



**LSE Equity Trade and Quote Data  
File Format Document**

**Version 3.1**

# Overview

Tick Data provides three types of market data for issues traded on the London Stock Exchange:

- (1) Trade data on all companies traded on all segments.
- (2) Best Bid-Ask (BBA) Quote data without volume for all companies traded on all segments (including the quote driven SEAQ segment). **NOTE: This product was decommissioned 04/20/2009\***
- (3) Enhanced Bests (EB) Quote data with volume.\*

\* Prior to 4/20/09 the EB product only contained data for the following segments:  
**AMSM, ETCS, ETF2, ETFS, INSD, LVSD, SET1, SET2, SET3, SSMM, SSMU, STMM**

Beginning 4/20/09 and ending 1/23/18, the EB product includes the following segments:

**AIM, AIMI, AMSM, ASQ1, ASQ2, ASQN, ASX1, ASX2, ASXN, CNVE, EQS, ETC2, ETCS, ETCU, ETF2, ETFS, ETFU, GILT, INSD, IOB, IOBE, IOBU, IRSQ, IRSU, ITBB, ITBU, ITR, LVSD, MISL, NSTS, SET1, SET2, SET3, SFM1, SFM2, SFM3, SFM4, SSMM, SSMU, SSQ3, SSQ4, SSX3, SSX4, STBS, STMM**

# Trades and Cancelled Trades

## Sample

12/07/2017,09:13:33.862,12/07/2017,09:13:33.866,,,616,160,AT,,1791753661204797,,,,-,1,2,-,-,-,-,-,P,H,-,-,XLON  
 12/07/2017,09:13:33.862,12/07/2017,09:13:33.866,,,616,26,AT,,1791753661204798,,,,-,1,2,-,-,-,-,-,P,H,-,-,XLON  
 12/07/2017,09:13:33.873,12/07/2017,09:13:33.876,,,617.5,42,AT,,1791753661204799,,,,-,1,2,-,-,-,-,-,P,H,-,-,XLON  
 12/07/2017,09:18:52.359,12/07/2017,09:18:52.349,,,615.5,45,AT,,1791753661205774,,,,-,1,2,-,-,-,-,-,P,H,-,-,XLON

Trade files and Cancelled Trade Message files have identical formats. The cancelled trade messages are separated into separate files since we believe they do not necessarily represent the real-time nature of trading as cancels are often posted several days after they Trade was published. The cancelled trade messages are provided in case you prefer to eliminate the Trade referenced by the cancelled trade message (NOTE: this is a practice that obviously cannot be replicated in real time).

Field	Type	Description
Publish Date	MM/DD/YYYY	
Publish Time	HH:MM:SS	
Trade Date	MM/DD/YYYY	
Trade Time	HH:MM:SS.mmm	Seconds before 1/24/2018; milliseconds thereafter
Cancelled Date	MM/DD/YYYY	Blank if not a cancelled trade; <b>Obsolete as of 01/24/2018</b>
Cancelled Time	HH:MM:SS	Blank if not a cancelled trade; <b>Obsolete as of 01/24/2018</b>
Price	Numeric decimal	
Volume	Numeric integer	
TT	Trade Type Indicator	This indicates the condition or type of trade <i>See Appendix A for more details.</i>
I	Trade Time Indicator	N=Normal, L=Late, O=Overnight; ; Obsolete as of 01/24/2018
Trade Code	Alphanumeric	A code which is assigned by the Exchange to uniquely identify executed trades. This field is reserved in the trade report messages which are sent from the participant to the Exchange.
Exclude Record Flag	Character (1)	<b>X</b> if this trade should be ignored due to specified condition. <i>See Appendix A for more details.</i>
Filtered Price	Numeric decimal	<b>Obsolete as of 01/24/2018</b>
CFD Order Buy	Character (1)	<b>Through 01/23/2018</b> "Y" - Indicates that the trade executed was a CFD Buy. "N" - Indicates that the trade was not a CFD trade, and was a normal equity trade.
Currency Code	String (ISO Code)	<b>As Of 1/24/2018</b> - Currency in which trade is executed.
CFD Order Sell	Character (1)	<b>Obsolete as of 01/24/2018</b>

		"Y" - Indicates that the trade executed was a CFD Sell. "N" - Indicates that the trade was not a CFD trade, and was a normal equity trade.
Bargain Condition	String	"B" – Trade with bargain conditions “-“ – No bargain conditions
Market Mechanism	String	<i>See Appendix C – Market Mechanism Codes</i>
Trade Mode	String	<i>See Appendix D – Trade Mode Codes</i>
Negotiated Trade Indicator	String	<i>See Appendix E – Negotiated Trade Indicator Codes</i>
Market Publication Mode	String	<i>See Appendix F – Market Publication Mode Codes</i>
Transaction Category	String	<i>See Appendix G – Transaction Category Codes</i>
Cross Indicator	String	"X" – Agency cross trade “-“ – Not a cross trade
Mode Indicator	String	"A" – Amended trade "C" – Trade cancellation “-“ – New trade
Benchmark Indicator	String	"B" – Benchmark trade "S" – Reference price trade “-“ – Not a benchmark trade
Dividend Indicator	String	"E" – Ex/Cum dividend “-“ – Not applicable
Price Forming Indicator	String	<i>See Appendix H – Price Forming Indicator Codes</i>
Algo Indicator	String	"H" – Algorithmic trade “-“ – Not an algorithmic trade
Deferral Type	String	<i>See Appendix I – Deferral Type Codes</i>
Duplicate Indicator	String	"1" – Duplicative trade reported to more than one APA “-“ – Unique trade report
Exchange Code	String	Trade Venue. <i>See Appendix J – Exchange Codes</i>

# Quotes – Level 1 Enhanced

## Sample

12/07/2017,08:00:16.391,79.27,80.88,80.075,1262,2239,,,,,T  
 12/07/2017,08:00:16.958,79.28,80.88,80.08,600,2239,,,,,T  
 12/07/2017,08:00:16.958,79.28,80.87,80.075,600,600,,,,,T  
 12/07/2017,08:00:18.681,79.28,80.88,80.08,600,2239,,,,,T  
 12/07/2017,08:00:18.985,79.28,80.87,80.075,600,600,,,,,T  
 12/07/2017,08:00:19.031,79.28,80.88,80.08,600,2239,,,,,T  
 12/07/2017,08:00:19.335,79.28,80.87,80.075,600,600,,,,,T  
 12/07/2017,08:00:23.304,79.27,80.87,80.07,1262,600,,,,,T

Field	Type	Description
Date	MM/DD/YYYY	
Time Stamp	HH:MM:SS.001	Until 4/11/2003, ‘.001’ is an intra-second sequence number.
	HH:MM:SS.000	4/14/2003 –1/23/2018, seconds.
	HH:MM:SS.sss	1/24/2018 – Present, milliseconds.
Bid Price	Numeric decimal	
Ask Price	Numeric decimal	
Mid Price	Numeric decimal	
Bid Size	Numeric integer	
Ask Size	Numeric integer	
Number of Orders at Best Price	Numeric integer	<b>Obsolete as of 02/14/2011</b>
Number of Orders at Best Ask	Numeric integer	<b>Obsolete as of 02/14/2011</b>
Bid Market Orders Indicator	Alphanumeric	‘Y’ - Market orders exist on the buy side of the book ‘N’ - Market orders do not exist on the buy side of the book <b>Obsolete as of 02/14/2011</b>
Offer Market Orders Indicator	Alphanumeric	‘Y’ - Market orders exist on the sell side of the book ‘N’ - Market orders do not exist on the sell side of the book <b>Obsolete as of 02/14/2011</b>
Best Price Status Indicator	Alphanumeric	Indicates the status of the order book best price for an instrument. See Appendix-B for more details. <b>Obsolete as of 02/14/2011</b>
Market Period	String	<i>See Appendix K – Market Period Codes</i>

# Quotes - Best Bid/Ask (bba)

*Obsolete as of 04/20/2009*

## Sample

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09/24/2007,08:00:22.000,636.5,639.0,638.0,F  
09/24/2007,08:00:24.000,637.0,639.0,638.0,F  
09/24/2007,08:00:27.000,636.5,639.0,638.0,F  
09/24/2007,08:00:37.000,637.0,639.0,638.0,F  
09/24/2007,08:00:37.000,637.0,641.0,639.0,F  
09/24/2007,08:00:37.000,637.0,641.0,639.0,F  
09/24/2007,08:00:37.000,639.5,641.0,640.5,F  
09/24/2007,08:00:37.000,638.0,641.0,639.5,F

Field	Type	Description
Date	MM/DD/YYYY	
Time Stamp	HH:MM:SS.000	‘.000’ is a zero-padded placeholder.
Bid Price	Numeric decimal	
Ask Price	Numeric decimal	
Mid Price	Numeric decimal	
BBA Indicator	Alphanumeric	Indicates the status of the order book best price for an instrument. <i>See Appendix B for details.</i>

# Corporate Actions

All fields in the following files are comma separated.

## ***Company Information***

<b>Field</b>
symbol
file name
company name
TI code
country
currency
LSE segment
sector
start date
end date
company id

## ***Splits***

<b>Field</b>
Company ID#
Effective date
Ratio

## ***Dividends***

<b>Field</b>
Company ID#
Declared Date
Ex-Date
Record Date
Pay Date
Net Amount
Gross Amount
Currency Type

## Appendix A - Trade Type Indicator / Exclusions

Below is a list of trade types that may be found in LSE trade data. Some are legacy codes from previous formats, but are included for backward compatibility. While all trades are included in Deep History source files, certain conditions will cause TickWrite to *not* write a trade message into output files by default (this setting can be changed). Trades are marked with an “X” in the *Exclude Record Flag* field and are excluded from output by default under the following conditions:

- 1) Publish date does not match the Trade Date
- 2) Trades executed in a currency other than the standard trading currency
- 3) Trades where the Price Forming Indicator is not equal to “P”
- 4) Trades where the Negotiated Trade Indicator is not equal to “-“
- 5) Trades where the Market Publication Mode is not equal to “-“
- 6) Trades where the Duplicate Indicator is not equal to “-“
- 7) Trades where the Trade Type Indicator is one of the following values: GC, IF, LC, OC, GT, RFQ, SC, SI, SK, TK (see below)

Trade Type	Description	Excluded
AI	Automated Input facility - If reporting that a member firm has disabled its automated input facility in response to a request from the Exchange.	
AT	Automatic Trade - An automatic trade generated by the system through automatic execution. This trade type should not be input by participants into the system.	
B	Broker to Broker - If reporting a transaction between two member firms where neither firm is registered as a market maker in the security in question and neither is a designated fund manager. This indicator shall also be applied by the broker when buying or selling domestic equity market securities through a broker that is not a member firm.	
CT	Contra Trade - Used to publish a contra trade in a previously automatically executed trade through the order book.	
CT	Contra Trade	
DC	Dual Sided trade report Contra	
ER	Euro Trades	
EU	Euro Automated Trades	



GC	Cancellation of GILT & UKGT segment trades after date of submission	X
IF	Inter fund cross delayed publication	X
K	Block Trade - If reporting a transaction using the block trade facility.	
LC	Late Trade Correction - If reporting a correction submitted more than three days after the trade date or where deferred publication is permitted at any time after the trade report was submitted to the Exchange reporting system.	X
M	Market Maker to Market Maker including through IDB - If reporting a transaction between two market makers registered in the security in question including those executed through an inter dealer broker or a public display system.	
N	Non Protected Portfolio - If reporting a non-protected portfolio transaction or a fully disclosed portfolio transaction.	
NC	Cancellation of a NM trade after date of submission	
NK	Negotiated trade with delayed publication	
NK	Negotiated trade delayed publication	
NM	Not to Mark - If reporting a transaction where the Exchange has granted permission for non-publication.	
NR	Non Risk (SEATS Based Segments only) - If reporting a non-risk transaction.	
NT	Negotiated trade immediate publication	
O	Ordinary Trade - If reporting a transaction that is not covered by any of the trade types listed below.	
OC	Cancellation of OTC trade after date of publication	X
OK	Ordinary trade with delayed publication	
OT	OTC trade	
P	Protected Portfolio - If reporting a protected portfolio transaction or, if reporting a trade resulting from a worked principal agreement for a portfolio transaction.	
PA	If reporting a protected transaction at the time that protection is applied.	

PC	Previous Day Contra - Used when reporting a Contra Trade when the contra date is not the trade date.	
PN	Worked Principal Portfolio Notification - If reporting that a Member firm has agreed to take on a worked principal agreement for a portfolio transaction.	
PT	Closing Price Crossing Session Trade	
R	Riskless Principal transaction at different Price - If reporting a riskless principal transaction with two non members, where the two transactions are executed at different prices or on different terms (this requires two separate trade reports).	
RFQ	RFQ trade	<b>X</b>
RO	Result of Option - If reporting a transaction which resulted from the exercise of an option.	
RT	Risk Trade (SEATS Based Segments only) - If reporting a risk transaction.	
SC	Cancellation of SI trade after publication	<b>X</b>
SI	SI (Systematic Internaliser) trade	<b>X</b>
SK	SI trade delayed publication	<b>X</b>
ST	SEAQ Trade - This is used for the single uncrossing trade, detailing the total executed volume and uncrossing price as a result of a SEAQ auction.	
SW	Stock Swap - If reporting transactions comprised in a stock swap or stock switch (one report is required for each line of stock swapped or switched).	
T	If reporting a single protected transaction.	
TK	OTC trade delayed publication	<b>X</b>
UT	Uncrossing Trade - This is used for the single uncrossing trade, detailing the total executed volume and uncrossing price as a result of a SETS auction.	
VW	Volume Weighted Average Price - When reporting a transaction that was effected at a price based on a volume weighted average price over a given period.	
WN	Worked Principal Notification - If notifying the Exchange that a member firm has entered into a worked principal agreement for a single security.	

WT	Worked Principal Trade - If reporting the trade resulting from a worked principal agreement for a single security.	
X	Cross at the Same Price - Where the transaction was effected as an agency cross or a riskless principal transaction at the same price and on the same terms (this requires one trade report).	

## Appendix B – Best Price Status Indicator

It is populated as follows, rules in order of precedence:

Best Price Status Indicator	Description
M	Only market orders exist on the book
F	Firm best bid and offer price
N	One or both sides of the book empty
S	At least one Firm bid or offer price on one side of the book and only market orders on the other side of the book.

The following tables show how this value is derived in all possible order book situations, for both auction call and continuous trading periods.

“Last Trade” refers to the last automatic trade price.

Table 1: Best Price Message fields for Automatic Execution Periods:

Order Book		Best Price Message Fields			
Buy Side	Sell Side	Best Bid Price	Best Ask Price	Mid Price	Best Price Status Indicator
Firm	Firm	Best Bid	Best Ask	Mid	F
Firm	Empty	Best Bid	Zero	Best Bid	N
Empty	Firm	Zero	Best Ask	Best Ask	N
Empty	Empty	Zero	Zero	Zero	N

Table 2: Best Price Message fields for Auction Call periods (no Automatic execution):

Order Book		Best Price Message Fields			
Buy Side	Sell Side	Best Bid Price	Best Ask Price	Mid Price	Best Price Status Indicator
Firm	Firm	Best Bid	Best Ask	Mid	F
Firm	Market	Best Bid	Zero	Best Bid	S
Market	Firm	Zero	Best Ask	Best Ask	S
Firm	Empty	Best Bid	Zero	Best Bid	N
Empty	Firm	Zero	Best Ask	Best Ask	N

Market	Market	Zero	Zero	Zero	M
Market	Indicative	Zero	Best Ask	Best Ask	I
Market	Empty	Zero	Zero	Zero	M
Empty	Market	Zero	Zero	Zero	M
Empty	Indicative	Zero	Best Ask	Best Ask	N
Empty	Empty	Zero	Zero	Zero	N

## Appendix C – Market Mechanism Codes

Value	Description
1	Central Limit Order Book
2	Quote Driven Market
3	Dark Book
4	Off Book
5	Periodic Auction
6	Request for Quote
-	Not applicable

## Appendix D – Trade Mode Codes

Value	Description
1	Auction
2	Continuous trading
3	At Market Close Trading
5	Trade reporting (on-exchange)
6	Trade reporting (off-exchange)
7	Trade reporting (Systematic Internaliser)
I	Intraday auction
K	Closing auction
O	Opening auction
U	Unscheduled auction
-	Not applicable

## Appendix E – Negotiated Trade Indicator Codes

Value	Description
N	Negotiated trade
1	Negotiated trade in liquid instruments
2	Negotiated trade in illiquid instruments
3	Negotiated trade subject to conditions other than the market price
4	Pre-trade transparency waiver for illiquid instrument on an SI
5	Pre-trade transparency waiver for trade larger than Standard Market Size on an SI
6	Pre-trade transparency waivers for trade larger than Standard Market Size on an SI and illiquid instrument on an SI
-	Not applicable

## Appendix F – Market Publication Mode Codes

Value	Description
1	Delayed publication / late reported
2	Deferred publication (Large in Scale)
3	Deferred publication (illiquid instrument)
4	Deferred publication (size specific to instrument)
5	Deferred publication (illiquid instrument and size specific to instrument)
6	Deferred publication (illiquid instrument and Large in Scale)
-	Immediate publication

## Appendix G – Transaction Category Codes

Value	Description
D	Dark trade
R	Trade receiving price improvement
Y	Exchange for physical
Z	Package trade
-	Not applicable

## Appendix H – Price Forming Indicator Codes

Value	Description
J	Trade not contributing to the price discovery process
N	Price not available but pending
P	Plain vanilla (price-forming) trade
T	Non-price forming (technical) trade

## Appendix I – Deferral Type Codes

Value	Description
1	Limited details
2	Daily aggregated trade
3	Volume omission trade
4	4 weeks aggregated trade
5	Indefinite aggregated trade
6	Volume omission trade eligible for enrichment in aggregated form
7	Full details of earlier Limited Details trade
8	Full details of earlier Daily Aggregated trade
9	Full details of earlier Volume Omission trade
V	Full details of 4 Weeks Aggregated trade
W	Full details of Volume Omission trade eligible for enrichment in aggregated form
-	No deferral / unspecified

## Appendix J – Exchange Codes

Value	Description
XLON	London Stock Exchange
XLOM	London Stock Exchange - MTF
AIMX	London Stock Exchange - AIM MTF
XPOS	ITG Posit
XOFF	Off Exchange
SINT	Systematic Internaliser

Note: This is not a comprehensive list. Trade venues are presented as MIC Codes.

## Appendix K – Market Period Codes

Value	Description
1	Inactive
2	Suspended
3	Active
G	Intraday auction call
H	Halted
J	Halt (matching partition suspended)
K	Halt (system suspended)
P	Regulatory halt
T	Regular trading / trade reporting
a	Opening auction call
b	Post-close
c	Closed
d	Closing auction call
e	Volatility auction call
f	Re-opening auction call
l	Pause
m	Pre-mandatory
n	Mandatory quote period
o	Post-mandatory
p	Futures Close-Out auction
q	EDSP auction call
r	Periodic auction call
s	Closing price crossing



t	End of trade reporting
u	Closing price crossing
v	Closing price publication
w	No active session
x	End of post-close
y	Pre-trading