German Equity Trade and Quote Data
File Format Document

Version 1.6

Overview

Tick Data provides two types of market data for issues traded on the German Xetra and Frankfurt Stock Exchange:

(1) Trade data on all companies traded on all segments.
(2) Quote data <u>with volume</u> for all companies traded on all segments.

Trade Data

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
Exchange Code	ETR and EDE = Xetra; FRA = Frankfurt
Price Adjustment	Supplied by the DB with no supporting documentation. Tick Data does not support this field.
Filtered Price	Numeric
Market Mechanism	See Appendix A – Market Mechanism Codes
Trade Mode	See Appendix B – Trade Mode Codes
Transaction Category	See Appendix C – Transaction Category Codes
Sales Condition	See Appendix D – 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(s).
Currency Code	Trading currency
Algo Indicator	See Appendix F – Algo Indicator Codes

NOTE: Exchange Code, Price Adjustment, and Filtered Price are not supported as of July 3, 2017. Market Mechanism, Trade Mode, Transaction Category, Sales Condition, and Exclude Record Flag are new fields as of July 3, 2017. Currency Code and Algo Indicator are new fields as of April 23, 2018.

Quote Data

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
Market Period	See Appendix E – Market Period Codes (Prior to July 3, 2017, this field is populated with "I" when the instrument is in the auction period. From July 3, 2017, refer to the Appendix for a list of values and descriptions.

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:

CompanyInfo.csv

Sample

```
VAR1,VARTA AG O.N. KONV.,DE000A0TGJ55,01/02/2003,12/31/2007,1
ADS,ADIDAS AG O.N.,DE0005003404,01/02/2003,12/31/2007,2
ACGA,AZEGO AG,DE000A0PNL64,01/02/2003,12/31/2007,3
ADL,ADLER REAL ESTATE AG,DE0005008007,01/02/2003,12/31/2007,4
```

Field Name	Type	Description
Symbol or ID#	Character	Stock symbol or ID#. Depends on data being delivered by ID or by 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	Tick Data's Internal ID#.

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

Sample

1,07/30/2007,4
3,11/16/2007,4
46,09/12/2007,0.5
171,07/10/2007,0.5

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.

Cash Dividends (Dividends.csv)

Sample

2,03/07/2007,05/11/2007,05/10/2007,05/11/2007,0.42,0.42,EUR
6,03/14/2007,07/02/2007,06/29/2007,07/02/2007,0.5,,EUR
7,03/09/2007,05/04/2007,05/03/2007,05/04/2007,2.95,,EUR
8,03/09/2007,05/04/2007,05/03/2007,05/04/2007,3.0,,EUR

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 – Market Mechanism Codes

Value	Description
1	Central Limit Order Book
2	Quote Driven Market
3	Dark Book
4	Off Book
-	Not applicable

Appendix B – Trade Mode Codes

Value	Description
2	Continuous 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
-	Not applicable

Appendix C – Transaction Category Codes

Value	Description
D	Dark trade
-	Not applicable

Appendix D – Sales Condition Codes

Value	Description	Excluded (X)*
M	Subscription trade	X
OTC	OTC trade	X
P	Xetra Midpoint trade	
S	Xetra Best trade	X
T	Auction trade	
X	Standard trade	

*The following condition codes are excluded by default: M, OTC, S. These trades can be included by checking the box for 'Use Excluded Records in Output' under the *Formatting/Filtering* tab in TickWrite 7.

Appendix E – Market Period Codes

Value	Description
1	Pre-trading
5	Opening auction call
6	Intraday auction call / volatility auction
7	Closing auction call
10	IPO auction call
11	Opening auction freeze / IPO auction freeze
12	Intraday IPO auction call
13	Intraday auction freeze / Volatility auction freeze / Intraday IPO auction freeze
20	Halted
26	Continuous trading
28	Post-trading
29	Closed
30	Halted
31	Suspended
32	Volatility auction call / Liquidity interruption auction / Mini auction
36	Deleted
39	Continuous auction pre-call
41	Continuous auction freeze
43	Holiday
50	Unsuspended
201	Restricted
202	Book (order management)
211	Closing auction freeze
OTC	OTC trading

Appendix F – Algo Indicator Codes

Value	Description
H	Algorithmic Trade
-	Not an algorithmic trade