BMLL Data Feed

Trades Plus

Date: 2026-02-09
Version: 1.8

1.1. Introduction

Every executed trade enriched with venue-quality fields: prevailing top-of-book price (single exchange, primary, and consolidated), spread, pre- and post-trade markouts, block size thresholds, classification and participant type — all in one row.
Use this dataset to compute execution-quality metrics, market share by trade classification, and the impact of trades on best quotes at intraday granularity.

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

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.
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.
ISO_COUNTRY_CODE	ISOCountryCode	VARCHAR	BYTE_ARRAY	The ISO country code of the primary listing exchange for the instrument.
SEGMENT_CODE	SegmentCode	VARCHAR	BYTE_ARRAY	Segment code as specified by the exchange

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
LISTING_ID	ListingId	NUMBER	INT64	The BMLL ListingId is used to identify a specific instrument on a market venue (trading venue or reporting venue). BMLL listings identify uniquely every ticker on the venue and remain attached to the instrument even when a ticker change occurs — though changes of primary instrument identifier (such as ISIN changes) can cause a new listing_id to be issued.
INSTRUMENT_ID	InstrumentId	NUMBER	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).

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
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.
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.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
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.
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.
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
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

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.
INSTRUMENT_CURRENCY_PRICE	InstrumentCurrencyPrice	FLOAT	DOUBLE	The price of the executed trade, expressed in InstrumentCurrencyCode.
INSTRUMENT_CURRENCY_CODE	InstrumentCurrencyCode	VARCHAR	BYTE_ARRAY	The currency that the instrument quotes in.
MINOR_CURRENCY_FACTOR	MinorCurrencyFactor	FLOAT	DOUBLE	The scaling factor from the minor to the major currency.
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
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.
MODIFICATION_INDICATOR	ModificationIndicator	VARCHAR	BYTE_ARRAY	Indicator specifying if a trade has been amended or cancelled.
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
BROKER_ID_BUYER	BrokerIdBuyer	VARCHAR	BYTE_ARRAY	Identifier of the broker behind the passive buy side of the trade, where provided by the exchange. Where a side-agnostic member participant ID is given, this is combined with the known passive side

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
BROKER_ID_SELLER	BrokerIdSeller	VARCHAR	BYTE_ARRAY	dentifier of the broker behind the passive sell side of the trade, where provided by the exchange. Where a side-agnostic member participant ID is given, this is combined with the known passive side
JURISDICTION	Jurisdiction	VARCHAR	BYTE_ARRAY	The 2-letter ISO country code of the country of the execution or publication venue. For Europe, this takes the value EU.
MARKET_STATE	MarketState	VARCHAR	BYTE_ARRAY	Standardised market state information. See below for description of possible market states.
MARKET_STATE_AT_PRIMARY	MarketStateAtPrimary	VARCHAR	BYTE_ARRAY	The market state of the primary exchange, normalised by BMLL.
BMLL_TRADE_TYPE	BMLLTradeType	VARCHAR	BYTE_ARRAY	Normalised Trade Type according to BMLL normalisation
CLASSIFICATION	Classification	VARCHAR	BYTE_ARRAY	The classification of the trade.
TRADE_NOTIONAL	TradeNotional	FLOAT	DOUBLE	
TRADE_NOTIONAL_USD	TradeNotionalUSD	FLOAT	DOUBLE	
TRADE_NOTIONAL_EUR	TradeNotionalEUR	FLOAT	DOUBLE	

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
BLOCK_SIZE	BlockSize	FLOAT	DOUBLE	The threshold size (in shares, if applicable) of a block trade depending on the conditions specified by the jurisdiction where the executing venue is located. Values will populate with NULL if not
BLOCK_NOTIONAL	BlockNotional	FLOAT	DOUBLE	The threshold notional value (if applicable) of a block trade depending on the conditions specified by the jurisdiction where the executing venue is located. The currency of this threshold is based
BLOCK_NOTIONAL_CURRENCY	BlockNotionalCurrency	VARCHAR	BYTE_ARRAY	The currency in which the block notional threshold is populated. This is region-specific (EUR for Europe/UK and USD for all other regions).
TRADE_NOTIONAL_BLOCK_BPS	TradeNotionalBlockBps	FLOAT	DOUBLE	Trade notional as a percentage of set block threshold, expressed in basis points and calculated as 10,000 * (trade notional value in EUR or USD (depending on the region) / Block value). Values will

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
IS_BLOCK	IsBlock	VARCHAR	BYTE_ARRAY	An enum field depicting whether the trade was a block trade, not a block trade or unknown according to the definitions adopted for the respective market or region. TRUE FALSE UNKNOWN
LOT_TYPE	LotType	VARCHAR	BYTE_ARRAY	An enum field depicting whether the trade was of odd lot, round lot, mixed lot size or unknown. The odd lot threshold is region-specific. ODD ROUND MIXED UNKNOWN
PARTICIPANT_TYPE	ParticipantType	VARCHAR	BYTE_ARRAY	An enum field depicting whether the trade originated from a retail participant, non-retail participant, other specific participant type or unknown . This is derived from exchange-specific flags (wh
BMLL_PARTICIPANT_TYPE	BMLLParticipantType	VARCHAR	BYTE_ARRAY	This is a normalised field which takes PARTICIPANT_TYPE and maps to the following possible values for global consistency: INSTITUTIONAL RETAIL MARKET_MAKER BROKER_DEALER UNKNOWN

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
BEST_BID_PRICE	BestBidPrice	FLOAT	DOUBLE	The best bid price if the book is not crossed during the auction
BEST_BID_SIZE	BestBidSize	FLOAT	DOUBLE	Size (quantity) at the best bid price at the time of the event.
BEST_BID_VENUE	BestBidVenue	VARCHAR	BYTE_ARRAY	The venue displaying the largest size at the Consolidated/National best bid price. For single market regions, this will be the Primary exchange.
BEST_ASK_PRICE	BestAskPrice	FLOAT	DOUBLE	Best ask price at the time of the event. NaN if no ask orders.
BEST_ASK_SIZE	BestAskSize	FLOAT	DOUBLE	The size available at the best ask price on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) as of the trade timestamp (prior to trade). For
BEST_ASK_VENUE	BestAskVenue	VARCHAR	BYTE_ARRAY	The venue displaying the largest size at the Consolidated/National best ask price. For single market regions, this will be the Primary exchange.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
BEST_BID_PRICE_AT_VENUE	BestBidPriceAtVenue	FLOAT	DOUBLE	The best bid price on the exchange represented by the MIC column, as of the trade timestamp (prior to trade). This is only populated for lit exchanges.
BEST_BID_SIZE_AT_VENUE	BestBidSizeAtVenue	FLOAT	DOUBLE	The size available at the best bid price on the exchange represented by the MIC column, as of the trade timestamp (prior to trade). This is only populated for lit exchanges.
BEST_ASK_PRICE_AT_VENUE	BestAskPriceAtVenue	FLOAT	DOUBLE	The best ask price on the exchange represented by the MIC column, as of the trade timestamp (prior to trade). This is only populated for lit exchanges.
BEST_ASK_SIZE_AT_VENUE	BestAskSizeAtVenue	FLOAT	DOUBLE	The size available at the best ask price on the exchange represented by the MIC column, as of the trade timestamp (prior to trade). This is only populated for lit exchanges.
BEST_BID_PRICE_AT_PRIMARY	BestBidPriceAtPrimary	FLOAT	DOUBLE	The best bid price on the primary exchange, as of the trade timestamp (prior to trade).

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
BEST_BID_SIZE_AT_PRIMARY	BestBidSizeAtPrimary	FLOAT	DOUBLE	The size available at the best bid price on the primary exchange, as of the trade timestamp (prior to trade).
BEST_ASK_PRICE_AT_PRIMARY	BestAskPriceAtPrimary	FLOAT	DOUBLE	The best ask price on the primary exchange, as of the trade timestamp (prior to trade).
BEST_ASK_SIZE_AT_PRIMARY	BestAskSizeAtPrimary	FLOAT	DOUBLE	The size available at the best ask price on the primary exchange, as of the trade timestamp (prior to trade).
PRIOR_QUOTE_SIZE_RANK	PriorQuoteSizeRank	NUMBER	INT64	The rank of the trade execution venue (nth rank) based upon prevailing quote size prior to the trade. Provides quote rank amongst all Cross-listed venues. If the book of execution was not at BBO at
PRE_TRADE_ELAPSED_TIME_CHG	PreTradeElapsedTimeChg	NUMBER	INT64	Elapsed time (nanoseconds, using exchange timestamps) since last price change on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) prior to

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_ELAPSED_TIME_CHG	PostTradeElapsedTimeChg	NUMBER	INT64	Elapsed time (nanoseconds, using exchange timestamps) since last price change on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) after t
PRE_TRADE_ELAPSED_TIME_CHG_AT_PRIMARY	PreTradeElapsedTimeChgAtPrimary	NUMBER	INT64	Elapsed time (in nanoseconds, using exchange timestamps) since last price change in Primary BBO before this trade is executed
POST_TRADE_ELAPSED_TIME_CHG_AT_PRIMARY	PostTradeElapsedTimeChgAtPrimary	NUMBER	INT64	Elapsed time (in nanoseconds, using exchange timestamps) since last price change in Primary BBO after this trade is executed
PRICE_POINT	PricePoint	FLOAT	DOUBLE	The executed price of the trade relative to the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) This is calculated as (Trade Price - Bid Price)

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
PRICE_POINT_AT_VENUE	PricePointAtVenue	FLOAT	DOUBLE	The executed price of the trade relative to the best bid/offer on the exchange represented by the MIC column. This is only populated for lit exchanges. This is calculated as (Trade Price - Bid Pric
PRICE_POINT_AT_PRIMARY	PricePointAtPrimary	FLOAT	DOUBLE	The executed price of the trade relative to the primary best bid/offer. This is calculated as (Trade Price - Bid Price) / (Ask Price - Bid Price) Note: in cases where Best Bid = Best Ask, If Pric
ORDER_REMAINING_QTY	OrderRemainingQty	NUMBER	INT64	Remaining quantity of passively executed order that participated in this trade. This will be available for lit on-book trades only, for other books this field will be null.
BBO_REMAINING_QTY_AT_VENUE	BBORemainingQtyAtVenue	NUMBER	INT64	Remaining quantity left on the Best Bid Offer of the execution venue at the trade price after the trade. This value could be calculated either from the Bid or the Offer side only, depending on the

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
PRE_TRADE_MID300000MS	PreTradeMid300000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 300,000ms prior to the time of trade. This
PRE_TRADE_MID60000MS	PreTradeMid60000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 60,000ms prior to the time of trade. This
PRE_TRADE_MID30000MS	PreTradeMid30000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 30,000ms prior to the time of trade. This
PRE_TRADE_MID15000MS	PreTradeMid15000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 15,000ms prior to the time of trade. This

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
PRE_TRADE_MID5000MS	PreTradeMid5000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 5000ms prior to the time of trade. This pr
PRE_TRADE_MID1000MS	PreTradeMid1000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 1000ms prior to the time of trade. This pr
PRE_TRADE_MID500MS	PreTradeMid500ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 500ms prior to the time of trade. This pri
PRE_TRADE_MID200MS	PreTradeMid200ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 200ms prior to the time of trade. This pri

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
PRE_TRADE_MID100MS	PreTradeMid100ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 100ms prior to the time of trade. This pri
PRE_TRADE_MID50MS	PreTradeMid50ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 50ms prior to the time of trade. This pric
PRE_TRADE_MID25MS	PreTradeMid25ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 25ms prior to the time of trade. This pric
PRE_TRADE_MID10MS	PreTradeMid10ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 10ms prior to the time of trade. This pric

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
PRE_TRADE_MID5MS	PreTradeMid5ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 5ms prior to the time of trade. This price
PRE_TRADE_MID2MS	PreTradeMid2ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 2ms prior to the time of trade. This price
PRE_TRADE_MID1MS	PreTradeMid1ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see section 1.5) at 1ms prior to the time of trade. This price
POST_TRADE_MID1MS	PostTradeMid1ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 1ms after the time of trade. This price can be used in a mar

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_MID2MS	PostTradeMid2ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 2ms after the time of trade. This price can be used in a mar
POST_TRADE_MID5MS	PostTradeMid5ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 5ms after the time of trade. This price can be used in a mar
POST_TRADE_MID10MS	PostTradeMid10ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 10ms after the time of trade. This price can be used in a ma
POST_TRADE_MID25MS	PostTradeMid25ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 25ms after the time of trade. This price can be used in a ma

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_MID50MS	PostTradeMid50ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 50ms after the time of trade. This price can be used in a ma
POST_TRADE_MID100MS	PostTradeMid100ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 100ms after the time of trade. This price can be used in a m
POST_TRADE_MID200MS	PostTradeMid200ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 200ms after the time of trade. This price can be used in a m
POST_TRADE_MID500MS	PostTradeMid500ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 500ms after the time of trade. This price can be used in a m

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_MID1000MS	PostTradeMid1000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 1000ms after the time of trade. This price can be used in a
POST_TRADE_MID5000MS	PostTradeMid5000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 5000ms after the time of trade. This price can be used in a
POST_TRADE_MID15000MS	PostTradeMid15000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 15,000ms after the time of trade. This price can be used in
POST_TRADE_MID30000MS	PostTradeMid30000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 30,000ms after the time of trade. This price can be used in

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_MID60000OMS	PostTradeMid60000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 60,000ms after the time of trade. This price can be used in
POST_TRADE_MID300000OMS	PostTradeMid300000ms	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) at 300,000ms after the time of trade. This price can be used in
PRE_TRADE_MID300000OMS_AT_PRIMARY	PreTradeMid300000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 300,000ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID60000OMS_AT_PRIMARY	PreTradeMid60000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 60,000ms prior to the time of trade. This price can be used in a mark-out calculation.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
PRE_TRADE_MID30000MS_AT_PRIMARY	PreTradeMid30000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 30,000ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID15000MS_AT_PRIMARY	PreTradeMid15000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 15,000ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID5000MS_AT_PRIMARY	PreTradeMid5000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 5000ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID1000MS_AT_PRIMARY	PreTradeMid1000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 1000ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID500MS_AT_PRIMARY	PreTradeMid500msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 500ms prior to the time of trade. This price can be used in a mark-out calculation.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
PRE_TRADE_MID200MS_AT_PRIMARY	PreTradeMid200msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 200ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID100MS_AT_PRIMARY	PreTradeMid100msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 100ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID50MS_AT_PRIMARY	PreTradeMid50msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 150ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID25MS_AT_PRIMARY	PreTradeMid25msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 25ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID10MS_AT_PRIMARY	PreTradeMid10msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 10ms prior to the time of trade. This price can be used in a mark-out calculation.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
PRE_TRADE_MID5MS_AT_PRIMARY	PreTradeMid5msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 5ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID2MS_AT_PRIMARY	PreTradeMid2msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 2ms prior to the time of trade. This price can be used in a mark-out calculation.
PRE_TRADE_MID1MS_AT_PRIMARY	PreTradeMid1msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 1ms prior to the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID1MS_AT_PRIMARY	PostTradeMid1msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 1ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID2MS_AT_PRIMARY	PostTradeMid2msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 2ms after the time of trade. This price can be used in a mark-out calculation.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_MID5MS_AT_PRIMARY	PostTradeMid5msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 5ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID10MS_AT_PRIMARY	PostTradeMid10msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 10ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID25MS_AT_PRIMARY	PostTradeMid25msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 25ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID50MS_AT_PRIMARY	PostTradeMid50msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 50ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID100MS_AT_PRIMARY	PostTradeMid100msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 100ms after the time of trade. This price can be used in a mark-out calculation.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_MID200MS_AT_PRIMARY	PostTradeMid200msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 200ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID500MS_AT_PRIMARY	PostTradeMid500msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 500ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID1000MS_AT_PRIMARY	PostTradeMid1000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 1000ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID5000MS_AT_PRIMARY	PostTradeMid5000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 5000ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID15000MS_AT_PRIMARY	PostTradeMid15000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 15,000ms after the time of trade. This price can be used in a mark-out calculation.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_MID300000MS_AT_PRIMARY	PostTradeMid300000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 30,000ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID600000MS_AT_PRIMARY	PostTradeMid600000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 60,000ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID3000000MS_AT_PRIMARY	PostTradeMid3000000msAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange at 300,000ms after the time of trade. This price can be used in a mark-out calculation.
POST_TRADE_MID	PostTradeMid	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) after the trade.
POST_TRADE_MID_AT_PRIMARY	PostTradeMidAtPrimary	FLOAT	DOUBLE	The mid-point price of the best bid/offer on the Primary exchange after the trade.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_BEST_BID1_V	PostTradeBestBid1V	FLOAT	DOUBLE	The best bid on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) after 1 times the volume of the trade is executed across all venues. The volume clock only c
POST_TRADE_BEST_ASK1_V	PostTradeBestAsk1V	FLOAT	DOUBLE	The best offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see Section 1.5) after 1 times the volume of the trade is executed across all venues. The
POST_TRADE_BEST_BID3_V	PostTradeBestBid3V	FLOAT	DOUBLE	The best bid on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) after 3 times the volume of the trade is executed across all venues. The volume clock only c
POST_TRADE_BEST_ASK3_V	PostTradeBestAsk3V	FLOAT	DOUBLE	The best offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see Section 1.5) after 3 times the volume of the trade is executed across all venues. The

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
POST_TRADE_BEST_BID10_V	PostTradeBestBid10V	FLOAT	DOUBLE	The best bid on the Consolidated/National or Primary exchange (as determined by BMLL for region/country) after 10 times the volume of the trade is executed across all venues. The volume clock only
POST_TRADE_BEST_ASK10_V	PostTradeBestAsk10V	FLOAT	DOUBLE	The best offer on the Consolidated/National or Primary exchange (as determined by BMLL for region/country - see Section 1.5) after 10 times the volume of the trade is executed across all venues. Th

1.4. US coverage via SIP

US venue activity is available through the consolidated SIP dataset. Query with MIC="@SIP" and use ExecutionVenue to identify the execution venue. A missing individual-exchange dataset does not mean US coverage is unavailable. Access requires the appropriate SIP dataset entitlement.

1.5. 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, amendments, or cancellations.

Trade reports can include duplicate and alternative representations of the same trade from a different point of view. This dataset will only include printable trades.

Trade amendments are always preceded by trade cancellations, which always have a negative "Size" field. Aggregating all the printable trades on specific intervals gives an accurate vision of the volume traded during that interval.

1.6. Methodology & Data Decisions

Aggressor side: The aggressor side is only provided for executions that can be deterministically mapped to a side of the order book.
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).
BMLL Trade Classifications: The definition of the Off Book On Exchange classification differs between BMLL's Daily Classified Trades (DCT) data set and Trades Plus for European listings. This change was introduced in Trades Plus to provide a more detailed breakdown of addressable and non-addressable volumes within this classification.
In DCT, the Off Book On Exchange classification includes OTC, Special Price, and Benchmark Price trade types. In Trades Plus, however, the Special Price and Benchmark Price components have been separated into their own classifications, leaving only OTC trades within Off Book On Exchange. The Special Price classification captures trades that may either be flagged as a Non Price Forming Trade (NPFT) or a Trade Not Contributing To Price Discovery (TNCP) - therefore non addressable.
By using a combination of Execution Venue and BMLL Trade Type to identify Off Book trades reported On Exchange, users can still align with the definition applied in Daily Classified Trades.

Retail identification: BMLL Trades Plus contains the columns ParticipantType and BMLLParticipantType that can be used to identify 'RETAIL' trades. These are tagged using exchange-specific flags or heuristic methods, where appropriate. The table below details these identifiers for each venue.

MIC	Indicator	Notes
XPAR, XAMS, XBRU, XDUB, XLIS, XOSL, XMIL	OriginalTradeType = 20	This only includes Euronext Best of Book resulting with an ExecutionVenue of XSEB
XSWX	ExecutionVenue = XSEB	This doesn't include retail trades that may get executed on Swiss-At-Mid (XSWM) or the SIX Central Limit Order Book (XSWX) prior to executions
XEQT	TradeType is B, S (VBBO trades), b or s (ALP order trades)	
XLON	Classification = OFF_BOOK_ON_EXCHANGE, during continuous trading hours, below Standard Market Size (€10,000)	Inferred
XETR	TradeCondition = 743	Live from 2024-05-20
CHIX, CEUX	BatsTradeTimingIndicator is G (UK entity) or K (EU entity)	Live from 2025-09-08
XMAD	L2 feed → BuyTradeType or SellTradeType is 8 or 9; L3 feed → RetailFlag = True	
XBER, XDUS, XFRA, XHAM, XHAN, XMUN, XSTU, XGAT	Flagged as entirely retail	
@SIP	If ExecutionVenue is EDGX or EPRL, then MPIDAttribution = 'RTAL'. If ExecutionVenue is FINR, FINN, FINY or FINC, then odd lot (OriginalTradeType contains I), trade price is inside the NBBO but not equal	This doesn't include PFOF trades by specific wholesalers, i.e. internally crossing aggregated retail orders against a counter-party. The daily TRF data received through the SIP feed does not provide transparency on the underlying off-exchange execution venues.

MIC	Indicator	Notes
	to the midpoint & sub-decimal pricing (trade price has more than 2 decimal places)	
XNSE	AlgoIndicator = 1 (Non-Algo) and ClientIndicator = 3 (Non-CP, Non Prop)	Inferred
BVMF	OriginalTradeType = 25	

US Enrichment: In the US, there are two potential sources of on-exchange trades data — the TAQ feed from the US Consolidated Tape (i.e. the SIP) and the full-depth feeds from the individual venues. The SIP provides condition codes not seen on the venues, while the venues provide colour on lit/dark/periodic auction distribution, as well as aggressor sides. In general, a trade report on the SIP can be matched exactly to a trade published by a venue (except on NYSE prior to 2025-08-25, where the printable trades are added directly from the venue to provide the same level of detail). In cases where the two sources do not match due to fundamental differences in the raw data, the values shown will reflect the data provided by the SIP.

While Trades Plus in the US provides extra colour on lit/dark/periodic auction trades, there are certain trades (marked by specific trade condition codes originating from the SIP) that point to potentially non-addressable or non-price forming activity. Depending on the specific condition code, such trades have been assigned normalised trade types of SpecialPrice or BenchmarkPrice. The relevant codes and their corresponding normalisation are listed below.

BMLLTradeType	OriginalTradeType (contains)	Meaning	Description
SpecialPrice	7	Qualified Contingent Trade	Execution contingent on all components being executed together; pricing based on relationships among component orders.
SpecialPrice	4	Derivatively Priced	Trade executed at a price not based on quoted price and with material terms not reasonably determinable at order commitment (REG NMS 611b7).
SpecialPrice	R	Seller	Seller's Option transaction: seller can deliver within two to sixty days, often at lower price than Regular Way.
SpecialPrice	C	Cash	Securities delivered and payment made on the same day.
SpecialPrice	Z	Sold. Out of Sequence	Trade printed or reported out of sequence and at a time other than actual execution time.
SpecialPrice	N	Next Day Trade	Securities delivered the first business day

BMLLTradeType	OriginalTradeType (contains)	Meaning	Description
			after trade date.
SpecialPrice	B	Bunched Trades	Multiple odd-lot or round-lot orders combined for simultaneous execution (also called Block trades).
BenchmarkPrice	W	Average Price	Price reported is based on the average price of all or part of the trading day's transactions.
BenchmarkPrice	P	Prior Reference Price	Trade based on a previous price (e.g. more than 90 seconds before report time).

US Pre-Open Auctions: Some US exchanges such as NYSE Arca (ARCX) and NYSE American (XASE) can have auctions in the pre-open session. These can be identified as rows with values BMLLTradeType 'UNCROSSING' and MarketState 'PRE_OPEN'. These trades have been assigned a classification of AUCTION_ON_DEMAND (given that they are scheduled), but can still be differentiated from regular intraday periodic auction trades (such as those on CBOE BYX, BATY) using the MarketState field.
Primary/Consolidated/National Best Bid Offer: Quote based fields for fragmented markets are calculated on a region-specific consolidated best bid/offer. For the US and Canada, this is the National Best Bid Offer (NBBO). Note that the Canadian NBBO only provides timestamps up to microsecond precision, so some trades may refer to the same NBBO update. For all other fragmented markets, this is the Consolidated Best Bid Offer (CBBO). For non-fragmented markets, the Primary (equivalent to Venue) Best Bid Offer is referenced.
There is a small subset of trades where the venue BBO will not match with the consolidated BBO even though they are for the same venue. These trades, despite being flagged as lit, cannot be uniquely joined to specific order executions from the lit order book. In this case, the lifted quotes cannot be deterministically identified. Hence the exact state of the consolidated BBO order book view cannot be deterministically identified. To determine the prevailing venue BBO, we use the exchange sequence

numbers to reconstruct the sequence of quotes as we receive them from the raw data feed. Due to these necessary but different approaches for the generation of BBO and consolidated BBO values, the BBO and consolidated BBO will appear different for this small subset of trades.

BBO determination for multi-level sweep trades: When multiple order book price levels are targeted and reflected as part of one atomic event (same timestamp) in the data, we use the Sequence number along with Trade Timestamp to determine the order of trade events. The Event Number helps to explain whether trades happened as part of one atomic event.

Example: An aggressive buy order @ market is sent for 300 shares at time stamp 10:00:00.00000. 3 trades occur all at the same time, taking the top 3 levels of the book:

Best Bid Cum Qty	Best Bid Size	Best Bid Price	Best Offer Price	Best Offer Size	Best Offer Cum Qty
100	100	100	101	100	100
200	100	99	102	100	200
300	100	98	103	100	300
400	100			100	400
500	100			100	500
600	100			100	600

BBO calculation:

#	Trade Time	Event No	End Of Event	Sequence No	Trade Price	Trade Size	Best Bid Price Before	Best Bid Size Before	Best Offer Price Before	Best Offer Size Before
1	10:00:00.000000	1		1	101	100	100	100	101	100
2	10:00:00.000000	1		2	102	100	100	101	102	100
3	10:00:00.000000	1		3	103	100	100	102	103	100

The BBO can be adjusted to account for the removal of liquidity. Trade Price in this example matches what the Best Offer Price and Size would be after liquidity has been removed.

Round Lots: For US markets, the prevailing quote size is provided in terms of number of round lots (converted to shares using the lot size for the instrument) for the National Best Bid Offer (NBBO) based fields, i.e. BestBidSize and BestAskSize. For venue specific and primary Best Bid Offer, quote size is provided in terms of number of shares, exactly as provided by the underlying data sources.

OPOL Determination: The Original Place of Listing (OPOL) may not be available from European data sources in limited scenarios. When the primary market is not known, populating primary and consolidated quote-based fields and analytics is not possible. We therefore determine primary markets for these impacted listings using a heuristic.

In this scenario, fungible listings are established using ISIN and InstrumentCurrencyCode combinations, which may result in listings across 2 or more European primary exchanges. In the example below, the instrument has listings across XAMS, XMIL or XETR, any of which could be the OPOL.

ISIN	Ticker	MIC	Currency
IE00B945VV12	VGEU	XETR	EUR
IE00B945VV12	VEUR	XAMS	EUR
IE00B945VV12	VEUR	XMIL	EUR

We will set the primary based upon a pre-ordered preference of venues for a given currency. For an ISIN trading in EUR (as above), the preference would result in XETR being set as the OPOL — if it appears among the list of fungible venues. The preference of venues has been determined in order of most liquid primary for that currency. Below is a list of currencies and the order in which an OPOL is determined:

Currency	OPOL (Preference Order)
GBP, GBp	XLON, XSWX, XETR, XPAR, XAMS
CHF	XSWX, XETR, XPAR, XAMS
EUR	XETR, XMIL, XPAR, XAMS, XMAD, XHEL, XCSE, XTAL, XLIS
USD	XLON, XSWX, XAMS, XETR, XPAR, XBRU
JPY	XSWX, XAMS, XPAR
Other	XCSE, XSTO, XSWX, XWAR, XBUD

Despite this heuristic to determine an OPOL, the OPOL field within Trades Plus will remain unpopulated — to ensure consistency with what is actually available from source in our reference dataset.

Classification: Trades Plus will redefine the Classification of Off Book On Exchange trades to map to trades with BMLLTradeType of OTC only and with ExecutionVenue MIC other than SINT or XOFF. This diverges from the Daily Classified Trades dataset which additionally includes within its designation the following BMLLTradeTypes — Special Price and Benchmark Price. This divergence has been implemented to facilitate a more granular view of Off Book On Exchange activity and segregate the proportion

that would generally be considered non-addressable under Special Price and Benchmark Price Classifications, leaving the addressable activity under Off Book On Exchange.

Some markets have pre-open and post-close sessions. Their dynamics vary, depending on the type of trade allowed (continuous order matching/auction/trade at closing price). Where these sessions exist, they have been classified accordingly as follows:

Region	MICs	BMLLTradeType	MarketState	Classification
US	EDGA, XCIS, XNAS, XBOS, XNYS, ARCX, BATS, XASE, XPSX, BATY, EDGX, IEXG, MEMX, EPRL, XCHI, LTSE	LIT	PRE_OPEN	LIT_PRE_OPEN
US	EDGA, XCIS, XNAS, XBOS, XNYS, ARCX, BATS, XASE, XPSX, BATY, EDGX, IEXG, MEMX, EPRL, XCHI, LTSE	LIT	POST_TRADE	LIT_POST_TRADE
US	ARCX, XASE	UNCROSSING	PRE_OPEN	PRE_OPEN_AUCTION
CA	XCNQ, XCX2, NEON, LYNX, XTSX, XATS, OMGA, CHIC, NEOE, CSE2	LIT	PRE_OPEN	LIT_PRE_OPEN
CA	XCNQ, XCX2, NEON, LYNX, XTSX, OMGA, XATS, CHIC, XTSE, NEOE, CSE2, XATX	LIT	POST_TRADE	LIT_POST_TRADE
IN	XNSE, XBOM	LIT	PRE_OPEN	LIT_OPENING_AUCTION
EU	XPAR, XLIS, XMIL, XOSL, XAMS, XBRU	LIT	POST_TRADE	LIT_POST_TRADE
EU	XMAD	LIT	POST_TRADE	CLOSING_PRICE
KR	XKRX	LIT	POST_TRADE	LIT_POST_TRAD

Region	MICs	BMLLTradeType	MarketState	Classification
TW	ROCO	LIT	POST_TRADE	LIT_POST_TRADE
MX	XMEX	LIT	POST_TRADE	CLOSING_PRICE
JP	SBIJ	LIT	POST_TRADE	LIT_POST_TRADE
TH	XBKK	LIT	POST_TRADE	LIT_POST_TRADE

Markouts and Timestamps: The publication of trades can be delayed for non-lit venues by a few milliseconds, which is reflected as a difference between TradeTimestampNanoseconds and PublicationTimestampNanoseconds. In order to accurately account for the pre-trade quotes as well as the markouts, we have chosen to merge the trades with the quotes as of the trade timestamp (where necessary). Where the difference between the trade and publication times is more than one day, the quotes and markouts will be null.
Furthermore mid-prices will not be populated where:

- BMLL Trade Type does not fall under LIT, OTC, DARK, REQUEST_FOR_QUOTE or UNCROSSING (all trades are counted for US/Canada).
- Market State is outside CONTINUOUS_TRADING, AUCTION_ON_DEMAND, CONDITIONAL or NOT_APPLICABLE. For the US and Canada, mid prices are populated whenever an NBBO is available, irrespective of market state. Primary mid prices are populated except at intervals when the market is in an auction state.
- Any amendments or cancellations

1.7. Market State Normalisation

BMLL provides a consistent normalisation for market state messages, in order to make cross-venue analysis quick and easy.

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. 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

1.9. Classification Types

BMLL provides volumes segmented by normalised trade classifications determined using a possible combination of MMT flags, market states and proprietary exchange fields. This provides an intuitive way to analyse and understand liquidity fragmentation trends and changes to market structure.

Canonical Classification enumeration.

Code	Description
AUCTION_ON_DEMAND	Trade on a periodic auction
BENCHMARK_PRICE	OTC trades with a MMT BENC flag set on, or that occur fixed with a benchmark price
CLOSING_PRICE	Trade occurring on a venue using a mechanism that fixes to the official close price
DARK_ABOVE_LIS	Trade occurring on a dark venue or fully hidden order with a size larger than LIS
DARK_BELOW_LIS	Trade occurring on a dark venue or fully hidden order with a size smaller than LIS
DARK_CONDITIONAL_ABOVE_LIS	Inferred dark volume wi...

1.10. 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 Plus:** TRADESPLUS
- **{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}/TRADESPLUS/{Region}/tradesplus-{MIC}-{YYYYMMDD}.parquet

Example:

2026/02/09/TRADESPLUS/EMEA/tradesplus-XLON-20260209.parquet