ALGOSEEK

US OPTIONS (OPRA)

EQUITY, ETF, ETN, ADR TRADES ONLY

OHLC BARS IN CSV

Version 1.2

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Introduction

This describes the Trades Only event based bars for AlgoSeek US Options (OPRA) for Equity, ETF, ETN and ADRs.

OPRA is the Options Pricing Authority and responsible for collecting and distributing market information from the trading of Equity (including ETF and ETN) options in the USA. The bar data is based on all the trades from the 14+ Options Exchanges.

Event Based Bars

Options activity varies from contracts with multiple events per millisecond (eg. SPY at-the-money Options) to contracts with one bid or ask quote during market hours.

AlgoSeek's Options bars are event based which means there is only a bar if a Trade event takes place during the bar period. The only information recorded in the bar are Trade events for that period. The "NoValue" column shows the value for a field when there is no event during the bar period.

If there is only one Trade during the bar period then fields for that event bar will have the same values.

Hours

The US Options bars are from 9.30am to 4.15pm . Most Options stop trading at 4pm while some indexes will trade to 4.15pm EST.

Included Events

Bars are calculated from Trades.

Timestamps

TimeStamps are in EST time.

File Structure

Data files are in CSV format for easy download, integration and testing.

AlgoSeek Options data is organized by Option Chain. There is one CSV file per trading day for each Option Chain, for example for trading date 6th September 2017 for SPY options expiring October 4th 2017 the filename is SPY.20171004 with all Calls, Puts, Strikes for the options expiring on 20171004 .

Event Bars

For each individual Call+Strike or Put+Strike in the Option Chain, if there is a Trade event then there will be a bar during the bar period. There is no bar for a Call+Strike or Put+Strike option if there are is no Trade event.

Note: If there is only one Trade event during the bar period then
    OpenTradePrice=HighTradePrice=LowTradePrice=CloseTradePrice

Underlying Bid and Ask Price

The underlying ticker NBBO Bid and Ask price is included for the Open and Close Trades. If there is only one Trade in the bar period then the Open and Close fields will be the same.

Updates
Updates to bar files can be weekly or daily.

Fields
Each bar has the following fields:

- # : Field Number
- Field: Name of the column
- T|U : Based on "T" (Trade) or "U" (Underlying) NBBO Bid/Ask
- Type: Format
- No Value: Content of field when there is no value.
- Description: Description of the field

#	Field	T|U	Type	No Value	Description
1	TradeDate		YYYYMMDD	Never	Trade Date.
2	Ticker		String	Never	Ticker Symbol
3	CallPut		String	Never	"C" for Call or "P" for Put
4	Strike		Number	Never	Strike Price
5	ExpirationDate		YYYYMMMDD	Never	Expiration Date of Option
6	TimeBarStart		HHMM HHMMSS HHMMSSMMM	Never	For minute bars format is HHMM. For second bars is HHMMSS. Examples: One second bar 130302 is from time greater than 130302 to 130302.999 One minute bar 1104 is from time greater than 1104 to 110469.999
7	OpenTradePrice	T	Number	Blank	Price of first Trade
8	HighTradePrice	T	Number	Blank	Price of highest Trade
9	LowTradePrice	T	Number	Blank	Price of lowest Trade
10	CloseTradePrice	T	Number	Blank	Price of last Trade
11	VWAP	T	Number	Never	Volume weighted average price Sum((Trade1Contracts*Price)+(Trade 2Contracts*Price)+…) /TotalContracts.
12	Volume	T	Number	Never	Total number of contracts traded
13	TotalTrades	T	Number	Never	Total number of trades
14	UnderOpenBidPrice	U	Number	Never	Underlying Ticker NBBO Bid price at time of OpenTradePrice.
15	UnderOpenAskPrice	U	Number	Never	Underlying Ticker NBBO Ask price at OpenTradePrice
16	UnderCloseBidPrice	U	Number	Never	Underlying Ticker NBBO Bid price at time of CloseTradePrice
17	UnderCloseAskPrice	U	Number	Never	Underlying Ticker NBBO Ask price at time of CloseTradePrice