

Interface and Operational Procedure for Close Out Process in LMEmercury

Please respond to:

LME Clear

Document History

Date	Version	Status	Change Summary
	1.0	Final	LMEmercury Release 4 - First distribution.
18-07-2017	2.0	Final	LMEmercury Release 5 – Close outs mechanism extended to aggregate Options and TAPOs. Changes tracked.
14-08-2017	3.0	<u>Final</u>	LMEmercury Release 5 – Updated with clarifications for Options & TAPOs close-outs, including instructions being permitted on Expiry Day.



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1. Introduction

In LMEmercury Release 4 in 2017 LME Clear introduced a new close out mechanism for Futures contracts held on an aggregate position keeping basis. The Futures close out mechanism allows Members to specify the number of Futures lots they wish to net per position account and tradable instrument. Partial or full close out of an open position is supported.

In LMEmercury Release 5 (Quarter 4 2017), LME Clear will extend the close out mechanism to Options and TAPO contracts held on an aggregate position keeping basis. The close out mechanism will not <u>be</u> available for Futures, Options or TAPOs in the Gross Omnibus account type.

Three options exist for inputting close out instructions into the system:

- 1. Manually uploading a file with close out instructions using the LMEmercury GUI (File Uploads)
- 2. Uploading a file with close out instructions onto SFTP for LMEmercury to automatically consume and process
- 3. Directly into the LMEmercury GUI

This document provides Members and ISVs detailed technical and operational information for the systems and interfaces that support the close out mechanism.



2. Close Outs General Rules

2.1 Eligibility of Trades to Close Out

- There will be no close outs for a tradeable instrument between accounts i.e. only within a given account.
- Top day trades are not eligible for close out as they have yet to be aggregated.
- It is only permitted to close out (net) up to the previous business day's trading volume in a given Member account by tradable instrument i.e. T+1 basis only.
- It is permitted to close out Options & TAPOs on Expiry day. (Both Precious Futures & cashsettled Futures cannot be closed out on its expiry day).
- If an Option or TAPO is marked to be exercised, then it is not permitted to be closed out.
 Members can clear exercise instructions and then re-submit close out instructions. It is the Members responsibility to re-enter any exercise instructions before Option Exercise or TAPO Expiration begin.

2.2 Close Out Submission Window

LME Clear will only permit close out actions during a specified close out windows each day. There will be a close out window for Futures, and a separate close out window for Options and TAPOs.

For Futures, submissions will be allowed from 9am to 12pm.

For Options and TAPOs, submissions will be allowed from 9am to 11.10am and from 11.20am to 12pm (TBC). This window is applicable on all business days including the Expiry Day for a given instrument.

Positions will be updated as soon as the Close out is completed.

2.3 Close Out File Conventions

Members will be responsible for ensuring the number of lots specified in each close out instruction submitted into LMEmercury is valid based on the details in their own books and records.

- Files must be pure text format with a comma separated format.
- A header row must be the first line of the file, using the attribute names specified below.
- Each close out instruction must be its own row in the file.
- The Member_ID attribute must be the mnemonic of the Clearing Member.
- The same combination of Account ID and Tradable Instrument may only be used once within the same file. If the same combination is used more than once, then only the first instruction will be processed by the system. Any subsequent instructions in the file for the given combination will result in an error.
- The same combination of Account ID and Tradable instrument is allowed across multiple files submitted on the same day.



• Close out instructions for Futures, Options and TAPOs can be submitted in a single file.

2.3.1 File Format

The required format for manually uploaded and SFTP close out files is as follows:

Attribute	Format	Example	Req	Description
MEMBER_ID	String	AAA	Yes	Clearing Member Mnemonic
ACCOUNT_ID	String	AAA_OSA_1	Yes	Clearing Member Account ID for the position to close out
TRADABLE_INSTRUMENT	String	AUD010816 or AUD010816_SYMB_PR ECIOUS_USD_TRANSP ARENT_ONLY AHDAPR22_1950TC	Yes	The Tradable Futures, Option or TAPO instrument for the position to be closed out. Both the long and short tradeable instrument name is supported, with the recommendation to use the short name.
TO_CLOSEOUT	Integer	10	Yes	The quantity to be closed out. This must be a positive number.

2.3.2 Example file for Member ID XXX

MEMBER_ID,ACCOUNT_ID,TRADABLE_INSTRUMENT,TO_CLOSEOUT XXX,XXX_H_1,SCD300617,1 XXX,XXX_H_1,MXD100517,1 XXX,XXX_H_1,SCD310817,1



3. Manual Upload of Close Out Files

3.1 File Naming Convention for Manual Uploads

The filename format for files manually uploaded via the LMEmercury GUI is: Closeout_MemberMnemonic_Date_*.csv

Where _* is optional.

Rules:

- MemberMnemonic must be that of the Clearing Member
- The Date must be current business day in the YYYYMMDD format.
- The file must have a .CSV file type

3.2 Close Out File Upload

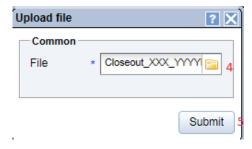
The File Upload facility within the LMEmercury GUI supports the upload of a close out file type. Multiple close out instructions for a given Member may be submitted within a single file, and multiple files may be uploaded on a single day.

Once the Close out file has been filled and saved as per the above instructions, Members can manually upload it into LMEmercury up until 12pm by following the below steps:

- 1. Navigate to the File Upload screen
- 2. Click on the File Upload menu
- 3. Select Upload file



- 4. Browse and attach the file from the relevant directory
- 5. Submit



The file upload will create a row on the *File* screen with its status. Below are the different combinations that a file upload can display.

State	Validation Status	Description		
New	Correct	All submitted Close out instructions are valid and ready for		



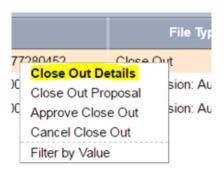
State	Validation Status	Description
		approval.
New	Error	At least one Close out instruction has been submitted with a wrong format. Number of errors can be seen in the <i>Comment</i> column. If the uploaded file goes for approval only valid closeout instructions will be processed. Details on the errors can be seen by right clicking and selecting <i>Request Input Details</i>

3.3 Close Out File Check

Once the file has been uploaded, the details uploaded can be checked by the user before submitting the file for approval and by the approver before approving/rejecting the file.

3.3.1 Close Out Input Details

1. Right click on the submitted file and select Close Out Details



 Click on the tab Close Out Input Details at the bottom half of the screen where are displayed all Close out instructions within the file. If the file contains erroneous data, the description of the error is given in the Comment column

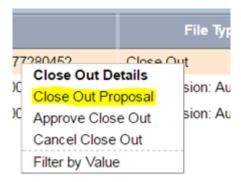


3.3.2 Close Out Proposal

Users also have the ability to see a simulated result of their close out instructions. The *Close out Proposal* function displays details of the position by instrument and position account before and after the close out instruction.

1. Right click on the submitted file and select Close out Proposal





2. A window displays the result before and after the Close out

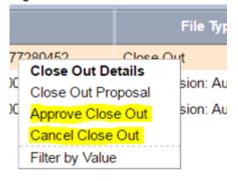


3.4 Close Out File Approval/Rejection

Once uploaded, a close out file can either be approved by the Member under four-eye authorisation confirming that the instructions should be processed by LMEmercury, or alternatively the file can be cancelled to prevent further processing by the system.

Where a file is approved, LMEmercury will only process instructions if the close out window for that contract type is open (see section 2.2). If the window is closed for a contract type, then the instructions for that contract type will not be processed.

1. Right Click on the submission and select Approve Close Out or Cancel Close Out



If Cancel Close Out file is selected the uploaded file is removed from File Uploads and no further steps are required.

- 2. If Approve Close Out is selected, a second user with approval rights can either approve or reject the file from the Reference Data/Request Approval screen
- 3. The results of system processing of an approved file are displayed within the *File Uploads* facility, including details of any errors. Email notifications will also be sent will the final status of the file submission as per section 7.
- 4. Positions are updated in the Positions screen





Below are the combinations that a submission can have following an approval/rejection.

State	Validation Status	Description
Completed	Correct	File has been approved by a second user with approval rights. All submitted Close out instructions have been processed.
Completed	Error	File has been approved by a second user with approval rights All valid Close out instructions have been processed. All erroneous Close out instructions have been ignored.
Rejected	Correct	File has been rejected by a second user with approval rights even though the content was correct. Close Out instructions not processed
Rejected	Error	File containing at least one erroneous Close out instruction has been rejected by a second user with approval rights. Close Out instructions not processed.



4. SFTP Upload of Close Out Files

The SFTP interface allows the submission of close out files, with an individual SFTP directory available for each Member's files.

4.1 SFTP Upload of Close Out files

- · Connect to the SFTP server using existing credentials
- Change current folder location to the CLOSEOUT folder
- Write the file to be processed using a temporary filename, e.g. CloseOut_XXX_20170120_1340.csv.tmp
- Once the file transfer has completed, rename the temporary file to the actual filename, e.g. rename
 CloseOut_XXX_20170120_1340.csv.tmp
 CloseOut XXX 20170120 1340.csv
- The file will be processed at a defined interval, with a set number of files being processed during each interval.
- If multiple files are written to the folder LMEmercury will use the filename to determine the processing order.

Once an SFTP file has been processed by the system details will be displayed in *File Uploads* and/or an email notification will be sent. SFTP files are not subject to four-eye authorisation.

4.2 File Naming Convention for SFTP Uploads

The filename format for files uploaded via SFTP is: Closeout_MemberMnemonic_Date_Time_*.csv

Where _* is optional.

Rules:

- MemberMnemonic must be that of the Clearing Member uploading the file
- The Date must be current business day in the YYYYMMDD format
- The Time must be in the 24 hour HHMMSS format
- The file must have a .CSV file type (case insensitive with both .csv and .CSV supported)
- The filename must be unique and cannot be the same as a previously uploaded file.
- LME Clear will only permit files up to a maximum file size.
- LME Clear will only permit the upload of a maximum number of files per day per Member using SFTP. If this limit is reached the options to input an instruction directly into the GUI or to manually upload a file can be used (subject to the close out window being open).

4.3 Close Out File Instructions Details

Unlike the manually uploaded files, there is no simulated result for an SFTP uploaded file. It is possible to view details of the instructions from an SFTP uploaded file using the *Close Out Input Details* tab, where the instructions will be shown as completed.

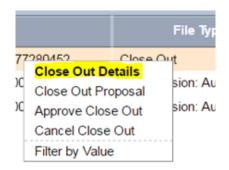


The results of the system processing of an SFT uploaded file are displayed in the File Uploads facility within the LMEmercury GUI, including details of any errors.

1. Navigate to the File Upload screen



2. Right click on the file submission and select Close Out Details



The Close Out Proposal, Approve Close Out and Cancel Close Out options are not applicable to an SFTP file.

 Click on the tab Close Out Input Details at the bottom half of the screen where are displayed all Close out instructions within the file. If the file contains erroneous data, the description of the error is given in the Error column



4. Positions are updated in the Positions screen



4.4 SFTP Close Out File Approval

SFTP uploaded files are not subject to four-eye authorisation within LMEmercury. The system will automatically process all valid close out instructions from a given file once it has been retrieved from the SFTP folder and ignores all erroneous instructions in the file. LMEmercury will only process instructions from an SFTP uploaded file if the close out window for that contract type is open (see section 2.2). If the window is closed for a contract type, then the instructions for that contract type will not be processed.

If a processed SFTP has not closed out sufficient quantity for a given position(s), then a further file can be provided (subject to the close out window being open) which will be processed independently from the first submission. If there are erroneous instructions in a processed file, then that file should be reversed (see section 6) and new file should be uploaded for processing.

Email notifications will also be sent will the final status of the file submission as per section 8.



5. GUI Close Out Instructions

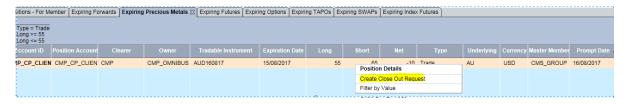
5.1 GUI Close Out Request

The last option to action a close out is via the GUI directly. This is only permitted if the close out window for the contract type is open (see section 2.2). The user inputs the request directly from the position to be closed out (full or partial) using the steps below:

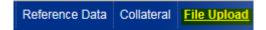
1. Navigate to the Positions screen



2. Right click on the position and select Create Close Out Request



The request is then visible on the File Upload screen Note that LMEmercury automatically generates a file for the GUI input instruction, which follows the same process as a manually uploaded file.

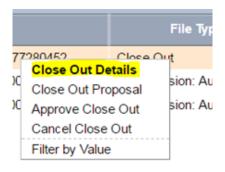


5.1 Close Out File Check

Once the system has automatically generated the file for the close out instruction, the details can be checked by the user before submitting the file for approval and by the approver before approving/rejecting the file.

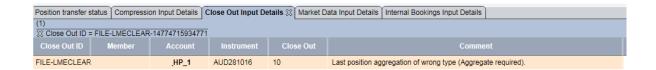
5.1.1 Close Out Input Details

1. Right click on the file for the GUI instruction and select Close Out Details



2. Click on the tab Close Out Input Details at the bottom half of the screen where are displayed all Close out instructions within the file. If the file contains erroneous data, the description of the error is given in the Comment column

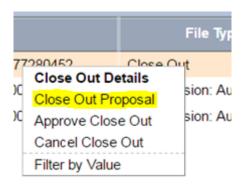




5.1.2 Close Out Proposal

Users also have the ability to see a simulated result of the GUI input close out instruction. The *Close out Proposal* function displays details of the position by instrument and position account before and after the close out instruction.

1. Right click on the submitted file and select Close out Proposal



2. A window displays the result before and after the Close out



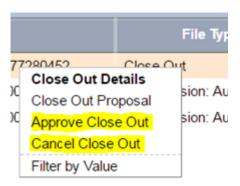
5.2 Close Out File Approval/Rejection

A GUI close out request is either approved by the Member under four-eye authorisation confirming that the instructions should be processed by LMEmercury, or alternatively can be cancelled to prevent further processing by the system.

LMEmercury will only process the instruction if the close out window for that contract type is open (see section 2.2) at the time of approval. If the window is closed for a contract type, then the instructions for that contract type will not be processed.

 Right Click on the generated file for the instruction and select Approve Close Out or Cancel Close Out





If Cancel Close Out file is selected the uploaded file is removed File Uploads and no further steps are required.

- 2. If Approve Close Out is selected, a second user with approval rights can either approve or reject the file from the Reference Data/Request Approval screen
- 3. The results of system processing of an approved file are displayed within the *File Uploads* facility, including details of any errors. Email notifications will also be sent will the final status of the file submission as per section 7.
- 4. Positions are updated in the Positions screen



Below are the combinations that a submission can have following an approval/rejection.

State	Validation Status	Description
Completed	Correct	File has been approved by a second user with approval rights. All submitted Close out instructions have been processed.
Completed	Error	File has been approved by a second user with approval rights All valid Close out instructions have been processed. All erroneous Close out instructions have been ignored.
Rejected	Correct	File has been rejected by a second user with approval rights even though the content was correct. Close Out instructions not processed
Rejected	Error	File containing at least one erroneous Close out instruction has been rejected by a second user with approval rights. Close Out instructions not processed.



6. Reversal of Close Out Instructions

The File Upload facility within the LMEmercury GUI allows the reversal of successfully processed instructions from a given close out file. This is allowed during the close out time window for files uploaded manually, for files provided by SFTP and for instructions submitted directly via the GUI.

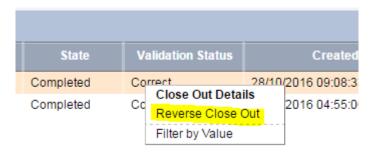
- Only instructions processed by the system on the current day may be reversed.
- The action reverses all processed instructions within the given file i.e. it is an all or nothing action.
- The reverse close out option is only available directly within the LMEmercury GUI.
- Reversals are only permitted if both the Futures close out window and the Options & TAPO close
 out window are open. During a short window from 11.10am to 11.20am, reversals will not be
 allowed for Futures, Options and TAPOs (see section 2.2).

The following steps should be followed:

1. Navigate to the File Upload screen



2. Right click on the completed submission and select Reverse Close Out



- 3. Right Click and Approve Reverse Close Out
- 4. A second user with approval rights can approve\reject the Reversal request in the Reference Data/Request Approval screen
- 5. File Type of the submitted file is updated to "Close Out Reversed" with a status Completed





7. Close Out Reports

A Member data file (CLS) available in XML and CSV format and Member report (LMECCLOSR) available in PDF, XML, Excel and CSV format are generated after the close out cut off time as evidence of all close out instructions that have been successfully processed by LMEmercury on the current business day.

The report and data file contain one row per successfully processed close out instruction and exclude reversals i.e. instructions submitted and successfully processed, but then reversed by the Member.

If none of the close out instructions submitted have been processed successfully, if all instructions have been reversed or if a Member has not submitted any instructions then neither the data file nor the report are created.

7.1 Close Out Data file Attributes

The CLS data file name is yyyymmdd_hhmmss_XXX_CLS.csv where XXX will be replaced with the Member's clearing mnemonic. The format is as follows

Attribute	Format	Example	Req	Description
REPORT_DATE	YYYYM MDD	20161025	Yes	Business date for the data
MEMBER	String	AAA	Yes	Mnemonic of the Member
ACCOUNT	String	AAA_H_1	Yes	Member position account for the close out
TRADABLE_INSTRU MENT	String		Yes	Tradable Futures, Option or TAPO instrument where positions have been closed out.
CLOSED_OUT	Integer	10	Yes	The quantity closed out by the instruction.
FILENAME	String		Yes	The filename of the file used to input the instruction.

7.2 Close Out Report Attributes

The filename of the report is yyyymmdd_hhmmss_XXX_LMECCLOSR.pdf where XXX will be replaced with the Member's clearing mnemonic. The format is as follows:

Report Display Name	Format	Example	Req	Description
Event	String	Closed	Yes	Set to Closed



Report Display Name	Format	Example	Req	Description
Position Account	String	AAA_OSA_1	Yes	Member position account for the close out
Tradeable Instrument	String		Yes	Tradable Futures, Option or TAPO instrument where positions have been closed out.
Closed Out	Integer	10	Yes	Quantity closed out by the instruction.
Filename	String		Yes	The filename of the file used to input the instruction.

8. Email Notifications

In addition to status updates and messages displayed in *File Uploads* for close out files, email notifications will be sent for the following:

- Close out instructions for a given file have been processed with no errors
- Close out instructions for a given file have been processed with errors
- The maximum files permitted per day for the SFTP file upload has been reached
- The filename of an SFTP file contains erroneous characters
- The file uploaded on SFTP has errors and cannot be processed
- LME Clear rejects a close out file
- LME Clear approves a close out file
- LME Clear creates a reversal file

Note that LME Clear will only complete actions to trigger the last three email notifications above a) in agreement with the Member and b) where it is a non-BAU scenario that prevents the Member completing the action themselves.

