Cboe Europe
Trade Data File Specification

Version 2.5
1st March 2019

Contents

1 Overview

This document describes the file format of the Cboe trade data files. These files provide details about every trade side matched or reported through Cboe, providing reconciliation of the day's activity. The files are formatted in a simple comma-separated value (CSV) format, making them easy to parse. Individual values may be quoted if they contain commas.

1.1 Availability

Files are available on demand (representing trading activity up to that point in time for same day data) and up until no later than 9:00pm London time on the day of trading. Separate reconciliation files are available for each Cboe certification and production environment and some level of customisation is possible. Refer to the environment specific web page for details.

1.2 Location

Files are available in the member section of the Cboe public website via HTTPS. Any automated processes will need to utilise HTTP Basic Authentication. There are different URLs for the production and certification (UAT) environments of each of the CXE and BXE order books and for the Trade Reporting Facility (TRF).

In the following sections, please replace 'YYYY-MM-DD' with an ISO formatted date representing the particular days trading activity you wish to obtain. Only the last five trading days are made available.

Whilst the URLs provided are correct at time of writing, the definitive reference is the trade data web page. Cboe reserves the right to change the URLs at any time, although we will endeavour to ensure backwards compatibility. Participants should ensure that any automated processes are configured to follow redirections.

CXE Production:

Same day data	`https://www.batstrading.co.uk/cxe/account/trade_data/data/`
Historical data	`https://www.batstrading.co.uk/cxe/account/trade_data/data/YYYY-MM-DD/`

BXE Production:

Same day data	`https://www.batstrading.co.uk/bxe/account/trade_data/data/`
Historical data	`https://www.batstrading.co.uk/bxe/account/trade_data/data/YYYY-MM-DD/`

TRF Production:

Same day data	`https://www.batstrading.co.uk/trf/account/trade_data/data/`
Historical data	`https://www.batstrading.co.uk/trf/account/trade_data/data/YYYY-MM-DD/`

CXE Certification:

Same day data	`https://certification.batstrading.co.uk/cxe/account/trade_data/data/`
Historical data	`https://certification.batstrading.co.uk/cxe/account/trade_data/data/YYYY-MM-DD/`

BXE Certification:

Same day data	`https://certification.batstrading.co.uk/bxe/account/trade_data/data/`
Historical data	`https://certification.batstrading.co.uk/bxe/account/trade_data/data/YYYY-MM-DD/`

TRF Certification:

Same day data	`https://certification.batstrading.co.uk/trf/account/trade_data/data/`
Historical data	`https://certification.batstrading.co.uk/trf/account/trade_data/data/YYYY-MM-DD/`

1.3 Access Over Private Connections

Cboe customers who prefer to access production reference data over their private connections may do so by using a different host address. Only production reference data is available - certification trade data is not accessible over private connectivity.

The available URLs are as follows:

CXE Production:

Same day data	`https://int.batstrading.co.uk/cxe/account/trade_data/data/`
Historical data	`https://int.batstrading.co.uk/cxe/account/trade_data/data/YYYY-MM-DD/`

BXE Production:

Same day data	`https://int.batstrading.co.uk/bxe/account/trade_data/data/`
Historical data	`https://int.batstrading.co.uk/bxe/account/trade_data/data/YYYY-MM-DD/`

TRF Production:

Same day data	`https://int.batstrading.co.uk/trf/account/trade_data/data/`
Historical data	`https://int.batstrading.co.uk/trf/account/trade_data/data/YYYY-MM-DD/`

2 Trade Data File

The trade data file consists of a *heading* and many *data* rows.

2.1 MMT

In upcoming descriptions about the content of the trade data file, repeated reference will be made to the Market Model Typology standard ("MMT"). See `http://www.fixtradingcommunity.org/pg/group-types/mmt` for more details.

All currently defined MMT v3 levels are supported in the file, with the exception of MMT Level 3.4 (Modification Indicator). Only the latest state of any trade is provided, so cancelled trades do not appear and for amended trades, only the most recent amended state will appear.

Please note that for certain columns (33, 34, 35, 36, 38, and 39), the name of the column has remained the same as the MMT v2 levels. However, the actual meaning of the column or the valid values allowed have been expanded or changed. Please refer to the documentation of the relevant columns for details.

For MMT columns the values listed in this document show the corresponding four-character ESMA code in italic. These parenthesized codes are added here for clarity and are not output in the trade data file.

2.2 Unknown Symbols

The TRF environment supports trade reporting in symbols unknown to Cboe. These records will appear with a blank symbol column; the specific symbol will be denoted through the ISIN and currency columns of the file.

2.3 Heading and Data

The heading line describes the format of the data rows which will follow. To aid in backward compatibility, columns will never be removed or reordered. New columns, however, may be added. It is *highly* recommended that parsers be able to ignore new columns which are added over time.

	Column Name	**Type**	**Value Interpretation**
1	`Trade Day`	ISO Date	The date the trade was matched by Cboe, or for trade reports, the date of the underlying trade.
2	`Trade Time`	Time	The time the trade was matched by Cboe, or for trade reports, the time of the underlying trade (London time).
3	`Sending Firm`	String	The four character firm identifier of the firm owning the port that originated the trade.
4	`Session Id`	String	The port session id over which the trade was originated.
5	`Clearing BIC`	String	The Broker Identification Code (BIC) (or similar) that was sent to the CCP clearing the trade identifying the clearing firm responsible for the trade.
6	`Trading BIC`	String	The BIC (or similar) that was sent to the CCP clearing the trade identifying the trading firm responsible for the trade.
7	`PSID`	String	The bank code of the trading firm responsible for the trade.
8	`Clearing Account`	String	If specified on order entry, a four character clearing account.
9	`Client Order Id`	String	The client's reference for either the original order or the trade report.
10	`BATS Order Id`	String	The Cboe allocated reference for the original order or side of the trade report.

	Column Name	Type	Value Interpretation
11	`Execution Id`	String	The Cboe allocated reference for the trade.
12	`Symbol`	String	The symbol (in Cboe symbology) in which the trade occurred, if the symbol is known.
13	`ISIN`	String	The ISIN we have recorded for the symbol on the relevant day of the trade.
14	`Side`	Character	The side of the trade, being a 'B' for a Buy, 'S' for a Sell, 'T' for Short Sell, 'E' for Short Sell Exempt, 'H' for Sell Undisclosed or 'X' for a Cross.
15	`Price`	Numeric	The price (in traded currency) at which the trade was executed. In TRF a value of zero or an indicative price may be present if the price is pending, as denoted by the `Price Formation` column.
16	`Size`	Integer	The number of shares involved in the trade.
17	`Currency`	String	The (traded) currency of the symbol involved in the trade.
18	`Exchange`	String	An identification code representing the primary listing exchange of the symbol involved in the trade.
19	`Capacity`	String	The capacity in which the originating order/trade report was entered.
20	`Liquidity`	String	Indicates whether the trade added or removed liquidity, participated in an auction or was routed to another market.
21	`Access Fee`	Numeric	Provides an indication of any fee (or rebate) associated with the side of the trade. Rebates are negative. Trade Reports will always have a value of zero due to potential use of subscription plans.
22	`BATS Subscriber Id`	String	The four character identifier for the firm responsible for the trade.
23	`Contra`	String	The contra participant for the other side of the trade. For exchange matches, this will be BATS (BXE) or CHIX (CXE). For routed execution, it will indicate the market where the underlying trade was executed. For trade reports, it will indicate the other party (if there was one) involved in the trade.
24	`ExecInst`	String	Any specific execution instruction used for the trade.
25	`Routing Instruction`	String	Any specific routing instruction used for the trade.
26	`CCP`	String	The CCP (if there is one) involved in clearing the trade.
27	`Route Strategy`	String	Any specific routing strategy used for the trade.
28	`Subliquidity`	String	Any additional granularity available on the specific type of liquidity involved in the trade.
29	`Publication Day`	ISO Date	The date the trade was published to the market (or for trades currently subject to deferral, the scheduled date of publication).
30	`Publication Time`	Time	The time the trade was published to the market (London time) (or for trades currently subject to deferral, the scheduled time of publication).
31	`Timing Indicator`	String	Any timing information relevant to the trade (eg. late report).

	Column Name	Type	Value Interpretation
32	`Trading Mode`	String	Equivalent to MMT Level 2. The trading mode under which the trade was conducted. Possible values: • UndefinedAuction *(AU)* • ContinuousTrading *(CT)* • AtMarketCloseTrading *(AC)* • OutOfMainSession *(OT)* • OnExchangeReport *(ON)* • OffExchangeReport *(OF)* • SIReport *(SI)* • ScheduledOpeningAuction *(OA)* • ScheduledClosingAuction *(CA)* • ScheduledIntradayAuction *(IA)* • UnscheduledAuction *(UA)* • Unspecified
33	`Transaction Category`	String	Equivalent to MMT Level 3.1. A categorisation of the type of trade performed. Possible values: • Unspecified • Plain-Vanilla • Special • Technical • Giveup • Dark *(D)* • PriceImprovement *(RPRI)*
34	`Negotiated Trade`	String	Equivalent to MMT Level 3.2. An indication as to which Negotiated Trade or Pre-Trade Waiver the trade was conducted under. Possible values: • Unspecified • Negotiated *(NLIQ)* • NegotiatedIlliquid *(OILQ)* • NegotiatedConditions *(PRIC)* • IlliquidSI *(ILQD)* • SizeSpecificSI *(SIZE)* • IlliquidSI SizeSpecificSI *(ILQD,SIZE)*

	Column Name	Type	Value Interpretation
35	`Publication Mode`	String	Equivalent to MMT Level 4.1. An indication as to whether the trade was published immediately or the deferral reason. Possible values: • DoNotPublish • Immediate • Late • Deferred (Large In Scale) *(LRGS)* • Deferred (Illiquid) *(ILQD)* • Deferred (SizeSpecific) *(SIZE)* • Deferred (Unspecified) *(NI)* • Deferred (Illiquid) Deferred (SizeSpecific) *(ILQD,SIZE)* • Deferred (Illiquid) Deferred (Large In Scale) *(ILQG,LRGS)*
36	`Market Mechanism`	String	Equivalent to MMT Level 1. The type of market mechanism involved in conducting the trade. Possible values: • CentralLimitOrderBook *(LB)* • QuoteDrivenMarket *(QB)* • DarkOrderBook *(DB)* • OffBook *(OB)* • PeriodicAuction *(PA)* • RequestForQuotes *(RQ)* • AnyOtherHybrid *(AH)* • Unspecified
37	`Crossing Trade`	String	Equivalent to MMT Level 3.3. An indication as to whether the underlying trade was an agency cross. Possible values: • AgencyCross *(ACTX)* • Unspecified

	Column Name	Type	Value Interpretation
38	`Benchmark Indicator`	String	Equivalent to MMT Level 3.5. An indication as to whether the price of the trade was determined referencing an external benchmark or if was a Reference Price trade. Possible values: • BenchmarkIndicator *(BENC)* • ReferencePrice *(RFPT)* • Unspecified
39	`Ex/Cum Dividend`	String	Equivalent to MMT Level 3.6. An indication as to whether the price of the trade is influenced by the inclusion/exclusion of any declared dividend. Possible values: • CumDividend • ExDividend • SpecialDividend *(SDIV)* • Unspecified
40	`Off Book Automated Indicator`	String	Equivalent to MMT Level 3.7. An indication as to the method by which the trade was executed. Possible values: • Unspecified • Automated *(Q)* • Manual *(M)*
41	`Account`	String	The CCP Account to use as reported on the original order/trade report.
42	`Trade Handling Instruction`	String	The trade handling instruction submitted on the original trade report.
43	`Third Party`	String	A third party involved in the trade.
44	`Settlement Price`	Numeric	Indicates the settlement price, it it's different to the executed/reported price.
45	`Non-Standard Settlement Date`	ISO Date	Indicates the likely settlement date, if non-standard settlement was requested.
46	`LastMkt`	String	The segment MIC of the trade.
47	`Fee Code`	String	Category of fee applicable to the trade.
48	`Bids Client ID`	String	BIDS customer identifier.
49	`Bids Client Sub ID`	String	BIDS sub customer identifier.
50	`Introducing Broker`	String	BIDS identifier for the Introducing Broker
51	`Giveup Broker`	String	Denotes the entity the trade should be given up to (CFD/Swap/different Custodian).

	Column Name	Type	Value Interpretation
52	`Price Formation`	String	Equivalent to MMT Level 3.8. An indication if the trade was contributing to Price Formation or Price Discovery Process. Possible values: • NPFT • Plain-Vanilla *(P)* • TNCP • PNDG
53	`Algorithmic Trade`	String	Equivalent to MMT Level 3.9. An indication if the trade was executed as a result of an investment firm engaging in algorithmic trading. Possible values: • None • No • Yes *(ALGO)*
54	`Settlement Location`	String	Indicates the non-standard settlement location. Possible values: • Euroclear bank • Standard
55	`Settlement Currency`	String	Indicates the settlement currency where this differs from the traded currency. Possible values: • EUR • USD • Traded Currency
56	`Jurisdiction`	String	In BXE and CXE this column and its populated value represent which Cboe Market Operator the transaction was executed on and in the TRF environment, the values represent the Cboe APA the trade was reported to. Possible values: • UK • EU

2.4 Sample

Example record for a trade report in Vodafone Group (line broken for readability):

```
2013-12-03,11:50:29.000,FOOB,0001,,,FEEU,,CROSSINGTRADE,1M1WC4000M8Q,5198009IB,
VODl,GB00B16GWD56,S,200.000000,100,GBX,0l,Principal,Added,0.00000,FOOB,none,
None,BATS Only,None, ,,2013-12-03,11:50:49.555,NotLate,OffExchangeReport,
Unspecified,,Immediate,OffBook,AgencyCross,Unknown,None,Automated,,TwoPartyReport,
None,199.990000,2013-12-04,,,,,,,Plain-Vanilla,No,Standard,Traded Currency,UK
```

Example record for a dark book trade in Vodafone Group (line broken for readability):

```
2015-06-08,10:28:32.495,FOOB,0001,FOOBNL2R,E000GB21,FOOB,1111,DARKTRADE,5A1WC700F6IA,
E49800L3N,VODl,GB00BH4HKS39,B,261.17500000,7000,GBX,0l,Principal,Dark IOC Removed,
46.22184,FOOB,CHIX,Midpoint Peg,BATS Dark Only,CCCP,Default,DarkBookIOC,2015-06-09,
10:48:22.495,NotLate,ContinuousTrading,Dark,,Immediate,DarkOrderBook,Unspecified,
RFPT,Unspecified,Unspecified,None, ,None,,,CHID,,,,,Plain-Vanilla,No,Standard,EUR,UK
```

Example record for a trade report in an unknown symbol (TRF only) (line broken for readability):

```
2013-12-03,11:50:29.000,FOOB,0001,,,FEEU,,CROSSINGTRADE,1M1WC4000M8Q,5198009IB,
,GB00B16GWD56,S,200.000000,100,CHF,,Principal,Added,0.00000,FOOB,none,
None,BATS Only,None, ,,2013-12-03,11:50:49.555,NotLate,OffExchangeReport,
Unspecified,,Immediate,OffBook,AgencyCross,Unknown,None,Automated,,
TwoPartyReport,None,199.990000,2013-12-04,,,,,,,Plain-Vanilla,No,UK
```

3 Support

Please email questions or comments regarding this specification to `tradedeskeurope@cboe.com`.

4 Revision History

23rd January 2014	Version 1.0 Initial version.
28th March 2014	Version 1.1 Removed 'effective from' labels.
3rd April 2014	Version 1.2 Clarified that Access Fee is indicative.
12th June 2014	Version 1.3 Added Account column and column to hold the proposed MMT Level 3.7 'Off Book Automated Indicator' setting.
7th October 2014	Version 1.4 Removed 'effective from' labels.
16th January 2015	Version 1.5 Added Trade Handling Instruction and Third Party columns.
27th April 2015	Version 1.5.1 Removed 'effective from' labels.
12th June 2015	Version 1.6 Update MMT URL. Added 'Settlement Price', 'Non-Standard Settlement Date' and 'LastMkt'.
19th February 2016	Version 1.7 Updated with new branding.
17th May 2016	Version 1.8 Added support for trade reports in unknown symbols to be included in the data file.
6th July 2016	Version 1.9 Removed 'effective from' labels.
29th September 2016	Version 2.0 Added support for BIDS fields to trade data report.
9th February 2017	Version 2.1 Generalised the description of Fee Code field to apply to all trades. Updated for MMT v3 support.
20th July 2017	Version 2.2 Added new supported values for the field 'Side'. Updated price column to state a value of zero is permitted in TRF.
21st September 2017	Version 2.3 Added possible values for MMT columns, updated examples.
17th May 2018	Version 2.4 Added 'Settlement Location' and 'Settlement Currency'.
1st March 2019	Version 2.5 Added 'Jurisdiction' column.

