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1. Nasdaq Basic Canada Description

The following specification is the detailed requirements for a new product being offered by Nasdaq Canada: Nasdaq Basic Canada. This single Level 1 Market Data product will provide information on all three Nasdaq Canada Trading Books: Nasdaq Canada CXC, Nasdaq Canada CX2, and Nasdaq Canada CXD.

The quotes provided by Nasdaq Basic Canada will quantify the total available liquidity at the inside on Nasdaq Canada's two lit trading books, Nasdaq Canada CXC and Nasdaq Canada CX2, within the single quote message. Nasdaq Basic Canada will provide all trades and relevant trade data from Nasdaq Canada CXC, Nasdaq Canada CX2, as well as Nasdaq Canada CXD

2. Network Protocol Options

Nasdaq will offer the Nasdaq Basic Canada data feed using MoldUDP64.

For network support and ordering information, please refer to the Nasdaq Direct Data Products Specifications Page on the Business.Nasdaq.Com Website.

3. Architecture

Nasdaq Basic Canada will be made up of a series of sequenced messages. Each message is variable in length based on the message type. The messages that make up the Nasdaq Basic Canada protocol are typically delivered using a higher level protocol that takes care of sequencing and delivery guarantees.

4. Data Types

All numeric fields are big-endian (network byte order) binary encoded integers for fields with a length of 4 and longs for fields with a length of 8. Unless otherwise noted, they are unsigned.

Prices are numeric fields, supplied with an associated precision. Unless specifically denoted as a Signed Price, Prices are unsigned. When converted to a decimal format, prices are in a fixed point format, where the precision defines the number of decimal places. For example, a field flagged as Price (8) has an implied 8 decimal places.

Timestamps reflects the Nasdaq system time at which the outbound message was generated by the matching engine. Nasdaq states time as the number of nanoseconds past midnight. The time zone is U.S. Eastern Time.

All alphanumeric fields are left-justified, ASCII fields. Padding spaces appear on the right as necessary.

Timestamps are represented as nanoseconds since midnight

5. Nasdaq Basic Canada Market Data Message

The following represent all information a customer should expect to receive on a daily basis, and relevant instructions with how to utilize said content.

5.1 Quotation Message for Nasdaq Basic Canada

The following message is used to relay Nasdaq Basic Canada Quotation Report. The Nasdaq Canada BBO will broadcast a real-time update every time the Nasdaq Canada best bid and offer quote is updated throughout the trading day. The Nasdaq Basic Canada Quotation message denotes size as a combined value, with attribution in size to the underlying venue where the order(s) originated from.

| Quotation Message | | | | | | | |
|---------------------------------|--------|--------|--------------|--|--|--|--|
| Name | Offset | Length | Туре | Value/Description | | | |
| Message Type | 0 | 1 | Alphanumeric | C = Combined Quotation Report | | | |
| Time Stamp | 1 | 8 | Numeric | Denotes the time stamp of the Nasdaq Canada | | | |
| | | | | trading book that generated the quote message. | | | |
| Stock Symbol | 9 | 10 | Alphanumeric | Denotes the Nasdaq Canada stock identifier for | | | |
| | | | | which the QBBO quotation message is being | | | |
| Nacday Canada | 10 | 0 | Dries (O) | generated. | | | |
| Nasdaq Canada Best Bid Price | 19 | 8 | Price (8) | Denotes the best bid price across Nasdaq Canada Market Centers - the highest price for | | | |
| Dest blu Price | | | | market buy order(s) in the Nasdaq Canada | | | |
| | | | | trading book(s). | | | |
| Nasdaq Canada | 27 | 4 | Numeric | Denotes the aggregated number of shares | | | |
| Best Bid Size | | | | available for display within the Nasdaq Canada | | | |
| | | | | trading book(s) at the best bid price. | | | |
| Nasdaq CXC Best | 31 | 4 | Numeric | Denotes the aggregated number of shares | | | |
| Bid Size | | | | available for display within the Nasdaq CXC | | | |
| | | | | trading book at the Nasdaq Canada best bid | | | |
| N. I. OVO. D | 25 | | | price. | | | |
| Nasdaq CX2 Best Bid Size | 35 | 4 | Numeric | Denotes the aggregated number of shares | | | |
| Bid Size | | | | available for display within the Nasdaq CX2 trading book at the Nasdaq Canada best bid | | | |
| | | | | price. | | | |
| Nasdaq Canada | 39 | 8 | Price (8) | Denotes the best ask price across Nasdaq | | | |
| Best Ask Price | | | (-) | Canada Market Centers - the highest price for | | | |
| | | | | market buy order(s) in the Nasdaq Canada | | | |
| | | | | trading book(s). | | | |
| Nasdaq Canada | 47 | 4 | Numeric | Denotes the aggregated number of shares | | | |
| Best Ask Size | | | | available for display within the Nasdaq Canada | | | |
| | | | | trading book(s) at the best ask price | | | |
| Nasdaq CXC Best | 51 | 4 | Numeric | Denotes the aggregated number of shares | | | |
| Ask Size | | | | available for display within the Nasdaq CXC | | | |
| | | | | trading book at the Nasdaq Canada best ask | | | |
| | | | | price. | | | |

| Nasdaq CX2 Best | 55 | 4 | Numeric | Denotes the aggregated number of shares |
|-----------------|----|---|---------|---|
| Ask Size | | | | available for display within the Nasdaq CX2 |
| | | | | trading book at the Nasdaq Canada best ask |
| | | | | price. |

5.2 Trade Message for Nasdaq Basic Canada

The following message is used to relay all transactions available from or reported by the three Nasdaq Canada Trading Books for the current business day.

| Name Offset Length Type Value/Description Message Type 0 1 Alphanumeric T = Trade Report Time Stamp 1 8 Numeric Denotes the time stamp of the Nasdaq Canada trading book that generated the trade message Originating Market Center Identifier 4 Alphanumeric Report Denotes the Nasdaq Canada trading book that generated the trade message. The allowable values are: Code Value C The Nasdaq CXZ Trading Book X The Nasdaq CXZ Trading Book D The Nasdaq CXZ Trading Book D The Nasdaq CXZ Trading Book D D The Nasdaq CXZ Trading Book D The Nasdaq CXZ Trading Book D D The Nasdaq CXZ Trading Book D The Nasdaq CXZ Trading Book D D The Nasdaq CXZ Trading Book D The Nasdaq CXZ Trading Book D D The Nasdaq CXZ Trading Book D The Nasdaq CXZ Trading Book D D The Nasdaq CXZ Trading Book Trade Number 20 4 Numeric Indicates the source's internal number associated with the trade transaction. | Trade Report Message | | | | | | | |
|--|----------------------|--------|--------|-----------------|-----------------|----------------------------------|--|--|
| Time Stamp Originating Originating Market Center Identifier Iden | Name | Offset | Length | Туре | Value/Descri | Value/Description | | |
| Originating Market Center Identifier Alphanumeric Code Value C The Nasdaq CXC Trading Book D The Nasdaq CXC Trading Book X The Nasdaq CXC Trading Book D Trade Nasdaq CXC Trading Book D Trade Nasdaq CXC Trading Book D The Nasdaq CXC Trading Book D The Nasdaq CXC Trading Book D Trade Price Security for which the trade report is being generated. Trade Number D Indicates the source's internal number associated with the given trade transaction. Please note that the Trade Number is specific to the source trading book reflected in the Market Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price D A Numeric Indicates the reported number of shares on the trade transaction. Broker D A Numeric Indicates the reported number of shares on the trade transaction. The three digit numeric Broker Number of the buyer, or 001 for anonymous. Alphanumeric Sale Condition Modifier D A Alphanumeric Sale condition modifier consists of four levels as defined below. D Alphanumeric Sale Condition Modifier – Level 1 B B Bypass (Crosses Only) | Message Type | 0 | 1 | Alphanumeric | T = Trade Rep | ort | | |
| Originating Market Center Identifier | Time Stamp | 1 | 8 | Numeric | Denotes the t | ime stamp of the Nasdaq Canada | | |
| Market Center Identifier Market Center Identifier | | | | | trading book t | that generated the trade message | | |
| Identifier | Originating | 9 | 1 | Alphanumeric | Denotes the N | lasdaq Canada trading book that | | |
| Code Value C The Nasdaq CXC Trading Book X The Nasdaq CX2 Trading Book D The Nasdaq CX2 Trading Book D The Nasdaq CXD Trading Book The Nasdaq CXD Trading Book D The Nasdaq CXD Trading Book D The Nasdaq CXD Trading Book D The Nasdaq CXD Trading Book T | Market Center | | | | generated the | trade message. The allowable | | |
| C The Nasdaq CXC Trading Book X The Nasdaq CXD Trading Book D The Nasdaq CXD Trading Book Denotes the Nasdaq Canada stock identifier of the security for which the trade report is being generated. Trade Number 20 4 Numeric Indicates the source's internal number associated with the given trade transaction. Please note that the Trade Number is specific to the source trading book reflected in the Market Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition 46 1 Alphanumeric Used for Trade Attribute Information Code Value Salex Crosses Only Salex Crosses Only | Identifier | | | | | | | |
| X The Nasdaq CX2 Trading Book D The Nasdaq CXD Trading Book The Nasdaq CXD Trading Book The Security for which the security for which the security for which the trade ransaction. The price associated with the trade transaction Deing reported. The price associated with the trade transaction Deing reported. The price associated with the trade transaction Deing reported. The price associated with the trade transaction Deing reported. The price associated with the trade transaction Deing reported. The price associated with the trade transaction The price associated with the trade transaction Deing reported. The price associated with the trade transaction The price associated with the trade transaction Deing reported. The price associated with the trade transaction The price associated with the trade transaction Deing reported. The price associated with the trade transaction The price associated with the trade transaction Deing reported. The price associated with the trade transaction Deing reported. The price associated | | | | | Code | | | |
| Stock Symbol 10 10 Alphanumeric Denotes the Nasdaq CXD Trading Book Stock Symbol 10 10 Alphanumeric Denotes the Nasdaq Canada stock identifier of the security for which the trade report is being generated. Trade Number 20 4 Numeric Indicates the source's internal number associated with the given trade transaction. Please note that the Trade Number is specific to the source trading book reflected in the Market Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric Sale condition Modifier 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition 46 1 Alphanumeric Used for Trade Attribute Information Code Value Salank> Regular Trade B Bypass (Crosses Only) | | | | | | · | | |
| Stock Symbol 10 | | | | | Х | | | |
| Security for which the trade report is being generated. Trade Number 20 4 Numeric Indicates the source's internal number associated with the given trade transaction. Please note that the Trade Number is specific to the source trading book reflected in the Market Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition Modifier Sale Condition Modifier 40 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition Modifier – Level 1 Alphanumeric Vused for Trade Attribute Information Code Value Code Value | | | | | | | | |
| Trade Number 20 4 Numeric Indicates the source's internal number associated with the given trade transaction. Please note that the Trade Number is specific to the source trading book reflected in the Market Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition Modifier — Level 1 Vised for Trade Attribute Information Code Value Code Value | Stock Symbol | 10 | 10 | Alphanumeric | | • | | |
| Trade Number 20 4 Numeric Indicates the source's internal number associated with the given trade transaction. Please note that the Trade Number is specific to the source trading book reflected in the Market Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition Modifier 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition Modifier – Level 1 | | | | | | hich the trade report is being | | |
| with the given trade transaction. Please note that the Trade Number is specific to the source trading book reflected in the Market Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition Modifier — Level 1 Alphanumeric Vised for Trade Attribute Information Code Value Code Value Code Value <td></td> <td></td> <td></td> <td></td> <td>,</td> <td></td> | | | | | , | | | |
| Please note that the Trade Number is specific to the source trading book reflected in the Market Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition Modifier — Level 1 Alphanumeric Used for Trade Attribute Information Code Value Sale Alphanumeric Please Segular Trade B Bypass (Crosses Only) | Trade Number | 20 | 4 | Numeric | | | | |
| the source trading book reflected in the Market Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition 46 1 Alphanumeric Used for Trade Attribute Information Modifier – Level 1 Evel Suppass (Crosses Only) | | | | | _ | | | |
| Center ID field. This number is used as a key field for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition 46 1 Alphanumeric Used for Trade Attribute Information Modifier – Level 1 | | | | | | • | | |
| for trade cancellations and trade corrections. Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition Modifier – Level 1 | | | | | | _ | | |
| Trade Price 24 8 Price (8) The price associated with the trade transaction being reported. Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition 46 1 Alphanumeric Used for Trade Attribute Information Code Value Code Value | | | | | | • | | |
| Trade Size 32 4 Numeric Indicates the reported number of shares on the trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition Modifier — Level 1 | Trada Drias | 24 | 0 | Dries (O) | | | | |
| Trade Size 32 | Trade Price | 24 | 8 | Price (8) | - | | | |
| trade transaction. Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition 42 4 Alphanumeric Sale condition modifier consists of four levels as defined below. Sale Condition 46 1 Alphanumeric Used for Trade Attribute Information Code Value Code Value | Trado Sizo | 22 | 1 | Numoric | | | | |
| Broker 36 3 Alphanumeric The three digit numeric Broker Number of the buyer, or 001 for anonymous. Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition Modifier Sale Condition Modifier – Level 1 Alphanumeric Used for Trade Attribute Information Code Value Code Value | Trade Size | 32 | 4 | Numeric | | | | |
| Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition Modifier — Level 1 | Broker | 36 | 2 | Alphanumeric | | | | |
| Contra Broker 39 3 Alphanumeric The three digit numeric Broker Number of the seller, or 001 for anonymous. Sale Condition Modifier Sale Condition Modifier – Level 1 Alphanumeric Sale condition modifier consists of four levels as defined below. Used for Trade Attribute Information Code Value | Broker | 30 | J | / ipriditatione | _ | | | |
| Sale Condition Modifier | Contra Broker | 39 | 3 | Alphanumeric | | • | | |
| Sale Condition Modifier Sale Condition Modifier - Level 1 Alphanumeric Sale condition modifier consists of four levels as defined below. Used for Trade Attribute Information Code Value | Contra Broker | | | , apriamament | _ | | | |
| Modifier defined below. Sale Condition Modifier – Level 1 Modifier – Level B Bypass (Crosses Only) | Sale Condition | 42 | 4 | Alphanumeric | • | | | |
| Sale Condition Modifier – Level 1 Alphanumeric Code Value | | | | F | | | | |
| Modifier – Level 1 Code Value | | 46 | 1 | Alphanumeric | | | | |
| B Bypass (Crosses Only) | | | | | | | | |
| B Bypass (Crosses Only) | 1 | | | | <blank></blank> | Regular Trade | | |
| | | | | | | _ | | |
| | | | | | L | M-ELO | | |
| P CXD Pure Stream | | | | | Р | CXD Pure Stream | | |

| Sales Condition | 47 | 1 | Alphanumeric | Used for Cross | Type Information |
|------------------|----|---|-----------------------------|--|-------------------------------|
| Modifier – Level | | | | Code | Value |
| 2 | | | | 1 | Internal |
| | | | | В | Basis |
| | | | | С | Contingent |
| | | | | V | VWAP |
| | | | | Х | Intentional |
| | | | | D | Derivative Related |
| Sales Condition | 48 | 1 | Alphanumeric | Used for Settle | ement Terms Information |
| Modifier – Level | | | | Code | Value |
| 3 | | | | Т | Cash Today |
| | | | | С | Cash Tomorrow |
| | | | | D | Delayed Delivery |
| Sales Condition | 49 | 1 | Alphanumeric | Used for Board | d Lot Eligibility Information |
| Modifier – Level | | | | Code | Value |
| 4 | | | | Α | Odd Lot |
| | | | | В | Board Lot or Larger |
| Consolidated | 50 | 8 | Numeric | Reflects the volume for the Stock Symbol as | |
| Trade Volume | | | | reported by each exchange at the time that the | |
| | | | trade message was generated | | |

Below is a simplified example of the way Consolidated Trade Volume is calculated and will appear in the feed.

| Time | Nasdaq Basic Canada Trade Volume (RT) | Away Exchange Trade Volume (Delayed) | Published Consolidated Trade Volume |
|---------|--|---|---|
| 9:30 AM | 100 | 150 | 100 |
| 9:35 AM | 200 | 250 | 300 |
| 9:37 AM | 300 | 350 | 600 |
| 9:45 AM | 400 | 450 | 1000 |
| 9:46 AM | 500 | 550 | 1650 |

5.3 Trade Break Message

If a Trade is cancelled during the same day as its execution, Nasdaq Basic Canada will send a Trade Break message. This message will reference the original Trade Message's Trade Control Number, so a consumer of this content is responsible for managing the daily Time and Sales content to ensure data can be managed locally to affect any change in market data represented by the Trade Break.

| Trade Break Message | | | | | | |
|---|--------------------------|---|--------------|---|--|--|
| Name Offset Length Type Value/Description | | | | | | |
| Message Type | 0 | 1 | Alphanumeric | X = Trade Break | | |
| Time Stamp | Time Stamp 1 8 Numeric D | | Numeric | Denotes the time stamp of the Nasdaq system | | |
| | | | | that generated the Trade Break. | | |

| Trade Control | 9 | 4 | Numeric | Indicates t | he source's internal control number |
|---------------|----|---|--------------|--------------|---|
| Number | | | | associated | with the given trade transaction. |
| | | | | Please not | e that the Trade Control Number is |
| | | | | specific to | the source system reflected in the |
| | | | | Market Ce | nter ID field. This number is used as a |
| | | | | key field fo | or trade cancellations and trade |
| | | | | corrections | S. |
| Originating | 13 | 1 | Alphanumeric | Denotes th | ne Nasdaq Canada trading book that |
| Market Center | | | | generated | the trade break message. The allowable |
| Identifier | | | | values are: | : |
| | | | | Code | Value |
| | | | | С | The Nasdaq CXC Trading Book |
| | | | | Χ | The Nasdaq CX2 Trading Book |
| | | | | D | The Nasdaq CXD Trading Book |

5.4 Trade Correction Message

If a Trade is corrected during the same day as its execution, Nasdaq Basic Canada will send a Trade Correction message. This message will reference the original Trade Message's Trade Control Number, so a consumer of this content is responsible for managing the daily Time and Sales content to ensure data can be managed locally to affect any change in market data represented by the Trade Correction.

| Trade Correction Message | | | | | | | |
|--------------------------|--------|--------|--------------|--|---|--|--|
| Name | Offset | Length | Туре | Value/De | Value/Description | | |
| Message Type | 0 | 1 | Alphanumeric | Z = Trade (| Correction | | |
| Time Stamp | 1 | 8 | Numeric | Denotes th | ne time stamp of the Nasdaq Canada | | |
| | | | | trading bo | ok that generated the trade correction. | | |
| Originating | 9 | 1 | Alphanumeric | | ne Nasdaq Canada trading book that | | |
| Market Center Identifier | | | | generated values are | the trade break message. The allowable : | | |
| | | | | Code | Value | | |
| | | | | С | The Nasdaq CXC Trading Book | | |
| | | | | X | The Nasdaq CX2 Trading Book | | |
| | | | | D | The Nasdaq CXD Trading Book | | |
| Stock Symbol | 10 | 10 | Alphanumeric | Denotes th | ne Nasdaq Canada stock symbol of the | | |
| | | | | - | r which the trade correction is being | | |
| | | | | generated | | | |
| Original Trade | 20 | 4 | Numeric | | he source's internal number associated | | |
| Number | | | | _ | iven trade transaction. | | |
| | | | | | e that the Trade Number is specific to | | |
| | | | | | trading book reflected in the Market | | |
| | | | | | field. This number is used as a key field | | |
| | | | | for trade cancellations and trade corrections. | | | |
| Original Trade | 24 | 8 | Price (8) | The price associated with the original trade | | | |
| Price | | | | transaction. | | | |
| Original Trade | 32 | 4 | Numeric | | he reported number of shares on the | | |
| Size | | | | original tra | ade transaction | | |

| Corrected Trade | 36 | 8 | Price (8) | The price associated with the trade correction |
|-----------------|----|---|-----------|--|
| Price | | | | being reported. |
| Corrected Trade | 44 | 4 | Numeric | Indicates the reported number of shares on the |
| Size | | | | trade correction. |

6. System Event Messages

The system event message type will be issued to indicate a market state event.

| System Event Message | | | | | | | |
|----------------------|--------|--------|--------------|------------|---------------------------------------|--|--|
| Name | Offset | Length | Туре | Value/De | Value/Description | | |
| Message Type | 0 | 1 | Alphanumeric | S = System | n Event Message | | |
| Time Stamp | 1 | 8 | Numeric | Denotes th | he time stamp of the Nasdaq Canada | | |
| | | | | trading bo | ok that generated the system event | | |
| | | | | message. | | | |
| Originating | 9 | 1 | Alphanumeric | Denotes th | he Nasdaq Canada trading book that | | |
| Market Center | | | | _ | the event message. The allowable | | |
| Identifier | | | | values are | : | | |
| | | | | Code | Value | | |
| | | | | С | The Nasdaq CXC Trading Book | | |
| | | | | Х | The Nasdaq CX2 Trading Book | | |
| | | | | D | The Nasdaq CXD Trading Book | | |
| | | | | Α | All Markets (CXC, CX2, CXD) | | |
| Event Code | 10 | 1 | Alphanumeric | | he Nasdaq Canada market system event | | |
| | | | | | allowable values are: | | |
| | | | | Code | Value | | |
| | | | | 0 | First message of the day | | |
| | | | | S | Start of Nasdaq Canada Trading | | |
| | | | | | Session | | |
| | | | | Q | Start of Primary Market Trading | | |
| | | | | | Activity Session | | |
| | | | | M | End of Primary Market Trading | | |
| | | | | | Session. Indicates the Pegged orders | | |
| | | | | | are no longer available for execution | | |
| | | | | E | End of Nasdaq Canada Trading | | |
| | | | | | Session | | |
| | | | | C | End of Messages. Last message of | | |
| | | | | | the day | | |

7. Stock Directory Message

At the start of each trading day, Nasdaq disseminates stock directory messages for all active symbols in the Nasdaq Execution system. Please note that the Stock Display Name is truncated after 40 characters.

| System Event Message | | | | | | | |
|----------------------|--------|--------|--------------|--|--|--|--|
| Name | Offset | Length | Туре | Value/Description | | | |
| Message Type | 0 | 1 | Alphanumeric | R=Stock Di | irectory Message | | |
| Time Stamp | 1 | 8 | Numeric | Denotes th | ne time stamp of the Nasdaq Canada | | |
| | | | | trading bo | ok that generated the stock directory | | |
| | | | | message. | | | |
| Stock Symbol | 9 | 10 | Alphanumeric | | ne Nasdaq Canada stock symbol of the | | |
| | | | | security fo | r which the message is being generated. | | |
| Stock Display | 19 | 40 | Alphanumeric | 1*40 Print | able ASCII; no default | | |
| Name | | | | | | | |
| Listing Market | 59 | 1 | Alphanumeric | | he primary listing market for the stock. | | |
| | | | | The allowa | able values are as follows: | | |
| | | | | Code | Value | | |
| | | | | T | The TMX Senior Market (TSX) | | |
| | | | | С | The Canadian Securities Exchange | | |
| | | | | V | The TMX Venture Market | | |
| | | | | N | The NEO Exchange | | |
| Board Lot Size | 60 | 4 | Alphanumeric | Denotes the Board Lot Size of the Symbol | | | |
| Currency | 64 | 1 | Alphanumeric | Denotes th | ne Currency of the Symbol | | |
| | | | | Code | Value | | |
| | | | | U | USD | | |
| | | | | С | CAD | | |

8. Stock Status Message

This message indicates the current trading status of a stock. At the start of day, the feed will send a stock status message for each of the symbols trading on Nasdaq Canada. Subsequently, stock status messages will be sent when a stock is halted or is released for trading. If a security halts on one trading book, but remains in a trading state on another trading book, the user will continue to receive orders on Nasdaq Basic Canada, but all orders will be from the trading book actively trading the instrument at that point in time. If the Stock Status message is sent with a Market of 'A', and a System Status of "H", this means that trading is halted across all trading books.

Note: Normal case is to halt and resume symbols across all books using a Market Value of "A"

| Stock Status Me | Stock Status Message | | | | | |
|-----------------|----------------------|--------|--------------|---|--|--|
| Name | Offset | Length | Туре | Value/Description | | |
| Message Type | 0 | 1 | Alphanumeric | H=Stock Status Message | | |
| Time Stamp | 1 | 8 | Numeric | Denotes the time stamp of the Nasdaq Canada trading book that generated the stock status message. | | |
| Stock Symbol | 9 | 10 | Alphanumeric | Denotes the Nasdaq Canada symbol of the security for which the message is being generated. | | |
| Market | 19 | 1 | Alphanumeric | Denotes the Nasdaq Canada trading book that generated the message. The allowable values are: | | |

| | | | | | Code | Value |
|---------------|----|---|--------------|--|------|--|
| | | | | | С | The Nasdaq CXC Trading Book |
| | | | | | Χ | The Nasdaq CX2 Trading Book |
| | | | | | D | The Nasdaq CXD Trading Book |
| | | | | | Α | All Markets (CXC, CX2, CXD) |
| System Status | 20 | 1 | Alphanumeric | Denotes whether the trading state of the Canada | | hether the trading state of the Canada |
| | | | | trading books is currently halted. The allowable values are: | | oks is currently halted. The allowable |
| | | | | | | |
| | | | | | Code | Value |
| | | | | | Н | Halted |
| | | | | | Т | Trading |

9. End of Day Trade Summary

End of Day Trade Summary will be published once at 4:15PM and again at 5:15PM. This message will include all traded symbols from the day. The second message at 5:15PM will include the same symbols as the 4:15PM message, updated for any changes made between 4:15PM and 5:15PM. All symbol data will be available at the same time. Fields will be populated with zeros if the stock does not trade during the day.

| End of Day Trad | e Summary | | | |
|------------------------------|-----------|--------|--------------|---|
| Name | Offset | Length | Туре | Value/Description |
| Message Type | 0 | 1 | Alphanumeric | D=Trade Summary |
| Time Stamp | 1 | 8 | Numeric | Denotes the time stamp of the Nasdaq Canada trading book that generated the trade message |
| Stock Symbol | 9 | 10 | Alphanumeric | Denotes the Nasdaq Canada stock identifier of the security for which the trade report is being generated. |
| Consolidated High Price | 19 | 8 | Price (8) | The highest price of any high/low eligible transaction on the trading day for any exchange |
| Consolidated Low Price | 27 | 8 | Price (8) | The lowest price of any high/low eligible transaction on the trading day for any exchange |
| Consolidated Open Price | 35 | 8 | Price (8) | The first last sale eligible transactions received on the trading day for any participating exchange |
| Listing Center Open Price | 43 | 8 | Price (8) | The first last sale eligible transactions received on the trading day from the primary listing exchange |
| Consolidated Close Price | 51 | 8 | Price (8) | The final last sale eligible transaction on any participating exchange received on the trading day |

| Listing Center Close Price | 59 | 8 | Price (8) | The final last sale eligible transactions received on the trading day from the |
|-------------------------------|----|---|-----------|--|
| Consolidated | 67 | 8 | Numeric | primary listing exchange Reflects the sum of the total volume for |
| Volume | | | | the issue from all participating exchanges |

10. Previous Day Adjusted Close Price

The Previous Day Adjusted Close Price message will be sent out once at 7:00AM to reflect any adjustments made overnight. This message can go out multiple times if necessary, with the last scheduled time being 7:30AM. The Previous Day Adjusted Close Price message will typically only be sent out once before the trading day begins.

| Adjusted Closing | Price | | | | | |
|------------------|--------|--------|--------------|----------|----------------------------|--|
| Name | Offset | Length | Type | Valu | Value/Description | |
| Message Type | 0 | 1 | Alphanumeric | G = Adju | G = Adjusted Closing Price | |
| Time Stamp | 1 | 8 | Numeric | Time Sta | amp. | |
| Issue Symbol | 9 | 10 | Alphanumeric | Denotes | the security | |
| | | | | symbol | for the issue in the | |
| | | | | Nasdaq | execution system. | |
| Security Class | 19 | 1 | Alphanumeric | | s the primary | |
| | | | | _ | narket for the issue. | |
| | | | | | wable values are as | |
| | | | | follows: | | |
| | | | | Code | Value | |
| | | | | | The TMX Senior | |
| | | | | | Market (TSX) | |
| | | | | С | The Canadian | |
| | | | | | Securities | |
| | | | | | Exchange | |
| | | | | V | The TMX | |
| | | | | | Venture Market | |
| | | | | N | The NEO | |
| | | | | | Exchange | |
| Adjusted Closing | 20 | 8 | Price (8) | - | vious trading day's | |
| Price | | | | | closing price | |
| | | | | - | d for any applicable | |
| | | | | | te actions. If there | |
| | | | | | corporate actions | |
| | | | | | curity, the previous | |
| | | | | | ficial close will be | |
| | | | | dissemii | nated. | |

11. Version Control

| Date | Version | Comments | |
|------------|---------|--|--|
| 06/13/2018 | 1.0 | Initial Specification | |
| 01/26/2023 | 1.4 | Added value 'N' to the Listing Market | |
| | | field of the Stock Directory Message | |
| 10/09/2023 | 1.5 | Added Consolidated Trade Volume field, | |
| | | End of Day Trade Summary message, | |
| | | and Previous Day Adjusted Close Price | |
| | | message. | |
| 10/25/2023 | 1.5 | Specified zero values in EOD Trade | |
| | | Summary message | |
| 11/1/2023 | 1.5 | Included example calculation for | |
| | | Consolidated Trade Volume Message. | |
| 2/1/2024 | 1.6 | "Bypass" changed to "Basis" in Level 2 | |
| | | Last Sale Condition Matrix | |
| 8/16/2024 | 1.6 | Time stamp values changed to 8 | |

12. IP Configuration Information

The following tables summarize network address & parameter configurations needed for accessing the multicast market data services Nasdaq Basic Canada in the Primary, DR, the Point Of Presence, and the NTF.

| | Nasdaq Basic C | anada Network Config | uration Parameters | |
|-----------------|-------------------|----------------------|---------------------|----------------------|
| IP Details | Primary TR2 | DR CH4 | Markham POP | Nasdaq Test Facility |
| | 45 Parliament St, | 350 E. Cermak Rd, | 3500 Steeles Ave E, | (NTF) Platform |
| | Toronto | Chicago | Markham | |
| | | | | |
| Stream | Stream A | Stream C | Stream E | |
| Multicast Group | 233.128.23.121 | 233.187.20.23 | 233.128.23.75 | 233.128.33.68 |
| Multicast Port | 18073 | 18073 | 18073 | 18073 |
| RP | 207.251.255.138 | 207.251.255.97 | 207.251.255.16 | 207.251.255.136 |
| Source | 206.200.1.224/28 | 206.200.95.0/25 | 206.200.58.240/29 | 206.200.59.240/28 |
| MMRS | 206.200.1.195 | 206.200.92.123 | 206.200.58.226 | 206.200.59.227 |
| MMRS Port | 18173 | 18173 | 18173 | 18173 |
| Stream | Stream B | Stream D | Stream F | |
| Multicast Group | 233.128.23.122 | 233.211.120.23 | 233.128.23.79 | |
| Multicast Port | 18073 | | | |
| RP | 207.251.255.139 | 207.251.255.98 | 207.251.255.17 | |
| Source | 206.200.1.240/28 | 206.200.95.128/25 | 206.200.58.248/29 | |
| MMRS | 206.200.1.211 | 206.200.92.126 | 206.200.58.234 | |
| MMRS Port | 18173 | 18173 | 18173 | |

13. Last Sale Condition Matrix

Within the market data industry, the term "Last Sale" is typically used to denote the most recent round or mixed lot trade transaction reported by a market center with an eligible sale condition code for the regular Canadian Market session. For Nasdaq Canada, firms should use the time stamp field from the Trade Report message to determine the proper trade sequence order for last sale calculations as well as time and sales displays.

To facilitate a "Last Sale" calculation, Nasdaq Canada includes the Sale Condition modifier. The Sale Condition Modifier field consists of four levels. A trade should only be applied to the high, low, last sale, and volume calculations if all four sales condition modifiers so allow.

Sale Condition – Level 1 denotes the trade attribute type of the transaction

| Code | Value | High/Low | Last Sale | Volume |
|-----------------|---------|----------|-----------|--------|
| <blank></blank> | Regular | Υ | Υ | Υ |
| В | Bypass | Υ | Υ | Υ |
| L | M-ELO | Υ | Υ | Υ |

Sale Condition – Level 2 denotes the Cross Type of the transaction.

| Code | Value | High/Low | Last Sale | Volume |
|-----------------|--------------------|----------|-----------|--------|
| <blank></blank> | Regular | Υ | Υ | Υ |
| I | Internal | Υ | Υ | Υ |
| В | Basis | N | N | Υ |
| С | Contingent | Υ | Υ | Υ |
| V | VWAP | N | N | Υ |
| X | Intentional Cross | Υ | Y | Υ |
| D | Derivative Related | Υ | Y | Y |

Sale Condition – Level 3 denotes the Settlement Terms of the transaction.

| Code | Value | High/Low | Last Sale | Volume |
|-----------------|------------------|----------|-----------|--------|
| <blank></blank> | Regular | Υ | Υ | Υ |
| Т | Cash Today | N | N | Υ |
| С | Cash Tomorrow | N | N | Υ |
| D | Delayed Delivery | n | n | Υ |

Sale Condition – Level 4 denotes the Board Lot Eligibility of the transaction. is not an eligible value for Board Lot Eligibility

| Code | Value | High/Low | Last Sale | Volume |
|------|---------------------|----------|-----------|--------|
| А | Odd Lot | N | N | Υ |
| В | Board Lot or Larger | Υ | Υ | Υ |