



**OSLO BØRS Equity Trade and Quote Data
File Format Document**

Version 1.4

1.0 Trade Data

Sample

11/17/2022,11:50:59.386,97.7,238,0_1_2,XOSL,,
11/17/2022,11:50:59.386,97.7,238,0_1_2,XOSL,,
11/17/2022,11:50:59.386,97.7,178,0_1_2,XOSL,,
11/17/2022,11:50:59.386,97.7,139,0_1_2,XOSL,,
11/17/2022,11:50:59.386,97.72,84,0_1_2,XOSL,,
11/17/2022,11:51:54.935,97.6,237,10_1_2,XOSL,,
11/17/2022,11:51:54.935,97.6,928,10_1_2,XOSL,,
11/17/2022,11:52:24.378,97.66,237,10_1_2,XOSL,,
11/17/2022,11:52:24.378,97.66,650,10_1_2,XOSL,,
11/17/2022,11:52:24.378,97.66,184,0_1_2,XOSL,,
11/17/2022,11:52:24.388,97.66,419,0_1_2,XOSL,,
11/17/2022,11:52:24.388,97.66,510,0_1_2,XOSL,,
11/17/2022,11:52:47.119,97.66,121,0_1_2,XOSL,,
11/17/2022,11:52:47.129,97.66,237,10_1_2,XOSL,,

File Layout

Each tick contains 8 fields of data in all ASC files. These fields are comma-separated and are laid out as follows:

<u>Data Field</u>	<u>Characteristics</u>
Trade Date	MM/DD/YYYY
Trade Time	HH:MM:SS.000 – milliseconds (use this custom format in Excel)
Price	Numeric
Volume	Numeric
Sales Condition	Alpha-Numeric – Prior to 5/18/2015, one digit; starting 5/18/2015, three codes separated by underscores (See Appendix A – Sales Condition Codes)
Exchange Code	XOSL for Oslo Børs, MERK for Merkur Market, or XOSD for North Sea dark pool
Exclude Record Flag	Filtered trade indicator. “X” is present if Tick Data recommends exclusion of trade from time series due to condition code (See Appendix A – Sales Condition Codes)
Filtered Price	A suggested replacement trade price if Tick Data’s proprietary algorithms suspect the report trade price is in error

2.0 Quote Data

Sample

08/28/2020,15:10:52.604,143.45,143.50,1170,914,XOSL
08/28/2020,15:10:56.102,143.45,143.50,1170,1164,XOSL
08/28/2020,15:10:56.102,143.45,143.50,920,1164,XOSL
08/28/2020,15:10:56.964,143.45,143.50,1170,1164,XOSL
08/28/2020,15:11:02.186,143.45,143.50,920,1164,XOSL
08/28/2020,15:11:03.166,143.45,143.50,1170,1164,XOSL
08/28/2020,15:11:06.682,143.45,143.50,1170,914,XOSL
08/28/2020,15:11:08.290,143.45,143.50,1170,1164,XOSL
08/28/2020,15:11:08.290,143.45,143.50,920,1164,XOSL
08/28/2020,15:11:08.740,143.45,143.50,1170,1164,XOSL
08/28/2020,15:11:09.613,143.45,143.50,1170,914,XOSL
08/28/2020,15:11:11.067,143.45,143.50,1170,1164,XOSL
08/28/2020,15:11:15.578,143.45,143.50,920,1164,XOSL
08/28/2020,15:11:16.347,143.45,143.50,1170,1164,XOSL
08/28/2020,15:11:18.999,143.45,143.50,920,1164,XOSL
08/28/2020,15:11:19.097,143.45,143.50,1170,1164,XOSL

File Layout

Each tick contains 7 fields of data in all ASC files. These fields are comma-separated and are laid out as follows:

<u>Data Field</u>	<u>Characteristics</u>
Quote Date	MM/DD/YYYY
Quote Time	HH:MM:SS.000 – milliseconds (use this custom format in Excel)
Bid Price	Numeric
Ask Price	Numeric
Bid Size	Numeric
Ask Size	Numeric
Exchange	XOSL for Oslo Børs, MERK for Merkur Market, or XOSD for North Sea dark pool

3.0 Corporate Actions

Tick Data provides the following corporate actions files with each dataset delivered:

- CompanyInfo.asc – provides a map of Tick Data’s internal ID# to current company symbol, company name, and ISIN.
- StockSplits.csv – provides adjustment ratios for stock splits and stock dividends.
- Mergers.csv - provides adjustment ratios for a certain type of stock splits where price should be adjusted but volume should not be adjusted.
- Dividends.asc – provides the amount of cash dividends.

The format of each of these files is described below:

3.1 CompanyInfo.asc

Sample

PDR,PETROLIA SE,CY0102630916,01/04/2011,06/25/2015,2
SSC,SCOTTISH SALMON CO PLC/THE,JE00B61ZHN74,01/06/2011,06/25/2015,3
SUBC,SUBSEA 7 SA,LU0075646355,01/10/2011,06/25/2015,5
SDSD,SD STANDARD DRILLING PLC,CY0101550917,01/11/2011,06/25/2015,6
NTSG,SPAREBANK 1 NOETTEROEY - TOENS,NO0010391295,01/27/2011,06/25/2015,7

Field Name	Type	Description
Symbol	Character	Most recent stock symbol.
Company Name	Character	Company name.
ISIN	Character	International Securities Identifying Number uniquely identifies a security.
Start Date	Date	The first date for which data is available for the company.
End Date	Date	The last date for which data is available for the company.
Company ID	Numeric	Most recent Tick Data Internal ID#.

3.2 Split and Dividend Information (Stocksplits.csv and Mergers.csv)

Sample

46,05/13/2014,0.05
75,01/21/2014,10
93,06/11/2014,0.1
105,05/28/2014,0.9744

File Layout

Each record contains three fields of data. These fields are comma-separated and are laid out as follows:

Field Name	Type	Description
Symbol or ID	Character	Stock symbol or ID#. Depends on data being delivered by ID or by Symbol.
Effective date	Date	MM/DD/YYYY - Date of stock split or dividend.
Ratio	Numeric	Percentage of adjustment made to the price of the symbol due to a stock split, stock distribution, stock dividend, or cash dividend.

3.3 Cash Dividends (Dividends.csv)

Sample

7,02/18/2015,03/04/2015,03/05/2015,,,5.0,NOK
10,02/24/2015,02/26/2015,02/27/2015,03/13/2015,,11.0,NOK
12,02/11/2015,02/27/2015,03/02/2015,03/20/2015,,4.0,NOK
13,02/24/2015,02/25/2015,02/26/2015,,,10.5,NOK

File Layout

Field Name	Notes
Company ID or Symbol	Depends on data being delivered by ID or by Symbol.
Declare Date	no definition required
Ex-Date	no definition required
Record Date	no definition required
Pay Date	no definition required

Net Amount	no definition required
Gross Amount	no definition required
Currency Type	no definition required

Appendix A – Sales Condition Codes

Prior to 5/18/2015, the Sales Condition Code contained a single digit that can be found in the *Trade Type* table below.

From 5/18/2015 through 11/30/2022, the Sales Condition Code field information is comprised of three different trade condition codes separated by underscores (“_”). The first code in the set is also used to determine if the trade should be included or not in the output. A user can still include the excluded ticks by checking the “Use Excluded Records in Output” box on the *Formatting/Filtering* tab in TickWrite. The TickWrite User Guide has more information on this feature.

The first code in the field is the *Trade Type*:

Condition Code	Description	Comments	Excluded
0	Automatic trade	On-book trade executed during continuous trading	
1	Auction trade	On-book trade executed during auction uncrossing.	
2	Non-printable execution	Non-printable "trade" notifying an individual order executed during auction uncrossing.	X
3	Lit Auction trade	Auction trade executed at a representative market price.	X
4	Ordinary trade with delayed publication	Manual trade executed at a representative market price, published with a delay dependent on the size of the trade.	X
5	Negotiated trade	Off-book trade negotiated bilaterally between two participants.	X
6	Negotiated trade with delayed publication	Off-book trade negotiated bilaterally between two participants and published with a delay dependent on the size of the trade.	X
7	Derivative related trade	Trade resulting from the exercise or expiry of a derivative with the instrument as underlying.	X
8	VWAP trade	Off-book trade whose price is determined by the instrument's VWAP over a certain time period.	X
9	OTC trade	Off-exchange trade reported to Oslo Børs.	X
10	OTC trade with delayed publication	Off-exchange trade reported to Oslo Børs and published with delay dependent on the trade size.	X

11	Exchange For Physical (EPP) / Not last eligible	Off-exchange trade reported to Oslo Børs and published with delay dependent on the trade size.	X
12	SI trade with delayed publication	Systematic Internaliser trade reported to Oslo Børs and published with a delay dependent on the size of the trade.	X
13	Non-standard settlement	Off-book trade with a settlement cycle different from the instrument's default settlement cycle.	X
14	Non-standard settlement with delayed publication	Off-book trade with a settlement cycle different from the instrument's default settlement cycle, published with delay dependent on the trade size.	X
15	Outside opening hours	Manual trade executed at a representative market price outside market hours (on a non-trading day or before 09:00 / after 16:00 on a trading day).	X
16	Outside opening hours with delayed publication	Manual trade executed at a representative market price outside market hours and published with a delay dependent on the size of the trade.	X
17	Odd lot trade	Trade whose volume is lower than the instrument's lot size.	X
18	Odd lot trade with delayed publication	Trade whose volume is lower than the instrument's lot size, published with a delay dependent on the size of the trade.	X
19	Repo	Off-book repo trade. The price of the trade reflects the repo rate.	X
20	Repo with delayed publication	Off-book repo trade, published with a delay dependent on the size of the trade. The price of the trade reflects the repo rate.	X
21	Exchange-granted trade	Trade executed under special circumstances with approval from Oslo Børs market surveillance.	X
22	Exchange-granted trade with delayed publication	Trade executed under special circumstances with approval from Oslo Børs market surveillance, and published with delay dependent on the trade size.	X
23	Other	Derivative-related, portfolio or VWAP trade for a fixed income security.	X
24	Other with delayed publication	Derivative-related, portfolio or VWAP trade for a fixed income security, published with a delay dependent on the size of the trade.	X

Trades with Sales Condition Codes 2 – 24 are excluded by default from TickWrite output (denoted with an 'X' above). These trades can be included by checking the box for 'Use Excluded Records in Output' under the *Formatting/Filtering* tab.

The second code included in the field indicates the *Executed Order Type*:

Condition Code	Description
0	Visible Order
1	Hidden Order
2	None (off-book trade)
4	Unspecified

The third code included in the field indicates *if an off-book trade is subject to any bargain conditions*, i.e. special conditions agreed between the two counterparties:

Condition Code	Description
0	No
1	Yes

Therefore, a Sales Condition Code of ‘0_0_0’ denotes an automatic trade that is visible and is not an off-book trade subject to a bargain condition.

From 12/1/2022 onward:

The Sales Condition Code field contains three separate codes separated by underscores (“_”).

The first code is **TRADE TYPE**, which shows the Trade condition code:

Value	Notes	Excluded
0	Regular trade	
1	Guaranteed Cross	X
2	Auction trade	
3	Large in Scale trade	X
5	VWAP trade	X
7	Secondary listing place trade	X
8	Off-market trade	X
9	Delta Neutral trade	X
10	Best of Book trade	
12	Off-exchange trade	X
13	Guaranteed Cross (Negotiated trade in liquid security)	X
14	Guaranteed Cross (Negotiated trade in illiquid security)	X
15	Non-standard settlement	X
17	Odd lot trade	X
19	Repo	X
21	Exchange Granted trade	X
23	Other	X

The second code is **MMT MKT MECH**, which denotes whether a trade is on- or off-book or shown in a separate order book. This code determines whether a trade is included or excluded from output by default:

Value	Notes	Excluded
1	Central Limit Order Book	
4	Off Book	X

The third code is **MMT TRD MODE**, which denotes periods of auctions or regular trading:

Value	Notes
2	Continuous trading
3	At Market Close trading
5	Trade reporting (on-exchange)
6	Trade reporting (off-exchange)
7	Trade reporting (Systematic Internaliser)
I	Intraday auction
K	Closing auction
O	Opening auction
U	Unscheduled auction