LMEselect v10 Testing Services

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Document History

Version	Date	Author	Change Description
1.0	18/07/2024	Trading Operations	Baseline Version

1 Document Overview

This document aims to provide Participants wishing to complete conformance testing or testing of algorithms for direct electronic access on LMEselect v10, with the appropriate information on the services available.

2 Conformance Testing

2.1 Conformance Requirement

2.1.1 LME System Updates

Prior to any deployment or update of LMEselect v10, the LME and its Participants shall engage in testing of the system. The LME may issue guidelines from time to time concerning such testing, and Participants shall comply with such guidelines.

2.1.2 Participant Systems

Participants must undertake conformance testing prior to the deployment or a substantial update of (a) LMEselect v10, or (b) the Member's trading, trading algorithm or trading strategy or (c) prior to a new on-boarding member going live. The conformance testing shall ensure that the basic functioning of the Participant's trading system, algorithm and strategy complies with the LME's conditions set out in the LME Rules and in this policy. The conformance testing shall verify the functioning of the following:

a. the ability of the system or algorithm to interact as expected with the LME's matching logic and the adequate processing of the data flows from and to the LME;
b. the basic functionalities such as submission, modification or cancellation of an order or an indication of interest, static and market data downloads and all business data flows; and
c. the connectivity, including the cancel on disconnect command, market data feed loss and throttles, and the recovery, including the intra-day resumption of trading and the handling of suspended instruments or non-updated market data.

2.2 LME Testing Environments

The LME provides testing environments which must be used to undertake conformance testing. These test environments are completely separate from the production environment and are accessed via dedicated test environment log-ons which cannot be used to access the production environment.

2.2.1 Access Conditions

Participants wishing to use the LME's testing environments must submit requests for user access using the contact details in section 2.2.2.

2.2.2 Environment Availability and Support

System	Hours of Operation	Hours of Support	Contact
LMEselect v10	00:45 – 19:30	07:00 – 19:00	tradingoperations@lme.com

See https://www.lme.com/en/Trading/Systems/Customer-test for more details.

For the avoidance of doubt, queries/issues raised outside of the Hours of Support detailed above will only be addressed during the Hours of Support. Support will be provided as best endeavours where Production takes priority.

2.2.3 Test Products

The products available in production and all underling instruments relating to those products, can be tested in these environments.

2.2.4 Accessing LME Testing Environments

Market Test is split into two areas:

- **Market Test A**: is a mirror of LME's production environment, providing Members, Clients and ISVs with a testing platform to test their FIX feeds and trading strategies.
- **Market Test B**: is the test environment for scheduled upgrades to LMEselect v10 – i.e. "next release" environment.

Both test environments offer the same functionality as the production environment and are accessible over LMEnet and the Internet (with restrictions).

Detailed connectivity information can be found in the LME Systems Connectivity Guide located in the Member area of the LME website, https://www.lme.com/en/Trading/Systems/Customer-test

2.2.4.1 Key Reference Documents

Participants are advised to download key reference documents from the LME website to assist with their preparations:

- https://www.lme.com/en-GB/Trading/Systems/LMEselect
- https://www.lme.com/ntpdocuments

2.3 Conductor Conformance Certification System

The Conductor certification system must be used when undertaking conformance testing for new or existing access to LMEselect v10.

On conformance completion and verification by the LME, the conformance report available on Conductor summarises the testing performed.

Applications which require conformance will only be granted access to the production environment once certification and onboarding have been completed.

2.3.1.1 Key Reference Documents

Participants are advised to download key LMEselect reference documentation from the LME website to assist them with their preparations:

- https://www.lme.com/ntpdocuments

3 Algorithm Testing and Certification

Responsibility for testing and certification of algorithms lies with the Member and must be performed prior to the deployment or substantial update of a trading algorithm or trading strategy. This includes proprietary algorithms and those deployed under a Direct Electronic Access (DEA) arrangement and those provided by ISVs.

For further information on requirements, refer to the Algorithmic Trading and Direct Electronic Access Policy.

3.1 LME Algorithm Test Environment

The LME will make this available in its production environment for the Members and prospective Members to test their algorithms before deployment or substantial update of a trading algorithm or trading strategy.

There is no requirement to use the LME Algorithm testing environment provided by the LME but Members are reminded of their responsibility for ensuring that sufficient testing is undertaken in a non-live, segregated test environment to ensure that any signs of disorderly trading or Exchange Regulation violations are identified and rectified.

The LME provides dummy products in the production environment for testing algorithms. The dummy products are segregated from the rest of the market, managed on a separate matching engine and accessible to users set up solely for access to these products. For the avoidance of doubt, these dummy products are not available in either Market Test A or Market Test B environments.

All standard order types are available for submission and implied orders will be generated.

Security Definition Requests will not be permitted. Risk Management and Drop Copy functionality will not be available.

Note: Orders must be submitted with a Broker Client ID. Member Risk Managers should configure Broker Client IDs in the default risk group to ensure orders are not rejected.

3.1.1 Access Conditions

Members and prospective Members wishing to test and certify their algorithms can use the LME's production environments.

In order to access the LME production environment for testing, the Member or prospective Member must send a request for user access and a testing slot to the LME using the contact details in section 3.1.2. Upon receipt of the request, the LME will provide trading connections solely for access to the LME Algorithm test environment.

3.1.1.1 Fair Usage Policy

In order to permit fair usage of the service as stated in the access conditions above, Members and prospective Members must pre-book a slot with Trading Operations in advance of testing.

3.1.2 Environment Availability and Support

System	Hours of Operation	Hours of Support	Contact
LMEselect v10	00:45 – 19:30	07:00 – 19:00	tradingoperations@lme.com

For the avoidance of doubt, queries/issues raised outside of the Hours of Support detailed above will only be addressed during the Hours of Support.

The environment is functionally equivalent to production, although performance is not guaranteed to be the same due to the test nature of this functionality.

3.1.3 Accessing the Algorithm Testing Service

Detailed connectivity information can be found in the LME Systems Connectivity Guide located in the Member area of the LME website, https://www.lme.com/en/Trading/Systems/Customer-test

3.2 Test Products

The following products and tradable instruments will be available for algorithm testing (in a segregated production environment):

- Dummy Base Metal Future (XZ)
- Dummy Cash Settled Future (XX)

3.3 Key Reference Documents

Members and prospective Members are advised to download key reference documents from the LME website to assist with their preparations:

- https://www.lme.com/Trading/Systems/LMEselect
- https://www.lme.com/ntpdocuments

3.4 Certification of Algorithms

Members must certify to the LME that the algorithms have undergone appropriate testing and explain the methodology used for that testing using the LMEselect Algorithm Certification form.

The completed form should be returned to tradingoperations@lme.com.