



OPRA Options Trade and Quote Data File Format Document

Version 2.5

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NOTE: All OPRA Codes can be found on the OPRA website: <https://www.opradata.com/> (specifically in the Binary Participant Interface Specification doc). Information on Option Class Symbols can be found by searching <https://www.theocc.com/>. The information used in this File Format Guide was sourced from the OPRA website. Since Tick Data does not maintain either site, we cannot guarantee the accuracy or completeness of the information therein or in this document.

I. Quote and Trade Data

09/13/2019,09:14:58.574,Q,,C,,0.45,2137,0.650000,1484,,,,,0,,0
 09/13/2019,09:14:58.685,Q,,C,,0.45,1884,0.650000,1747,,,,,0,,0
 09/13/2019,09:30:01.639,Q,,C,,0.5,4428,0.650000,4934,,,,,0,,0
 09/13/2019,09:30:01.639,Q,,C,,0.5,4428,0.650000,4939,,,,,0,,0
 09/13/2019,09:30:02.446,Q,,C,,0.5,4426,0.650000,4939,,,,,0,,0
 09/13/2019,09:30:02.446,Q,,C,,0.5,4423,0.650000,4939,,,,,0,,0
 09/13/2019,09:30:02.446,Q,,C,,0.5,4421,0.650000,4939,,,,,0,,0
 09/13/2019,09:30:02.448,T,,C,L,,0,0.500000,7,,,,,0,,0
 09/13/2019,09:30:02.450,T,,C,L,,0,0.510000,6,,,,,0,,0
 09/13/2019,09:30:06.216,Q,,C,,0.5,5137,0.650000,5834,,,,,0,,0
 09/13/2019,09:30:06.220,Q,,C,,0.5,4421,0.650000,4939,,,,,0,,0
 09/13/2019,09:30:06.246,Q,,C,,0.5,5137,0.650000,5834,,,,,0,,0
 09/13/2019,09:30:06.256,Q,,C,,0.5,5305,0.650000,5926,,,,,0,,0
 09/13/2019,09:30:06.893,Q,,C,,0.5,7957,0.650000,5926,,,,,0,,0

File Layout

Each record contains 16 fields of data. ***Note that trade and quote data are interleaved in the Quotes file.*** The fields listed below pertain to both trade and quote records in the Quotes file delivered in daily updates since 4.1.2016 (Previous version should be used for data prior to 4.1.2016). They are comma-separated by default and laid out as follows:

Field	Type	Length	Description	Special Notes
Date	Character	10	Date of quote in MM/DD/YYYY format	
Time	Character	12	Time of quote in HH:MM:SS.000 format	Time of quote in HH:MM:SS.000 format as of Sep-1-2008. Prior to then the time of quote/trade in HH:MM:SS format.
Trade/Quote Indicator	Character	1	'Q' indicates quote; 'T' indicates trade.	Necessary as trades/quotes contained in same file.
OPRA Sequence Number	Numeric	8	Sequence number of quote	This number can repeat intraday. See Section VIII.
Option Exchange Code	Character	0-1	Indicates the exchange of the quote.	See Section IV for available exchange codes.
Option Condition Code	Character	0-1	Condition code for quote or trade.	See below for available exchange codes. Note that Trades and Quotes have different Codes.
Bid Price	Numeric	8.3	Bid price of the quote record	Blank if <i>Trade/Quote Indicator</i> = "T"
Bid Size	Numeric	1-5	Bid size of the quote record	Blank if <i>Trade/Quote Indicator</i> = "T"
<i>If Field 3 = "Q":</i> Ask Price <i>If Field 3 = "T":</i> Trade Price	Numeric	8.3	Ask price of the quote record Trade price of the trade record	Content of this field is dependent on whether <i>Trade/Quote Indicator</i> is Q (Ask Price) or T (Trade Price).
<i>If Field 3 = "Q":</i> Ask Size <i>If Field 3 = "T":</i> Trade Volume	Numeric	1-5	Ask size of the quote record Trade volume of the trade record	Content of this field is dependent on whether <i>Trade/Quote Indicator</i> is Q (Ask Size) or T (Trade Volume).

Underlyer Exchange Code	Character	0-1	Exchange Code of underlying symbol	Not used in update data from 4.1.2016. Field is empty in data licensed after 12/31/2020.
Underlyer Condition Code	Character	0-1	Condition code of underlying symbol	Not used in update data from 4.1.2016. Field is empty in data licensed after 12/31/2020.
Underlyer Last Bid Price	Numeric	8.3	Bid price of last quote on underlying symbol	Not used in update data from 4.1.2016. Field is empty in data licensed after 12/31/2020.
Underlyer Last Bid Size	Numeric	1-5	Bid size of last quote on underlying symbol	Not used in update data from 4.1.2016. Field is empty in data licensed after 12/31/2020.
Underlyer Last Ask Price	Numeric	8.3	Ask price of last quote on underlying symbol	Not used in update data from 4.1.2016. Field is empty in data licensed after 12/31/2020.
Underlyer Last Ask Size	Numeric	1-5	Ask size of last quote on underlying symbol.	Not used in update data from 4.1.2016. Field is empty in data licensed after 12/31/2020.

II. Trade Data

04/25/2014,09:33:11.529,T,36177024,C,L,2.43,4,68.47,500,N,@,68.47,2,68.48,2
 04/25/2014,09:33:12.060,T,36560513,I,L,2.49,2,68.47,500,N,@,68.47,2,68.48,2
 04/25/2014,09:34:32.330,T,71636224,C,L,2.43,10,68.48,2,N,I,68.46,9,68.49,5
 04/25/2014,09:43:34.442,T,80433792,C,L,2.37,1,68.17,100,N,F,68.17,2,68.2,8
 04/25/2014,10:30:33.572,T,37390208,N,L,2.15,350,67.93,300,N,@,67.91,8,67.94,3
 04/25/2014,10:31:03.739,T,45389568,C,L,2.25,1,67.93,300,N,@,67.9,13,67.93,6
 04/25/2014,10:31:37.529,T,53126656,Z,I,2.2,15,67.9,100,N,@,67.89,1,67.91,5
 04/25/2014,10:36:09.154,T,36071554,Z,I,2.2,10,67.91,100,N,F,67.89,10,67.92,4
 04/25/2014,11:03:49.401,T,57939969,C,L,2.31,24,68.22,100,N,F,68.19,17,68.21,1
 04/25/2014,11:08:48.265,T,39192192,C,L,2.31,1,68.17,500,N,@,68.18,7,68.2,2
 04/25/2014,11:09:48.277,T,54348417,C,L,2.31,1,68.17,500,N,@,68.12,2,68.13,1
 04/25/2014,11:19:16.587,T,79767040,B,R,2.37,2,68.31,95,N,F,68.29,5,68.32,1

File Layout

Each record contains 16 fields of data. The fields listed below are specific to the trade records. They are comma-separated and are laid out as follows:

Field	Type	Length	Description	Special Notes
Date	Character	10	Date of trade in MM/DD/YYYY format	

Time	Character	12	Time of trade in HH:MM:SS.000 format	Time of trade in HH:MM:SS.000 format as of Sep-1-2008. Prior to then the time of trade in HH:MM:SS format.
Trade/Quote Indicator	Character	1	'Q' indicates quote; 'T' indicates trade.	Always 'T' in Trade-only file.
OPRA Sequence Number	Numeric	8	Sequence number of trade.	This number can repeat intraday. See Section VIII.
Option Exchange Code	Character	0-1	Indicates the exchange of the trade.	See Section IV for available exchange codes.
Option Condition Code	Character	0-1	Condition code for trade.	See Section V for available exchange codes.
Trade Price	Numeric	8.3	Sale price of the trade record	
Trade Size	Numeric	1-5	Sale size of the trade record.	
Last Underlyer Trade Price	Numeric	8.3	Price of last trade on underlying symbol	Underlying symbol pricing (i.e. stock price for a trade record) only available for Equity Options records from 06/17/2005 to 12/31/2020 in LiveVol-sourced data. No underlying data for Index Options. Field is empty in data licensed after 12/31/2020.
Last Underlyer Trade Size	Numeric	1-5	Size of last trade on underlying symbol	Underlying symbol size (i.e. stock size for a trade record) only available for Equity Options records from 06/17/2005 to 12/31/2020 in LiveVol-sourced data. No underlying data for Index Options. Field is empty in data licensed after 12/31/2020.
Underlyer Exchange Code	Character	0-1	Exchange Code of underlying symbol	Underlying symbol exchange code only available for Equity Options records from 06/17/2005 to 12/31/2020 in LiveVol-sourced data. No underlying data for Index Options. Field is empty in data licensed after 12/31/2020.
Underlyer Condition Code	Character	0-1	Condition code of underlying symbol	Underlying symbol condition code only available for Equity Options records from 06/17/2005 to 12/31/2020 in LiveVol-sourced data. No underlying data for Index Options. Field is empty in data licensed after 12/31/2020. <i>See Section VII for available Stock Condition Codes.</i>
Underlyer Last Bid Price	Numeric	8.3	Bid price of last quote on underlying symbol	Underlying symbol last bid price only available for Equity Options records from 06/17/2005 to 12/31/2020 in LiveVol-sourced data. No underlying data for Index Options. Field is empty in data licensed after 12/31/2020.
Underlyer Last Bid Size	Numeric	1-5	Bid size of last quote on underlying symbol	Underlying symbol last bid size only available for Equity Options records from 06/17/2005 to 12/31/2020 in LiveVol-sourced data. No underlying data for Index Options. Field is empty in data licensed after 12/31/2020.
Underlyer Last Ask Price	Numeric	8.3	Ask price of last quote on underlying symbol	Underlying symbol last ask price only available for Equity Options records from 06/17/2005 to 12/31/2020 in LiveVol-sourced data. No underlying data for Index Options. Field is empty in data licensed after 12/31/2020.
Underlyer Last Ask Size	Numeric	1-5	Ask size of last quote on underlying symbol.	Underlying symbol last ask size only available for Equity Options records from 06/17/2005 to 12/31/2020 in LiveVol-sourced data. No underlying data for Index Options. Field is empty in data licensed after 12/31/2020.

III. One-Minute Trade Data

File Layout

Each record contains four fields of data. They are comma-separated and are laid out as follows:

Field Name	Type	Description
Date	MM/DD/YYYY	Date of Minute bar
Time	HH:MM	Time of Minute bar The minute timestamp reflects the interval from the start of the previous minute at :00 seconds to the end at :59 seconds. For example, the minute bar timestamp 09:26 reflects all trades from 09:25:00.00 to 09:25:59.999.
Open	Number	Price of first trade within the minute bar.
High	Number	Highest trade price within the minute bar.
Low	Number	Lowest trade price within the minute bar.
Close	Number	Price of last trade within the minute bar.
Volume	Number	Total number of shares traded within the minute bar.

IV. OPRA Exchange Codes

Code	Value
A	NYSE AMEX / American Stock Exchange (inactive)
B	Boston Stock Exchange
C	Chicago Board Options Exchange
E	EDGX Options (application pending)
H	Gemini Options Exchange (no longer active)
I	International Securities Exchange
J	ISE MERCURY Exchange (application pending)
M	MIAX Options Exchange (no longer active)
N,P	NYSE Arca (no longer 'P')
O	Options Price Reporting Authority (Sent by SIAC on behalf of OPRA)
Q	NASDAQ
T	NASDAQ OMX BX Options (no longer active)
W	C2 Options Exchange
X	NASDAQ OMX PHLX / Philadelphia Stock Exchange (inactive)
Z	BATS

V. OPRA Condition Codes for Trade Records

Code	Exp_Cond_Code	Description
blank	REGU	Indicates that the transaction was a regular sale and was made without stated conditions.
A	CANC	Transaction previously reported (other than as the <u>last</u> or <u>opening</u> report for the particular option contract) is now to be cancelled
B	OSEQ	Transaction is being reported late and is out-of-sequence, i.e., later transactions have been reported for the particular option contract.
C	CNCL	Transaction is the last reported for the particular option contract and is now cancelled
D	LATE	Transaction is being reported late in the correct sequence. i.e., no later transactions have been reported for the particular option contract.
E	CNCO	Transaction was the first one (opening) reported this day for the particular option contract. Although later transactions have been reported, this transaction is now to be cancelled
F	OPEN	Transaction is a late report of the opening trade and is out of sequence, i.e., other transactions have been reported for the particular option contract.
G	CNOL	Transaction was the only one reported this day for the particular option contract and is now to be cancelled
H	OPNL	Transaction is a late report of the opening trade, but is in the correct sequence, i.e., no other transactions have been reported for this particular option contract.
I	AUTO	Transaction was executed electronically. This prefix appears solely for information; process as a regular transaction.
J	REOP	Transaction is a reopening of an option contract in which trading has been previously halted. This prefix appears solely for information; process as a regular transaction.
K	AJST	Transaction is an option contract for which the terms have been adjusted to reflect a stock dividend, stock split, or similar event. This prefix appears solely for information; process as a regular transaction.
L	SPRD	Transaction represents a trade in two options in the same option class (a buy and sell in the same class). This prefix appears solely for information; process as a regular transaction.
M	STDL	Transaction represents a trade in two options in the same option class (a buy and sell in a put and a call). This prefix appears solely for information; process as a regular transaction.
N	STDP	Transaction is the execution of a sale at a price agreed upon by the floor personnel involved, where a condition of the trade is that it be reported following a non-stopped trade of the same series at the same price.
O	CSTP	Cancel stopped transaction.
P	BWRT	Transaction represents the option portion of an order involving a single option leg (buy or sell of a call or put) and stock. The prefix appears solely for information; process as a regular transaction.
Q	CMBO	Transaction represents the buying of a call and the selling of a put for the same underlying stock or index. This prefix appears solely for information; process as a regular transaction
R	SPIM	Transaction was the execution of an order that was 'stopped' at a price that did not constitute a Trade-Through on another market at the time of the stop.
S	ISOI	Transaction was the execution of an order identified as an Intermarket Sweep Order
T	BNMT	Transaction reflects the execution of a 'benchmark trade'. A 'benchmark trade' is a trade resulting from the matching of 'Benchmark Orders'. A 'Benchmark Order' is an order for which the price is not based, directly or indirectly, on the quoted price of the option at the time of the order's execution and for which the material terms were not reasonably determinable at the time a commitment to trade the order was made.
X	XMPT	Transaction is Trade Through Exempt. The transaction should be treated like a regular sale.

VI. OPRA Condition Codes for Quote Records

Code	Exp_Cond_Code	Description
blank	REGU	Regular
A		Eligible for Automatic Execution
B		Bid contains Customer trading interest
C		Both Bid and Offer contain Customer trading interest
F	NONF	Non-Firm Quote
I		Inactive
O		Offer contains Customer trading interest
R	ROTA	Transaction is the execution of a sale at a price agreed upon by the floor personnel involved, where a condition of the trade is that it be reported following a non-stopped trade of the same series at the same price
T	HALT	Cancel stopped transaction; trading halted
X		Offer side of quote not firm; bid side firm
Y		Bid side of quote not firm; offer side firm

VII. Message Sequence Numbers

All messages are assigned a Message Sequence Number (MSN). The MSN field contains a number one greater than the number of the last message transmitted. A sequence number of 9999999999 will effect resetting of the MSN counters such that the sequence number of the succeeding message will be 0000000000. The sequence number in the header for Category L, M and N will all be 0's.

NOTE: The sequence number is restricted to 1,999,999,999 until further changes are made.

VIII. Corporate Actions

Tick Data provides the following corporate actions files with each dataset delivered:

- CompanyInfo.asc – provides a map of Tick Data's internal ID# to current company symbol, company name, and CUSIP.
- OptionInfo.asc – Provides a map of OPRA Class Symbol to Tick Data's internal ID# and the dates to which the match applies.

The format of each of these files is described below.

Company Information (CompanyInfo.asc)

Sample

TWX,TWX,TIME WARNER INC.,887317105000,NEW YORK STOCK EXCHANGE,,01/04/1993,09/30/2007,357
GE,GE,GENERAL ELECTRIC CO,369604103000,NEW YORK STOCK EXCHANGE,,01/04/1993,09/30/2007,3149

File Layout

Each record contains nine fields of data. These fields are comma-separated and are laid out as follows:

Field Name	Type	Description
Symbol	Character	Stock symbol. See Appendix A for details on suffixes.
File Name	Character	Name of file if data is delivered named by Symbol rather than by ID#.
Company_Name	Character	Company name.
CUSIP	Character	CUSIP number, which uniquely identifies a security. The Committee on Uniform Security Identification Procedure (CUSIP) assigns the first nine digits. Digits/characters 1-6 identify the issuer Digits/characters 7-9 identify the issue.

		The last three digits are applied by the NSCC to distinguish between NYSE, AMEX, and NASD issues: <ul style="list-style-type: none"> o NYSE 000 o NYSE when issued 100 o AMEX 001 o AMEX when issued 101 o NASD 002 o NASD when issued 102
Exchange	Character	Current exchange on which the symbol is traded.
Industry	Character	NYSE industry code. See Appendix B. Null after 01/01/2000.
First Date	Date	The first date for which data is available for the company.
Last Date	Date	The last date for which data is available for the company.
ID #	Numeric	Tick Data's Internal ID#.

Option Class Symbol Map (OptionInfo.asc)

Sample

KO,09/11/2007,09/12/2007,4283
 VKO,09/11/2007,09/12/2007,4283
 WKO,09/11/2007,09/12/2007,4283
 MTW,09/11/2007,09/12/2007,4656
 VMT,09/11/2007,09/12/2007,4656
 YLD,09/11/2007,09/12/2007,4656

File Layout

Each record contains four fields of data and serves to map each option class symbol to Tick Data's Internal ID#. These fields are comma-separated and are laid out as follows:

Option Class Symbol – the class symbol assigned to the underlying instrument.

Start date – Date on which the class symbol assignment started.

End date – Date on which the class symbol assignment ended.

Company ID# – Tick Data's Internal ID# for the underlying instrument. This ID# can be cross-referenced with the ID# in the *companyinfo.asc* file to find the corresponding underlying symbol.