Budapest Stock Exchange Equity Trade and Quote Data
File Format Document

Version 1.0

1.0 Trade Data

Sample

```
12/12/2016,09:00:50.509,12/12/2016,09:00:50.340,6300,27.81,117,1,2,6,
12/12/2016,09:00:50.509,12/12/2016,09:00:50.340,6310,27.80,380,1,2,6,
12/12/2016,09:00:50.509,12/12/2016,09:00:50.340,6320,27.80,212,1,2,6,
12/12/2016,09:00:54.566,12/12/2016,09:00:54.470,7200,27.80,25,1,2,6,
12/12/2016,09:01:02.744,12/12/2016,09:01:02.630,8900,27.80,322,1,2,6,
12/12/2016,09:01:02.805,12/12/2016,09:01:02.630,9000,27.80,375,1,2,6,
12/12/2016,09:01:11.852,12/12/2016,09:01:11.770,11700,27.80,1000,1,2,6,
12/12/2016,09:01:25.840,12/12/2016,09:01:25.710,13400,27.77,253,1,2,6,
12/12/2016,09:01:45.937,12/12/2016,09:01:45.830,14900,27.80,250,1,2,6,
12/12/2016,09:01:45.996,12/12/2016,09:01:45.830,14910,27.80,250,1,2,6,
12/12/2016,09:03:35.564,12/12/2016,09:03:35.440,23500,27.77,1,1,2,6,
12/12/2016,09:03:35.609,12/12/2016,09:03:35.470,23600,27.77,4,1,2,6,
12/12/2016,09:03:39.397,12/12/2016,09:03:39.300,24100,27.80,424,1,2,6,
12/12/2016,09:03:39.962,12/12/2016,09:03:39.870,24200,27.77,240,1,2,6,
```

File Layout

Each tick contains 11 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)
Exchange Date	Exchange reported date. MM/DD/YYYY
Exchange Time	Exchange reported time. HH:MM:SS.000 – milliseconds (use this custom format in Excel)
Trade Id	Unique trade identifier
Price	Numeric
Volume	Numeric
Market Mechanism	See Appendix A – Market Mechanism Codes
Trade Mode	See Appendix B – Trade Mode Codes
Sales Condition	See Appendix C – Sales Condition Codes
Exclude Record Flag[1]	Filtered trade indicator. “X” is present if Tick Data recommends exclusion of trade from time series due to condition code(s).

[1] The following condition codes are excluded: 1100,1190,6001. Prints where the trade date does not match the exchange date are also excluded. Refer to Appendix C for the list of condition codes.

2.0 Quote Data

Sample

```
12/12/2016,08:55:00.906,12/12/2016,08:55:00.650,30.00,7,,2404,1008
12/12/2016,08:55:01.330,12/12/2016,08:55:01.180,,580,,2545,1008
12/12/2016,08:55:01.751,12/12/2016,08:55:01.670,,580,,3190,1008
12/12/2016,08:55:02.373,12/12/2016,08:55:02.270,,580,,3523,1008
12/12/2016,08:55:03.012,12/12/2016,08:55:02.920,,594,,3603,1008
12/12/2016,08:55:03.649,12/12/2016,08:55:03.530,,594,,3634,1008
12/12/2016,08:55:05.601,12/12/2016,08:55:05.520,,905,,3634,1008
12/12/2016,08:55:11.203,12/12/2016,08:55:11.140,,905,,3634,1008
12/12/2016,08:55:13.665,12/12/2016,08:55:13.610,,905,,3634,1008
12/12/2016,08:55:14.622,12/12/2016,08:55:14.500,,905,,3673,1008
12/12/2016,08:55:15.146,12/12/2016,08:55:15.100,,905,,4077,1008
12/12/2016,08:55:15.833,12/12/2016,08:55:15.710,,905,,4117,1008
```

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
Quote Date	MM/DD/YYYY
Quote Time	HH:MM:SS.000 – milliseconds (use this custom format in Excel)
Exchange Date	Exchange reported date. MM/DD/YYYY
Exchange Time	Exchange reported time. HH:MM:SS.000 – milliseconds (use this custom format in Excel)
Bid Price	Numeric
Bid Size	Numeric
Ask Price	Numeric
Ask Size	Numeric
Market Period	See Appendix D – Market Period Codes

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.csv – provides the amount of cash dividends.

The format of each of these files is described below:

3.1 CompanyInfo.csv

Sample

RICHTER,GEDEON RICHTER PLC,HU0000123096,03/04/2008,03/04/2014,1000019541
PFLAX,PANNON-FLAX,HU0000075296,03/04/2008,03/04/2014,1000020441
KONZUM,KONZUM,HU0000142419,03/04/2008,03/04/2014,1000023408
MTELEKOM,MAGYAR TELEKOM,HU0000073507,03/04/2008,03/04/2014,1000024126

Field Name	Type	Description
Symbol or ID#	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

1053,06/09/2014,0.14286

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

6,02/12/2015,04/07/2015,04/08/2015,04/09/2015,,3.5,CHF
17,03/26/2014,07/10/2014,07/14/2014,07/15/2014,,90.0,CHF
19,04/24/2014,05/01/2014,05/05/2014,05/16/2014,,0.15,USD
25,01/28/2014,05/06/2014,05/08/2014,05/09/2014,,175.0,CHF

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 Order Book
4	Off-Book

Appendix B – Trade Mode Codes

Value	Description
1	Auction
2	Continuous trading
3	Trading at closing price
4	Out of session trading
5	Trade reporting (on-exchange)
6	Trade reporting (off-exchange)
7	Trade reporting (Systematic Internaliser)
O	Scheduled opening auction
K	Scheduled closing auction
I	Scheduled Intraday auction
U	Unscheduled auction

Appendix C – Sales Condition Codes

Value	Description	Excluded (X)*
6	Standard trade (Continuous trading)	
1001	Standard trade (Opening auction)	
1002	Standard trade (Intraday auction)	
1003	Standard trade (Closing auction)	
1006	Standard trade (Volatility auction)	
1008	Valuation trade	
1100	OTC trade	X
1190	OTC privately negotiated trade	X
2001	Standard trade	
6001	Block trade	X

*The following condition codes are excluded by default: 1100, 1190, 6001. Prints where the trade date does not match the exchange date are also excluded. These trades can be included by checking the box for 'Use Excluded Records in Output' under the *Formatting/Filtering* tab in TickWrite 7.

Appendix D – Market Period Codes

Value	Description
1	Closed
2	Pre-trading
3	Continuous trading
1006	Volatility auction
1007	Auction extension
1008	Opening auction call
1009	Opening auction pre orderbook balancing
1010	Opening auction orderbook balancing
1011	Intraday auction call
1012	Intraday auction pre orderbook balancing
1013	Intraday auction orderbook balancing
1014	Closing auction
1015	Closing auction pre orderbook balancing
1016	Closing auction orderbook balancing
1017	Pending listing
1018	Pending delisting
1019	Continuous auction pre-call
1020	Continuous auction call
1027	Halted
1028	Post-trading