# BMLL Data Feed

## Trades

**Date:** 2026-02-09
**Version**: 4.9

## 1.1. Introduction

A trade-by-trade view of all executions across primary and secondary markets and trade reporting facilities, delivered in a simple, normalised format.
Use this dataset to compute volume aggregates, analyse the market share of different execution mechanisms, or build a detailed trade-by-trade view of the market.

## 1.2. Dataset schema

Basic Types

| Type | Content | Text representation |
|---|---|---|
| BOOLEAN | A True or False boolean value. | 1,0 |
| INT32 | A 32 bit signed integer. | 12345 |
| INT64 | A 64 bit signed integer. | 12345 |
| DOUBLE | IEEE 64-bit floating point value. | 123.4567 |
| BYTE_ARRAY | An arbitrarily long byte array. | "VODAFONE GROUP" |
| NUMBER | A number with defined precision (total digits allowed) and scale (number of digits allowed to the right of the decimal point). Unless otherwise specified, the default is precision 38 and scale 0. | 12345 |
| VARCHAR | Variable length string up to 500 characters. May contain quotes and special characters. All text will be utf8-encoded unless indicated differently. Ticker and ISO codes should be ASCII compatible. | "VODAFONE GROUP" |
| TIMESTAMP_NTZ | Nanoseconds since 1970 in UTC. Timestamp will be represented in ISO format in text format. | 20220302-11:23.57.12345789 |
| FLOAT | IEEE 64-bit floating point value. | 123.4567 |
| DATE | A calendar date consisting of a year, month, and day, without including any time or time zone components. | 2025-01-01 |


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## 1.3. Schema

One row corresponds to a single trade or execution event, with BMLL sequence numbers for ordering and deduplication.

| Field Name (Snowflake / Databricks) | Field Name (Parquet) | Type (Snowflake / Databricks) | Type (Parquet) | Description |
|---|---|---|---|---|
| EXCHANGE_TICKER | ExchangeTicker | VARCHAR | BYTE_ARRAY | BMLL-format venue ticker carried under the ExchangeTicker physical name in parquet/Revelate parquet schemas. API, Snowflake, and Databricks materialisations should expose this semantic as Ticker. |
| TICKER | Ticker | VARCHAR | BYTE_ARRAY | BMLL-format ticker for a listing on its trading venue. This is the customer-facing Ticker used in API, Snowflake, and Databricks materialisations. |
| ISO_EXCHANGE_CODE | ISOExchangeCode | VARCHAR | BYTE_ARRAY | The ISO code of the primary exchange associated with the Instrument. On stocks this ISO code will generally be one of, AMS, BRU, BUD, CSE, DUB, ETR, ICE, HEL, LIS, LIT, LON, MIL, MCE, OME, OSL, PAR, PRA, STO, SWX, RIS, TAL or WBO. In other classes, BATE, DXE, TQEX, TRQX may also be the main regional venue for the instrument. |

| Field Name (Snowflake / Databricks) | Field Name (Parquet) | Type (Snowflake / Databricks) | Type (Parquet) | Description |
|---|---|---|---|---|
| MIC | MIC | VARCHAR | BYTE_ARRAY | The Market Identifier Code (MIC) is used to uniquely identify the exchange which is reporting market activity. |
| OPOL | OPOL | VARCHAR | BYTE_ARRAY | Original Place Of Listing for the instrument. |
| INSTRUMENT_ID | InstrumentId | VARCHAR | INT64 | The BMLL identifier of the BMLL instrument. BMLL instruments are designed to connect together listings of a designated underlying asset when they are issued with similar condition (i.e. same quoting currency, geographical, legislation region, primary reference venue). |
| TRADE_DATE | TradeDate | DATE | INT32 | Date associated with the dataset row. Product-level smell records document any legacy product where this date is derived from publication time rather than the venue trade timestamp. |
| TRADE_TIMESTAMP | TradeTimestamp | TIMESTAMP_NTZ | INT64 | Time at which the trade was executed. Timezone is UTC. Generally delivered at microsecond precision. |

| Field Name (Snowflake / Databricks) | Field Name (Parquet) | Type (Snowflake / Databricks) | Type (Parquet) | Description |
|---|---|---|---|---|
| PUBLICATION_TIMESTAMP | PublicationTimestamp | TIMESTAMP_NTZ | INT64 | Time at which the trade was reported. Timezone is UTC. Generally delivered at microsecond precision. |
| LOCAL_TRADE_TIMESTAMP | LocalTradeTimestamp | TIMESTAMP_NTZ | INT64 | |
| LOCAL_PUBLICATION_TIMESTAMP | LocalPublicationTimestamp | TIMESTAMP_NTZ | INT64 | Time at which the trade was reported. Time Zone is the local timezone. Generally delivered at microsecond precision. |
| TRADE_TIMESTAMP_NANOSECONDS | TradeTimestampNanoseconds | NUMBER | INT64 | Time at which the trade was executed. Timezone is UTC. Generally delivered at nanosecond precision. |
| PUBLICATION_TIMESTAMP_NANOSECONDS | PublicationTimestampNanoseconds | NUMBER | INT64 | Time at which the trade was reported. Timezone is UTC. Generally delivered at nanosecond precision. |
| TZ_OFFSET | TZOffset | NUMBER | INT64 | The offset between the local timestamp and UTC in seconds.Note: This is based on the original listing location of the primary instrument. Format was +/- HHMM . This will be adjusted during the DST if such a change occurs. |

| Field Name (Snowflake / Databricks) | Field Name (Parquet) | Type (Snowflake / Databricks) | Type (Parquet) | Description |
|---|---|---|---|---|
| BMLL_OBJECT_ID | BMLLObjectId | NUMBER | BYTE_ARRAY | The ObjectId identifier is the primary identifier used within BMLL APIs to represent a specific financial instrument or security. |
| TRADE_ID | TradeId | VARCHAR | BYTE_ARRAY | When available, the Trade ID as provided by the exchange. The ID associated with an execution can be used to link to the Trades Table described below. Each value corresponds to a unique row in the trades table, if provided. |
| AGGRESSOR_SIDE | AggressorSide | VARCHAR | BYTE_ARRAY | Side of the aggressive trade |
| PRICE | Price | FLOAT | DOUBLE | price at which the order occurred after the event |
| SIZE | Size | FLOAT | DOUBLE | size of the order on the book after the event |
| SEQUENCE_NO | SequenceNo | NUMBER | INT64 | |

| Field Name (Snowflake / Databricks) | Field Name (Parquet) | Type (Snowflake / Databricks) | Type (Parquet) | Description |
|---|---|---|---|---|
| CURRENCY_CODE | CurrencyCode | VARCHAR | BYTE_ARRAY | The currency code used for all price information ( unless specified differently in specific column descriptions). The Currency code is represented following ISO-4217 codes (see https://en.wikipedia.org/wiki/ISO_4217) . Minor currencies are represented using the major currency code and putting in lower case the last letter of the major currency code. |
| PRINTABLE | Printable | BOOLEAN | BOOLEAN | Printable value as computed by BMLL parser allowing to filter out duplicate (non-printable) trade reports. These can be synthetic trade report, or trade reports describing a same execution from the view of the counterparty. |
| EXECUTION_VENUE | ExecutionVenue | VARCHAR | BYTE_ARRAY | MIC of the venue of which the trade was executed. If executed off-venue the execution venue will be XOFF. If it is executed on a systematic internaliser, the execution venue will be SINT |

| Field Name (Snowflake / Databricks) | Field Name (Parquet) | Type (Snowflake / Databricks) | Type (Parquet) | Description |
|---|---|---|---|---|
| ORIGINAL_TRADE_TYPE | OriginalTradeType | VARCHAR | BYTE_ARRAY | A concatenation of flags relating to trade type as reported by the exchange in their string representation. Documentation of this field is exchange dependent. See appendices table for more information about this feld. |
| MARKET_MECHANISM | MarketMechanism | VARCHAR | BYTE_ARRAY | MMT Flag |
| TRADING_MODE | TradingMode | VARCHAR | BYTE_ARRAY | MMT Flag |
| MODIFICATION_INDICATOR | ModificationIndicator | VARCHAR | BYTE_ARRAY | Indicator specifying if a trade has been amended or cancelled. |
| BMLL_TRADE_TYPE | BMLLTradeType | VARCHAR | BYTE_ARRAY | Normalised Trade Type according to BMLL normalisation |
| MARKET_STATE | MarketState | VARCHAR | BYTE_ARRAY | Standardised market state information. See below for description of possible market states. |
| TRANSACTION_CATEGORY | TransactionCategory | VARCHAR | BYTE_ARRAY | MMT Flag - Transactiion Category |
| NEGOTIATED_TRADE | NegotiatedTrade | VARCHAR | BYTE_ARRAY | MMT Flag - Negotiation Indicator or Pre-Trade Transparency Waiver |
| CROSSING_TRADE | CrossingTrade | VARCHAR | BYTE_ARRAY | MMT Flag - used to indicate if the trade was the result of a cross executed by the broker. |
| BENCHMARK_INDICATOR | BenchmarkIndicator | VARCHAR | BYTE_ARRAY | MMT Flag |

| Field Name (Snowflake / Databricks) | Field Name (Parquet) | Type (Snowflake / Databricks) | Type (Parquet) | Description |
|---|---|---|---|---|
| SPECIAL_DIVIDEND_INDICATOR | SpecialDividendIndicator | VARCHAR | BYTE_ARRAY | MMT Flag - Denotes trades that are either: executed during the ex-dividend period where the dividend or other form of distribution accrues to the buyer instead of the seller; or executed during the cum-dividend period where the dividend or other form of distribution accrues to the seller instead of the buyer. |
| OFF_BOOK_AUTOMATED_INDICATOR | OffBookAutomatedIndicator | VARCHAR | BYTE_ARRAY | MMT Flag |
| PRICE_FORMATION | PriceFormation | VARCHAR | BYTE_ARRAY | MMT Flag |
| ALGORITHMIC_TRADE | AlgorithmicTrade | VARCHAR | BYTE_ARRAY | MMT Flag |
| PUBLICATION_MODE | PublicationMode | VARCHAR | BYTE_ARRAY | MMT Flag |
| DEFERRAL_TYPE | DeferralType | VARCHAR | BYTE_ARRAY | MMT Flag |
| DUPLICATIVE_INDICATOR | DuplicativeIndicator | VARCHAR | BYTE_ARRAY | MMT Flag |
| EXCHANGE_SEQUENCE_NO | ExchangeSequenceNo | NUMBER | INT64 | The sequence number as provided by the exchange. Note that some exchange may not provide a sequence number in this case the ExchangeSequenceNo will always be 0. |

| Field Name (Snowflake / Databricks) | Field Name (Parquet) | Type (Snowflake / Databricks) | Type (Parquet) | Description |
|---|---|---|---|---|
| BMLL_SEQUENCE_NO | BMLLSequenceNo | NUMBER | INT64 | The sequence no of the trade in the upstream feed as inferred by BMLL - this sequence number will respect the order of messages in upstream protocol and will be populated even if the upstream venue does not provide a sequence number - where the source of the feed is indicated by BMLLSequenceSource. |
| BMLL_SEQUENCE_SOURCE | BMLLSequenceSource | NUMBER | INT64 | An integer used to identify the upstream feed from which the sequence numbers are generated. This is designed to avoid the creation of non-existent order between events that come from different message streams |

## 1.4. Notes

One row in the dataset corresponds to a single execution or trade during the trading day. Events can be order book executions, new trade reports, trade amendments or trade cancellations.

Trade reports can include duplicate and alternative representations of the same trade from a different point of view. When computing volumes, to avoid double counting trade reports, you should filter out trade reports that are not marked "Printable" as duplicates.

Trade amendments are always preceded by a trade cancellation. Trade cancellations always have a negative "Size" field. Aggregation on all the printable trades on specific intervals gives an accurate vision of the volume traded during that interval.
Aggressor side: The aggressor side is only provided for executions that can be deterministically mapped to a side of the order book. It is not inferred when there is no clear side (e.g. for an off-book trade).
Use of MMT flags: Multiple flags are taken from the FIX MMT Standard (see fixtrading.org/mmt). This is provided as is when MMT flags are provided. For venues where MMT is not provided, fields are normalised to that field (for example, the ModificationIndicator).

## 1.5. BMLL Trade Type

Canonical BMLLTradeType enumeration.

| Code | Description |
|---|---|
| BENCHMARK_PRICE | Trade executed at a benchmark price |
| CLOSING_PRICE | Trade executed at closing price |
| DARK | Trade executed on dark order book |
| EXCHANGE_FOR_RELATED_POSITION | Reserved |
| LIT | Trade executed on a lit order book |
| OTC | Reported Trade |
| REQUEST_FOR_QUOTE | Trade executed via an RFQ venue |
| SPECIAL_PRICE | Trade priced differently from normal market conditions |
| UNCROSSING | Trade resulting from an auction uncross |
| UNKNOWN | Unknown trade type |

## 1.6. Venue-specific Original Trade Type

Europe

| Venues | Source column | Values |
|---|---|---|
| XETR, XWBO, XBUD, XPRA | match_type | 13 Liquidity Improvement - Cross Trade; 3 Manual Trade; 5 Uncrossing Trade; 7 Auction Trade |
| XAMS, XBRU, XLIS, XMIL, XOSL, XPAR | original_trade_type | 1 Conventional Trade (Cash and Derivatives); 2 Large in Scale (LiS) Trade (Derivatives Only); 3 Basis Trade (Derivatives Only); 4 Large in Scale (LiS) Package Trade (Derivatives Only); 5 Guaranteed Cross Trade (Cash and Derivatives); 6 Against Actual Trade (Derivatives Only); 7 Asset Allocation Trade (Derivatives Only); 9 Exchange for Swap Trade (Derivatives Only); 10 Exchange for Physical Trade - Cash Leg (Cash Only); 20 BoB Trade (Cash Only); 21 SI Trade (Cash Only); 22 AtomX Trade (Derivatives Only); 24 Trade Cancellation (Cash and Derivatives); 25 Out of Market Trade (Cash Only); 26 Delta Neutral Trade - Underlying Cash Leg (Cash Only); 27 Market VWAP Operation Trade (Cash Only); 28 Euronext Fund Service Trade (Cash Only); 29 Secondary Listing Trade (Cash Only); 30 Request for Cross (Derivatives Only); 31 Request for cross strategy Leg Trade (Derivatives Only); 32 Trade Publication (Cash Only); 33 Dark Trade (Cash Only); 34 Delta Neutral Trade - Underlying Future Leg (Derivatives Only); 39 Guaranteed Cross - Negotiated deal NLIQ (Liquid); 40 Guaranteed Cross - Negotiated deal OILQ (Liquid); 41 Large in Scale (LIS) Trade (Cash) |
| XSTO, XCSE, XHEL, XICE, XLIT, XRIS, XTAL | cross_type | O Opening Cross; I Scheduled Intraday Cross; C Closing Cross; H Cross for halted securities; A Auction On Demand |
| XEQT | trade_type | B VBBO trade (buy-side aggressor); S VBBO trade (sell side aggressor); A Auction trade; O Opening cross trade; C Closing cross trade; U Uncrossing trade; T Consolidated trade |

| Venues | Source column | Values |
|---|---|---|
| | | (Market by Limit); N Off-book, on-Exchange trade report; b ALP order trade (buy-side aggressor); s ALP order trade (sell side aggressor) |
| XATH | trade_type | N Normal; O Odd-Lot; P Pre-Agreed (Over the Counter); S Special Terms (With the Hit & Take Method); F Forced Sales (With the Hit & Take Method) |

## Middle East & Africa

| Venues | Source column | Values |
|---|---|---|
| A2XX | trade_type | 1 Limit order; 2 Trade against hidden or reserve quantity in the continuous trading order book; 3 Market at Close (MaC) trade; 4 LIS Cross Trade; 5 Benchmark Cross trade; 6 Auction on Demand (AoD) |
| XIST | trade_cond_1 | 1 Automatch Trade; Other — 4 big classes of trading conditions: 208/19420 Trade report cannot be done; 210/216/222/234/250/13132 Trade report for wholesale transactions; 212/226/230/236/252/13130 Trade report can be done from last traded price; 214/220/11278/11280/11880/13128/37170/37172/37174/37176 Trade report can be done from last price with a +/- change in price range |
| XIST | trade_cond_2 | 1 Normal Trade; 2 Reported Trade; 3 All or None; 4 Part of Combo Match; 5 Midpoint Match |
| XJSE | original_trade_type | 0 Unknown; 1 Trade; 17 Post Contra Trade (Correction of previous day's published off-book trade); 65 Volatility Auction; 67 Closing Auction; 69 Reopening Auction; 75 Intra-Day Auction; 76 Futures Close Out Auction; 79 Opening Auction; 2001 Block Trade; 2002 Corporate Finance Trade; 2003 Late Trade (After Hours Trade); 2006 Off Order Book Principal Trade; 2009 Portfolio Trade; 3001 Book Build |
| XTAE | trade_source | 0 Lit Book; 32 Dark Book |
| XSAU | trade_cond_1 | 3 Auto Match Normal Trades; 4 Auto Match Small Trades; 5 Non-Crossing Normal Put-Through OrderNoYes; 6 Crossing Normal Put-Through Order; 7 Non-Crossing Small Put Through Order; 8 Crossing Small Put Through Order; 9 OPTO: Non-Crossing On-Market NegDeal Trades; 10 OPTOx: Crossing On-Market NegDeal Trades |

## Americas

| Venues | Source column | Values |
|---|---|---|
| XNYS, ARCX, XASE, XCIS, XCHI | trade_cond_1 | @ Regular Sale;  (Blank) Regular Sale (NYSE and NYSE MKT only); C Cash (NYSE and NYSE MKT only); N Next Day Trade (NYSE and NYSE MKT only); R Seller (NYSE and NYSE MKT only) |
| XNYS, ARCX, XASE, XCIS, XCHI | trade_cond_2 | N/A (space or blank); 4 Derivatively Priced; 5 Market Centre Reopening Trade; 6 Market Centre Closing Trade; 9 Corrected Last Sale Price; F Intermarket Sweep Order (NYSE only); O Market Center Opening Trade (NYSE only) |
| XNYS, ARCX, XASE, XCIS, XCHI | trade_cond_3 | (space) N/A; Z Sold; L Sold Last (NYSE only); T Extended Hours Trade (Arca, American and National only); U Extended Hours Sold (Out of Sequence) (Arca, American and National only) |
| XNYS, ARCX, XASE, XCIS, XCHI | trade_cond_4 | I Odd Lot Trade;  (space, or 0x20) N/A; H Aberrant Trade (NYSE/NYSE MKT only); K Rule 127 (NYSE/NYSE MKT only); @ Regular Sale (Arca, American and National only); M Official Closing Price (Arca, American and National only); Q Official Open Price (Arca, American and National only); B Average Price Trade (Arca only); E Automatic Execution (Arca only); H Price Variation Trade (Arca only); P Prior Reference Price (Arca only); V Stock-Option Trade (Arca only); X Cross Trade (Arca only) |
| XNAS, XPSX, XBOS | original_trade_type | P Non-displayed trade; Q Cross Trade |
| BATS, BATY, EDGA, EDGX | original_trade_type | 0 Lit; 42 Hidden Liquidity; 43 Hidden Liquidity; 150 Auction On Demand |
| MEMX, EPRL | msg_original_type | 0 Lit; 10 Dark Trade; 14 Dark Trade |
| @SIP | sequence_type | No extended hours or sold out of sequence; L sold last (late reporting); T Extended hours trade (Form T); U Extended hours sold. Out of sequence; Z Sold. Out of sequence |

| Venues | Source column | Values |
|---|---|---|
| @SIP | settlement_conditions | or @ For regular trades; C Cash trades; N Next day trades; R Seller trades; Y Yellow flag |
| @SIP | sro_trade_detail | UTP origin only: 1 Stopped stock; A Acquisition; B Bunched trade; D Distribution; G Bunched sold trade; K Rule 155; S Split trade; W Average price. CTA origin only: B Average price; K Rule 127 (Nyse Only) or Rule 155 (Nyse American only). Both: No SRO required trade detail; E Automation execution; H Price variation trade; I Odd lot trade; M Market centre official close price; P Prior reference price; Q Market centre official open price; V Contingent trade; X Cross trade |
| @SIP | trade_through_reason | No trade through exempt reason; F Intermarket sweep order; O Market centre opening trade; 4 Derivatively priced; 5 Market centre reopening trade; 6 Market centre closing trade; 7 Qualified contingent trade (QCT); 8 Placeholder for 611 exemption |
| XTSE, XTSX | trade_type | 1 Trade; 1018 Odd Lot Trade (between two orders on the odd lot book); 1009 After Hours (during extended trading session); 1000 Block (volume >= 10,000 shares) |
| XTSE, XTSX | cross_type | 0 Not applicable; 1 Internal; 2 Basis; 3 Contingent; 4 Special Trading Session; 5 VWAP; 6 Regular |
| CHIC | trade_cond_1 | 0 Regular Trade; 1 Bypass (Crosses Only); 2 M-ELO (From 2024-12-16 only); 3 CXD Pure-Stream (From 2024-12-16 only) |
| CHIC | trade_cond_2 | 0 Regular Trade; 1 Basis; 3 VWAP; 5 Contingent; 6 Internal; 12 Derivative Related; 16 Intentional |
| XCX2 | hidden_trade | H Hidden Trade |
| XCX2 | cross_type | B Basis Cross Trade; C Contingent Cross Trade; D Derivative Related Cross Trade; I Internal Cross Trade; V VWAP Cross Trade; X Intentional Cross Trade |
| XCX2 | trade_attribute | B Bypass Trade; C Market-on-Close Trade; L Midpoint Extended Life Order (M-ELO) Trade |

| Venues | Source column | Values |
|---|---|---|
| NEOE, NEON, NEOD | order_book_type | 3 NEO-L; 4 NEO-N; 5 NEO-D; 6 Cross; 7 SST |
| NEOE, NEON, NEOD | trade_type | 0 Post-Open Trade (Continuous Trade); 1 Auction Trade Bulk; 2 Auction Trade, Individual; 9 Trade Cancellation; 11 Trade Correction |
| NEOE, NEON, NEOD | cross_type | 5 Internal Cross; 11 Basis Cross; 12 Contingent Cross; 14 VWAP Cross; 15 National Cross; 16 Bypass Cross; 17 Non-NEO Cross; 18 Derivative Cross; 19 Closing Price Publication (Closing Price broadcast, not a trade) |
| XCNQ | trade_cond_2 | Bit-like string field, each digit representing a trade condition flag. Digit value 1 = False, 2 = True. 1xxxx Sets Last; x1xxx Opening Trade; xx1xx CCP; xxx1x Bypass; xxxx1 Odd Lot |
| LYNX | hidden_trade | H Hidden Trade |
| LYNX | cross_type | D Derivative Cross Trade; I Internal Cross Trade; M Intentional Cross Trade |
| LYNX | trade_attribute | B Bypass trade |
| OMGA | trade_cond_1 | 0 No conditions; 1 Basis; 2 Special Trading Session; 3 VWAP; 4 Dark Pool Trade; 5 Contingent Cross; 6 Internal Cross; 7 National Cross; 11 Regular Cross; 13 Odd Lot Trade; 16 Intentional; 18 CCP Closing Price |
| XATS | trade_cond_1 | 0 No conditions; 1 Basis; 2 Special Trading Session; 3 VWAP; 4 Dark Pool Trade; 5 Contingent Cross; 6 Internal Cross; 7 National Cross; 11 Regular Cross; 13 Odd Lot Trade; 16 Intentional; 18 CCP Closing Price |
| @CCB | trade_cond_1 | 0 No conditions; 1 Basis; 2 Special Trading Session; 3 VWAP; 4 Dark Pool Trade; 5 Contingent Cross; 6 Internal Cross; 7 National Cross; 11 Regular Cross |
| BVMF | trade_cond_1 | 0 Trade made in electronic session; 1 Cross trade; 24 After-market trade; 25 Retail liquidity trade - private book; 26 Out-of-sequence trade |
| XMEX | trade_cond_1 | 0 FirmOrder; 1 WithoutConcertation; 2 BuyAutoEntry; 3 |

| Venues | Source column | Values |
|---|---|---|
| | | BuyLegAutoEntryOfRollover; 4 LegOfRoundOfRollover; 5 SellAutoEntry; 6 CrossingOperation; 7 DepthOfRoundOfChainOfForwards; 8 OperationAfterClosing; 9 TradingOfChainOfForwards; 10 BlockTrade; 11 DepthOfRound; 12 LegOfBlockTradeForChainOfForwards; 13 RoundOfChainOfForwards; 14 LegOfChainOfForwards; 15 RolloverSentra; 16 OperationAtClosingPrice; 17 TypeRound; 18 Auctions; 19 LegOfBlockTradeOfRollover; 20 LegOfCrossingOfForeignCurrencyStrategy; 21 LegOfBlockTradeOfForeignCurrencyStrategy; 22 SellLegAutoEntryOfForeignCurrencyStrategy; 23 BlockTradeOfForeignCurrencyStrategy; 24 BuyLegAutoEntryOfForeignCurrencyStrategy; 25 BlockTradeOfChainOfForwards; 26 OperationAtMediumPrice; 27 BlockTradeOfRollover; 28 LegOfForeignCurrencyStrategy_1; 29 CrossingOfChainOfForwards; 30 OrderClosing; 31 OperationAtAveragePriceForTheDay; 32 SellAutoEntryOfChainOfForwards; 33 BuyAutoEntryOfChainOfForwards; 34 LegOfForeignCurrencyStrategy_2; 35 LegOfCrossingOfChainOfForwards; 36 SwapBlockTrade; 37 SellLegAutoEntryOfChainOfForwards; 38 SwapBlockTradeWithContinuousCoupon; 39 BlockTradeOfUnwind; 40 BuyLegAutoEntryOfChainOfForwards; 41 BlockTradeOfSubstitution; 42 LegOfAuctionOfChainOfForwards; 43 LegOfRoundOfChainOfForwards; 44 VwapOperationsByException; 45 ChainsOfForwards; 46 TwapOperationsByException; 47 BlockOperationsByException; 48 OtcRecentOperations; 49 LegOfRolloverCrossing; 50 OtcAgreedOperations; 51 SellLegAutoEntryOfRollover; 52 VoiceOver; 53 BasketOperationByException; 54 |

| Venues | Source column | Values |
|---|---|---|
| | | InavOperationAtClosingPrice; 55 InavOperationAfterClosing |

APAC

| Venues | Source column | Values |
|---|---|---|
| XASX | occurred_at_cross | Y Yes, trade occurred in an auction; N No, trade occurred in continuous matching |
| XASX | trade_source | 1 Lit book; 2 Dark book |
| CHIA | trade_type | B BrokerPreferencedTrade; N TradeResultFromNormalMatchingLogic; O OpeningAuction; C ClosingAuction; H HaltAuction |
| CHIA | trade_designation | Valid only for on-exchange executions, space otherwise. C CXAC (Limit); P CXAP (Midpoint); N CXAN (Near Point); F CXAF (Far Point); M CXAM (MOC); B CXAB (BIDS Block SIze); I CXAI (BIDS Price Improved) |
| CHIA | trade_report_type | Valid only for off-exchange trade reports, space otherwise. B Block Trade; P Large Portfolio Trade; T Large Principal Transaction; S Trades with Price Improvement; L Permitted Trade During Post Trading Hours Period; M Permitted Trade During Pre Trading Hours Period; E Out of Hours Trade; F ETF Trade Report for Unit Creations or Redemptions |
| XBOM | trade_cond_1 | 0 No Condition; 1 Odd Lot Trade (Odd Lot Trade not available currently) |
| XBOM | trade_cond_5 | 0 No Condition; 1 Bunched Trade Indicator: If a trade is received from the exchange with a cumulative volume greater than the sum of the previous volume plus the incremental size of the trade, then a bunched trade is generated by the Consolidated Feed to reconcile the new cumulative volume |
| XTKS | message_id | C Order Executed with Price; E Order Executed; K Execution Summary; TI ToSTNeT |

| Venues | Source column | Values |
|---|---|---|
| XTKS | pricing_method | 0 -; 1 Itayose Method |
| XTKS | triggered_side | B Buy Order; S Sell Order |
| XTKS | market_identification_flag | 1 Single Issue Transaction; 2 Basket Transaction; 3 Closing Price Transaction; 4 (from BMLL) Off-Auction Own Share Repurchase Trading |
| XTKS | transaction_identification_flag | Ordinary Transaction; 1 Day Transaction; 2 Ordinary Transaction (VWAP Transaction); 3 Day Transaction (VWAP Transaction) |
| XTKS | price_code | For transactions other than closing price transactions, trading halts and releases from trading halts; 01 Previous Day Closing Price; 11 Morning Session Closing Price; 31 Today's Closing Price |
| XBKK | trade_cond_1 | 0 Auto Match; 1 Trade Report; 2 Auction; 3 Combo to Combo; 4 Odd Lot Trade |
| XBKK | trade_cond_2 | 0 Auction Deal / Automatic Match; 10-19 TR_BIGLOT; 20-29 TR_BUYIN; 30-39 TR_OFFHOUR; 40-49 TR_FOREIGN; 50-99 Other; 100-199 Normal; 200-229 EFP; 230-249 Other |
| XKRX | is_off_book_eligible | This trade impacts the off-book volume. Boolean value |
| XSES | market_type | 0 Ready; 1 UnitShare; 2 BuyIn; 3 Bonds; 4 Unknown |
| XSES | trade_block_count | 0 When Size < 10000; 1 When Size >= 10000 |
| XSES | trade_cond_1 | 0 No Condition; 1 Late Trade; 2 Internal Trading/Crossing; 4 Bulletin Board Table; 17 Off Market; 22 Buy White |
| XSES | trade_cond_3 | 0 No information; 1 Married trade; 2 All or None; 4 Part of a combo match |
| XSES | trade_cond_5 | 1 Matched by system automatically; 3 Matched outside exchange, different brokers, trade report; married trade; 5 Matched outside exchange, one broker, trade report, crossing; married trade; 20 Deal made at the end of an auction |

| Venues | Source column | Values |
|---|---|---|
| ROCO | trade_cond_1 | 0 Ordinary transaction (Normal Trade), ordinary buy, ordinary sell; 1 Ordinary transaction (Normal Trade), ordinary buy, floor sell; 2 Ordinary transaction (Normal Trade), ordinary buy, ceiling sell; 3 Ordinary transaction (Normal Trade), floor buy, ordinary sell; 4 Ordinary transaction (Normal Trade), floor buy, floor sell; 5 Ordinary transaction (Normal Trade), floor buy, ceiling sell; 6 Ordinary transaction (Normal Trade), ceiling buy, ordinary sell; 7 Ordinary transaction (Normal Trade), ceiling buy, floor sell; 10 Ordinary transaction (Normal Trade), ceiling buy, ceiling sell; 11 Floor transaction (Down Limit Trade), ordinary buy, ordinary sell; 12 Floor transaction (Down Limit Trade), ordinary buy, floor sell; 13 Floor transaction (Down Limit Trade), ordinary buy, ceiling sell; 14 Floor transaction (Down Limit Trade), floor buy, ordinary sell; 15 Floor transaction (Down Limit Trade), floor buy, floor sell; 16 Floor transaction (Down Limit Trade), floor buy, ceiling sell; 17 Floor transaction (Down Limit Trade), ceiling buy, ordinary sell; 20 Floor transaction (Down Limit Trade), ceiling buy, floor sell; 21 Floor transaction (Down Limit Trade), ceiling buy, ceiling sell; 22 Ceiling transaction (Up Limit Trade), ordinary buy, ordinary sell; 23 Ceiling transaction (Up Limit Trade), ordinary buy, floor sell; 24 Ceiling transaction (Up Limit Trade), ordinary buy, ceiling sell; 25 Ceiling transaction (Up Limit Trade), floor buy, ordinary sell; 26 Ceiling transaction (Up Limit Trade), floor buy, floor sell; 27 Ceiling transaction (Up Limit Trade), floor buy, ceiling sell; 30 Ceiling transaction (Up Limit Trade), ceiling buy, ordinary sell; 31 Ceiling transaction (Up Limit Trade), ceiling buy, floor sell; 32 Ceiling transaction (Up Limit Trade), ceiling buy, ceiling sell; 33 Ordinary transaction (Normal Trade), odd-lot trade (1) (2); 34 Floor transaction (Down Limit Trade), odd-lot trade (1) (2); 35 Ceiling transaction (Up Limit Trade), odd-lot trade (1) (2); 40 Off-market trade (1) (2) (Supported on 916 & 915); 41 |

| Venues | Source column | Values |
|---|---|---|
| | | Auction trade during pre-open or closing auction |
| XTAI | msg_original_type | 6 RealTimeAuctionQuotes; 9 TradingInformation; 13 OddLotTransactionInformation; 23 OddLotQuotes |
| XNZE | primary_trade_type | A Regular Trade; B Block Trade; D Late Reported; F Privately Negotiated Trades; G Portfolio Trade; H Volume Weighted Average Trade; I Special; J International; K Put Through; L Late Trade; M Midpoint; Blank if no trade source |

## 1.7. Market states

BMLL normalises venue-specific market-phase messages into a consistent set of states so cross-venue analysis is straightforward.
Canonical MarketState enumeration.

| Code | Description |
|---|---|
| AUCTION_ON_DEMAND | An auction that occurs concurrently to the main trading session |
| CLOSED | The exchange is closed |
| CLOSING_AUCTION | Market in Closing Auction |
| CONDITIONAL | The trade is the result of a conditional trading mechanism |

## 1.8. Format and File Structure

Data is delivered as a single file per market per date, as a parquet file.

- **{YYYY}:** Year
- **{MM}:** Month
- **{DD}:** Date
- **{Product}:** The product you are subscribing
  - **Trades:** TRADES
- **{Region}:** The region of the venue such as APAC, AMERICAS, and EMEA
- **{MIC}:** Market Identifier Code (MIC) is a unique four-character code that identifies stock markets and exchanges for trading and referencing computer systems

**File Structure:**

{YYYY}/{MM}/{DD}/TRADES/{Region}/trades-{MIC}-{YYYYMMDD}.parquet

**Example:**

2026/02/09/TRADES/EMEA/trades-XLON-20260209.parquet