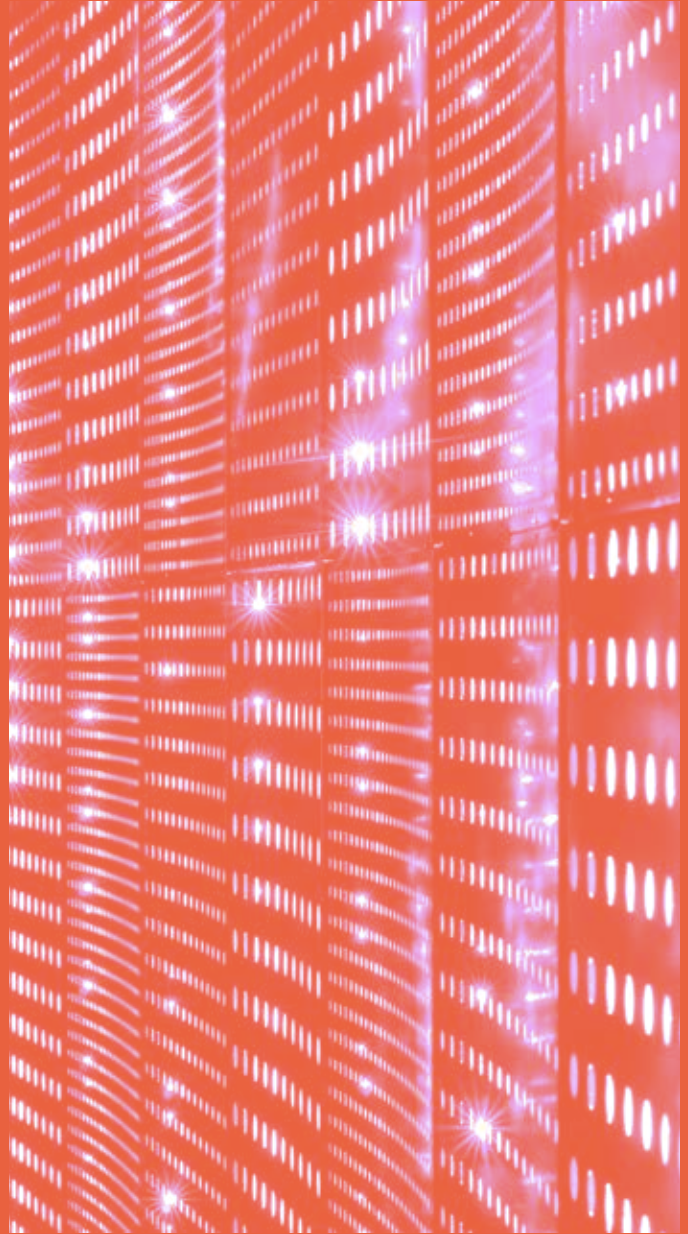


# Market Data Feed Specification

Version 1.2



Updated September 2025



**Markets  
Evolved.**

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1.0

# Introduction

The CIX IntelligentCross Market Data Feed disseminates all resting orders, cancels, and all executions. Additionally it provides information for each symbol that may be traded, market state, and individual symbol trading states (halts).

## Data Types

Type	Description
Alpha	Printable ASCII characters, Right-padded with space.
Integer	Binary, little endian
Number	ASCII representation of a natural number. Left padded with zeros.

2.0

UDP Transport

The CIX Market Data Feed will be disseminated over Multicast UDP.

Network Details

Full network details will be provided once we get closer to the launch date. All symbols will be sent on a single UDP port. A and B channels will have different multicast groups but contain the same data.

Multicast Addresses

Site	Feed Identifier	Type		Group	Port	Source IP	RP
PROD	A - ASPEN	Primary	(A)	224.0.20.208	29049	71.15.52.52	71.15.52.50
PROD	A - ASPEN	Secondary	(B)	224.0.20.210	29049	71.15.52.60	71.15.52.59
PROD	V - ASPEN VERT	Primary	(A)	224.0.20.208	29050	71.15.52.52	71.15.52.50
PROD	V - ASPEN VERT	Secondary	(B)	224.0.20.210	29050	71.15.52.60	71.15.52.59
PROD	M - MIDPOINT	Primary	(A)	224.0.20.208	29051	71.15.52.52	71.15.52.50
PROD	M - MIDPOINT	Secondary	(B)	224.0.20.210	29051	71.15.52.60	71.15.52.59
UAT	B - ASPEN	Primary	(A)	224.0.20.209	18505	71.15.52.54	71.15.52.50
UAT	B - ASPEN	Secondary	(B)	224.0.20.211	18505	71.15.52.62	71.15.52.59
UAT	W - ASPEN VERT	Primary	(A)	224.0.20.209	18506	71.15.52.54	71.15.52.50
UAT	W - ASPEN VERT	Secondary	(B)	224.0.20.211	18506	71.15.52.62	71.15.52.59
UAT	N - MIDPOINT	Primary	(A)	224.0.20.209	18507	71.15.52.54	71.15.52.50
UAT	N - MIDPOINT	Secondary	(B)	224.0.20.211	18507	71.15.52.62	71.15.52.59

## UDP Header

Each UDP packet transports a variable number of messages. There may be zero messages as in heartbeats, or any number of messages that will fit into the data section of the packet, up to a theoretical maximum of 65535. UDP packets will be limited to 1500 byte MTUs.

UDP packets contain header fields that indicate which feed is being received and the market day for the data being transmitted. These identifiers are provided to mitigate the risk of address misconfiguration. It is recommended that customers inspect and validate these fields before processing data.

Field	Length	Type	Description
Market Day Identifier	9	Number	Unique identifier for trading day
Feed Identifier	1	Alpha	Unique code for feed
Sequence	8	Integer	Sequence number for next message
Count	2	Integer	Number of messages in packet

The **Sequence** field in the message header is the sequence of the first message in the packet. Each message contained in a UDP packet has an implied sequence, with the first message's implied sequence being equal to the **Sequence** explicitly provided in the header.

Heartbeat packets contain 0 messages, so for heartbeats, the Sequence will be the sequence of the next message to be transmitted in a subsequent packet. In this way heartbeat packets may be processed normally as they leave the implied sequence unchanged.

In every case, the next packet's expected Sequence can be calculated to be the previous packet's **Sequence** plus the previous packet's **Count**.

## UDP Message Block Header

Each message within a packet will have a simple block header.

Field	Length	Type	Description
Length	2	Integer	Length of the message

## 3.0 Messages

### Market Event

Field	Length	Type	Description
Message Type	1	Alpha	'A'
Reserved	2	Alpha	Reserved for future use
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
Event	1	Alpha	'O' : Start of Session 'S' : Market accepting orders 'Q' : Market open for trading 'E' : Market closed for trading 'C' : End of Session

### Symbol Information

Field	Length	Type	Description
Message Type	1	Alpha	'B'
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
symbol ID	2	Integer	symbol Index
Symbol	11	Alpha	Stock Symbol
Listing Market	1	Alpha	Code identifying the primary listing market 'T' = TSX, 'V' = Venture, 'C' = CSE, 'N' = Neo
Board Lot Size	4	Integer	Board Lot Size in Shares

#### Symbol ID

CIX uses a unique 2 byte integer ID for each symbol. Recipients of the feed should use the Symbol Information ('B') messages to map SymbolId to SymbolCode. The **Symbol ID** to **Symbol Code** mapping *may* change from day to day.

The **Symbol Information** message as well as **Symbol State**, **New Order Add**, and **Trade** messages contain both **Symbol ID** as well as the full stock **Symbol Code**.

Consumers may choose to use the symbol mappings, or simply use the **symbol Code** on these messages. Customers using **symbol ID** must update their mappings on a daily basis.

While Cancel, and Order Executed messages do not contain **Symbol Code**, they may be processed without relying on their **Symbol ID** fields, namely by using OrderID.

## Symbol State

Field	Length	Type	Description
Message Type	1	Alpha	'C'
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
Symbol ID	2	Integer	Symbol Index
Symbol	11	Alpha	Symbol Code (Quick Code)
State	1	Alpha	'H': Halted 'T': Trading
Reserved	1	Alpha	Reserved for future use
Info	4	Alpha	optional text

*Halted* **State** indicates that orders will not be accepted and are not eligible for matching.

*Trading* **State** indicates that orders will be accepted and are eligible for matching.

## New Order Add

Field	Length	Type	Description
Message Type	1	Alpha	'D'
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
symbol ID	2	Integer	Symbol Index
Order ID	8	Integer	Market Issued Unique Order ID
Side	1	Alpha	'B': Buy 'S': Sell
Quantity	8	Integer	Quantity - 6 implied decimals
Symbol	11	Alpha	Symbol Code
Price	8	Integer	Price - 6 implied decimals
Broker	3	Integer	Three digit number Broker Number or 001 for anonymous
Reserved	1	Alpha	Reserved for future use

### Order ID

**New Order Add** provides the same **Order ID** that is returned by the FIX order gateway's order acknowledgment message (38=8, 150=0) in FIX's *OrderID* field (tag 37).

### Price

**Price** is an 8 byte signed positive integer with 6 implied decimal places.

For example, a price of CAD 543.21 is represented by 543210000, or 0×2060BA10. The max theoretical price that may be represented in this format is CAD 9223372036854.775807.



## Order Partial Cancel

Field	Length	Type	Description
Message Type	1	Alpha	'F'
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
Order ID	8	Integer	Market Issued Unique Order ID
QuantityCanceled	8	Integer	Quantity canceled - Quantity 6 implied decimals

## Order Cancel All

This is sent out when the order is canceled in its entirety.

Field	Length	Type	Description
Message Type	1	Alpha	'G'
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
Order ID	8	Integer	Market Issued Unique Order ID

## Order Executed

Field	Length	Type	Description
Message Type	1	Alpha	'J'
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
Order ID	8	Integer	Market Issued Unique Order ID
Quantity	8	Integer	Quantity Executed - 6 implied decimals
Execution ID	8	Integer	Market Issued Unique Execution ID
Reserved	1	Alpha	Reserved for future use
Price	8	Integer	Price - 6 implied decimals
Broker	3	Integer	Three digit number Broker Number or 001 for anonymous
Contra Broker	3	Integer	Three digit number Broker Number of the contra order or 001 for anonymous

The **Order Executed** message is sent when an order is executed.

## Trade

Field	Length	Type	Description
Message Type	1	Alpha	'K'
Symbol ID	2	Integer	Symbol Index
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
Reserved	8	Integer	Reserved for future use
Reserved	1	Alpha	Reserved for future use
Shares	8	Integer	Qty Executed - 6 implied decimals
Symbol	11	Alpha	Stock Symbol
Price	8	Integer	Price - 6 implied decimals
Execution ID	8	Integer	Market Issued Unique Execution ID
Broker	3	Integer	Three digit number Broker Number or 001 for anonymous
Contra Broker	3	Integer	Three digit number Broker Number of the contra order or 001 for anonymous

The **Trade** message is sent when a hidden order is executed.

## Trade Cancel

A **Trade Cancel** message is sent whenever an execution on CIX ATX is cancelled. An execution may be cancelled due to a CIRO ruling for example. A trade cancellation is final and will not be reinstated.

Field	Length	Type	Description
Message Type	1	Alpha	'L'
Symbol ID	2	Integer	Symbol Index
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
Reserved	8	Integer	Reserved for future use
Reserved	1	Alpha	Reserved for future use
Shares	8	Integer	Qty Executed - 6 implied decimals
Symbol	11	Alpha	Stock Symbol
Price	8	Integer	Price - 6 implied decimals
Execution ID	8	Integer	Market Issued Unique Execution ID of the trade being cancelled
Broker	3	Integer	Three digit number Broker Number or 001 for anonymous
Contra Broker	3	Integer	Three digit number Broker Number of the contra order or 001 for anonymous

## Trade Correct

A **Trade Correct** message is sent whenever an execution on CIX ATX is amended. An execution may be amended due to a CISO ruling for example. A trade cancellation is final and will not be reinstated.

Field	Length	Type	Description
Message Type	1	Alpha	'M'
Symbol ID	2	Integer	Symbol Index
Timestamp	8	Integer	Nanoseconds Since Epoch (UTC)
Reserved	8	Integer	Reserved for future use
Reserved	1	Alpha	Reserved for future use
Symbol	11	Alpha	Stock Symbol
Execution ID	8	Integer	Market Issued Unique Execution ID
Broker	3	Integer	Three digit number Broker Number or 001 for anonymous
Contra Broker	3	Integer	Three digit number Broker Number of the contra order or 001 for anonymous
Original Execution ID	8	Integer	Execution ID of the original trade/execution being corrected
Original Trade Price	8	Integer	Price of the trade being corrected
Original Trade Quantity	8	Integer	Quantity of the trade being corrected
Corrected Trade Price	8	Integer	Price the trade is being amended/corrected to
Corrected Trade Quantity	8	Integer	Quantity the trade is being amended/corrected to

4.0

Revision History

Version	Date	Change
1.0	March 21, 2025	Initial Revision.
1.1	July 2025	Symbol status changes (Halted, Frozen, etc.) Fractional volume representation for quantity and price
1.2	September 18, 2025	Addition of trade cancel and correct handling Update to Symbol State messages for field 'State' Provision of network IPs and ports for multicast feeds



**Markets  
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