NASDAQ BASIC

Product Overview

Nasdaq Basic is the leading exchange-provided alternative for real-time Best Bid and Offer and Last Sale information for all U.S. exchange- listed securities. With Nasdaq Basic, investors access a proprietary data product that provides accuracy, liquidity, instrument coverage and accessibility with significant cost-savings.

Nasdaq Basic is the combination of the Nasdaq Best Bid and Offer delivered via QBBO in combination with the Nasdaq Last Sale (NLS) Plus. The coupling of QBBO to NLS Plus to create Nasdaq Basic must be undertaken on the customer side.

Please note that the below specification only includes the QBBO portion. Please refer to the NLS spec.

In order to match the Nasdaq Basic entitlement structure, QBBO will support three outbound channels. The QBBO data set will be channelized based on the listing market of a security.

Channel	Securities Coverage
1	NYSE Issues
2	Other Regional Issues
3	Nasdaq Issues

Publisher

Nasdaq Investment Intelligence equips investors with the tools to make informed decisions by providing innovative real-time and historical analytic products and intelligent solutions designed to tap new data sets and meet new industry challenges. Nasdaq Data Link eliminates infrastructure and resource obstacles from collecting and storing large data sets, providing tools with industry adopted open standards to ingest and analyze market data and other financial information. To learn more about the company, technology solutions and career opportunities, visit us on LinkedIn, on Twitter @Nasdaq, or at www.nasdaq.com.

Data Types

All integer fields are unsigned big-endian (network byte order) binary encoded numbers.

All alphanumeric fields are ASCII fields which are left justified and padded on the right with spaces.

Prices are integer fields, supplied with an associated precision. 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 (4) has an implied 4 decimal digits.

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

Delivery

Nasdaq Data Link provides a modern and efficient method of delivery for Realtime exchange data and other financial information. Data is made available through a suite of APIs, allowing for effortless integration of data from disparate sources, and a dramatic reduction in time to market for customer-designed applications. The API is highly scalable, and robust enough to support the delivery of real-time exchange data.

This repository provides an SDK for developing applications to access the Nasdaq Data Link API. While the SDK is open source, connecting to the API does require credentials, which are provided by Nasdaq during an on-boarding process.

For more information, please use the link- https://github.com/Nasdaq/CloudDataService

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System Event Message

Details

The System Event message is used to signal key market or data feed control events. QBBO will support the System Event messages.

Field	Name	Type	Description	on
SOUP Partition	SoupPartition	int	Message p	partition identifier. Ignore.
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.	
Message Type	msgType	string	S = System	n Event
Tracking Number	trackingID	long	Message Tracking number, compound key containing: bytes 0-1 = Nasdaq internal tracking number bytes 2-7 = Timestamp in nanoseconds from midnight See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.	
Event Code	Event Code event String Denotes t		Denotes t	he type of event for which the message is being d. See list below for allowable values.
			Code	Value
			0	Start of Transmissions: Denotes that QBBO has started its daily transmission schedule
			S	Start of System Hours: This message indicates that Nasdaq is open and ready to start accepting orders.
			Q	Start of Market Hours: This message is intended to indicate that Market Hours orders are available for execution.
			M	End of Market Hours: This message is intended to indicate that Market Hours orders are no longer available for execution.
			E	End of System Hours: It indicates that Nasdaq is now closed and will not accept any new orders today.
			С	End of Transmissions: Denotes that QBBO has completed its daily transmission schedule.
				transmission schedule.

```
{
"type": "record",
"name": "SeqSystemEventMessage",
"fields": [ {
    "name": "SoupPartition",
    "type": "int"
}, {
    "name": "SoupSequence",
    "type": "long"
}, {
    "name": "msgType",
    "type": "string"
```

```
}, {
    "name":"trackingID",
    "type":"long"
}, {
    "name":"event",
    "type":"string"
}
}
Sample
{
    "SoupPartition": 0,
    "SoupSequence": 123,
    "msgType": "S",
    "trackingID": 7238625218217,
    "event": 0
}
```

Quotation Message

QBBO will broadcast a real-time update every time that the exchange's best bid and offer quote is updated during the trading day. Please note that this message is for non-NextShares messages. NextShares messages will be supported in 5.4 (NextShares Quotation Message).

Field	Name	Туре	Description
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.
Message Type	msgType	string	Q = Quotation Message
Tracking Number	trackingID	long	Message Tracking number, compound key containing: bytes 0-1 = Nasdaq internal tracking number bytes 2-7 = Timestamp in nanoseconds from midnight See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.
Symbol	symbol	string	Denotes the security symbol for the issue in the Nasdaq execution system.

Security Class	market	string	Indicates the prin	nary listing market for the stock. The are as follows:	
			Code	Value	
			Q	The Nasdaq Stock	
				Market	
			N	NYSE	
			Α	NYSE American	
			Р	NYSE Arca	
			М	NYSE Texas	
			Z	BATS	
				Investors' Exchange	
Nasdaq Best Bid Price	bidPrice	int		laq best bid price – the highest price der(s) in the Nasdaq system.	<u> </u>
Nasdaq Best Bid Size	bidQuantity	int		egated number of shares available fo • Nasdaq market center system at the price.	
Nasdaq Best Offer Price	askPrice	int		laq exchange's best offer price - the narket sell order(s) in the Nasdaq	
Nasdaq Best Offer Size	askQuantity	int		egated number of shares available fo • Nasdaq market center system at the r price.	

```
"type": "record",
"name": "SeqQuoteMessage",
"fields": [
"name": "SoupPartition",
"type": "int"
"name": "SoupSequence",
"type": "long"
},
"name": "msgType",
"type": "string"
},
"name": "trackingID",
"type": "long"
},
"name": "symbol",
"type": "string"
},
```

```
"name": "market",
"type": "string"
},
{
"name": "bidPrice",
"type": "int"
},
"name": "bidQuantity",
"type": "int"
},
"name": "askPrice",
"type": "int"
},
"name": "askQuantity",
"type": "int"
]
}
Sample
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "Q",
"trackingID": 7238625218217,
"symbol": "ZVZZT",
"market": "Q",
"bidPrice": 100.11,
"bidQuantity": 500,
"askPrice": 100.13,
"askQuantity": 200
```

NextShares Quotation Message

This version of the Quotation message format will be used for Exchange Traded Managed Funds (NextShares). For this asset class, Nasdaq will support both Proxy Price and Net Asset Value (NAV) premium/discount amount for the best bid and offer.

Field	Name	Туре	Description
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.
Message Type	msgType	string	A = NextShares Quotation Message
Tracking Number	trackingID	long	Message Tracking number, compound key containing:
			bytes 0-1 = Nasdaq internal tracking number
			bytes 2-7 = Timestamp in nanoseconds from midnight

		1	
			See the TrackingID class in the com.nasdag.ncdsclient.internal.utils
			package within the SDK.
NextShares	symbol	string	Denotes the NextShares symbol in the Nasdaq
Symbol		1	execution system.
Security Class	market	string	Indicates the primary listing market for the stock. The
			allowable values are as follows:
			Code Value
			Q Nasdaq-listed security
Nasdag Best Bid -	bidPrice	int	Denotes the Nasdaq best bid price for NextShares in
Proxy Price	bidi rice		proxy price format.
Nasdaq Best Bid	bidQuantity	int	Denotes the aggregated number of shares available for
Size			display within the Nasdaq market center system at the
			Nasdaq best bid price.
Nasdaq Best Bid -	bidNavPremium	int	Denotes premium or discount amount to the NAV
NAV			reflected in the Nasdaq best bid.
Premium/Discount			
Amount			Please note: This is a signed (+/-) field.
Nasdaq Best Offer	askPrice	int	Denotes the Nasdaq best offer for the EMTF in proxy
- Proxy Price			price format .
Nasdaq Best Offer	askQuantity	int	Denotes the aggregated number of shares available for
Size			display within the Nasdaq market center system at the
			Nasdaq best offer price.
Nasdaq Best Offer	askNavPremium	int	Denotes the premium or discount amount to the NAV
- NAV			reflected in the Nasdaq best offer.
Premium/Discount			
Amount			Please note: this is a signed (+/-) field.

```
{
"type": "record",
"name": "SeqETMFQuoteMessage",
"fields": [
{
   "name": "SoupPartition",
   "type": "int"
},
{
   "name": "SoupSequence",
   "type": "long"
},
{
   "name": "msgType",
   "type": "string"
},
{
   "name": "trackingID",
   "type": "long"
```

```
},
"name": "symbol",
"type": "string"
},
{
"name": "market",
"type": "string"
},
"name": "bidPrice",
"type": "int"
},
"name": "bidQuantity",
"type": "int"
},
"name": "bidNavPremium",
"type": "int"
},
"name": "askPrice",
"type": "int"
"name": "askQuantity",
"type": "int"
},
"name": "askNavPremium",
"type": "int"
]
Sample
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "A",
"trackingID": 7238625218217,
"symbol": "ZVZZT",
"market": "Q",
"bidPrice": 100.11,
"bidQuantity": 500,
"bidNavPremium": 1,
"askPrice": 100.13,
"askQuantity": 200,
"askNavPremium": 2
}
```

Retail Price Interest Indicator (PII)

Details

Field	Name	Туре	Description	
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.	
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.	
Message Type	msgType	string	N = Retail Interest message	
Tracking Number	trackingID	long	Message Tracking number, compound key containing: bytes 0-1 = Nasdaq internal tracking number bytes 2-7 = Timestamp in nanoseconds from midnight See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.	
Stock	symbol	string	Denotes the security symbol for the issue in the Nasdaq execution system.	
Interest Flag	interest	string	B Pl orders available on the buy side S Pl orders available on the sell side A Pl orders available on both sides (buy and sell) N No Pl orders available	

```
{
"type": "record",
"name": "SeqRetailInterestMessage",
"fields": [
{
    "name": "SoupPartition",
    "type": "int"
},
{
    "name": "SoupSequence",
    "type": "long"
},
{
    "name": "msgType",
    "type": "string"
},
{
```

```
"name": "trackingID",
"type": "long"
},
{
"name": "symbol",
"type": "string"
},
{
"name": "interest",
"type": "string"
}
]
}

Sample
{
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "N",
"trackingID": 7238625218217,
"symbol": "ZVZZT",
"market": "Q",
"interest": "A"
}
```

IPO Quoting Period Update

Indicates the anticipated IPO quotation release time of a security.

Field	Name	Туре	Description
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.
Message Type	msgType	string	K = IPO Quoting Period Update Message
Tracking Number	trackingID	long	Message Tracking number, compound key containing: • bytes 0-1 = Nasdaq internal tracking number • bytes 2-7 = Timestamp in nanoseconds from midnight See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.

Stock	symbol	string		s the security symbol for the issue in the execution system.	
IPO Quotation Release Time	releaseTime	int	Midnig NOTE: being should 1.	es the IPO release time, in seconds since ght, for quotation to the nearest second. If the quotation period is canceled/postponed, we distate that IPO Quotation Time will be set to 0 are will be set to 0	
IPO Quotation	releaseQualifier	string	Code	Description	
Release Qualifier			С	Anticipated quotation release time This value would be used when Nasdaq Market Operations initially enters the IPO instrument for release. IPO release canceled/postponed This value would be used when Nasdaq	
				Market Operations cancels or postpones the release of the IPO instrument.	
IPO Price	ipoPrice	int		es the IPO price to be used for intraday net e calculations.	

```
"type": "record",
"name": "SeqIPOQuotePeriodMessage",
"fields": [
"name": "SoupPartition",
"type": "int"
},
"name": "SoupSequence",
"type": "long"
},
"name": "msgType",
"type": "string"
},
"name": "trackingID",
"type": "long"
},
"name": "symbol",
"type": "string"
},
```

```
"name": "releaseTime",
"type": "int"
},
"name": "releaseQualifier",
"type": "string"
},
"name": "ipoPrice",
"type": "int"
}
Sample
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "K",
"trackingID": 7238625218217,
"symbol": "ZVZZT",
"releaseTime": 34509843560,
"releaseQualifier": "A",
"ipoPrice": 15.00
```

Administrative Messages Stock Trading Action

Nasdaq uses this administrative message to indicate the current trading status of a security to the trading community.

Prior to the start of system hours, Nasdaq will send out a Trading Action spin. In the spin, Nasdaq will send out a Stock Trading Action message with the "T" (Trading Resumption) for all Nasdaq- and other exchange-listed securities that are eligible for trading at the start of the system hours. If a security is absent from the pre-opening Trading Action spin, firms should assume that the security is being treated as halted in the Nasdaq platform at the start of the system hours. Please note that securities may be halted in the Nasdaq system for regulatory or operational reasons.

After the start of system hours, Nasdaq will use the Trading Action message to relay changes in trading status for an individual security. Messages will be sent when a stock is:

- Halted
- Paused*
- Released for quotation
- Released for trading

* The paused status will be disseminated for Nasdaq-listed securities only. Trading pauses on non-Nasdaq listed securities will be treated simply as a halt.

Field	Name	Туре	Description
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.
Message Type	msgType	string	H = Trading Action
Tracking Number	trackingID	long	Message Tracking number, compound key containing: • bytes 0-1 = Nasdaq internal tracking number bytes 2-7 = Timestamp in nanoseconds from midnight See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.
Issue Symbol	symbol	string	Nasdaq-assigned indicator for issue for which the trading action message is being generated. For details on Nasdaq symbology, please refer to Appendix B.
Security Class	market	string	Indicates the primary listing market for the issue. Allowable values are:
			Code Value
			Q Nasdaq
			N NYSE
			A NYSE American
			P NYSE Arca
			M NYSE Texas
			Z BATS
			V Investors' Exchange, LLC
Current Trading State	tradingState	string	Reflects the current trading state for the issue. The allowable values are:
			Code Value
			H Halt in effect (Cross all U.S. equity exchanges)
			P Paused across all U.S. Equity markets / SROs (Nasdaq-listed securities only)
			Q Quote only period in effect (Cross all U.S. equity changes)
			T Trading on Nasdaq Market
Reason	reason	string	Reflects the Market Ops or Market Watch code for the trading state change. Refer to Appendix C for current code list.

```
Schema
```

```
"type": "record",
"name": "SeqTradingStateMessage",
"fields": [
"name": "SoupPartition",
"type": "int"
"name": "SoupSequence",
"type": "long"
},
"name": "msgType",
"type": "string"
},
"name": "trackingID",
"type": "long"
},
"name": "symbol",
"type": "string"
},
{
"name": "market",
"type": "string"
},
"name": "tradingState",
"type": "string"
"name": "reason",
"type": "string"
Sample
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "H",
"trackingID": 7238625218217,
"symbol": "ZVZZT",
"market": "Q",
"tradingState": "T",
"reason": "M1"
```

Stock Directory

At the start of each trading day, Nasdaq disseminates stock directory messages for all active symbols in its market center system.

Market data vendors should process this message to populate the Financial Status Indicator (required display field) and the Market Category (recommended display field) for Nasdaq-listed issues.

Field	Name	Туре	Description
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.
Message Type	msgType	string	R = Stock Directory Message
Tracking Number	trackingID	long	Message Tracking number, compound key containing: • bytes 0-1 = Nasdaq internal tracking number • bytes 2-7 = Timestamp in nanoseconds from midnight See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.
Stock	symbol	string	Denotes the security symbol for the issue in the Nasdaq execution system.
Market Category	marketCategory	string	Indicates Listing market or listing market tier for the issue: Code
Financial Status Indicator	fsi	string	<pre><space> Not available For Nasdaq-listed issues, this field indicates when a firm is not in compliance with Nasdaq continued listing requirements. Code Definition Nasdaq-Listed Instruments D Deficient</space></pre>

			E	Delinquent
			Q	Bankrupt
			S	Suspended
			G	Deficient and Bankrupt
			Н	Deficient and Delinquent
			J	Delinquent and Bankrupt
			K	Deficient, Delinquent and
				Bankrupt
			С	Creations and/or Redemptions Suspended for Exchange Traded Product
			N	Normal (Default): Issuer Is NOT Deficient, Delinquent, or Bankrupt
			<space></space>	Company is in compliance, if Nasdaq-listed issue
Round Lot Size	roundLotSize	int	round lot for	
Round Lots Only	roundLotOnly	string	Indicates if N issue:	asdaq system limits order entry for
			Code	Definition
			Y	Nasdaq system only accepts round lots orders for this security.
			N	Nasdaq system does not have any order size restrictions for this security. Odd and mixed lot orders are allowed.
Issue Classification	issueClass	string		e security class for the issue as Nasdaq. See Appendix for allowable
Issue Sub-Type	issueSubtype	string	Identifies the	e security sub-type for the issue as Nasdaq. See Appendix for allowable
Authenticity	authenticity	string	set- up in Na test, or demo only show liv public quota	
			Code	Definition
			P	Live/Production
			T	Test
Short Sale Threshold Indicator	shortThreshold	string		security is subject to mandatory short sales under SEC Rule 203(b)(3).
			Code	Definition
			Y	Issue is restricted under SEC Rule 203(b)(3)
			N	Issue is not restricted

			<space></space>	Threshold	d Indicator not available
IPO Flag	ipo	string	release. This f	ield is inter	ecurity is set up for IPO nded to help Nasdaq comply with FINRA Rule
			Code	Defir	nition
			Nasdaq-Liste	ed Instrume	nts
			Υ		aq listed instrument is p as a new IPO security
			N		aq listed instrument is et up as a new IPO rity
			Non-Nasdaq		-
			<space></space>	Not a	available
LULD Reference Price Tier	luldTier	string	Indicates which Limit Up / Limit Down price band calculation parameter is to be used for the instrument. Refer to LULD Rule for details.		
			Code		Definition
			1		Tier 1 NMS Stocks and select ETPs
			2		Tier 2 NMS Stocks
			<space></space>		Not applicable
ETP Flag	etf	string	traded produc		curity is an exchange
			Code		Definition
			Υ		Instrument is an ETP
			N		Instrument is not an ETP
			<space></space>		Not available
ETP Leverage Factor	etfFactor	int	underlying ir Index increases by factor is 3, ir	ndex. Exam a value of 1	ionship of the ETP to the ple: If the underlying L and the ETP's Leverage ETF will Inverse) by 3.
			_	verage facto	ed to the nearest integer or 1 would represent .99.
			This field is us calculation pu		Tier I price band
			ETP Leverage Non-Nasdaq li		ently not supported for

Inverse Indicator	inverseETF	string		lirectional relationship between nderlying index.
			Y N	ETP is an Inverse ETP ETP is not an Inverse ETP
			•	TP Leverage Factor of 3 and an of 'Y' indicates the ETP will value of 3.

```
"type": "record",
"name": "SeqDirectoryMessage",
"fields": [
"name": "SoupPartition",
"type": "int"
},
{
"name": "SoupSequence",
"type": "long"
},
"name": "msgType",
"type": "string"
},
"name": "trackingID",
"type": "long"
"name": "symbol",
"type": "string"
},
"name": "marketCategory",
"type": "string"
},
"name": "fsi",
"type": "string"
"name": "roundLotSize",
"type": [
"null",
"int"
},
```

```
"name": "roundLotOnly",
"type": [
"null", "string"
},
{
"name": "issueClass",
"type": [
"null",
"string"
},
"name": "issueSubtype",
"type": [
"null",
"string"
},
"name": "authenticity",
"type": [
"null",
"string"
},
"name": "shortThreshold",
"type": [
"null",
"string"
},
"name": "ipo",
"type": [
"null",
"string"
]
},
"name": "luldTier",
"type": [
"null",
"string"
},
"name": "etf",
"type": [
"null",
"string"
```

```
},
"name": "etfFactor",
"type": [
"null",
"int"
},
"name": "inverseETF",
"type": [
"null",
"string"
Sample
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "R",
"trackingID": 7238625218217,
"symbol": "ZVZZT",
"marketCategory": "Q",
"fsi": "N", "roundLotSize": 250,
"roundLotOnly": "N",
"issueClass": "L"
"issueSubtype": "MF",
"authenticity": "T",
"shortThreshold": "N",
"ipo": "N",
"luldTier": "1",
"etf": "Y",
"etfFactor": 2,
"inverseETF": "N",
```

Regulation SHO Short Sale Price Test Restricted Indicator

In November 2010, the Securities and Exchange Commission (SEC) implemented changes to Rule 201 of the Regulation SHO (Reg SHO). For details, please refer to SEC Release Number 34-61595. In association with the Reg SHO rule change, Nasdaq introduced the following Reg SHO Short Sale Price Test Restricted Indicator message format.

For Nasdaq-listed issues, Nasdaq supports a full pre-opening spin of Reg SHO Short Sale Price Test Restricted Indicator messages indicating the Rule 201 status for all active issues. Nasdaq also sends the Reg SHO Short Sale Price Test Restricted Indicator message in the event of an intraday status change.

For other exchange-listed issues, Nasdaq relays the Reg SHO Short Sale Price Test Restricted Indicator message when it receives an update from the primary listing exchange.

Nasdaq processes orders based on the most Reg SHO Restriction status value.

Details

Field	Name	Туре	Description	
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.	
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.	
Message Type	msgType	string	Y = Short Sale Restriction Indicator	
Tracking Number	trackingID	long	Message Tracking number, compound key containing: • bytes 0-1 = Nasdaq internal tracking number • bytes 2-7 = Timestamp in nanoseconds from midnight See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.	
Issue Symbol	symbol	string	Nasdaq-assigned indicator for issue for which the short sale restriction indicator message is being generated. For details on Nasdaq symbology, please refer to Appendix B.	
Reg SHO Action	regSHOAction	string	Denotes the Reg SHO Short Sale Price Test Restriction status for the issue at the time of the message dissemination. Allowable values are:	
			Code Definition	
			0 No price test in place	
			1 Reg SHO Short Sale Price Test	
			Restriction in effect due to an intra-	
			day price	
			drop in security	
			2 Reg SHO Short Sale Price Test Restriction remains in effect	

```
{
"type": "record",
"name": "SeqRegSHORestrictionMessage",
"fields": [
{
    "name": "SoupPartition",
    "type": "int"
},
{
    "name": "SoupSequence",
    "type": "long"
```

```
},
"name": "msgType",
"type": "string"
},
"name": "trackingID",
"type": "long"
},
"name": "symbol",
"type": "string"
"name": "regSHOAction",
"type": "string"
Sample
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "Y",
"trackingID": 7238625218217,
"symbol": " ZVZZT",
"regSHOAction": "1"
```

Market-Wide Circuit Breaker (MWCB) Message – Decline Level

Informs data recipients what the daily MWCB breach points are set to for the current trading day.

Field	Name	Туре	Description
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.
Message Type	msgType	string	V = Market wide circuit breaker Decline Level Message
Tracking Number	trackingID	long	Message Tracking number, compound key containing: • bytes 0-1 = Nasdaq internal tracking number • bytes 2-7 = Timestamp in nanoseconds from midnight

			See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.
Level 1	level1	long	Denotes the MWCB Level 1 Value.
Level 2	level2	long	Denotes the MWCB Level 2 Value.
Level 3	level3	long	Denotes the MWCB Level 3 Value.

```
"type": "record",
"name": "SeqMWCBDeclineMessage",
"fields": [
"name": "SoupPartition",
"type": "int"
},
"name": "SoupSequence",
"type": "long"
},
"name": "msgType",
"type": "string"
},
"name": "trackingID",
"type": "long"
},
"name": "level1",
"type": "long"
},
"name": "level2",
"type": "long"
},
"name": "level3",
"type": "long"
Sample
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "V",
"trackingID": 7238625218217,
"level1": 356735673,
```

"level2": 599877474873,

```
"level3": 42256736573
```

Market-Wide Circuit Breaker (MWCB) Message – Status

Informs data recipients when a MWCB has breached one of the established levels.

Details

Field	Name	Туре	Description
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.
Message Type	msgType	string	W = Market-Wide Circuit Breaker Status message
Tracking Number	trackingID	long	Message Tracking number, compound key containing: • bytes 0-1 = Nasdaq internal tracking number • bytes 2-7 = Timestamp in nanoseconds from midnight See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.
Breached Level	breachlevel	string	Denotes the MWCB Level that was breached.
			"1" = Level 1 "2" = Level 2 "3" = Level 3

```
{
"type": "record",
"name": "SeqMWCBStatusMessage",
"fields": [
{
   "name": "SoupPartition",
   "type": "int"
},
{
   "name": "SoupSequence",
   "type": "long"
},
{
   "name": "msgType",
   "type": "string"
},
```

```
{
"name": "trackingID",
"type": "long"
},
{
"name": "level",
"type": "string"
}
]
}

Sample
{
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "W",
"trackingID": 7238625218217,
"level": "1"
}
```

Operational Halt

The Exchange uses this message to indicate the current Operational Status of a security to the trading community. An Operational Halt means that there has been an interruption of service on the identified security impacting only the designated Market Center. These Halts differ from the "Stock Trading Action" message types since an Operational Halt is specific to the exchange for which it is declared, and does not interrupt the ability of the trading community to trade the identified instrument on any other market place.

Nasdaq uses this administrative message to indicate the current trading status of the three market centers operated by Nasdaq.

Field	Name	Туре	Description		
SOUP Partition	SoupPartition	int	Message partition identifier. Ignore.		
SOUP Sequence	SoupSequence	long	Auto-incrementing message sequence number.		
Message Type	msgType		h = Operational Halt		
Tracking Number	trackingID	long	Message Tracking number, compound key containing: • bytes 0-1 = Nasdaq internal tracking number • bytes 2-7 = Timestamp in nanoseconds from midnight See the TrackingID class in the com.nasdaq.ncdsclient.internal.utils package within the SDK.		
Stock	symbol		Denotes the security symbol for the issue in the Nasdaq execution system		
Market Code	marketCenter		Code Value		

		Q	Nasdaq
		В	BX
		Χ	PSX
Operational Halt	action	Code	Value
Action		Н	Operationally Halted on the identified Market
		Т	Operational Halt has been lifted and Trading resumed

```
"type": "record",
"name": "SeqMarketCenterActionMessage",
"fields": [
"name": "SoupPartition",
"type": "int"
},
"name": "SoupSequence",
"type": "long"
},
"name": "msgType",
"type": "string"
},
"name": "trackingID",
"type": "long"
},
"name": "symbol",
"type": "string"
},
"name": "market",
"type": "string"
},
"name": "action",
"type": "string"
Sample
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "h",
"trackingID": 7238625218217,
```

```
"symbol": "ZVZZT",
"market": "Q",
"action": "H"
```

Appendix A – Stock Symbol Convention

For Nasdaq-listed issues, Nasdaq currently restricts its symbol length to a maximum of 8 characters. For common stock issuances, Nasdaq, BX and PSX will only assign root symbols of 1 to 4 characters in length with possible fifth and or sixth character denoting a suffix. In certain instances, a dot "." delimiter may be applied to symbols after the root and between the suffix eg., XXXX.A. For subordinate securities, Nasdaq, BX, and PSX will assign a 5 character symbol for which the last character relays information about the issue class or issue type. For the current list of fifth and or six character symbol suffixes, please refer to Ticker Symbol Convention page on the Nasdaq Trader website.

For NYSE-, NYSE American- and NYSE Arca-listed securities with subordinate issue types, please refer to Ticker Symbol Convention page on the Nasdaq Trader website.

Appendix B - Trading Action Reason Codes

For Nasdaq-listed issues, Nasdaq acts as the primary market and has the authority to institute a trading halt or trading pause in an issue due to news dissemination or regulatory reasons.

For CQS issues, Nasdaq, BX and BX abide by any regulatory trading halts and trading pauses instituted by the primary or listing market as appropriate.

For all issue types, Nasdaq, BX and/or BX may also halt trading for operational reasons. Nasdaq, BX and/or BX will send out a trading action message to inform its market participants when the trading status of an issue changes. For informational purposes, Nasdaq and BX also attempt to provide the reason for each trading action update. For bandwidth efficiency reasons, Nasdaq, BX and BX use a 4-byte code for the reason on its outbound data feeds.

REASON COI	REASON CODES FOR TRADING HALT ACTIONS				
Code	Value				
T1	Halt News Pending				
T2	Halt News Disseminated				
T5	Single Security Trading Pause In Affect				
T6	Regulatory Halt — Extraordinary Market Activity				
T8	Halt ETF				
T12	Trading Halted; For Information Requested by Listing Market				
H4	Halt Non-Compliance				

H9	Halt Filings Not Current
H10	Halt SEC Trading Suspension
H11	Halt Regulatory Concern
01	Operations Halt; Contact Market Operations
LUDP	Volatility Trading Pause
LUDS	Volatility Trading Pause – Straddle Condition
MWC1	Market Wide Circuit Breaker Halt – Level 1
MWC2	Market Wide Circuit Breaker Halt – Level 2
MWC3	Market Wide Circuit Breaker Halt – Level 3
MWC0	Market Wide Circuit Breaker Halt – Carry over from previous day
IPO1	IPO Issue Not Yet Trading
M1	Corporate Action
M2	Quotation Not Available
<space></space>	Reason Not Available

REASON CODES FOR QUOTATION/TRADING RESUMPTION ACTIONS		
Code	Value	
T3	News and Resumption Times	
T7	Single Security Trading Pause / Quotation Only Period	
R4	Qualifications Issues Reviewed/Resolved; Quotations/Trading to Resume	
R9	Filing Requirements Satisfied/Resolved; Quotations/Trading To Resume	
C3	Issuer News Not Forthcoming; Quotations/Trading To Resume	
C4	Qualifications Halt ended; Maintenance Requirements Met; Resume	
C9	Qualifications Halt Concluded; Filings Met; Quotes/Trades To Resume	
C11	Trade Halt Concluded By Other Regulatory Auth.; Quotes/Trades Resume	
MWCQ	Market Wide Circuit Breaker Resumption	
R1	New Issue Available	
R2	Issue Available	
IPOQ	IPO Security Released for Quotation (Nasdaq Securities Only)	
IPOE	IPO Security — Positioning Window Extension (Nasdaq Securities Only)	
<space></space>	Reason Not Available	

For the current list of regulatory halts, please refer to the <u>Trading Halts page</u> on the Nasdaq Trader website.

Appendix C - Issue Classification Values

Identifies the security class for the issue as assigned by Nasdaq

CODES FOR ISSUE CLASSIFICATION VALUES		
Code	Value	
Α	American Depositary Share	
В	Bond	
С	Common Stock	
F	Depository Receipt	
I	144A	
L	Limited Partnership	
N	Notes	
0	Ordinary Share	
Р	Preferred Stock	
Q	Other Securities	
R	Right	

S	Shares of Beneficial Interest
Т	Convertible Debenture
U	Unit
V	Units/Benif Int
W	Warrant

Appendix D - Issue Sub-Type Values

CODES FOR ISSUE CLASSIFICATION VALUES		
Code	Value	
Α	Preferred Trust Securities	
Al	Alpha Index ETNs	
В	Index Based Derivative	
С	Common Shares	
СВ	Commodity Based Trust Shares	
CF	Commodity Futures Trust Shares	
CL	Commodity-Linked Securities	
CM	Commodity Index Trust Shares	
СО	Collateralized Mortgage Obligation	
СТ	Currency Trust Shares	
CU	Commodity-Currency-Linked Securities	
CW	Currency Warrants	
D	Global Depositary Shares	
E	ETF-Portfolio Depositary Receipt	
EG	Equity Gold Shares	
El	ETN-Equity Index-Linked Securities	
EM	Exchange Traded Managed Funds *	
EN	Exchange Traded Notes	
EU	Equity Units	
F	HOLDRS	
FI	ETN-Fixed Income-Linked Securities	
FL	ETN-Futures-Linked Securities	
G	Global Shares	
I	ETF-Index Fund Shares	
IR	Interest Rate	
IW	Index Warrant	
IX	Index-Linked Exchangeable Notes	
J	Corporate Backed Trust Security	
L	Contingent Litigation Right	
LL	Identifies securities of companies that are set up as a Limited Liability Company (LLC)	
М	Equity-Based Derivative	
MF	Managed Fund Shares	
ML	ETN-Multi-Factor Index-Linked Securities	

MT	Managed Trust Securities
N	NY Registry Shares
0	Open Ended Mutual Fund
Р	Privately Held Security
PP	Poison Pill
PU	Partnership Units
Q	Closed-End Funds
R	Reg-S
RC	Commodity-Redeemable Commodity-Linked Securities
RF	ETN-Redeemable Futures-Linked Securities
RT	REIT
RU	Commodity-Redeemable Currency-Linked Securities
S	SEED
SC	Spot Rate Closing
SI	Spot Rate Intraday
T	Tracking Stock
TC	Trust Certificates
TU	Trust Units
U	Portal
V	Contingent Value Right
W	Trust Issued Receipts
WC	World Currency Option
Х	Trust
Υ	Other
Z	Not Applicable