



BMLL Data Feed

Daily Reference Master

Date: 2026-02-09

Version: 4.3

1.1. Introduction

The BMLL Data Feed: Daily Reference Master gives a daily master file of reference data for equities in the BMLL universe. It allows users to quickly identify particular securities within other BMLL Data Feed products.

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

1.3. Schema

One row in the dataset corresponds to a single, atomic event during the trading day.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
REFERENCE_DATE	Date	DATE	INT32	The date of reference data.
LISTING_ID	ListingId	NUMBER	INT64	The BMLL LISTING_ID identifies a specific instrument on a trading or reporting venue. BMLL listings identify every ticker on the venue and remain attached to the instrument when a ticker change occurs. Changes in the primary instrument identifier, such as an ISIN change, can cause a new LISTING_ID to be issued.
INSTRUMENT_ID	InstrumentId	NUMBER	INT64	The BMLL INSTRUMENT_ID connects listings of a designated underlying asset when issued with similar conditions (i.e., quoting currency, legislation region, primary reference venue etc.).
CURRENCY_CODE	CurrencyCode	VARCHAR	BYTE_ARRAY	The currency associated with the instrument.
DESCRIPTION	Description	VARCHAR	BYTE_ARRAY	The description of the BMLL object.
DISPLAY_NAME	DisplayName	VARCHAR	BYTE_ARRAY	The name of the instrument.
ISIN	ISIN	VARCHAR	BYTE_ARRAY	The International Securities Identification Numbering value unique for the instrument.
INSTRUMENT_TYPE	InstrumentType	VARCHAR	BYTE_ARRAY	The asset class of the instrument.
IS_ALIVE	IsAlive	BOOLEAN	BOOLEAN	Defines whether the listing is still active on the reference data date.

BMLL Data Feed: Daily Reference Master

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
IS_PRIMARY	IsPrimary	BOOLEAN	BOOLEAN	Indicates whether the security is the primary listing of the instrument.
MIC	MIC	VARCHAR	BYTE_ARRAY	The Market Identifier Code (MIC) uniquely identifies the exchange for which the trade is reported.
MARKET_DATA_LEVEL	MarketDataLevel	VARCHAR	BYTE_ARRAY	The level of market data granularity. Values include L1, L2 and L3.
OPOL	OPOL	VARCHAR	BYTE_ARRAY	Original Place Of Listing for the instrument.
TICKER	Ticker	VARCHAR	BYTE_ARRAY	The ticker as provided by the exchange.
FIGI	FIGI	VARCHAR	BYTE_ARRAY	The Financial Instrument Global Identifier, when available. See https://www.openfigi.com/ for more details
FIGI_COMPOSITE	FIGIComposite	VARCHAR	BYTE_ARRAY	The Financial Instrument Global Identifier Composite, when available. See https://www.openfigi.com/ for more details
FIGI_SHARE_CLASS	FIGIShareClass	VARCHAR	BYTE_ARRAY	The Financial Instrument Global Identifier Share Class, when available. See https://www.openfigi.com/ for more details
OPERATING_MIC	OperatingMic	VARCHAR	BYTE_ARRAY	The Operating MIC of the venue.
REUTERS_INSTRUMENT_ID	ReutersInstrumentId	VARCHAR	BYTE_ARRAY	If set, internal ID of Refinitiv Instrument (broadly same definition as BMLL Instrument). See https://permid.org/ for more details.

Field Name (Snowflake / Databricks)	Field Name (Parquet)	Type (Snowflake / Databricks)	Type (Parquet)	Description
REUTERS_ORGANIZATION_ID	ReutersOrganizationId	VARCHAR	BYTE_ARRAY	If set, internal ID of Refinitiv Organisation (i.e. the company, not the shares). See https://permid.org/ for more details.
REUTERS_QUOTE_ID	ReutersQuoteId	VARCHAR	BYTE_ARRAY	If set, internal ID of Refinitiv Quote (broadly same definition as BMLL Listing). See https://permid.org/ for more details.
SEGMENT_CODE	SegmentCode	VARCHAR	BYTE_ARRAY	Market segment as supplied by the exchange (if available)
CUSIP	CUSIP*		BYTE_ARRAY	A CUSIP number is a unique nine-character alphanumeric code that identifies a security, such as a stock or bond, and its issuer. CUSIP stands for Committee on Uniform Securities Identification Procedures.

*Requires a CUSIP licence

1.4. Data Model

There are five three core concepts with the reference model - Listing, Instrument and Market, with differences depending on whether the exchange is an equity or futures exchange.

Market

A Market represents a distinct venue for the execution of orders on tradable instruments; e.g. an Exchange, Systematic Internaliser, MTF, ATS or OTC market:

- If a venue has multiple order books, trading the same securities simultaneously and independently, then they are distinct Markets.

- If a venue has multiple segments for different securities (e.g. main board & small cap), then they are kept as a single Market.
- Where a group company owns and operates multiple venues with different rules, geographic focus or holiday calendars, then those venues are distinct Markets.

In addition, a Market can represent a consolidated source of pricing data, such as a trade reporting system (e.g. Cboe BOTC), a consolidated price feed (e.g. US SIP), or OTC prices set by an organisation (e.g. ECB daily F/X rates).

Every Market is uniquely and permanently identified by a primary key: in this data product that is the MIC Code. This is often the same as the ISO 10383 Market Identifier Code. However, most ISO MIC codes are not BMLL Markets. Certain use cases require markets which do not have a MIC code but we wish to include in our standard. For example, in the US SIP tape, we include an '@' (at sign) at the beginning. This is to deliberately contrast to standard MIC codes.

Listing

The Listing is the primary entry point to accessing BMLL's order book data, via the ListingId attribute, and represents a set of orders and trades on one symbol on one market. Each Listing is only on one Market. The fields of a ListingId vary depending on the relevant schema, as described below.

Instrument

Instruments are used to group equivalent Listings together so that they can be easily compared. Fungible listings traded in the same currency are grouped in the same Instrument. For equities, this means grouping by fungibility, based on the primary market and currency. For futures, this is done per product per exchange.

1.5. Notes

InstrumentType

InstrumentType provides a normalised way to view the asset that the listing represents. In general, we use the first level from the CFI code (ISO 10962) wherever possible to map to InstrumentType. However, when this is not available, we map based on exchange provided fields. Possible values for InstrumentType are:

InstrumentType	Description	CFI mapping
Equity	Shares in trading companies, includes preference & convertible shares. Excludes ETFs, ETPs (and units)	E*, except EU* (maps to Funds)
Funds	All exchange traded products (e.g ETFs, ETPs, and units)	C*, plus EU*
Debt	Bonds (inc. government bonds), convertible bonds, money market instruments, structured debt products	D*
Entitlements	Warrants, allotments, bonus shares	R*
Futures	Exchange-traded contracts (i.e. not forwards) for future delivery of an underlying, or any strategies built on that	F*, plus any futures marked with K*
Other	Any other instrument	N/A

Normalised MIC

BMLL generally identifies venues using the ISO20022 Market Identifiers Code (MIC). Whilst this works well in general, segment and operational MIC codes are not always used in a consistent manner. Within BMLL, we use a single MIC code to represent a venue.

The MIC used aims to consistently map trading mechanisms of the lit order book in question, rather than particular segments of the market. For example, the Euronext growth Segment (MIC: ALXP) will have the same MIC code as the main market (MIC: XPAR), to allow easy comparison of the total venue.

1.6. 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
 - **Reference**: REFERENCE
- **{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}/REFERENCE/{Region}/reference-{MIC}-YYYYMMDD.parquet

1.7. Data arrival times

Full product coverage and arrival times are available at <https://data.bmlitech.com>.