LiveVol Data Reference

Table List

lv_minute_options_calcs
reference "Option Calculations" below

lv_options_trades
reference "Option Trades" below

Field List

Option Quotes
Time, Root, Expiration, Strike, OptionType, Open, High, Low, Close, TradeVolume, BidSize, BestBid, AskSize, BestAsk, Underlying Bid, Underlying Ask, {Regional Exchange: BidSize, Bid, AskSize Ask} x[# of exchanges]

Option Calculations
Time, Root, Expiration, Strike, OptionType, Open, High, Low,Close, TradeVolume, BidSize, BestBid, AskSize, BestAsk, Underlying Bid, Underlying Ask, Implied Underlying Price, Active Underlying Price, Implied Volatility, Delta, Gamma, Theta, Vega, Rho

Option Trades
Time, SequenceNumber, Root, Expiration, Strike, OptionType, Exchange ID, TradeSize, TradePrice, TradeConditionID, CanceledTradeConditionID,BestBid, BestAsk, TradeIV, TradeDelta, UnderlyingBid, UnderlyingAsk

Option IV Index
Time, IV30, IV60, IV90, IV120, IV180, IV360, IV720, ExpirationIV1, ExpirationIV2, ExpirationIV3, ExpirationIV4, ExpirationIV5, ExpirationIV6, ExpirationIV7, ExpirationIV8, ExpirationIV9, ExpirationIV10, ExpirationIV1Date, ExpirationIV2Date, ExpirationIV3Date, ExpirationIV4Date, ExpirationIV5Date, ExpirationIV6Date, ExpirationIV7Date, ExpirationIV8Date, ExpirationIV9Date, ExpirationIV10Date

Equity Quotes
Time, Open, High, Low, Close, TradeVolume, VWAP, BestBid, BestAsk

Trades and Quotes (TAQ)
Livevol also offers the complete recorded history of equity and options tick data including an API to simulate real-time playback. Ask the Livevol team for additional information.

Calculation Methodology

Livevol applies a unified calculation methodology across both live and historical data sets to provide maximum consistency between back-testing and real-time applications. Cost of carry inputs (interest rates, dividends) are determined by a statistical regression process based upon live market information, which is reevaluated periodically. These inputs ensure accurate option model evaluation as measured by the convergence/divergence of call and put implied volatilities. The cost of carry projected from these inputs is compared against those implied by the at-the-money options from each option expiry. If the rates differ significantly—and the option spreads for this expiry are sufficiently narrow—the implied rates replace the standard inputs. This ensures that the various dividend and rate assumptions in the market place are consistently applied to the option model calculations.

Livevol calculates volatility indexes historically and in real-time for seven time frames: 30-, 60-, 90-, 120-, 180-, 360-, and 720-days. The Livevol volatility indexes are calculated using a weighted average of the implied volatilities of options that expire before and after the given time frame. As an example, for Livevol's 30-day calculation, referred to as IV30™, implied volatilities from options expiring in 15 days would be combined using linear interpolation with options expiring in 45 days to represent how the average 30-day volatility is behaving. The calculation emphasizes the implied volatility of the at-the-money options. A variety of weighting techniques help to ensure that any unusual spreads on a given option pair, or other unusual market activity, do not unduly affect the index. Options within 8 days of expiration are excluded from the weighting.