Cboe Europe
MiFID2 RTS13 Live Trade Data Specification

Version 1.3
29th November, 2023

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Contents

1 Introduction

1.1 Overview

Cboe Europe provides delayed trade data files as comma-separated values. This data is delayed by no more than 15 minutes. Data for the most recent 5 minutes can be downloaded per minute. Older data is provided in hourly files.

2 Data

The columns within the Public Trade Data CSV have a corresponding data type. The various data types are defined in the following table.

Data Type	Description
Alpha	A string of ASCII letters (A–Z), left justified and space padded on the right.
Alphanumeric	A string of ASCII numbers and letters (A–Z, 0–9), left justified and space padded on the right.
Numeric	A string of ASCII numbers (0–9), right justified and zero filled on the left.
Numeric Price	A string of ASCII numbers(0–9) consisting of 8 whole number digits, followed by an explicit decimal point, followed by 9 decimal digits. Please note this is different from normal PITCH Numeric from Cboe where the decimal point is implicit. MiFID II standard requires an explicit decimal point in the price.
ISO DateTime	A string of ASCII numbers and predefined letters, that represent the ISO 8601 Date and Time Format: YYYY-MM-DDThh:mm:ss.ddddddZ. For example, 2015-12-20T13:00:15.500000Z.
Alpha Flag	A string of exactly four ASCII letters with valid values indicated in each flag. Empty values allowed, in which case it's space filled.
Base 36 numeric	A string of ASCII numbers and letters (A–Z, 0–9), representing base 36 digits, right justified and zero filled on the left.
Timestamp	A string of ASCII numbers (0–9) representing the whole number of milliseconds past midnight London time, right justified and zero padded on the left, with no decimal point.

2.1 Heading and Data (from 1 January 2024)

The heading line describes the format of the data rows which will follow. It is highly recommended that parsers be able to ignore new columns which may be added over time.

Field Name	Value	Description
`Timestamp`	Timestamp	Timestamp
`Trading Date Time`	ISO DateTime	Date and time the trade occured
`Symbol`	Alphanumeric	ISIN Code that identifies the financial instrument
`Price`	Numeric Price	Price of the trade. This may be zero if the price is pending, as denoted by the "Price Discovery Process" field

`Price Notation`	Alpha Flag	"MONE" = Monetary value in the case of equity and equity-like financial instruments "PERC" = Percentage in the case of certificates and other equity-like financial instruments "YIEL" = Yield in the case of certificates and other equity-like financial instruments "BAPO" = Basis points in the case of certificates and other equity-like financial instruments
`Price Currency`	Alpha	ISO 3-letter Currency code
`Executed Shares`	Numeric	Number of shares executed
`Notional Amount`	Numeric Price	Value of the trade, in the major currency. i.e. Price * Executed Shares
`Notional Currency`	Alpha	ISO 3-letter Currency code representing the major currency in which the notional amount is denominated.
`Execution Venue`	Alpha	ISO 10383 segment MIC, and SINT for Systematic internalisers, XOFF for OTC trades
`Third Country Trading Venue`	Alpha	When populated, indicates the trade was executed on a venue not deemed equivalent under ESMA Opinion on determining third-country trading venues for the purpose of transparency under Mifid II/Mifir. The column contains the venue MIC, and the execution venue will contain the value "XOFF". Applicable only to Cboe's NL APA.
`Publication Date Time`	ISO DateTime	Date and time the trade was published
`Trade ID`	Base 36 Numeric	Cboe generated day-unique execution/trade identifier. Left padded with zeroes.
`Transaction To Be Cleared`	Alpha	Code to identify whether the transaction will be cleared. "TRUE" = Transaction to be cleared "FALSE" = Transaction not to be cleared

`Market Mechanism`	Alpha Flag	Corresponds to MMT v4.1 Level 1 "LB" = Central Limit Order Book "QB" = Quote Driven Market "DB" = Dark Order Book "OB" = Off Book (including Voice or Messaging Trading) "PA" = Periodic Auction "RQ" = Request for Quotes "AH" = Any Other, Including Hybrid (original ESMA definition in RTSs 1 & 2) "HS" = Hybrid System (revised ESMA definition, replacing 'Any Other, Including Hybrid') "AO" = Any Other, Excluding Hybrid (revised ESMA definition, replacing 'Any Other, Including Hybrid')
`Trading Mode`	Alpha Flag	Corresponds to MMT v4.1 Level 2 "AU" = Undefined Auction "OA" = Scheduled Opening Auction "CA" = Scheduled Closing Auction "IA" = Scheduled Intraday Auction "UA" = Unscheduled Auction "OD" = On Demand Auction (Frequent Batched Auction) "CT" = Continuous Trading "AC" = At Market Close Trading "OT" = Out of Main Session Trading "ON" = Trade Reporting (On Exchange) "OF" = Trade Reporting (Off Exchange) "SI" = Trade Reporting (Systematic Internaliser)
`Transaction Category`	Alpha Flag	Corresponds to MMT v4.1 Level 3.1 "D" = Dark Trade "RPRI" = Trade that has Received Price Improvement "TPAC" = Package Trade "XFPH" = Exchange For Physical Trade
`Negotiation Flag`	Alpha Flag	Corresponds to MMT v4.1 Level 3.2 "N" = Negotiated Trade "NLIQ" = Negotiated Trade in Liquid Financial Instruments "OILQ" = Negotiated Trade in Illiquid Financial Instruments "PRIC" = Negotiated Trade Subject to Conditions Other Than The Current Market Price "ILQD" = Pre-Trade Transparency Waiver for Illiquid Instrument on an SI "NETW" = Negotiated Trade With Pre-Trade Transparency Waiver
`Agency Cross Trade`	Alpha Flag	Corresponds to MMT v4.1 Level 3.3 "ACTX" = Agency Cross Trade

`Modification Indicator`	Alpha Flag	Corresponds to MMT v4.1 Level 3.4 "CANC" = Trade Cancellation "AMND" = Trade Amendment
`Benchmark/Reference Indicator`	Alpha Flag	Corresponds to MMT v4.1 Level 3.5 "BENC" = Benchmark Trade "CLSE" = Benchmark Transactions Executed at the Market Closing Price "RFPT" = Reference Price Trade
`Special Dividend`	Alpha Flag	Corresponds to MMT v4.1 Level 3.6 "SDIV" = Special Dividend Trade
`Off Book Automated`	Alpha Flag	Corresponds to MMT v4.1 Level 3.7 "M" = Off Book Non-Automated "Q" = Off Book Automated
`Price Discovery Process`	Alpha Flag	Corresponds to MMT v4.1 Level 3.8 "NPFT" = Non-Price Forming Trade "TNCP" = Trade not Contributing to the Price Discovery Process "PNDG" = Price is Pending "NOAP" = Price is Not Applicable
`Algorithmic Indicator`	Alpha Flag	Corresponds to MMT v3 Level 3.9 "ALGO" = Algorithmic Trade
`Pre-Trade Transparency Waiver`	Alpha Flag	Corresponds to MMT v3 Level 3.10 "SIZE" = Pre-Trade Transparency Waiver for Above Standard Market Size on an SI "NTLS" = Negotiated Trade Larger Than LIS Brought Onto a Venue
`Portfolio Flag`	Alpha Flag	Corresponds to MMT v3 Level 3.11 "PORT" = Portfolio Trade
`Contingent Flag`	Alpha Flag	Corresponds to MMT v3 Level 3.12 "CONT" = Contingent Trade
`Give-up Flag`	Alpha Flag	Corresponds to MMT v3 Level 3.13 "GIVE" = RFMD Give-Up Trade
`Post-Trade Deferral Reason`	Alpha Flag	Corresponds to MMT v4.1 Level 4.1 "NI" = Non-Immediate Publication "LRGS" = Non-Immediate Publication: Deferral for "Large in Scale"

`Deferral Or Enrichment Type`	Alpha Flag	Corresponds to MMT v4.1 Level 4.2 For the original trade: "LMTF" = Limited Details Trade "DATF" = Daily Aggregated Trade "VOLO" = Volume Omission Trade "FWAF" = Four Weeks Aggregation Trade "IDAF" = Indefinite Aggregation Trade "VOLW" = Volume Omission Trade, Eligible for Subsequent Enrichment in Aggregated Form For the subsequent enrichment trade(s): "FULF" = Full Details of Earlier "Limited Details Trade (LMTF)" "FULA" = Full Details of Earlier "Daily Aggregated Trade (DATF)" "FULV" = Full Details of Earlier "Volume Omission Trade (VOLO)" "FULJ" = Full Details of Earlier "Four Weeks Aggregation Trade (FWAF)" "COAF" = Full Details in Aggregated Form of Earlier "Volume Omission Trade, Eligible for Subsequent Enrichment in Aggregated Form (VOLW)"
`Deferral Illiquid Instrument`	Alpha Flag	Corresponds to MMT v4.1 Level 4.3 "ILQD" = Non-Immediate Publication: Deferral for "Illiquid Instrument"
`Deferral Size Specific`	Alpha Flag	Corresponds to MMT v4.1 Level 4.4 "SIZE" = Non-Immediate Publication: Deferral for "Size Specific"
`Duplicative Within Jurisdiction`	Alpha Flag	Corresponds to MMT v4.1 Level 5.1 "DUPL" = Duplicative Trade Report
`Duplicative Across Jurisdiction`	Alpha Flag	Corresponds to MMT v4.1 Level 5.2 "XBDT" = Cross-Border Duplicative Trade Report
`Intra-Group Indicator`	Alpha Flag	Corresponds to MMT v4.1 Level 5.3 "IGRP" = Intra-Group Trade
`Jurisdiction`	Alpha	Corresponds to venue where the trade was executed "EU" = Trade executed on an EU regulated venue or APA "UK" = Trade executed on a non-EU regulated venue or APA "

2.2 Sample

Example record (line broken for readability):

```
12:37:58,2023-11-25T12:37:58.051742Z,GB0006776081,00000009.131400000,MONE,
GBP,000000001135,00010364.139000000,GBP,BATF, ,2023-11-25T12:37:58.052610Z,
000928U00PB0,TRUE,OB,ON, ,PRIC, ,CANC, ,SDIV, ,NPFT, , , , , , , , , , , , ,UK
```

2.3 Manual Download

To download Public Trade Data manually, click any of the listed URLs on the MiFID trade data page on the Cboe site.

2.4 Programmatic Download

If you want to automate the download of these files, there are several options. One method would be to use the wget command. Note that your version of wget may have slightly different options. Each command below should be on its own line.

Downloading a file programmatically requires basic http authentication on each request. Credentials can be obtained on:

- `https://markets.cboe.com/europe/equities/trade_data/` for production and
- `https://certification.bats.com/europe/equities/trade_data/` for certification

```
wget --auth-no-challenge --tries=1 --http-user=<your email address>
--http-password=<your password> -O rts13_public_trade_data_bxe_2019-01-30_0952.csv
"https://certification.bats.com/europe/equities/trade_data/bxe/
minute/rts13_public_trade_data_bxe_2019-02-01_0952.csv"

wget --auth-no-challenge --tries=1 --http-user=<your email address>
--http-password=<your password> -O rts13_public_trade_data_cxe_2019-01-30_0952.csv
"https://certification.bats.com/europe/equities/trade_data/cxe/
minute/rts13_public_trade_data_cxe_2019-02-01_0952.csv"

wget --auth-no-challenge --tries=1 --http-user=<your email address>
--http-password=<your password> -O rts13_public_trade_data_dxe_2019-01-30_0952.csv
"https://certification.bats.com/europe/equities/trade_data/dxe/
minute/rts13_public_trade_data_dxe_2019-02-01_0952.csv"

wget --auth-no-challenge --tries=1 --http-user=<your email address>
--http-password=<your password> -O rts13_public_trade_data_apa_2019-01-30_0952.csv
"https://certification.bats.com/europe/equities/trade_data/apa/
minute/rts13_public_trade_data_apa_2019-02-01_0952.csv"
```

2.5 Public Website URLs

2.5.1 CXE Production:

https://markets.cboe.com/europe/equities/trade_data/cxe/minute/rts13_public_trade_data_cxe_YYYY-MM-DD_HHMM.csv

2.5.2 BXE Production:

https://markets.cboe.com/europe/equities/trade_data/bxe/minute/rts13_public_trade_data_bxe_YYYY-MM-DD_HHMM.csv

2.5.3 DXE Production:

https://markets.cboe.com/europe/equities/trade_data/dxe/minute/rts13_public_trade_data_dxe_YYYY-MM-DD_HHMM.csv

2.5.4 APA Production:

https://markets.cboe.com/europe/equities/trade_data/apa/minute/rts13_public_trade_data_apa_YYYY-MM-DD_HHMM.csv

2.6 Certification Environment URLs

2.6.1 CXE Certification:

https://certification.bats.com/europe/equities/trade_data/cxe/minute/rts13_public_trade_data_cxe_YYYY-MM-DD_HHMM.csv

2.6.2 BXE Certification:

https://certification.bats.com/europe/equities/trade_data/bxe/minute/rts13_public_trade_data_bxe_YYYY-MM-DD_HHMM.csv

2.6.3 DXE Certification:

https://certification.bats.com/europe/equities/trade_data/dxe/minute/rts13_public_trade_data_dxe_YYYY-MM-DD_HHMM.csv

2.6.4 APA Certification:

https://certification.bats.com/europe/equities/trade_data/apa/minute/rts13_public_trade_data_apa_YYYY-MM-DD_HHMM.csv

3 Support

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

Revision History

1st February 2019	Version 1.0 Initial version.
25th April 2019	Version 1.1 Added the jurisdiction field.
6th August 2019	Version 1.2 Added DXE environment.
29th November 2023	Version 1.3 Added MMT v4.1 Support.