



# TIF Interface Specification

Please respond to:

LME IT Solutions Delivery

## Change History

Revision	Date	Section	Section Name	Change
1.0	04 Aug 17			Original version
1.1	17 Aug 17	3.2	TIF File Header	Added description of file header
1.2	07 Sep 17	6.2	Contract Codes	Remove underlying codes from table.
1.3	25 Sep 17	3.1 3.2.1	TIF File Specification TIF XML Output Example	Add Options Delta Field
1.4	02 Oct 17	5	Frequency, availability	Update SOD time to 00:40
1.5	31 Oct 17	3.1 5		Add FERR and OIDX contract type codes. Clarify the OPTION_DELTA tags may be present in the SOD TIF file, but they will be empty. Update EOD time to 20:30.
1.6	03 Nov 17	1.2 3.1	Estimated File Size TIF File Specification	Include file size estimates Add descriptive text around the TIF fields that provide information required in the Daily Positions Report
1.7	21 Nov 17	6.2	Contract Codes	Correct the Venue Product Codes for the Nickel (NI) contracts.
1.8	24 Nov 17	6.2	Contract Codes	Correct the Venue Product Codes for MAF, LMEmini AND Premium Aluminium contracts.
1.9	28 Nov 17	-	-	Minor typo corrections.
1.10	19 Dec 17	5	Frequency, availability	Correction to the file availability times.
1.11	15 Mar 19	3.1 11 6.2	TIF File Specification Contract_Type Contract Codes	Add ALUM, MFUT and FGRP codes to Sample Data  Add Contract Codes AMD, CBD, EAD, HCD, HUD, MDD and UPD

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# 1 Introduction

MiFID II will apply from 3 January 2018 and under these new MiFID II regulations the LME are obligated to produce several reports to the FCA. Some of these reports require data which need to be provided by the LME members.

## 1.1 TIF

MiFID II mandates the adoption of ISIN as a unique instrument identifier which to date LME have not used to identify such instruments.

Members of the LME who are subject to MiFID II will have the obligation to transaction report using these ISINs.

A new file, **Tradeable Instrument File (TIF)**, will contain instrument reference data for all tradeable LME contracts including ISIN and will be made available to Members and Vendors via the following channels:

- on LME.com for SFTP download
- as an XML report published in a FIX wrapper available via a FIX message on the Select Market Data feed.

This document describes the content and provision mechanisms for those files.

## 1.2 Estimated File Size

The TIF files are expected to be of the following size:

- 0.5MB (compressed)
- 17MB (uncompressed)

## 2 ISIN Granularity

The LME will assign an ISIN per financial instrument down to prompt and strike price level.

The FCA has advised that Carries (and it is therefore assumed other strategies) are not deemed to be financial instruments in their own right under MiFID II. The rationale being that:

- a) they are not distinct legally established items; they are merely groupings of underlying contracts which can be traded under a single code for convenience.
- b) the position opened for each leg in each underlying future or option (in the case of option strip strategies) can be traded out of independently.

Strategies do not therefore require an ISIN and should be reported in their constituent parts.

The LME financial instruments that require ISINS are as follows:

Category	Granularity
Future	LME Instrument, Metal, Prompt Date, Currency*
Option	LME Instrument, Metal, Expiry, Put/Call, Strike Price, Currency*

\* LMESELECT only supports USD, LMESMART supports USD/GBP/JPY/EUR for Futures and Traded Options LME Instruments.

### 3 File structure and Naming Convention

The following table describes the structure of the TIF file in conjunction with the Static reference data specified in the [Guidance Notes](#).

#### 3.1 TIF File Specification

Field no	Field name	Description	Format	Mandatory/ Optional: M/O	Sample data
1	UPDATE_DATE_TIME	The UTC date and time that the record was updated. Used to determine the Delta in the record set.	{DATE_TIME_FORMAT} ISO 8601 date and time format YYYY-MM-DDThh:mm:ss.dddZ	M	2017-01-01T12:30:00.000000Z
2	CONTRACT_NAME	The LME contract description See <a href="#">Guidance Notes</a> for valid values	Varchar 255	M	'LMEmini Aluminium Alloy' 'Copper A Grade'
3	CONTRACT_CODE	The LME product contract code that represents metal or contract.  The first 2 characters represent the Venue Product Code, as required for the Daily Positions Report.  The 3rd character represents the currency.  See <a href="#">Guidance Notes</a> for valid values	Char 3	M	AHD, CAD, MOD, AUD
4	TYPE	Generic contract type.  Instruments with a type of 'F' should be reported with a Position Type of 'FUTR' in the Daily Positions Report, instruments with a type of 'T' or 'A' should be reported with a Position Type of 'OPTN' in the Daily Positions Report.	Char 1	M	F - Future T - Traded Option A -TAPO

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Classification: Public

Field no	Field name	Description	Format	Mandatory/ Optional: M/O	Sample data
5	CFI	ISO 10962 CFI code. For Options, Char 2 of this code denotes Put or Call	{CFI_CODE} - Char 6	M	
6	MATURITY	Prompt Date for Futures Expiry Date for Options	{DATEFORMAT} - YYYY-MM-DD.	M	
7	STRIKE_PRICE	For Traded Options and TAPOS only. Null for Futures	{DECIMAL-18/13} as the price is expressed as monetary value	M where TYPE = T A	
8	ISIN	ISIN code assigned to the instrument	{ISIN} - alphanumeric 12	M	
9	UNDERLYING_ISIN	ISIN code assigned to the Underlying Future contract	{ISIN} - alphanumeric 12	M where TYPE = T	
10	SPOT_MONTH	Whether the contract is considered SPOT (all daily Futures up to and including the next 3rd Wednesday of the month) or OTHER (all other maturities) This field can be used to identify the instrument's position maturity required in the Daily Positions Report.	Char 5	M	'SPOT' 'OTHER'

TIF Interface Specification

Classification: Public

Field no	Field name	Description	Format	Mandatory/ Optional: M/O	Sample data
11	CONTRACT_TYPE	A further clarification of the contract type	Char 4	M	FWRD - Forward FUTR – Future (incl. LMEminis) MAFT - Monthly Average Future OPTN - Option TAPO - TAPO FIDX - Index Future OIDX – Index Option FOTC - OTC Future PFUT - Precious Future FERR – Ferrous Future ALUM – Aluminium Future* MFUT – Minor Metals Future* FGRP – Ferrous Group* *Will settle on all LME Business Days, including US Bank Holidays
12	OPTION_DELTA	Only populated by Metal Option and TAPO instruments that have traded previously.  The OPTION_DELTA values are only present in the EOD TIF file. The OPTION_DELTA tags may be present in the SOD TIF file but they will be empty.	{DECIMAL-18/13}	O	0.836956 -0.984235



Field no	Field name	Description	Format	Mandatory/ Optional: M/O	Sample data
		This field can be used to calculate the delta equivalent position in the Daily Positions Report.			

### 3.2 TIF File Header

Field name	Description	Example Values
IDENTIFICATION REPORT_CODE	The identifier for the report	TIF
REPORT_NAME	A descriptive name for the report	Tradeable Instrument File
REPORT_DATE	The date that the report was produced.	20170412
REPORT_TIME	The time that the report was produced.	2200
REPORT_VERSION	A unique version number for the report. This number will increment if subsequent versions of the report are produced.	001

### 3.2.1 TIF XML Output Example

```
<?xml version="1.0" ?>
<REPORT>
  <IDENTIFICATION REPORT_CODE="TIF" REPORT_NAME="Tradeable Instrument File" REPORT_DATE="20170412"
  REPORT_TIME="0040" REPORT_VERSION="100"/>
  <ISSUE_CODE>N</ISSUE_CODE>
  <CNTS COLUMN_COUNT="10" ROW_COUNT="2"/>
  <DATA>
    <ROW>
      <UPDATE_DATE_TIME>20170714T19:00:01</UPDATE_DATE_TIME>
      <CONTRACT_NAME>LME Aluminium US Premium</CONTRACT_NAME>
      <CONTRACT_CODE>AND</CONTRACT_CODE>
      <TYPE>F</TYPE>
      <CFI>FCEPSX</CFI>
      <MATURITY>20190116</MATURITY>
      <STRIKE_PRICE></STRIKE_PRICE>
      <ISIN>GB00Z9YFH190</ISIN>
      <UNDERLYING_ISIN> </UNDERLYING_ISIN>
      <SPOT_MONTH>OTHER</SPOT_MONTH>
      <CONTRACT_TYPE>FUTR</CONTRACT_TYPE>
      <OPTION_DELTA></OPTION_DELTA >
    </ROW>
    <ROW>
      <UPDATE_DATE_TIME>20170714T19:00:01</UPDATE_DATE_TIME>
      <CONTRACT_NAME>Aluminium Alloy TAPO</CONTRACT_NAME>
      <CONTRACT_CODE>AAD</CONTRACT_CODE>
      <TYPE>A</TYPE>
      <CFI>OCXTCS</CFI>
      <MATURITY>20190329</MATURITY>
      <STRIKE_PRICE>12345.99</STRIKE_PRICE>
      <ISIN>GB00Z9YFH315</ISIN>
      <UNDERLYING_ISIN></UNDERLYING_ISIN>
      <SPOT_MONTH>OTHER</SPOT_MONTH>
      <CONTRACT_TYPE>TAPO</CONTRACT_TYPE>
      <OPTION_DELTA>0.985371</OPTION_DELTA >
    </ROW>
  </DATA>
</REPORT>
```

### 3.3 Naming Convention

#### 3.3.1 Start of Day (SOD)

The filename of the TIF file made available to Members and Vendors will comply with the following naming convention: *TRADEABLE\_INSTRUMENT\_FILE\_SOD\_yyyymmdd.xml*

The date in the filename must always be the date that the file is for, not the date that the report was produced.

#### 3.3.2 End of Day (EOD)

The filename of the TIF file made available to Members and Vendors will comply with the following naming convention: *TRADEABLE\_INSTRUMENT\_FILE\_EOD\_yyyymmdd.xml*

The date in the filename must always be the date that the file is for, not the date that the report was produced.

## 4 File Validation Rules

In the event the TIF file is recreated the XML REPORT\_VERSION number will be incremented.

## 5 Frequency, availability

The LME will provide a single TIF file for use by both Members and Vendors at the scheduled times below:

When	Time	Description
SOD Start of Day	00:50	All tradeable data at the point of production. ISINs to represent new listings will first be made available on the day the contract becomes tradeable as a result of the prompt date roll.
EOD End of Day	21:00	All tradeable data at the point of production. Will contain the intra-day Option instruments created during the day in select or LMEsmart. A new ISIN will only be created when an instrument has not previously been traded (traded includes orders - regardless of their status and transactions). Will also contain the Option Delta for Metal Option and TAPO instruments, where the instrument has traded previously.

Members who trade after 19:00 should use the following day's SOD file to identify ISINs for new option instruments created.

When the SOD is available at 00:50, the previous days SOD and EOD will be archived. Members and vendors should retain their own historical library.

## 6 Guidance Notes

The following tables refer to the definition in association to the TIF file structure.

### 6.1 Common Data Types

Symbol	Data Type	Definition
{ALPHANUM-n}	Up to n alphanumerical characters	Free text field.
{DATE_TIME_FORMAT}	ISO 8601 date and time format	Dates and times shall be reported in UTC in the following format: YYYY-MM-DDThh:mm:ss.dxxxxxZ. <ul style="list-style-type: none"> <li>- 'YYYY' is the year;</li> <li>- 'MM' is the month;</li> <li>- 'DD' is the day;</li> <li>- 'T' – means the letter 'T' shall be used</li> <li>- 'hh' is the hour;</li> <li>- 'mm' is the minute;</li> <li>- 'ss.dxxxxx' is the second and its fraction of a second;</li> <li>- Z is UTC time.</li> </ul>
{DECIMAL-n/m}	Decimal number of up to n digits in total of which up to m digits can be fraction digits	Numerical field for both positive and negative values: <ul style="list-style-type: none"> <li>- decimal separator is '.' (full stop);</li> <li>- negative numbers are prefixed with '-' (minus).</li> </ul> Where applicable, values are rounded and not truncated
{ISIN}	12 alphanumerical characters	ISIN code, as defined in ISO 6166
{DATEFORMAT}	ISO 8601 date format	Dates should be formatted as YYYY-MM-DD.
{CFI_CODE}	6 characters	ISO 10962 CFI code - Taxonomy used to classify the financial instrument

## 6.2 Contract Codes

Contract Code	Venue Product Code	Contract Name
AAD	AA	Aluminium Alloy (Dollar)
AAY	AA	Aluminium Alloy (Yen)
AAE	AA	Aluminium Alloy (Euro)
AAS	AA	Aluminium Alloy (Sterling)
AED	AH	Aluminium Premium Future, East Asia (Japan, Korea, Taiwan)
AGD	AG	Silver
AHD	AH	Aluminium High Grade (Dollar)
AHY	AH	Aluminium High Grade (Yen)
AHE	AH	Aluminium High Grade (Euro)
AHS	AH	Aluminium High Grade (Sterling)
AND	AH	Aluminium Premium Future, Extended US Midwest / North American
ASD	AH	Aluminium Premium Future, South East Asia (Singapore, Malaysia)
AMD	AM	LME Alumina (CRU/Fastmarkets MB)
AUD	AU	Gold
AWD	AH	Aluminium Premium Future, Western Europe
CAD	CA	Copper A Grade (Dollar)
CAY	CA	Copper A Grade (Yen)
CAE	CA	Copper A Grade (Euro)

Contract Code	Venue Product Code	Contract Name
CAS	CA	Copper A Grade (Sterling)
CBD	CB	LME Cobalt (Fastmarkets MB)
COD	CO	Cobalt (Dollar)
COY	CO	Cobalt (Yen)
COE	CO	Cobalt (Euro)
COS	CO	Cobalt (Sterling)
EAD	EA	LME Aluminium Premium Duty Unpaid European (Fastmarkets MB)
FMD	FM	Steel Billet
HCD	HC	LME Steel HRC FOB China (Argus)
HUD	HU	LME Steel HRC N. America (Platts)
MAD	AH	LMEmini Primary Aluminium
MCD	CA	LMEmini Copper A Grade
MDD	MD	LME Molybdenum (Platts)
MOD	MO	Molybdenum (Dollar)
MOY	MO	Molybdenum (Yen)
MOE	MO	Molybdenum (Euro)
MOS	MO	Molybdenum (Sterling)
MXD	MX	LMEX
MZD	ZS	LMEmini Special High Grade Zinc
NAD	NA	North American Special Aluminium Alloy (Dollar)



Contract Code	Venue Product Code	Contract Name
NAY	NA	North American Special Aluminium Alloy (Yen)
NAE	NA	North American Special Aluminium Alloy (Euro)
NAS	NA	North American Special Aluminium Alloy (Sterling)
NID	NI	Primary Nickel (Dollar)
NIY	NI	Primary Nickel (Yen)
NIE	NI	Primary Nickel (Euro)
NIS	NI	Primary Nickel (Sterling)
OAD	AH	Primary Aluminium Monthly Average Future
OCD	CA	Grade A Copper Monthly Average Future
OLD	AA	Aluminium Alloy Monthly Average Future
OMD	NA	NASAAC Monthly Average Future
OND	NI	Nickel Monthly Average Future
OPD	PB	Standard Lead Monthly Average Future
OSD	SN	Tin Monthly Average Future
OZD	ZS	Special High Grade Zinc Monthly Average Future
PBD	PB	Lead (Dollar)
PBY	PB	Lead (Yen)
PBE	PB	Lead (Euro)
PBS	PB	Lead (Sterling)
SCD	SC	Steel Scrap

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Contract Code	Venue Product Code	Contract Name
SND	SN	Tin (Dollar)
SNY	SN	Tin (Yen)
SNE	SN	Tin (Euro)
SNS	SN	Tin (Sterling)
SRD	SR	Steel Rebar
UPD	UP	LME Aluminium Premium Duty Paid US Midwest (Platts)
ZSD	ZS	Special High Grade Zinc (Dollar)
ZSY	ZS	Special High Grade Zinc (Yen)
ZSE	ZS	Special High Grade Zinc (Euro)
ZSS	ZS	Special High Grade Zinc (Sterling)