London Stock Exchange

HISTORICAL DATA PRODUCTS: TICK DATA

Technical Specifications

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Contents

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Introduction

PURPOSE

This document provides detailed information for the Tick Data product including:

- Overview of the service
- Criteria for data inclusion in the service
- Format of the files
- Detailed description of service contents
- Availability of the service
- Other information

It will be updated and reissued when appropriate to do so.

READERSHIP

This document is relevant to both technical and non-technical teams within member firms, information vendors and other market participants who currently have access to, or are interested in accessing, historical data products from London Stock Exchange Group (LSEG).

It is intended to provide all required information to access and interpret Tick Data files, one of our historical data product offerings.

DOCUMENT HISTORY

This document has been subject to the following iterations:

Issue	Date	Description
1.0	20 June 2022	Initial version

In subsequent issues of this document, where amendments have been made, these changes are indicated through the use of red text.

ENQUIRIES

For further information on London Stock Exchange Historical Data products, please contact the LSEG market data team at marketdata@lseg.com.

Further information on London Stock Exchange market data products can be found on our website:

https://www.lseg.com/markets-products-and-services/market-information/market-data

Service Overview

SERVICE DESCRIPTION

The Tick Data service provides customers with an end-of-day download of time and sales data, including price and volume information for each transaction executed on our markets. The data is available for all securities traded on the London Stock Exchange as well as transactions reported via TRADEcho, the trade reporting service operated by London Stock Exchange Group.

The data provides an official and complete historic reference database of all trades and best prices since September 1996, direct from source. The data is used to facilitate the building of trading models and algorithms, and allows users to test the profitability of these models using official, historic data. It also aids technical and quantitative analysis of securities and markets on the London Stock Exchange.

The service can be accessed either for:

- One-off historical data purchases, or;
- Ongoing daily subscriptions

CRITERIA FOR INCLUSION IN THE SERVICE

All trades published on London Stock Exchange's Global Ticker Plant are included in the service, including:

- All trades published on a given day (regardless of time of trade execution or reporting);
- Contras and cancellation trades are included on the day the contra or correction is published;
- Late Trade corrections are included on the day the correction is published;
- Late and Overnight trades are included on the day the late and overnight trades are published.

The data will only include trades published on London Stock Exchange's Global Ticker Plant during a given month. If, for example, a trade executed on 31 October, which is subject to a 5 business day delay in publication, will be included in the data for November, as this is when the trade is published. The data is supplied to customers in a raw format (i.e. when a contra occurs trades are not adjusted, prices are not rebased, etc) as customer feedback expressed a preference for a raw data dump as it allows flexibility in manipulating data.

Additionally, all trades that are reported through TRADEcho are included in the service.

Separate files are available for LSE cash market venue and TRADEcho reported data.

FILE AVAILABILITY

File Publication

The Daily Tick Data files will be published on LSEG's Managed File Transfer (MFT) service.

Customers should refer to the separate Managed File Transfer Connectivity Customer Guide for instructions on how to get access to this service.

Note that the MFT service may not be available during weekend maintenance windows.

File Publication Time

The Daily Tick Data files will be made available by 18:30 London time every business day.

The data will contain information relating to the current business day's data.

The Exchange will take all reasonable steps to meet the above delivery times and dates, but such times and dates shall be estimates only and the Exchange shall not be liable for failure to meet them. In certain circumstances the publication of files will be delayed, for example on an extremely busy trading day. If a problem is encountered with the extraction process the Exchange will produce the files on a best endeavours basis.

OTHER NOTES

Trade Cancellations

Where a trade (excluding automatic trades) has been cancelled the date and time at which this cancellation was executed will be contained in the Trade Cancellation Time Stamp field (Trade Cancellation Trade Stamp). The Trade Publication Time Stamp and Trade Time Stamp fields will refer to the publication date and time of the original trade that has been cancelled, and the execution date and time of the original trade respectively. The Trade Code will be the same for both the original trade and the cancelled trade.

For automatic trades, a contra trade is executed with a CT trade type indicator. The Trade Code is different to the original trade, although the Trade Time Stamp fields will be the same to show which AT the CT refers to.

The Trade Cancellation Time Stamp field will be left blank if there has not been a cancellation (i.e. if the trade does not refer to a cancellation).

Notes Regarding Gilts

It is worth noting that some gilts prices and trades refer to nominal values, where for example, a £105 trade can refer to a £100 stock.

Rebased Data

The data in the tick data service is not rebased and has not been adjusted for corporate actions. If you would like to subscribe to the London Stock Exchange's SSN service which allows you to monitor corporate actions on an ongoing basis please contact Product Management.

Previous File Formats

This specification sets out the **current** file and field format for Tick Data files. The file and field format for these files changed in Q2 2022. Please contact the LSEG market data team for the file and field formats for data prior to this date.

Technical Specification

FILE FORMAT

Files are created in accordance with the following specifications:

Attribute	Description
File format	csv
Fields delimiter	, (comma)
Field enclosing	Fields may optionally be enclosed by double quotes
Null fields	Will be empty (i.e. contain no data)
Decimal symbol	. (point)
Digit grouping symbol (thousands separator)	None
End of line	\n
Character encoding standard	UTF8

Files will be compressed using gzip and will be published with a .GZ extension. Clients should use widely available software such as 7-Zip or WinZip to access the file contents.

FILE NAME

The Tick Data files shall have the following format:

<Venue Name>_TICK_<YYYYMMDD>.CSV

For example:

LSE_TICK_20211026.CSV is the Tick Data file for 26 October 2021 for LSE

TE_TICK_20211026.CSV is the Tick Data file for 26 October 2021 for TRADEcho

TYPE DEFINITIONS

Definitions of the types of data fields are listed below:

Type Definition	Description
Integer	whole number
Float	real number field including a decimal point
Timestamp	format YYYY-MM-DD HH24:MI:SS.FF9
Char(n)	indicates an alpha-numeric field of maximum length n

ISO Cross References

Country	ISO3166
Currency	ISO4217 plus GBX (GB pence) and USX (US cents)
ISIN	ISO6166

FIELD FORMAT

Header Record

The header record contains the column headings (comma delimited).

Trailer Record

There is no trailer record.

Data Fields

The following data fields are included in the tick data file.

Field	Type	Description
Tradable Instrument Code	Char(12)	Together with the Country Of Register, Currency Code and Market Segment, this will uniquely identify a tradable instrument. This will be the International Security Identification Number (ISIN).
Tradable Instrument Display Mnemonic	Char(4)	The mnemonic code is allocated by the London Stock Exchange and used to identify a tradable instrument.
Issuer Name	Char(35)	The full name of the issuer of a tradable instrument.
Country Of Register	Char(2)	This specifies the Country of Register for a specific tradable instrument. This is an ISO country code (ISO 3166).
Currency Code	Char(3)	The currency in which prices for a tradable instrument are most frequently expressed. This is an ISO currency code (ISO 4217 plus GBX and USX).
Market Segment Code	Char(4)	A code which uniquely identifies a specific trading area as defined by the London Stock Exchange.
Market Sector Code	Char(4)	This code identifies a division of the market within a Market Segment.
Trade Publication Time Stamp	Timestamp	The date and time at which a trade was published to the market via London Stock Exchange's Global Ticker Plant.
Trade Cancellation Trade Stamp	Timestamp	The date and time at which a trade was cancelled. This field will be blank if a trade has not been cancelled. Note the Trade Publication Time Stamp and Trade Time Stamp fields will refer to the original trade that has been cancelled. The Trade Code will be the same for both the original trade and cancelled trade.
Trade Time Stamp	Timestamp	The date and time at which a trade was executed.
Trade Size	Integer	The quantity of tradable instrument which was bought or sold.
Trade Price	Float	The price at which a trade was executed.
Trade Type Indicator	Char(4)	This indicates the type of trade which has occurred.
Trade Time Indicator	Char(1)	This field indicates whether a reported trade was made outside a normal reporting period, whether it was reported late or whether it was reported on time. Possible values: 'N' Normal 'L' Late 'O' Overnight
Trade Code	Char(10)	A code assigned by the London Stock Exchange to uniquely identify executed trades. Note a cancelled trade will be assigned the same Trade Code as the original trade that occurred.

Reserved		Reserved for future use
Converted Price Flag	Char(1)	Possible values: 'N' Normal 'Y' Trade agreed in one currency but reported in another (TRADEcho only)

TRADE TYPE INDICATOR

For On Book trades, the trade type indicator will take one of the following values:

Trade Type Indicator	**Description**
'AT'	Automatic Trade
'CT'	Contra Trade
'UT'	Uncrossing Trade
'PT'	Closing Price Crossing Session Trade
'PC'	Previous Day Contra Trade
'RF'	Request for Quote Trade
'IX'	Internal Cross Trade
'IB'	Internal Block Trade Facility
'CX'	Committed Cross
'CB'	Committed Block Trade Facility

For Off Book trades, the trade type indicator will take one of the following values:

Trade Type Indicator	**Description**
XLON	Off Book – Executed on London Stock Exchange UK regulated market
XLOM	Off Book – Executed on London Stock Exchange multilateral trading facility (MTF), but not including AIM
AIMX	Off Book – AIM security executed on London Stock Exchange MTF
XOFF	OTC Trade (Not subject to Rules of London Stock Exchange)
SINT	SI Trade (Not subject to Rules of London Stock Exchange)
MIC of MTF	MTF trade (Not subject to Rules of London Stock Exchange) The trade type indicator will be set to the MIC code of the relevant Multilateral Trading Facility (MTF)
MIC of OTF	OTF trade (Not subject to Rules of London Stock Exchange) The trade type indicator will be set to the MIC code of the relevant Organised Trading Facility (OTF)

Please note these are subject to change – customers should refer to the 'Business and technical parameters' document in the Technical Library section of the London Stock Exchange website:

https://www.londonstockexchange.com/resources/trade-resources?tab=technical-library