TICKDATA

**OMX NORDIC Equity Trade and Quote Data
File Format Document**

Version 1.3

1.0 Trade Data

Sample

11/17/2022,13:37:34.734,47.67,50,1_1_2,,47.67,AVA,AVA
11/17/2022,13:37:34.734,47.67,1,1_1_2,,47.67,AVA,JPAG
11/17/2022,13:37:34.734,47.67,2,1_1_2,,47.67,AVA,JPAG
11/17/2022,13:37:34.794,47.665,18,1_1_2,,47.665,MSE,AVA
11/17/2022,13:37:34.862,47.66,9,300_5_U,,47.66,,
11/17/2022,13:37:35.920,47.65,22,1_1_2,,47.65,BBI,AVA
11/17/2022,13:37:35.920,47.65,755,1_1_2,,47.65,BBI,GSAG
11/17/2022,13:37:41.772,47.64,1200,1_1_2,,47.64,BBI,NON
11/17/2022,13:37:41.772,47.64,1,1_1_2,,47.64,BBI,JPAG
11/17/2022,13:37:41.772,47.64,19,1_1_2,,47.64,BBI,JPAG
11/17/2022,13:37:42.473,47.65,150000,64_4_5,X,47.65,NRD,NRD
11/17/2022,13:37:45.758,47.67,1297,1_1_2,,47.67,AVA,ENS
11/17/2022,13:37:45.758,47.67,203,1_1_2,,47.67,NRD,ENS
11/17/2022,13:37:48.975,47.675,90,1_1_2,,47.675,UBS,SHB
11/17/2022,13:37:49.335,47.685,8,1_1_2,,47.685,NON,ENS
11/17/2022,13:37:50.469,47.64,1200,1_1_2,,47.64,BBI,NON

File Layout

Each tick contains 9 fields of data in all ASC files. These fields are comma-separated and are laid out as follows:

Data Field	**Characteristics**
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 (See Appendix A – Sales Condition Codes)
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
Seller	Broker Code of seller (8/6/2012 to 4/5/2019 and after 11/30/2022; see Appendix B for list)
Buyer	Broker Code of buyer (8/6/2012 to 4/5/2019 and after 11/30/2022; see Appendix B for list)

2.0 Quote Data

Sample

11/17/2022,09:00:27.140,13.364,0,34192,0,
11/17/2022,09:00:27.140,13.364,13.38,34192,500,
11/17/2022,09:00:27.164,13.364,13.38,8110,500,
11/17/2022,09:00:27.164,13.364,13.38,17483,500,
11/17/2022,09:00:27.412,13.362,13.38,239193,500,
11/17/2022,09:00:27.578,13.362,13.38,263522,500,
11/17/2022,09:00:27.661,13.362,13.38,271632,500,
11/17/2022,09:00:28.174,13.362,13.38,74251,500,
11/17/2022,09:00:28.605,13.362,13.38,82360,500,
11/17/2022,09:00:28.754,13.362,13.38,66141,500,
11/17/2022,09:00:28.915,13.35,13.38,11627,98279,
11/17/2022,09:00:28.938,13.354,13.38,24329,98279,
11/17/2022,09:00:29.166,13.35,13.38,11627,98279,
11/17/2022,09:00:29.414,13.35,13.38,11627,98279,
11/17/2022,09:00:30.270,13.35,13.366,2249,40633,
11/17/2022,09:00:30.275,13.35,13.366,2249,31250,

File Layout

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

Data Field	Characteristics
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
Blank – Not Used	Null

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.csv

Sample

```
AQER,AQERI HOLDING AB,SE0001822495,01/14/2008,06/25/2015,2002
ONG,ONIVA ONLINE GROUP EUROPE AB,SE0005249570,01/17/2008,06/25/2015,2003
HAV-B,HAVSFRUN INVESTMENT AB,SE0000312043,01/30/2008,06/25/2015,2007
1051552D,BEAKON TECHNOLOGIES AB,,03/29/2008,06/25/2015,2008
TINA,TITANA AB,SE0001921040,04/14/2008,06/25/2015,2010
```

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
```
2064,05/25/2015,0.5
2087,05/22/2015,0.33333
2178,04/22/2015,10
2199,04/17/2015,0.25
```

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

2017,02/10/2015,04/30/2015,05/04/2015,05/07/2015,,3.5,SEK
2018,02/06/2015,05/07/2015,05/08/2015,05/18/2015,,0.35,EUR
2019,02/06/2015,05/06/2015,05/07/2015,05/13/2015,,2.2,SEK
2022,12/09/2014,02/18/2015,02/19/2015,03/05/2015,,0.54,USD

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

From inception through 11/30/2022:

Sales Condition	Description	Excluded (X)*
0	Nordic@Mid Trade	
1	Automatch	
2	Outside Spread	X
3	Exchange Granted	
4	Normal Trade Report	
5	+50.000 Contracts	
32	Unknown Code**	
36	Unknown Code**	X
43	Repurchase Agreement	
52	Exercise Related trade	X
64	Off-book trade with standard settlement	
65	Routed trade	
69	Exchange Granted trade	
75	Linked Component Transaction	X
80	Portfolio trade	X
82	Off-book trade with non-standard settlement	X
84	Pre-opening trade	X
86	VWAP trade	X
87	Price Info No, Volume Info Yes	
88	Price Info Yes, Volume Info No	
89	Price Info No, Volume Info No	
91	Derivatives Related Trade Off Hours	
92	Non-Standard Settlement Off Hours	
93	OTC Non-Standard Off Hours	
94	OTC Standard Off Hours	
95	Portfolio Trade Off Hours	
96	Repurchase Agreement Off Hours	
97	Standard Off Hours	
98	Volume Weighted Average Price Off Hours	
99	Exchange Granted Trade Off Hours	
100	Turnover Reporting	
101	TOM EG1	
102	TOM Normal Trade	
103	Exchange Granted Late Trade	
104	TOM Ready to Clear	

158	OTC trade with standard settlement	X
164	OTC trade with non-standard settlement	X
165	Off Hours Trade	
166	Block Trade	
167	Exchange Granted Trade, exceeding maximum lot size. Off Hours.	
237	SI trade with standard settlement	X
246	SI trade with non-standard settlement	X
300	Auction on Demand trade	
301	Trade at closing price	

* Trades with Sales Condition Codes 2, 36, 52, 75, 80, 82, 84, 86, 158, 164, 237, and 246 are excluded by default from TickWrite output from inception through 11/30/2022. These trades can be included by checking the box for 'Use Excluded Records in Output' under the *Formatting/Filtering* tab.

** As of 6/25/2015, we have not been informed of the purposes of Sales Condition Codes 32 and 36. Our analysis has led us to include Code 32 and exclude Code 36. This Guide will be revised once more information has been received.

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	Nordic@Mid trade	
1	Automatch	
52	Exercise Related trade	X
64	Off-book trade with standard settlement	X
65	Routed trade	X
69	Exchange Granted trade	X
75	Linked Component Transaction	X
76	Beneficial ownership transfer	X
80	Portfolio trade	X
82	Off-book trade with non-standard settlement	X
84	Pre-opening trade	X
86	VWAP trade	X
158	OTC trade with standard settlement	X
164	OTC trade with non-standard settlement	X
237	SI trade with standard settlement	X
246	SI trade with non-standard settlement	X
300	Auction on Demand trade	
301	Trade at closing price	

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	
3	Dark Book	
4	Off Book	X
5	Periodic Auction	

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

Value	Notes
1	Auction
2	Continuous trading
3	Trading at market close
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

Appendix B – Buyer/Seller ID Numbers

From 8/6/2016 through 4/5/2019, these fields contain full or partial information on buyers and sellers in many trades (current as of 6/25/2015). These fields are empty between 4/8/2019 and 11/30/2022.

Broker Code	Organization
AAL	Ålandsbanken Abp
ABC	ABG Sundal Collier AB
ABE	ABN AMRO Securities (Nordic) SE
ABF	ABN AMRO Securities (Nordic) SE
AIV	Aktieinvest FK AB
AKT	Aktia Savings Bank plc
ALB	Arbejdernes Landsbank A/S
ALF	Alfred Berg Bank A/S
ALM	Alm. Brand Bank A/S
AMA	Amagerbanken A/S
AML / AMR	ABN Amro Bank N.V.
ASC	ABG Sundal Collier Norge ASA, fil. Sthlm
AVA	Bankaktiebolaget Avanza
BPP	BNP Paribas Arbitrage SNC, Paris
BRC	Barclays Capital Securities Ltd
BSI	Bear Stearns International Ltd, London
CAR	Carnegie Investment Bank AB
CAZ	JP Morgan Cazenova Ltd
CBA	Carnegie Bank A/S
CBK	Commerzbank AG
CDV	Crédit Agricole Cheuvreux Nordic AB
CSA	Christiania Securities ASA
CSB	Credit Suisse Securities (Europe) Ltd
CVM	Conventum Securities Ltd
DBL	Deutsche Bank AG
DDB	Den Danske Bank
DEX	Dexia Bank
DIF	E*Trade Danmark Børsmæglerselskab A/S
DNM	DnB NOR Bank ASA
DRS	Dresdner Kleinwort Securities Ltd
EIK	EIK Bank
ENS	Skandinaviska Enskilda Banken AB
ENS / SEC	Enskilda Securities AB
EPF	Erik Penser Fondkommission AB

EQB	eQ Bank Ltd
ER	Estlander & Rönnlund Financial Products Ltd
ES	Enskilda Securities AB, Helsinki Branch
ETS	E*TRADE Sverige AB
EVL	Evli Bank Abp
FBK	Föroya Banki
FFF	Forstædernes Bank A/S
FIH	FIH Erhvervsbank A/S
FIM	FIM Securities Ltd
FIO	Fionia Bank A/S
FIP	Fischer Partners Fondkommission AB
FOF	Fondsfinans ASA
FSP	Eik Banki P/F
FVV	NordVest verdbref hf.
GET	Global Equities Trading B.V.
GLB	Glitnir banki hf.
GPB	GP Børsmæglerselskab A/S
GRB	Gudme Raaschou Bankaktieselskab
GSI	Goldman Sachs International
HAN	Svenska Handelsbanken AB (publ), Branch Operation in Finland
HBC	HSBC Bank plc
HCT	Hardcastle Trading AG
HEN	Henton Børsmæglerselskab
HFV	H.F. Verdbref hf.
HQB	HQ Bankaktiebolag
ICB	Icebank
IFJ	Islenskir fjarfestar hf.
ILS	The Housing Financing Fund-
IMC	IMC Securities BV
INT	Instinet UK Ltd.
IST	Instinet Europe Ltd
IVE	Islensk verdbref hf.
JPM	JP Morgan Securities
JVB	Joklar-Verdbref hf.
JYB	Jyske Bank A/S
KAB	Kaupthing Bank Sverige AB
KAU	Kaupthing Bank
KBS	Dresdner Klienwort Wasserstein
KDK	Kaupthing Bank A/S
KEM	Knight Equity Markets International Limited

KFI	Kaupthing Bank Oyj
LAI	Landsbanki Islands hf
LAS	Lån & Spar Bank A/S
LBI	Lehman Brothers International (Europe)
LFB	Länsförsäkringar Bank AB
LSR	National Debt Management Agency
MAN	Man Financial Limited
MCO	Michael Östlund & Company Fondkommission AB
MDT	Mandatum Securities Ltd
MEG	Virding hf.
MGF	Mangold Fondkommission AB
MLI	Merrill Lynch Intl.
MPB	MP Fjarfestingarbanki hf.
MSI	Morgan Stanley & Co. Intl. Ltd.
NBK	HSH Nordbank AG
NCP	Net Capital AB
NDA	Nordea Bank Danmark A/S
NDS	Nordea Bank AB
NEO	NeoNet Securities AB
NEO / NET	NeoNet Securities AB
NON	NordNet Bank AB
NRD	Nordea Bank Finland Plc
NTF	Net Fonds ASA
NYB	Nykredit Bank
NYE	Nyenburgh Beheer BV
OHM	E.Öhman J:or Fondkommission AB
OKO	OKO Osuuspankkien Keskuspankki Oyj
OPS	Opstock Ltd
OPV	Optiver VOF
ORS	Orion Securities ASA
PAN	Pan Capital AB
REM	Remium AB
RIX	Sveriges Riksbank
SAB	Citigroup Global Markets Ltd
SAX	Saxo Bank A/S
SBI	Central Bank of Iceland
SBN	SkandiaBanken AB
SEB	Skandinaviska Enskilda Banken AB
SEE	Skandinaviska Enskilda Bank A/S
SEM	SEB Merchant Banking
SGP	Société Générale SA

SHB	Svenska Handelsbanken AB
SHY	Stadshypotek Bank AB
SMY	Sparisjodur Myrasyslu
SOF	Kaupthing Sofi Oyj
SPH	Sparisjodur Hafnarfjardar
SPK	Sparisjodurinn i Keflavik
SPN	Spar Nord Bankaktieselskab
SPR	SPRON verdbref
SPV	Verdbrefathjonusta Sparisjodsins
STO	VBS Investment Bank
STR	Straumur-Burdaras Investment Bank
SWB	Swedbank AB
SYD	Sydbank A/S
TER	Terra Securities ASA
THK	Thenberg & Kinde Fondkommission AB
TMB	Timber Hill Europe AG
TTL	Tullet & Tokyo Liberty (Equities) Ltd
UB	United Bankers Securities Ltd
UBS	UBS Ltd
VDM	Van der Moolen Effecten Specialist B.V.
WLV	Wolverine Trading UK Ltd