

Canada – All Venues Equity Trade and Quote Data File Format Document

Version 1.0

1.0 Overview

In February 2023, Tick Data introduced a new Canadian equity data product to replace the Canadian data that had been in place since late-2017. This 'Canada – All Venues' dataset has a start date of November 1, 2017. A true all-venue dataset, it contains BBO quote and trade data from 15 Canadian trading venues (Level I quotes per venue). This offering is a significant upgrade to the previously offered data of the time period, with improved reliability, files named by ticker symbol instead of ISIN, no missing first day of trading for new issues (related to ISIN limitations), and the addition of USD-denominated securities.

Upon release, the dataset will have a start date of 11/1/2017, and version 1.0 of this file format guide will only include format details for that time period. That is as far back as this data is currently available to us; we will add additional history if we can. Existing clients will note that our original Canada – TSX dataset begins in 2001; this dataset only contains Level I quotes and trades from the Toronto Stock Exchange. We will consider marrying the two datasets based on client feedback, and if we do, this document will be updated to include details on the TSX-only data, prior to November 2017.

1.1 Trade Data

Sample

```
02/14/2023,09:30:01.738,9.96,11,80,2,Y,,,,,,3010517,-,,,,2,XCXD
02/14/2023,09:30:02.525,10,100,1,79,,,,,,165,-,,,,0,XTSE
02/14/2023,09:30:02.525,10,100,1,79,......166,-,....0,XTSE
02/14/2023,09:30:02.525,10,100,1,79,,,,,,167,-,,,,0,XTSE
02/14/2023,09:30:02.534,10,200,1,79,,,,,,168,-,,,,0,XTSE
02/14/2023,09:30:02.534,10,100,1,79,,,,,,169,-,,,,0,XTSE
02/14/2023,09:30:02.537,10,100,1,79,,,,,,170,-,,,,0,XTSE
02/14/2023,09:30:01.863,9.99,2,1,14,Y,,,,,,3011245,-,,,,2,XCXD
02/14/2023,09:30:02.537,10,200,1,79,,,,,,171,-,,,,0,XTSE
02/14/2023,09:30:02.636,9.98,100,1,79,,,,,,3011484,-,,,,0,CHIC
02/14/2023,09:30:02.553,10,100,1,79,,,,,,172,-,,,,0,XTSE
02/14/2023,09:30:02.553,10,100,1,79,,,,,,173,-,,,,0,XTSE
02/14/2023,09:30:02.553,10,100,1,79,,,,,,174,-,,,,0,XTSE
02/14/2023,09:30:02.636,9.98,100,1,39,,,,,,175,-,,,,0,XTSE
02/14/2023,09:30:02.636,9.98,100,1,39,,,,,,176,-,,,,0,XTSE
02/14/2023,09:30:02.636,9.98,100,1,79,,,,,,177,-,,,,0,XTSE
02/14/2023,09:30:03.167,9.99,100,65,2,,,,,,178,-,,,,0,XTSE
02/14/2023,09:30:03.167,9.99,100,39,2,,,,,,179,-,,,,,0,XTSE
02/14/2023,09:30:05.742,9.98,5,7,14,Y,,,,,180,-,,X,,,3,XTSE
02/14/2023,09:30:05.773,9.98,300,80,1,,,,,,181,-,,,,0,XTSE
02/14/2023,09:30:05.777,9.98,100,90,1,,,,,,182,-,,,,,0,XTSE
02/14/2023,09:30:14.219,9.97,100,79,1,,,,,,,6J3M43SY3NDX,-,,,,,0,PURE
```

File Layout

Each tick contains 23 fields of data in CSV files. These fields are comma-separated and are laid out as follows:

Data Field	Description/Details
Date	MM/DD/YYYY
Time	HH:MM:SS.000

Price Numeric
Volume Numeric
Seller (Member Firm)* Numeric
Buyer (Member Firm)* Numeric

Odd Lot Flag "Y" for Odd Lot, Blank for Round Lot Delayed Delivery Flag Not available after August 7, 2017 Cash Flag Not available after August 7, 2017 Non-Net Flag Not available after August 7, 2017 Cancellation Flag Not available after August 7, 2017 Not available after August 7, 2017 Cancelled Flag Special Terms Flag Not available after August 7, 2017 Correction Flag Not available after August 7, 2017

Sequence Number Sequence number per exchange: numeric or alphanumeric

Trade Session** "-" for Regular Trading

"O" for Opening Auction
"C" for Closing Auction
"T" for Trade at Closing Price
"U" for Unscheduled Auction

Specialty Cross Flag Not available after August 7, 2017

Exclude Record Flag Filtered trade indicator. "X" is present if Tick Data

recommends exclusion of trade from time series due to Book

Type of "1" or "3".

Filtered Price Not available after August 7, 2017 Nanoseconds Not available after August 7, 2017

Sales Condition See Appendix B for Details

Book Type** "0" for On-book

"1" for Off-book
"2" for Dark Book
"3" for Odd Lot Book
"4" for Special Terms Book

Exchange Code MIC Code for exchange on which transaction occurred (See

Appendix A)

2.0 Quote Data

Sample

02/23/2023,07:18:51.000,21.81,21.81,1200,300,,,,XTSE,O 02/23/2023,07:18:51.248,21.9,21.9,300,300,,,,XTSE,O 02/23/2023,07:18:56.473,21.81,21.81,1300,1300,,,,XTSE,O 02/23/2023,07:18:57.386,21.81,21.81,1400,1300,,,,XTSE,O 02/23/2023,07:20:17.018,21.81,21.81,1300,1300,,,,XTSE,O 02/23/2023,07:29:26.295,21.79,21.79,1700,1400,,,,XTSE,O 02/23/2023,07:30:00.786,22.05,22.05,3100,5500,,,,XTSE,O 02/23/2023,07:30:02.087,22.05,22.05,3500,5500,,,,XTSE,O 02/23/2023,07:30:02.087,22.05,22.05,3500,5600,,,,XTSE,O 02/23/2023,07:35:48.397,22.05,22.05,3500,5700,,,,XTSE,O 02/23/2023,07:59:50.289,21.6,28.38,200,500,,,,PURE,O 02/23/2023,07:59:50.298,21.6,22.33,200,200,,,,PURE,O 02/23/2023,08:00:00.257,21.93,22.33,600,200,,,,PURE,T 02/23/2023,08:00:00.259,21.93,22.01,600,100,,,,PURE,T

File Layout

Data Field

Each tick contains 11 fields of data in CSV files. These fields are comma-separated and are laid out as follows:

Date	Numeric
Time	HH:MM:SS.000
Bid Price	Numeric
Ask Price	Numeric
Bid Size	Numeric, in full sizes
Ask Size	Numeric, in full sizes
Sequence Number	Not available after August 7, 2017
Halted Flag	Not available after August 7, 2017
Nanoseconds	Not available after August 7, 2017
Exchange Code	MIC Code for exchange on which transaction occurred (See Appendix A)

Description/Details

^{*}For a current list of Member Firms, please see: https://tsx.com/trading/accessing-our-markets/member-firm-directory

^{**}Not all Trade Sessions or Book Types are found on all venues.

Market Period [Blank] for Unknown Market Period

"O" for Opening Auction

"P" for Pre-Open (PURE exchange)

"C" for Closing Auction
"T" for Regular Trading
"U" for Unscheduled Auction

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 identifiers.
- StockSplits.csv provides adjustment ratios for stock splits and stock dividends.
- Mergers.csv provides adjustment ratios for spin-offs, where price should be adjusted but volume should not be adjusted.
- Dividends.asc provides the amount of cash dividends and total return when available.

The format of each of these files is described below.

3.1 CompanyInfo.asc

Sample

A,ABITIBI-CONSOLIDATED INC.,003924107,,~,01/02/2001,09/30/2007,1 TD,TORONTO-DOMINION BANK (THE),891160509,,~,01/02/2001,09/30/2007,1450

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.
CUSIP NOTE: Available to users who provide a valid CUSIP license	Character	CUSIP number, which uniquely identifies a security. The Committee on Uniform Security Identification Procedure (CUSIP) assigns the first nine digits. • Digits/characters 1-6 identify the issuer • Digits/characters 7-9 identify the issue.
Exchange	Character	Current exchange on which the symbol is traded.

IMO	Character	
First Date	Date	The first date for which data is available for the company.
Last Date	Date	The last date for which data is available for the company.
ID#	Numeric	Tick Data's Internal ID#.

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

Sample

324,06/14/2007,0.50000 408,07/16/2007,0.25000 446,07/04/2007,0.33333 749,07/09/2007,0.50000

File Layout

Each record contains three fields of data pertaining to stock splits or stock dividends. 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.
Split_Date	Date	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

13,09/10/2007,09/26/2007,09/28/2007,10/15/2007,,0.25,A 17,08/09/2007,08/29/2007,08/31/2007,09/15/2007,,0.06, 19,07/25/2007,08/13/2007,08/15/2007,09/04/2007,,0.055, 20,08/09/2007,09/26/2007,09/30/2007,10/15/2007,,0.17,

File Layout

Each record contains details on cash dividends. When available, the record shows total return details in the form of a ratio.

Field Name	Notes
Company ID on Symbol	Depends on data being
Company ID or Symbol	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
	Null = Canadian \$
	A = US \$
Currency Type	B = British Pounds
	C= Australian \$
	E = Japanese Yen

Appendix A – Exchange Codes

MIC Code	Exchange
CHIC	Nasdaq CXC
CSE2	CSE2
LICA	Liquidnet Canada ATS
LYNX	Lynx ATS
MATN	Match Now
NEOC	Neo Exchange
NEOD	Neo Exchange
NEOE	Neo Exchange
NEON	Neo Exchange
OMGA	Omega ATS
PURE	CSE - TSX/Venture Listed (formerly Pure Trading)
XATS	TSX Alpha
XCNQ	CSE2
XCX2	Nasdaq CX2
XCXD	NASDAQ CXD
XICX	Instinet Canada Cross
XTNX	TSX Venture Exchange
XTSE	Toronto Stock Exchange
XTSX	TSX Venture Exchange

Appendix B – Trade Condition Codes

Trade Condition Codes vary from venue to venue. Therefore, to correctly identify a trade condition, first identify the exchange on which the trade occurred and find the code below.

Exchange/Venue: NASDAQ CXC

MIC Code: CXC

Trade Condition Codes

Value	Description
""	Regular trade
В	Basis cross
C	Contingent cross
D	Derivative-related cross
Н	Hidden order execution
I	Internal cross
L	M-ELO (Midpoint Extended Life Order) trade
V	VWAP cross
X	Intentional cross

Exchange/Venue: Canadian Securities Exchange

MIC Codes: CSE2, XCNQ

Value	Description
""	Regular trade
С	Contingent cross
Е	Derivative-related cross
G	Regular (intentional) cross
I	Internal cross
L	Closing price cross
S	Basis cross
V	VWAP cross

Exchange/Venue: Lynx ATS

MIC Code: LYNX

Trade Condition Codes

Value	Description
""	Regular trade
D	Derivative-related cross
Н	Hidden order execution
I	Internal cross
M	Intentional cross

Exchange/Venue: Neo Exchange

MIC Codes: NEOE, NEOC, NEOD, NEON

Trade Condition Codes

Value	Description
0	Regular trade
5	Internal cross
11	Basis cross
12	Contingent cross
14	VWAP cross
15	National cross
16	Bypass cross
18	Derivative cross

Exchange/Venue: Omega ATS

MIC Code: OMGA

Value	Description
""	Regular trade
D	Derivative-related cross
Н	Hidden order execution
I	Internal cross
M	Intentional cross

Exchange/Venue: CSE - TSX/Venture Listed (formerly Pure Trading)

MIC Code: PURE

Trade Condition Codes

Value	Description
""	Regular trade
С	Contingent cross
Е	Derivative-related cross
G	Regular (intentional) cross
I	Internal cross
L	Closing price cross
S	Basis cross
V	VWAP cross

Exchange/Venue: TSX Alpha

MIC Code: XATS

Trade Condition Codes

Value	Description
""	Regular trade
С	Contingent cross
G	VWAP cross
I	Derivative-related cross
J	Regular (intentional) cross
О	Basis cross
S	Special Trading Session cross
X	Internal cross

Exchange/Venue: NASDAQ CX2 MIC Code: XCX2

Value	Description
""	Regular trade
В	Basis cross
С	Contingent cross
D	Derivative-related cross
Н	Hidden order execution
I	Internal cross

V	VWAP cross
X	Intentional cross

Exchange/Venue: Toronto Stock Exchange

MIC Code: XTSE

Trade Condition Codes

Value	Description
""	Regular trade
6	Dark conditional trade
С	Contingent cross
G	VWAP cross
Н	Dark Contra Midpoint Only (CMO) trade
I	Derivative-related cross
J	Regular (intentional) cross
О	Basis cross
S	Special Trading Session cross
X	Internal cross

Exchange/Venue: TSX Venture Exchange MIC Codes: XTSX, XTNX

Value	Description
""	Regular trade
6	Dark conditional trade
С	Contingent cross
G	VWAP cross
Н	Dark Contra Midpoint Only (CMO) trade
I	Derivative-related cross
J	Regular (intentional) cross
О	Basis cross
S	Special Trading Session cross
X	Internal cross

Exchanges/Venues: Liquidnet Canada ATS, Match Now, NASDAQ CDX, Instinet Canada

Cross

MIC Codes: LICA, MATN, XCXD, XICX

Value	Description
""	Regular trade
1	M-ELO (Midpoint Extended Life Order) trade
2	CCP (closing price) cross
4	Purestream trade
A	Dark conditional trade
С	Contingent cross
G	VWAP cross
Н	Dark Contra Midpoint Only (CMO) trade
I	Derivative-related cross
J	Regular cross
О	Basis cross
P	Intentional cross
S	Special trading session cross
V	National cross
X	Internal cross