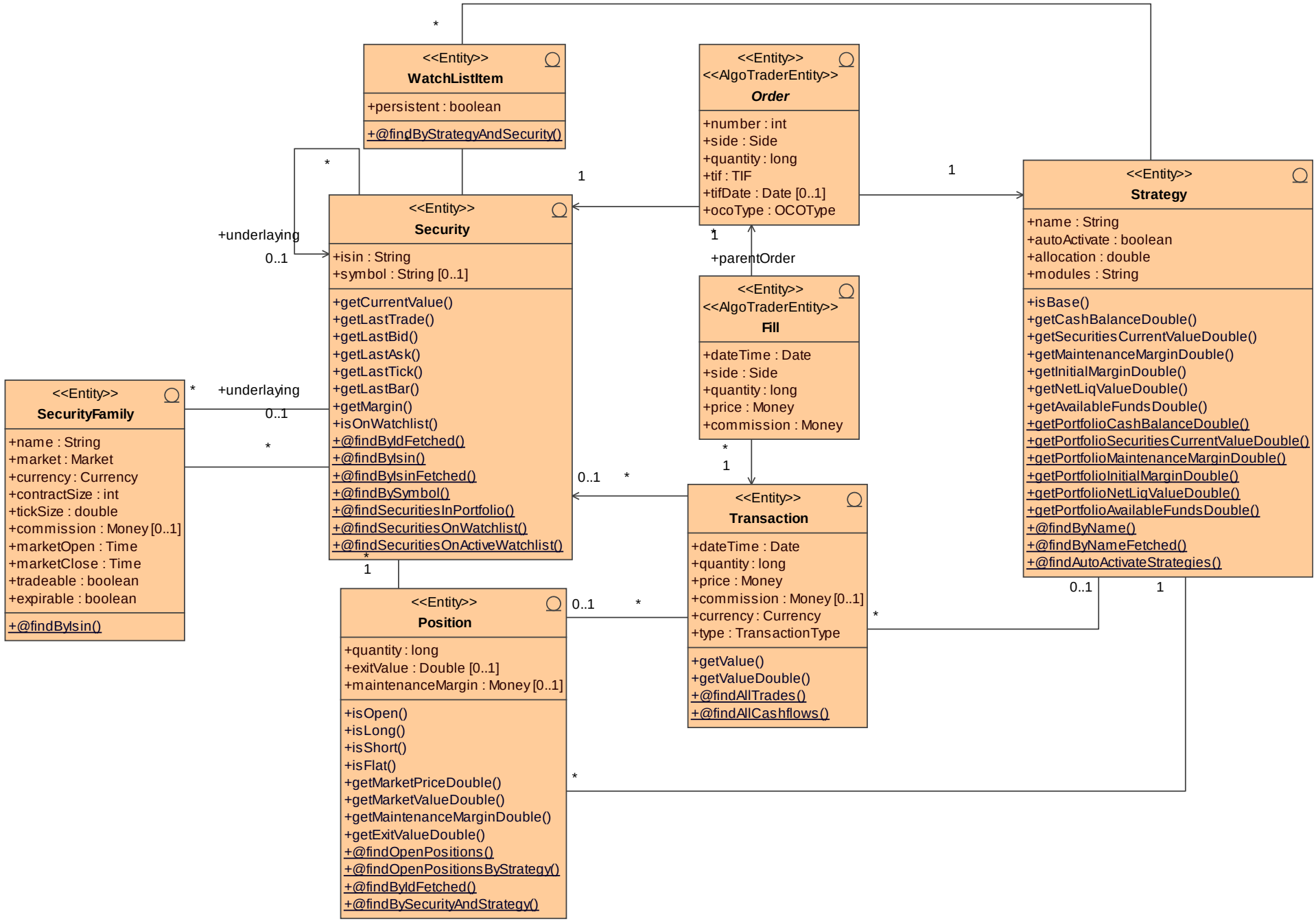
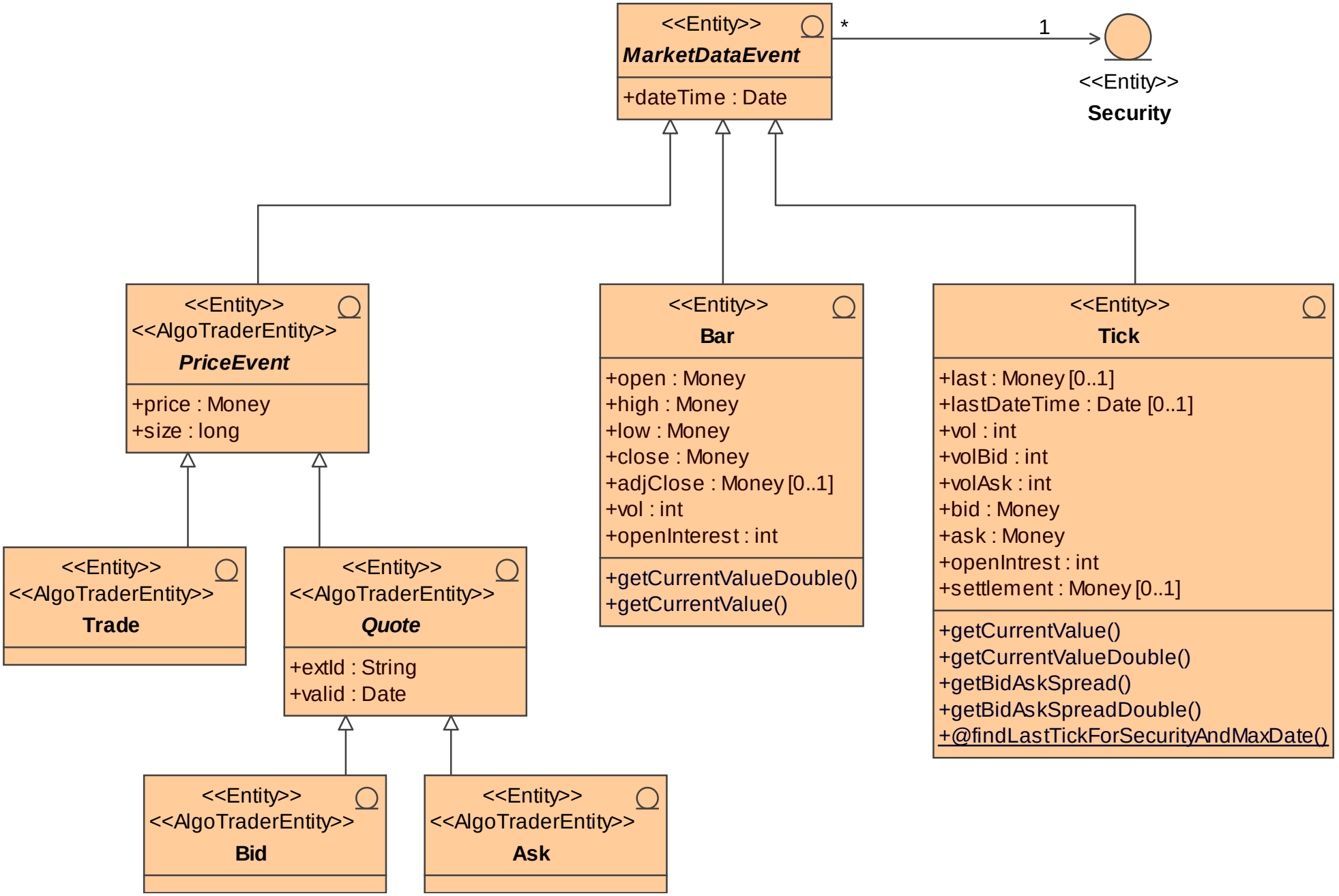
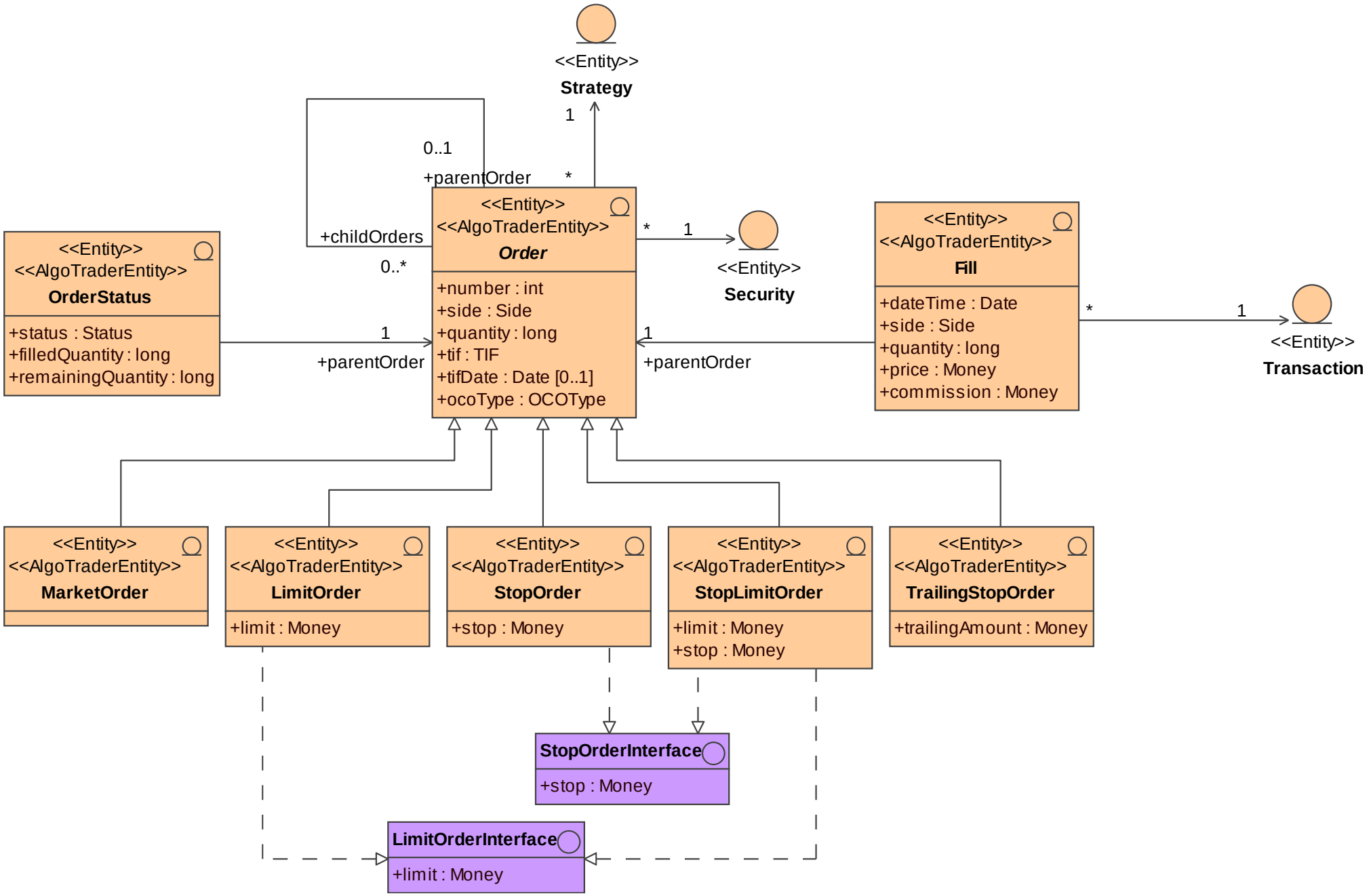
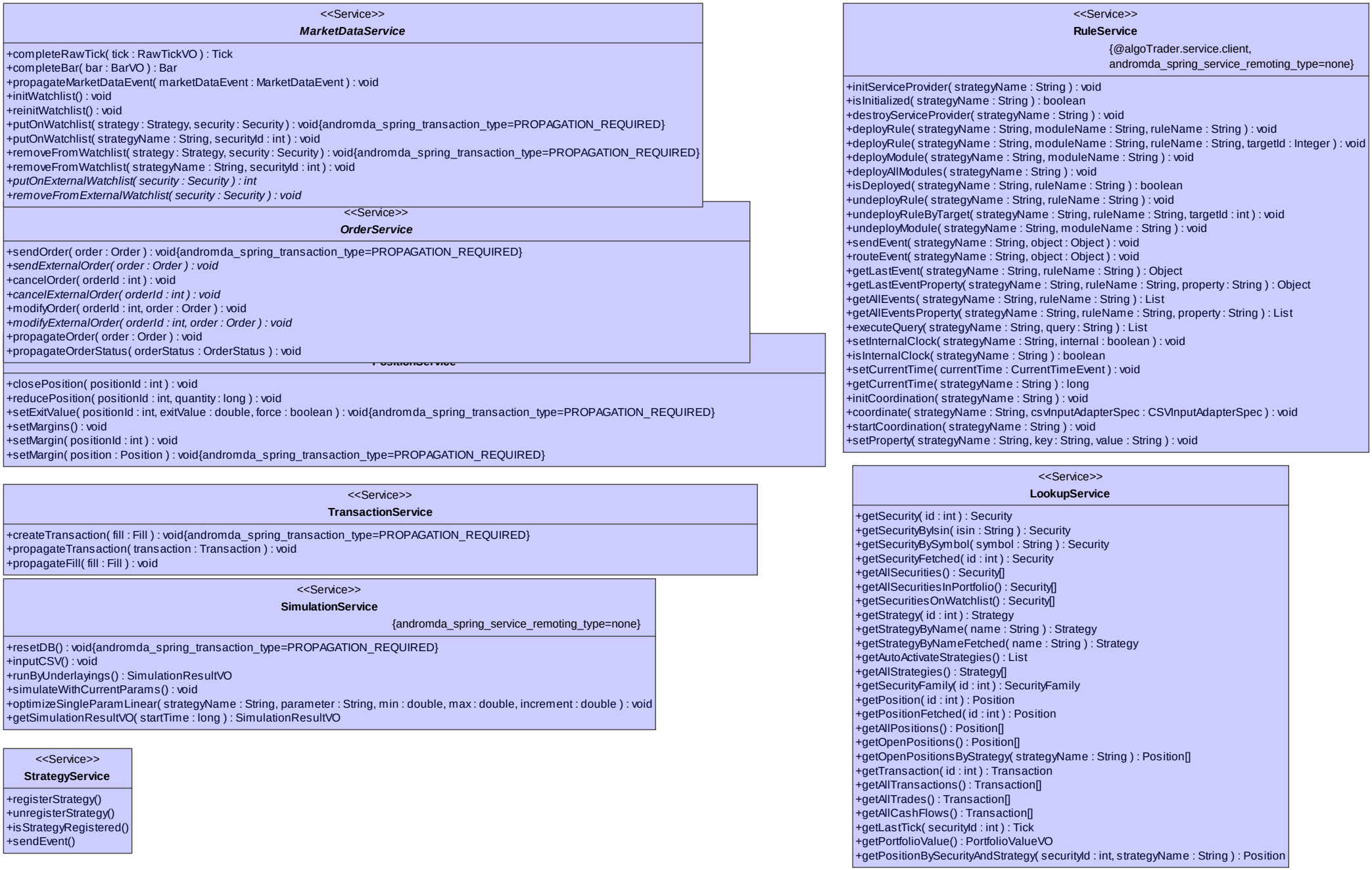
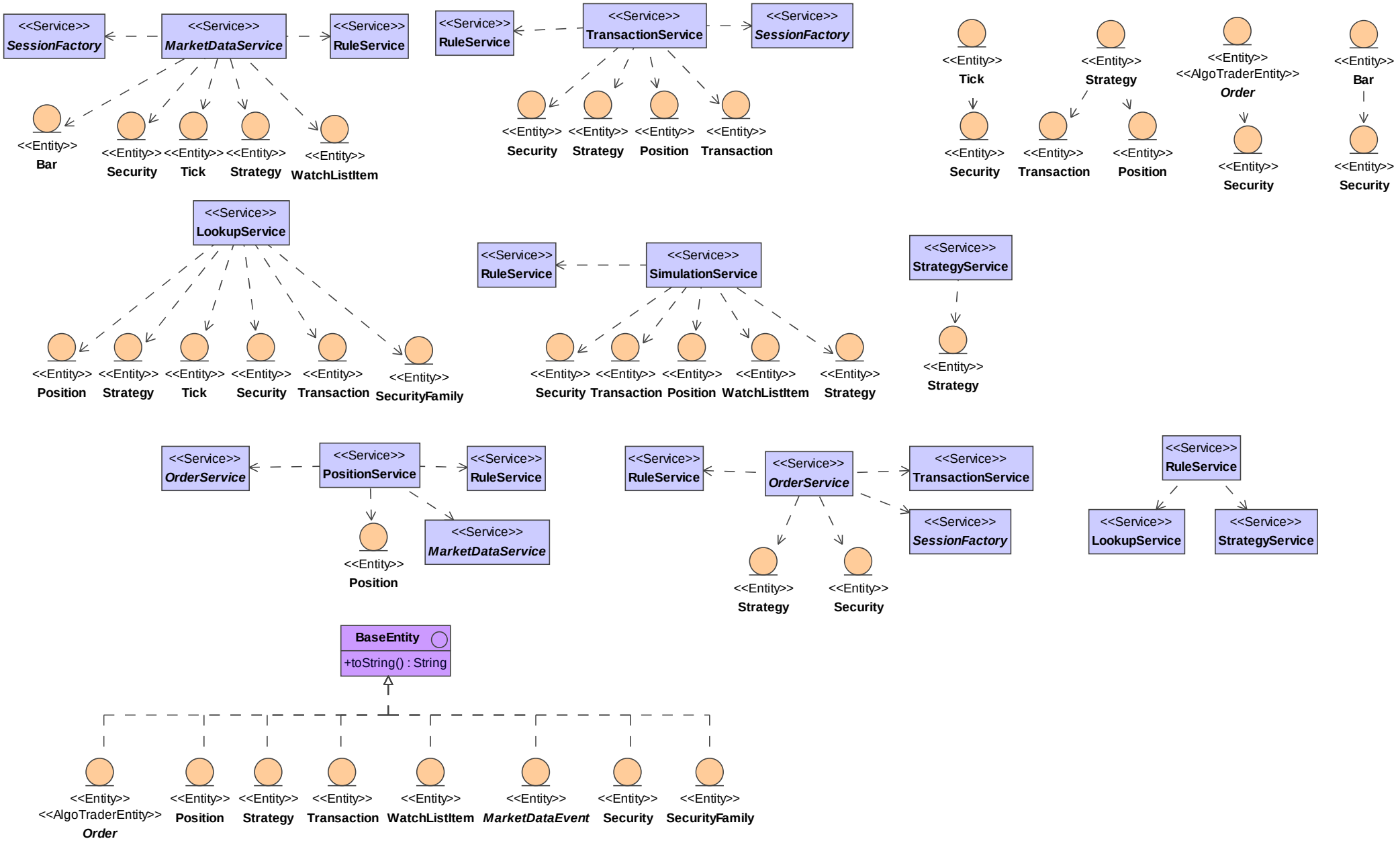


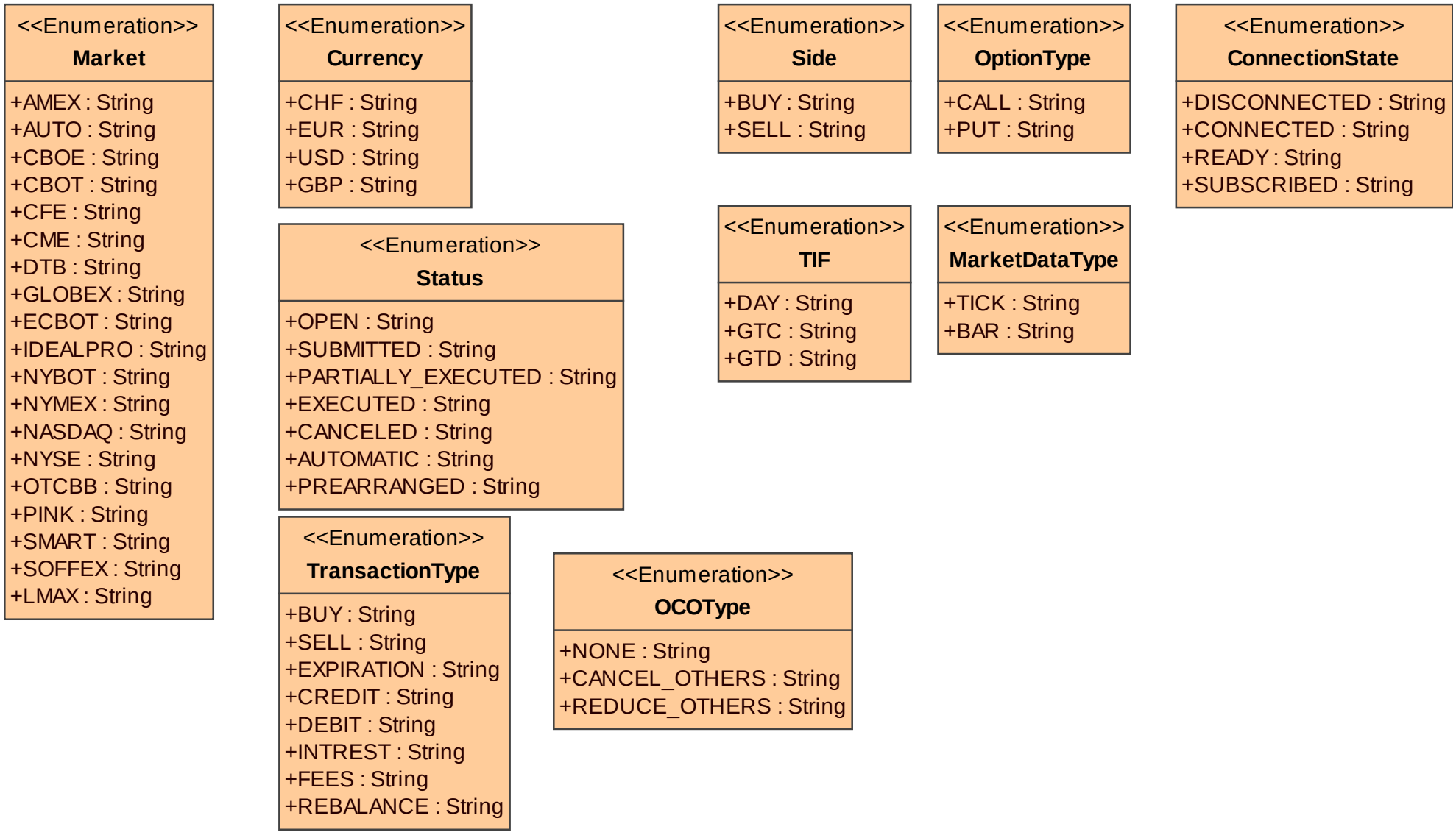
<<Entity>>
WatchListItem
+persistent : boolean
+@findByStrategyAndSecurity()
<<Entity>>
<<AlgoTraderEntity>>
Order
+number : int
+side : Side
+quantity : long
+tif : TIF
+tifDate : Date [0..1]
+ocoType : OCOType
<<Entity>>
Strategy
+name : String
+autoActivate : boolean
+allocation : double
+modules : String
+isBase()
+getCashBalanceDouble()
+getSecuritiesCurrentValueDouble()
+getMaintenanceMarginDouble()
+getInitialMarginDouble()
+getNetLiqValueDouble()
+getAvailableFundsDouble()
+getPortfolioCashBalanceDouble()
+getPortfolioSecuritiesCurrentValueDouble()
+getPortfolioMaintenanceMarginDouble()
+getPortfolioInitialMarginDouble()
+getPortfolioNetLiqValueDouble()
+getPortfolioAvailableFundsDouble()
+@findByName()
+@findByNameFetched()
+@findAutoActivateStrategies()
<<Entity>>
Security
+isin : String
+symbol : String [0..1]
+getCurrentValue()
+getLastTrade()
+getLastBid()
+getLastAsk()
+getLastTick()
+getLastBar()
+getMargin()
+isOnWatchlist()
+@findByIdFetched()
+@findByIsin()
+@findByIsinFetched()
+@findBySymbol()
+@findSecuritiesInPortfolio()
+@findSecuritiesOnWatchlist()
+@findSecuritiesOnActiveWatchlist()
<<Entity>>
<<AlgoTraderEntity>>
Fill
+dateTime : Date
+side : Side
+quantity : long
+price : Money
+commission : Money
<<Entity>>
SecurityFamily
+name : String
+market : Market
+currency : Currency
+contractSize : int
+tickSize : double
+commission : Money [0..1]
+marketOpen : Time
+marketClose : Time
+tradeable : boolean
+expirable : boolean
+@findByIsin()
<<Entity>>
Transaction
+dateTime : Date
+quantity : long
+price : Money
+commission : Money [0..1]
+currency : Currency
+type : TransactionType
+getValue()
+getValueDouble()
+@findAllTrades()
+@findAllCashflows()
<<Entity>>
Position
+quantity : long
+exitValue : Double [0..1]
+maintenanceMargin : Money [0..1]
+isOpen()
+isLong()
+isShort()
+isFlat()
+getMarketPriceDouble()
+getMarketValueDouble()
+getMaintenanceMarginDouble()
+getExitValueDouble()
+@findOpenPositions()
+@findOpenPositionsByStrategy()
+@findByIdFetched()
+@findBySecurityAndStrategy()
+underlaying
0..1
+underlaying
0..1
+parentOrder
0..1
0..1
0..1
1
1
1
1
1
1
*
*
*
*
*
*
*
*
*
*
*
*

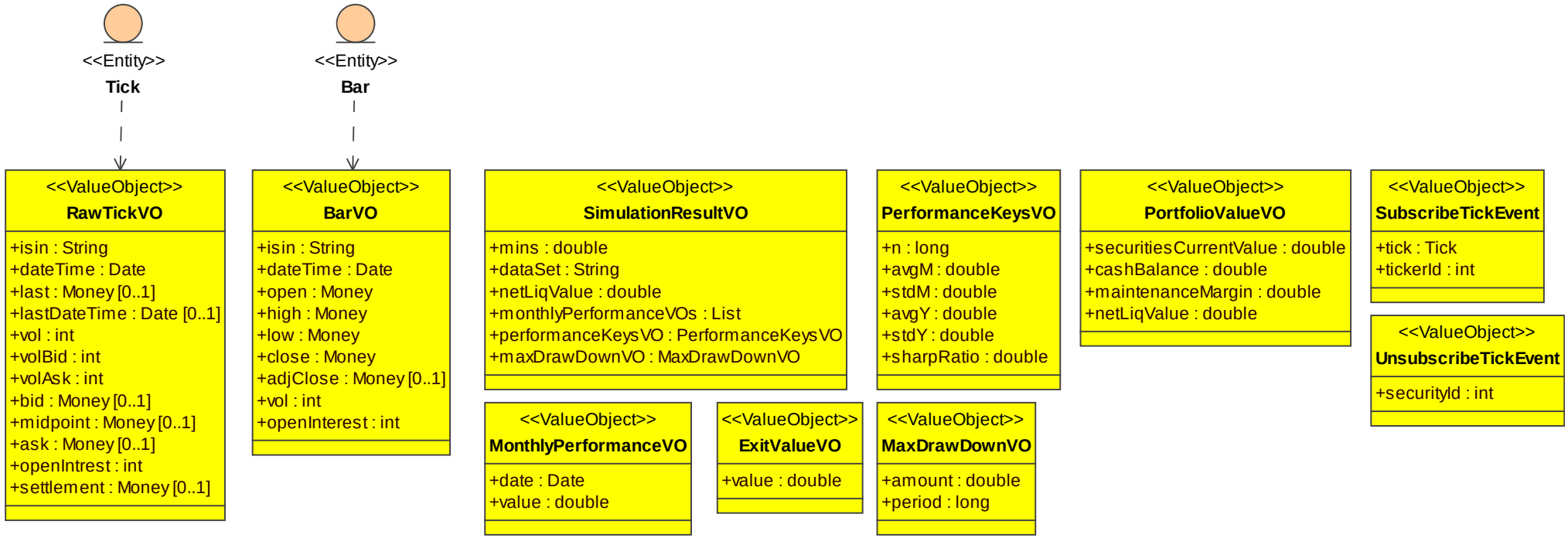

<<Entity>>
MarketDataEvent
+dateTime : Date
*
1
<<Entity>>
Security
<<Entity>>
<<AlgoTraderEntity>>
PriceEvent
+price : Money
+size : long
<<Entity>>
Bar
+open : Money
+high : Money
+low : Money
+close : Money
+adjClose : Money [0..1]
+vol : int
+openInterest : int
+getCurrentValueDouble()
+getCurrentValue()
<<Entity>>
Tick
+last : Money [0..1]
+lastDateTime : Date [0..1]
+vol : int
+volBid : int
+volAsk : int
+bid : Money
+ask : Money
+openIntrest : int
+settlement : Money [0..1]
+getCurrentValue()
+getCurrentValueDouble()
+getBidAskSpread()
+getBidAskSpreadDouble()
+@findLastTickForSecurityAndMaxDate()
<<Entity>>
<<AlgoTraderEntity>>
Trade
<<Entity>>
<<AlgoTraderEntity>>
Quote
+extId : String
+valid : Date
<<Entity>>
<<AlgoTraderEntity>>
Bid
<<Entity>>
<<AlgoTraderEntity>>
Ask

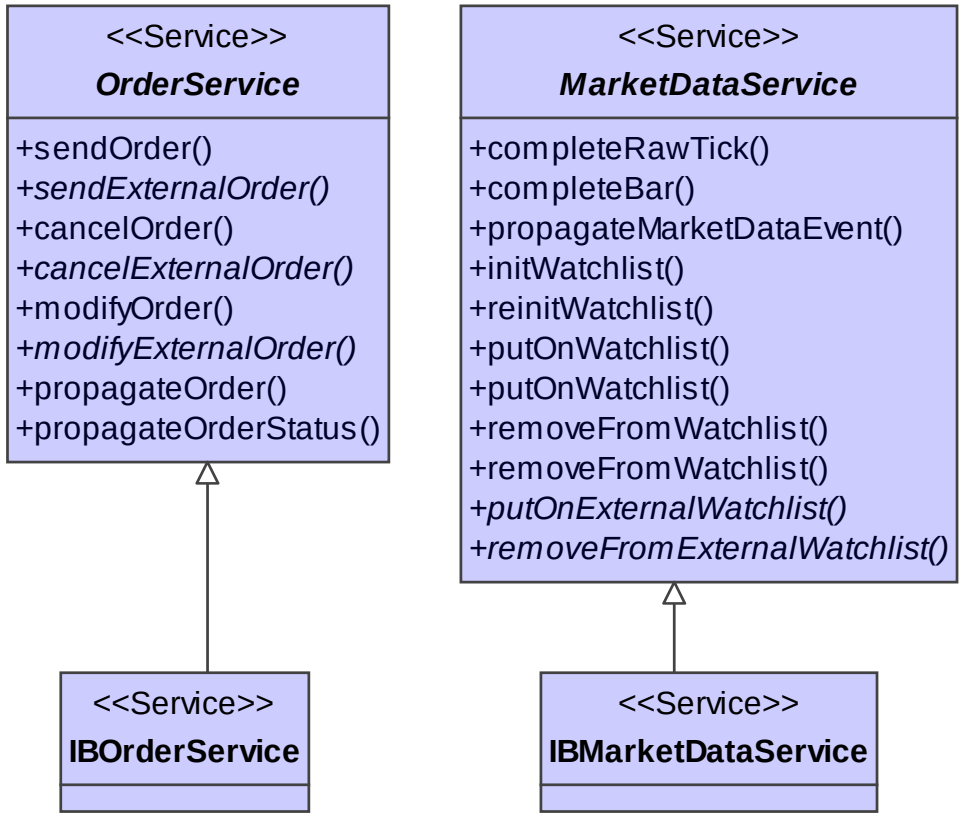

<<Entity>>
Strategy
1
0..1
+parentOrder
*
<<Entity>>
<<AlgoTraderEntity>>
Order
+number : int
+side : Side
+quantity : long
+tif : TIF
+tifDate : Date [0..1]
+ocoType : OCOType
+childOrders
0..*
* 1
<<Entity>>
Security
<<Entity>>
<<AlgoTraderEntity>>
OrderStatus
+status : Status
+filledQuantity : long
+remainingQuantity : long
1
+parentOrder
1
+parentOrder
<<Entity>>
<<AlgoTraderEntity>>
Fill
+dateTime : Date
+side : Side
+quantity : long
+price : Money
+commission : Money
* 1
<<Entity>>
Transaction
<<Entity>>
<<AlgoTraderEntity>>
MarketOrder
<<Entity>>
<<AlgoTraderEntity>>
LimitOrder
+limit : Money
<<Entity>>
<<AlgoTraderEntity>>
StopOrder
+stop : Money
<<Entity>>
<<AlgoTraderEntity>>
StopLimitOrder
+limit : Money
+stop : Money
<<Entity>>
<<AlgoTraderEntity>>
TrailingStopOrder
+trailingAmount : Money
StopOrderInterface
+stop : Money
LimitOrderInterface
+limit : Money

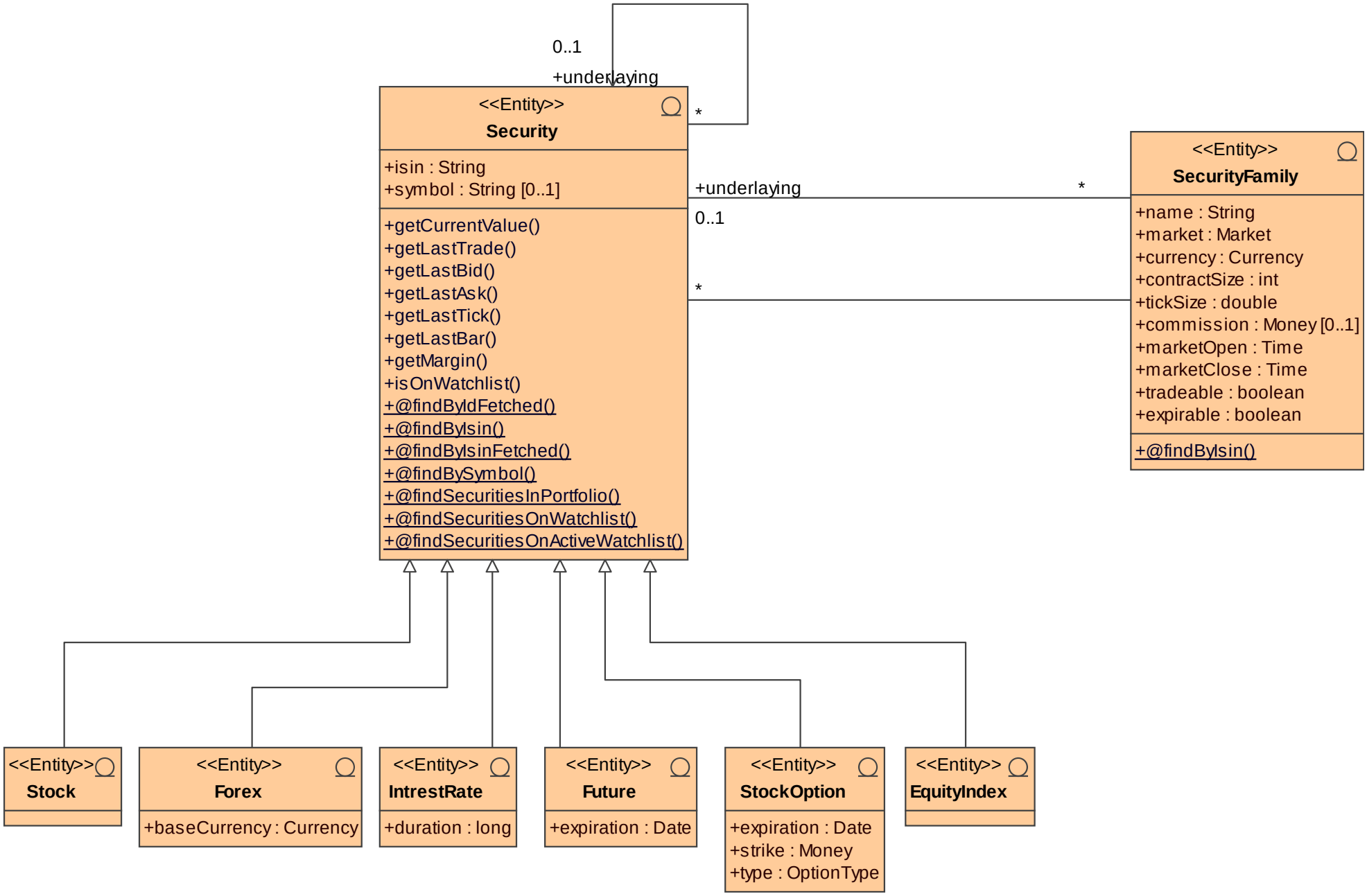

<<Service>>
MarketDataService
+completeRawTick(tick : RawTickVO) : Tick
+completeBar(bar : BarVO) : Bar
+propagateMarketDataEvent(marketDataEvent : MarketDataEvent) : void
+initWatchlist() : void
+reinitWatchlist() : void
+putOnWatchlist(strategy : Strategy, security : Security) : void{andromda_spring_transaction_type=PROPAGATION_REQUIRED}
+putOnWatchlist(strategyName : String, securityId : int) : void
+removeFromWatchlist(strategy : Strategy, security : Security) : void{andromda_spring_transaction_type=PROPAGATION_REQUIRED}
+removeFromWatchlist(strategyName : String, securityId : int) : void
+putOnExternalWatchlist(security : Security) : int
+removeFromExternalWatchlist(security : Security) : void
<<Service>>
OrderService
+sendOrder(order : Order) : void{andromda_spring_transaction_type=PROPAGATION_REQUIRED}
+sendExternalOrder(order : Order) : void
+cancelOrder(orderId : int) : void
+cancelExternalOrder(orderId : int) : void
+modifyOrder(orderId : int, order : Order) : void
+modifyExternalOrder(orderId : int, order : Order) : void
+propagateOrder(order : Order) : void
+propagateOrderStatus(orderStatus : OrderStatus) : void
+closePosition(positionId : int) : void
+reducePosition(positionId : int, quantity : long) : void
+setExitValue(positionId : int, exitValue : double, force : boolean) : void{andromda_spring_transaction_type=PROPAGATION_REQUIRED}
+setMargins() : void
+setMargin(positionId : int) : void
+setMargin(position : Position) : void{andromda_spring_transaction_type=PROPAGATION_REQUIRED}
<<Service>>
TransactionService
+createTransaction(fill : Fill) : void{andromda_spring_transaction_type=PROPAGATION_REQUIRED}
+propagateTransaction(transaction : Transaction) : void
+propagateFill(fill : Fill) : void
<<Service>>
SimulationService
{andromda_spring_service_remoting_type=none}
+resetDB() : void{andromda_spring_transaction_type=PROPAGATION_REQUIRED}
+inputCSV() : void
+runByUnderlayings() : SimulationResultVO
+simulateWithCurrentParams() : void
+optimizeSingleParamLinear(strategyName : String, parameter : String, min : double, max : double, increment : double) : void
+getSimulationResultVO(startTime : long) : SimulationResultVO
<<Service>>
StrategyService
+registerStrategy()
+unregisterStrategy()
+isStrategyRegistered()
+sendEvent()
<<Service>>
RuleService
{@algoTrader.service.client,
andromda_spring_service_remoting_type=none}
+initServiceProvider(strategyName : String) : void
+isInitialized(strategyName : String) : boolean
+destroyServiceProvider(strategyName : String) : void
+deployRule(strategyName : String, moduleName : String, ruleName : String) : void
+deployRule(strategyName : String, moduleName : String, ruleName : String, targetId : Integer) : void
+deployModule(strategyName : String, moduleName : String) : void
+deployAllModules(strategyName : String) : void
+isDeployed(strategyName : String, ruleName : String) : boolean
+undeployRule(strategyName : String, ruleName : String) : void
+undeployRuleByTarget(strategyName : String, ruleName : String, targetId : int) : void
+undeployModule(strategyName : String, moduleName : String) : void
+sendEvent(strategyName : String, object : Object) : void
+routeEvent(strategyName : String, object : Object) : void
+getLastEvent(strategyName : String, ruleName : String) : Object
+getLastEventProperty(strategyName : String, ruleName : String, property : String) : Object
+getAllEvents(strategyName : String, ruleName : String) : List
+getAllEventsProperty(strategyName : String, ruleName : String, property : String) : List
+executeQuery(strategyName : String, query : String) : List
+setInternalClock(strategyName : String, internal : boolean) : void
+isInternalClock(strategyName : String) : boolean
+setCurrentTime(currentTime : CurrentTimeEvent) : void
+getCurrentTime(strategyName : String) : long
+initCoordination(strategyName : String) : void
+coordinate(strategyName : String, csvInputAdapterSpec : CSVInputAdapterSpec) : void
+startCoordination(strategyName : String) : void
+setProperty(strategyName : String, key : String, value : String) : void
<<Service>>
LookupService
+getSecurity(id : int) : Security
+getSecurityByIsin(isin : String) : Security
+getSecurityBySymbol(symbol : String) : Security
+getSecurityFetched(id : int) : Security
+getAllSecurities() : Security[]
+getAllSecuritiesInPortfolio() : Security[]
+getSecuritiesOnWatchlist() : Security[]
+getStrategy(id : int) : Strategy
+getStrategyByName(name : String) : Strategy
+getStrategyByNameFetched(name : String) : Strategy
+getAutoActivateStrategies() : List
+getAllStrategies() : Strategy[]
+getSecurityFamily(id : int) : SecurityFamily
+getPosition(id : int) : Position
+getPositionFetched(id : int) : Position
+getAllPositions() : Position[]
+getOpenPositions() : Position[]
+getOpenPositionsByStrategy(strategyName : String) : Position[]
+getTransaction(id : int) : Transaction
+getAllTransactions() : Transaction[]
+getAllTrades() : Transaction[]
+getAllCashFlows() : Transaction[]
+getLastTick(securityId : int) : Tick
+getPortfolioValue() : PortfolioValueVO
+getPositionBySecurityAndStrategy(securityId : int, strategyName : String) : Position

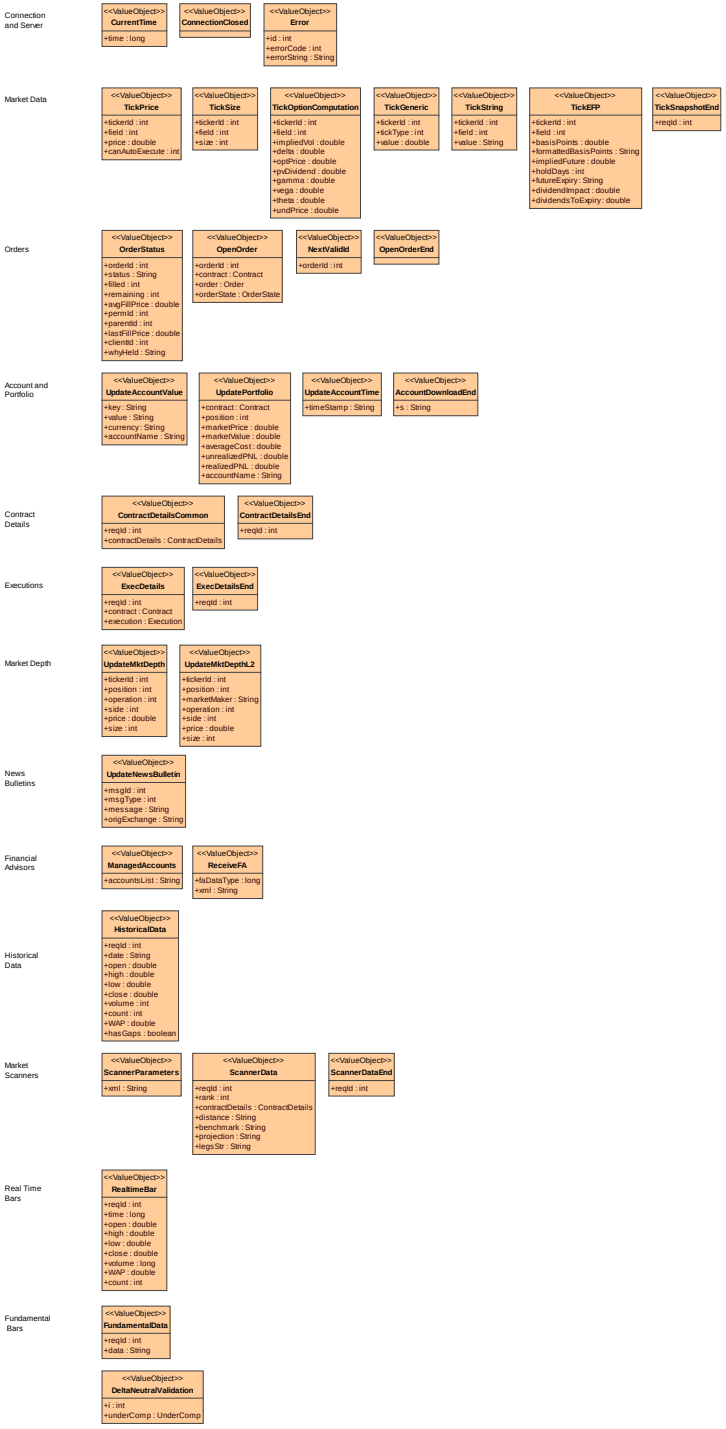

<<Service>>
SessionFactory
<<Service>>
MarketDataService
<<Service>>
RuleService
<<Entity>>
Bar
<<Entity>>
Security
<<Entity>>
Tick
<<Entity>>
Strategy
<<Entity>>
WatchListItem
<<Service>>
RuleService
<<Service>>
TransactionService
<<Service>>
SessionFactory
<<Entity>>
Security
<<Entity>>
Strategy
<<Entity>>
Position
<<Entity>>
Transaction
<<Entity>>
Tick
<<Entity>>
Security
<<Entity>>
Strategy
<<Entity>>
Transaction
<<Entity>>
Position
<<Entity>>
<<AlgoTraderEntity>>
Order
<<Entity>>
Security
<<Entity>>
Bar
<<Entity>>
Security
<<Service>>
LookupService
<<Entity>>
Position
<<Entity>>
Strategy
<<Entity>>
Tick
<<Entity>>
Security
<<Entity>>
Transaction
<<Entity>>
SecurityFamily
<<Service>>
RuleService
<<Service>>
SimulationService
<<Entity>>
Security
<<Entity>>
Transaction
<<Entity>>
Position
<<Entity>>
WatchListItem
<<Entity>>
Strategy
<<Service>>
StrategyService
<<Entity>>
Strategy
<<Service>>
OrderService
<<Service>>
PositionService
<<Service>>
RuleService
<<Entity>>
Position
<<Service>>
MarketDataService
<<Service>>
RuleService
<<Service>>
OrderService
<<Service>>
TransactionService
<<Service>>
SessionFactory
<<Entity>>
Strategy
<<Entity>>
Security
<<Service>>
RuleService
<<Service>>
LookupService
<<Service>>
StrategyService
BaseEntity
+toString() : String
<<Entity>>
<<AlgoTraderEntity>>
Order
<<Entity>>
Position
<<Entity>>
Strategy
<<Entity>>
Transaction
<<Entity>>
WatchListItem
<<Entity>>
MarketDataEvent
<<Entity>>
Security
<<Entity>>
SecurityFamily


<<Enumeration>>
Market
+AMEX : String
+AUTO : String
+CBOE : String
+CBOT : String
+CFE : String
+CME : String
+DTB : String
+GLOBEX : String
+ECBOT : String
+IDEALPRO : String
+NYBOT : String
+NYMEX : String
+NASDAQ : String
+NYSE : String
+OTCBB : String
+PINK : String
+SMART : String
+SOFFEX : String
+LMAX : String
<<Enumeration>>
Currency
+CHF : String
+EUR : String
+USD : String
+GBP : String
<<Enumeration>>
Status
+OPEN : String
+SUBMITTED : String
+PARTIALLY_EXECUTED : String
+EXECUTED : String
+CANCELED : String
+AUTOMATIC : String
+PREARRANGED : String
<<Enumeration>>
TransactionType
+BUY : String
+SELL : String
+EXPIRATION : String
+CREDIT : String
+DEBIT : String
+INTREST : String
+FEES : String
+REBALANCE : String
<<Enumeration>>
OCOType
+NONE : String
+CANCEL_OTHERS : String
+REDUCE_OTHERS : String
<<Enumeration>>
Side
+BUY : String
+SELL : String
<<Enumeration>>
TIF
+DAY : String
+GTC : String
+GTD : String
<<Enumeration>>
OptionType
+CALL : String
+PUT : String
<<Enumeration>>
MarketDataType
+TICK : String
+BAR : String
<<Enumeration>>
ConnectionState
+DISCONNECTED : String
+CONNECTED : String
+READY : String
+SUBSCRIBED : String


<<Entity>>
Tick
<<Entity>>
Bar
<<ValueObject>>
RawTickVO
+isin : String
+dateTime : Date
+last : Money [0..1]
+lastDateTime : Date [0..1]
+vol : int
+volBid : int
+volAsk : int
+bid : Money [0..1]
+midpoint : Money [0..1]
+ask : Money [0..1]
+openIntrest : int
+settlement : Money [0..1]
<<ValueObject>>
BarVO
+isin : String
+dateTime : Date
+open : Money
+high : Money
+low : Money
+close : Money
+adjClose : Money [0..1]
+vol : int
+openInterest : int
<<ValueObject>>
SimulationResultVO
+mins : double
+dataSet : String
+netLiqValue : double
+monthlyPerformanceVOs : List
+performanceKeysVO : PerformanceKeysVO
+maxDrawDownVO : MaxDrawDownVO
<<ValueObject>>
MonthlyPerformanceVO
+date : Date
+value : double
<<ValueObject>>
ExitValueVO
+value : double
<<ValueObject>>
PerformanceKeysVO
+n : long
+avgM : double
+stdM : double
+avgY : double
+stdY : double
+sharpRatio : double
<<ValueObject>>
MaxDrawDownVO
+amount : double
+period : long
<<ValueObject>>
PortfolioValueVO
+securitiesCurrentValue : double
+cashBalance : double
+maintenanceMargin : double
+netLiqValue : double
<<ValueObject>>
SubscribeTickEvent
+tick : Tick
+tickerId : int
<<ValueObject>>
UnsubscribeTickEvent
+securityId : int


<<Service>>
OrderService
+sendOrder()
+sendExternalOrder()
+cancelOrder()
+cancelExternalOrder()
+modifyOrder()
+modifyExternalOrder()
+propagateOrder()
+propagateOrderStatus()
<<Service>>
MarketDataService
+completeRawTick()
+completeBar()
+propagateMarketDataEvent()
+initWatchlist()
+reinitWatchlist()
+putOnWatchlist()
+putOnWatchlist()
+removeFromWatchlist()
+removeFromWatchlist()
+putOnExternalWatchlist()
+removeFromExternalWatchlist()
<<Service>>
IBOrderService
<<Service>>
IBMarketDataService


0..1
+underlaying
*
<<Entity>>
Security
+isin : String
+symbol : String [0..1]
+getCurrentValue()
+getLastTrade()
+getLastBid()
+getLastAsk()
+getLastTick()
+getLastBar()
+getMargin()
+isOnWatchlist()
+@findByIdFetched()
+@findByIsin()
+@findByIsinFetched()
+@findBySymbol()
+@findSecuritiesInPortfolio()
+@findSecuritiesOnWatchlist()
+@findSecuritiesOnActiveWatchlist()
+underlaying
*
0..1
*
<<Entity>>
SecurityFamily
+name : String
+market : Market
+currency : Currency
+contractSize : int
+tickSize : double
+commission : Money [0..1]
+marketOpen : Time
+marketClose : Time
+tradeable : boolean
+expirable : boolean
+@findByIsin()
<<Entity>>
Stock
<<Entity>>
Forex
+baseCurrency : Currency
<<Entity>>
IntrestRate
+duration : long
<<Entity>>
Future
+expiration : Date
<<Entity>>
StockOption
+expiration : Date
+strike : Money
+type : OptionType
<<Entity>>
EquityIndex


Connection and Server
<<ValueObject>>
CurrentTime
+time : long
<<ValueObject>>
ConnectionClosed
<<ValueObject>>
Error
+id : int
+errorCode : int
+errorString : String
Market Data
<<ValueObject>>
TickPrice
+tickerId : int
+field : int
+price : double
+canAutoExecute : int
<<ValueObject>>
TickSize
+tickerId : int
+field : int
+size : int
<<ValueObject>>
TickOptionComputation
+tickerId : int
+field : int
+impliedVol : double
+delta : double
+optPrice : double
+pvDividend : double
+gamma : double
+vega : double
+theta : double
+undPrice : double
<<ValueObject>>
TickGeneric
+tickerId : int
+tickType : int
+value : double
<<ValueObject>>
TickString
+tickerId : int
+field : int
+value : String
<<ValueObject>>
TickEFP
+tickerId : int
+field : int
+basisPoints : double
+formattedBasisPoints : String
+impliedFuture : double
+holdDays : int
+futureExpiry : String
+dividendImpact : double
+dividendsToExpiry : double
<<ValueObject>>
TickSnapshotEnd
+reqId : int
Orders
<<ValueObject>>
OrderStatus
+orderId : int
+status : String
+filled : int
+remaining : int
+avgFillPrice : double
+permId : int
+parentId : int
+lastFillPrice : double
+clientId : int
+whyHeld : String
<<ValueObject>>
OpenOrder
+orderId : int
+contract : Contract
+order : Order
+orderState : OrderState
<<ValueObject>>
NextValidId
+orderId : int
<<ValueObject>>
OpenOrderEnd
Account and Portfolio
<<ValueObject>>
UpdateAccountValue
+key : String
+value : String
+currency : String
+accountName : String
<<ValueObject>>
UpdatePortfolio
+contract : Contract
+position : int
+marketPrice : double
+marketValue : double
+averageCost : double
+unrealizedPNL : double
+realizedPNL : double
+accountName : String
<<ValueObject>>
UpdateAccountTime
+timeStamp : String
<<ValueObject>>
AccountDownloadEnd
+s : String
Contract Details
<<ValueObject>>
ContractDetailsCommon
+reqId : int
+contractDetails : ContractDetails
<<ValueObject>>
ContractDetailsEnd
+reqId : int
Executions
<<ValueObject>>
ExecDetails
+reqId : int
+contract : Contract
+execution : Execution
<<ValueObject>>
ExecDetailsEnd
+reqId : int
Market Depth
<<ValueObject>>
UpdateMktDepth
+tickerId : int
+position : int
+operation : int
+side : int
+price : double
+size : int
<<ValueObject>>
UpdateMktDepthL2
+tickerId : int
+position : int
+marketMaker : String
+operation : int
+side : int
+price : double
+size : int
News Bulletins
<<ValueObject>>
UpdateNewsBulletin
+msgId : int
+msgType : int
+message : String
+origExchange : String
Financial Advisors
<<ValueObject>>
ManagedAccounts
+accountsList : String
<<ValueObject>>
ReceiveFA
+faDataType : long
+xml : String
Historical Data
<<ValueObject>>
HistoricalData
+reqId : int
+date : String
+open : double
+high : double
+low : double
+close : double
+volume : int
+count : int
+WAP : double
+hasGaps : boolean
Market Scanners
<<ValueObject>>
ScannerParameters
+xml : String
<<ValueObject>>
ScannerData
+reqId : int
+rank : int
+contractDetails : ContractDetails
+distance : String
+benchmark : String
+projection : String
+legsStr : String
<<ValueObject>>
ScannerDataEnd
+reqId : int
Real Time Bars
<<ValueObject>>
RealtimeBar
+reqId : int
+time : long
+open : double
+high : double
+low : double
+close : double
+volume : long
+WAP : double
+count : int
Fundamental Bars
<<ValueObject>>
FundamentalData
+reqId : int
+data : String
<<ValueObject>>
DeltaNeutralValidation
+i : int
+underComp : UnderComp