

NYSE BEST TRADE AND QUOTE CLIENT SPECIFICATION

NYSE MKT NYSE Arca

Version 1.7a Date

June 1, 2016

© 2016 NYSE. All rights reserved. No part of this material may be copied, photocopied or duplicated in any form by any means or redistributed without the prior written consent of NYSE. All third party trademarks are owned by their respective owners and are used with permission. NYSE and its affiliates do not recommend or make any representation as to possible benefits from any securities or investments, or third-party products or services. Investors should undertake their own due diligence regarding securities and investment practices. This material may contain forward-looking statements regarding NYSE and its affiliates that are based on the current beliefs and expectations of management, are subject to significant risks and uncertainties, and which may differ from actual results. NYSE does not guarantee that its products or services will result in any savings or specific outcome. All data is as of June 1, 2016. NYSE disclaims any duty to update this information.

PREFACE

DOCUMENT HISTORY

The following table provides a description of all changes to this document.

VERSION NO.	DATE	CHANGE DESCRIPTION
1.0	25 Sep 201225 Sep 2012	Initial draft – subject to change.
1.1	2 Oct 20122 Oct 2012	 Replaced Consolidated Stock Summary Msg Type 223 with 229 Added notes that the LULD messages (227 and 228) are not included in the first release of the product. Updated descriptions of 'Source Time' and 'Source Time NS' fields
1.2	3 Oct 20123 Oct 2012	Replaced references to Msg Type 223 with 229 in Tables 3 and 4 (Trades Data Publication Times)
1.3	31 Jan 2013	Additional values for Liquidity Flag
1.4	4 Jun 2013	Addition of new Consolidated Trading Session Change message in section 2.3
1.5	12 Dec 2014	Added value '9' to Trade Cond 2 of Cons Trade (220) and Cons Corr (222) Added value '1' to Trade Cond 4 of Cons Trade (220) and Cons Corr (222) Added Cons Volume msg (msg type XXX) Rebranded to ICE standard
1.6	Aug 3, 2015	No changes to the feeds in this version Clarified descriptions of the hierarchy of product IDs, feeds and channels Corrected all publication times Streamlined and improved the language throughout
1.6a	Jan 21, 2016	No changes to the feeds in this version Updated descriptions in security status and symbol index messages Streamlined information about Consolidated Volume message throughout
1.7	May 12, 2016	Consolidated Security Status message expanded to support changes in input markets. New fields are added to the end of the previous message structure for backward compatibility. Removed Trade Conditions 4,B,P,V,X (obsolete in all input markets)
1.7a	June 1, 2016	Corrected list of Security Status field values to include O, P, and X, exclude ~ and E

CONTACT INFORMATION

NYSE Service Desk

Telephone: +1 212 383 3640 (International)

Telephone: 866 873 7422 (Toll free, US only)

Email: <u>service.desk@nyx.com</u>

FURTHER INFORMATION

- XDP Common Client Specification: www.nyxdata.com/Data-Products/NYSE-Best-Quote-and-Trades
- XDP BBO Client Specification: http://www.nyxdata.com/Data-Products/NYSE-Arca-Quotes-Datafeed
- XDP Trades Client Specification: http://www.nyxdata.com/Data-Products/NYSE-Arca-Trades
- Latest capacity figures: http://www.nyxdata.com/capacity
- IP addresses: http://www.nyxdata.com/ipaddresses

CONTENTS

1.	NYSE BQT INTRODUCTION	4
1.1	Important Additional Reading	
1.2	Overview	4
1.3	Trades Feed	4
1.4	Best Bid/Offer (BBO) Feed	5
1.5	Consolidated Volume Feed	5
1.6	Data Delivery	6
1.7	Control Message Types Used in NYSE BQT	7
1.7.1	Note on Symbol Index Mapping Message (3)	7
1.7.2		
2.	QUOTE MESSAGES	8
2.1	Consolidated Symbol Clear Message – Msg Type '32'	8
2.2	Consolidated Trading Session Change Message – Msg Type 33	9
2.3	Consolidated Security Status Message – Msg Type 34	10
2.4	BQT Message – Msg Type 142	11
2.5	Consolidated Single-Sided Quote Message – Msg Type 143	14
3.	TRADE MESSAGES	15
3.1	Consolidated Trade Message – Msg Type 220	15
3.2	Consolidated Trade Cancel/Bust Message – Msg Type 221	17
3.3	Consolidated Trade Correction Message – Msg Type 222	
3.4	Consolidated Stock Summary Message – Msg Type 229	
4.	CONSOLIDATED VOLUME MESSAGE	21
5	PRODUCT ID AND MARKET ID	22

1. NYSE BQT Introduction

1.1 IMPORTANT ADDITIONAL READING

This specification is to be read in conjunction with the XDP Common Client Specification.

1.2 OVERVIEW

The NYSE BQT product is a real-time market data feed that provides a unified view of Best Bid/Offer and Trades/Last Sale executions for the entire NYSE Group (NYSE, NYSE MKT, and NYSE Arca). It covers all NYSE Arca ETFs in a single view and displays all U.S. exchange listed stock updates traded on the NYSE Group. It also includes all NASDAQ issues traded on NYSE Arca and NYSE MKT. (To view the individual Client Specifications for these feeds, refer to Further Information.)

The Best Bid/Offer (BBO) and Trades data is especially helpful for portfolio managers, wealth managers, retail investors, and back office employees who need to understand the indicative price of a security through leveraging the depth and breadth of our markets.

BQT consists of three independent data feeds:

- Trades
- Best Bid/Offer (BBO)
- Consolidated Volume

1.3 TRADES FEED

Trades data is delivered in its own dedicated feed with Product ID 25. It consists of 2 subsets of channelized data:

- Trades Data (1 channel) includes Tick-by-tick price and size, Trading Conditions, and Market ID
- Stock Summary Data (1 channel) includes Open, High, Low, Last and Aggregated Volume

Trades Feed Publication Times for Normal Days (US Eastern Time)

MSGTYPE	DESCRIPTION	NYSE / NYSE MKT	NYSE ARCA
32	Consolidated Symbol Clear Message	2:00am – 4:00pm	1:00am – 8:00pm
33	Consolidated Trading Session Change Message	Not Published	4:00am – 8:00pm
34	Consolidated Security Status Message	2:00am – 4:00pm	1:00am – 8:00pm
220	Consolidated Trade Message	9:30am – 4:00pm	4:00am – 8:00pm
221	Consolidated Trade Cancel/Bust Message	9:30am – 4:00pm	4:00am – 8:00pm
222	Consolidated Trade Correction Message	9:30am – 4:00pm	4:00am – 8:00pm
229	Consolidated Stock Summary Message	9:30am – 4:00pm	4:00am – 8:00pm

Trades Feed Publication Times for Early Close Days (US Eastern Time)

For full details of early closing days see http://www.nyx.com/en/holidays-and-hours/nyse and http://www.nyx.com/holidays-and-hours/nyse and http://www.nyx.com/holidays-and-hours/nyse and http://www.nyx.com/holidays-and-hours/nyse and <a href="http://www.nyx.com/holidays-and-hours/nyse and <a href="http://www.nyx.com/holidays-and-hours/nyse and <a hr

MSGTYPE	DESCRIPTION	NYSE / NYSE MKT	NYSE ARCA
32	Consolidated Symbol Clear Message	2:00am - 1:00pm	1:00am – 1:00pm
33	Consolidated Trading Session Change Message	Not Published	4:00am – 1:00pm
34	Consolidated Security Status Message	2:00am – 1:00pm	1:00am – 1:00pm
220	Consolidated Trade Message	9:30am – 1:00pm	4:00am – 1:00pm
221	Consolidated Trade Cancel/Bust Message	9:30am – 1:00pm	4:00am – 1:00pm
222	Consolidated Trade Correction Message	9:30am – 1:00pm	4:00am – 1:00pm

MSGTYPE	DESCRIPTION	NYSE / NYSE MKT	NYSE ARCA
229	Consolidated Stock Summary Message	9:30am – 1:00pm	4:00am – 1:00pm

1.4 BEST BID/OFFER (BBO) FEED

BBO data is delivered in its own dedicated feed with Product ID 26. It consists of 2 subsets of channelized data:

- a) BBO Data (channels 1-4) includes Bid/Ask Price, Bid/Ask Size, Quote Condition, Market ID.
- b) Consolidated Volume Data (channels 5-12)

BBO Feed Publication Times for Normal Days (US Eastern Time)

MSGTYPE	DESCRIPTION	NYSE / NYSE MKT	NYSE ARCA
32	Consolidated Symbol Clear Message	2:00am - 1:00pm	2:00am – 1:00pm
33	Consolidated Trading Session Change Message	Not Published	4:00am – 1:00pm
34	Consolidated Security Status Message	2:00am – 4:00pm	2:00am – 8:00pm
142	BQT Message	9:30am – 4:00pm	4:00am – 8:00pm
143	Consolidated Single-Sided Quote Message	9:30am – 4:00pm	4:00am – 8:00pm
240	Consolidated Volume Message	9:30am – 4:00pm	4:00am – 8:00pm

BBO Feed Publication Times for Early Close Days (US Eastern Time)

For full details of early closing days, see http://www.nyx.com/en/holidays-and-hours/nyse and http://www.nyx.com/en/holidays-and-hours/arca.

MSGTYPE	DESCRIPTION	NYSE / NYSE MKT	NYSE ARCA
32	Consolidated Symbol Clear Message	2:00am - 1:00pm	2:00am – 1:00pm
33	Consolidated Trading Session Change Message	Not Published	4:00am – 1:00pm
34	Consolidated Security Status Message	2:00am – 4:00pm	2:00am – 8:00pm
142	BQT Message	9:30am – 1:00pm	4:00am – 1:00pm
143	Consolidated Single-Sided Quote Message	9:30am – 1:00pm	4:00am – 1:00pm
240	Consolidated Volume Message	9:30am – 4:00pm	4:00am – 8:00pm

1.5 CONSOLIDATED VOLUME FEED

Consolidated Volme data is derived from SIP data (CTA and UTP). The information in it contains input from all SIP participant exchanges, not just the NYSE Group exchanges. For this reason, Consolidated Volumes will not match the Aggregated Volumes published in the BQT Stock Summary channel.

There are 8 Consolidated Volume channels, with channel IDs 5 to 12.

- Channels 5 to 8 publish NYSE-, Arca- and MKT-listed stocks and 9 to 12 publish NASDAQ-listed stocks. Within each 4-channel market group, messages are channelized in alphabetic symbol ranges.
- Only message types 240 (Consolidated Volume Message) and 34 (Consolidated Security Status Message) are published on the consolidated volume channels.
- There are retrans and refresh channels for each of the live consolidated volume channels.

Refresh is available for the consolidated volume channels, it will however contain only message types 240 and 34, no symbol index mappings are available from either live or refresh consolidated volume channels. Symbol index mappings need to be taken from either the trades or the BBO lines.

1.6 DATA DELIVERY

Clients subscribe to redundant pairs of multicast groups to receive real-time market data messages. In order to recover from errors (sequence number gaps, late starts, client feed handler failures, etc.) clients can connect to a TCP/IP server and request retransmissions and refresh data, which is delivered over additional multicast channels.

In addition to the production environment, a client certification environment is available during normal business hours.

For full details refer to the XDP Common Client Specification. For specific IP addresses, please refer to http://www.nyxdata.com/ipaddresses.

1.7 CONTROL MESSAGE TYPES USED IN NYSE BQT

The set of control messages used in NYSE BQT follows. For further details, refer to the XDP Common Client Specification.

MSGTYPE	DESCRIPTION
1	Sequence Number Reset Message
3	Symbol Index Mapping Message
10	Retransmission Request Message
11	Request Response Message
12	Heartbeat Response Message
13	Symbol Index Mapping Request Message
15	Refresh Request Message
31	Message Unavailable Message
32	Consolidated Symbol Clear Message
33	Consolidated Trading Session Change Message
34	Consolidated Security Status Message
35	Refresh Header Message

1.7.1 Note on Symbol Index Mapping Message (3)

More than one Symbol Index Mapping message may be published for the same symbol in the same feed. In this case the data in the most recent message should supersede anything previously published.

The Price Scale Code field in the Symbol Index Mapping message published in the Trades feed may be different from the one published in the BBO feed.

When published from NYSE BQT, the Symbol Index Mapping message (for details see the XDP Common Client Specification) has values of zero ('0') for the following fields:

- Market ID
- System ID
- Prev Close Price
- Prev Close Volume

1.7.2 Note on Market IDs

The Market ID 0 (NYSE Group, or BQT) can sometimes appear in certain BQT messages. This can occur when no valid information is available from any upstream market. For example, an empty quote can occur when there is no valid quote available for a certain instrument because all existing quotes have been cancelled or are not eligible for BBO calculations.

2. Quote Messages

BBO Rules

The "best" quote-side (bid or offer) is determined by Price/Volume/Time rules:

- 1. The best quote-side is the bid with the highest price or the offer with the lowest price
- 2. If the prices are equal, the best quote-side is the one with the highest volume
- 3. If prices and volumes are equal, the best quote-side is the one that was received by the NYSE BQT publisher first

2.1 CONSOLIDATED SYMBOL CLEAR MESSAGE – MSG TYPE '32'

In case of a failure and recovery of an upstream Matching Engine or XDP Publisher, the publisher may send a full state refresh for every symbol affected. This kind of unrequested refresh is preceded by a Symbol Clear message. The client should react to receipt of a Symbol Clear message by clearing all state information for the specified symbol in anticipation of receiving a full state refresh.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 22 bytes
Msg Type	2	2	Binary	The type of message 32 – Consolidated Symbol Clear
Source Time	4	4	Binary	The time when this msg was generated in the order book, in seconds since Jan 1, 1970 00:00:00 UTC.
Source Time NS	8	4	Binary	The nanosecond offset from the SourceTime
Symbol Index	12	4	Binary	The unique ID of the symbol in the Symbol Index msg
Next Source Seq Number	16	4	Binary	The source sequence number value that the recipient should expect in the immediately succeeding data packet for the specified symbol.
Market ID	20	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT

2.2 CONSOLIDATED TRADING SESSION CHANGE MESSAGE – MSG TYPE 33

This message is sent on both the BBO feed and the Trades feed.

This message notifies clients of a trading session change for a specific symbol on a specific exchange. The Market ID allows clients to know which exchange is involved.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 23 bytes
Msg Type	2	2	Binary	The type of message 32 – Consolidated Symbol Clear
Source Time	4	4	Binary	The time when this msg was generated in the order book, in seconds since Jan 1, 1970 00:00:00 UTC.
Source Time NS	8	4	Binary	The nanosecond offset from the SourceTime
Symbol Index	12	4	Binary	The unique ID of the symbol in the Symbol Index msg
Symbol Seq Number	16	4	Binary	The unique ID of this message in the sequence of messages published for this specific symbol.
Trade Session	20	1	Binary	A Trading Session can be a combination of the three-bit values: 0x01 – Ok for morning hours 0x02 – Ok for national hours (core) 0x04 – Ok for late hours
Market ID	21	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT

2.3 CONSOLIDATED SECURITY STATUS MESSAGE - MSG TYPE 34

This message is sent on both the BBO feed and the Trades feed.

This message will be sent to inform the subscribers of Trading Halts on the securities traded. The Market ID allows clients to know which exchange is involved.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 46 bytes
Msg Type	2	2	Binary	The type of this message 34 – Consolidated Security Status message
Source Time	4	4	Binary	The time when this msg was generated in the order book, in seconds since Jan 1, 1970 00:00:00 UTC.
Source Time NS	8	4	Binary	The nanosecond offset from the SourceTime
Symbol Index	12	4	Binary	The unique ID of the symbol in the Symbol Index msg
Symbol Seq Number	16	4	Binary	The unique ID of this message in the sequence of messages published for this specific symbol.
Security Status	20	1	ASCII	The new status that this security is transitioning to. The following are Halt Status Codes: '3' - Opening Delay (NYSE/MKT only) '4' - Trading Halt '5' - Resume '6' - No open/no resume (NYSE/MKT only) The following are Short Sale Restriction Codes: 'A' - Short Sale Restriction Activated (Day 1) 'C' - Short Sale Restriction Continued (Day 2) 'D' - Short Sale Restriction Deactivated NYSE Market State values: 'O' - Opened 'P' - Pre-opening 'X' Closed The following values are the Price Indication values: 'T' - T - Time 'I' - Price Indication 'G' - Pre-Opening Price Indication 'R' - Rule 15 Indication.
Halt Condition	21	1	ASCII	 0x20 – Not applicable '~' – Security not delayed/halted 'D' – News dissemination 'I' – Order imbalance 'P' – News pending 'M' – Volatility Trading Pause 'X' – Equipment changeover 'Z' – No open/No resume Market Wide Circuit Breakers: '1' - Market Wide Circuit Breaker Halt Level 1 '2' - Market Wide Circuit Breaker Halt Level 2 '3' - Market Wide Circuit Breaker Halt Level 3

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Market ID	22	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT
Reserved	24	2	Binary	Future use. Any field content should be ignored.
Price 1	26	4	Binary	 Default value is 0. If securityStatus = 'A', then this is the SSR Triggering Trade Price If securityStatus = 'G', then this is Pre-Opening Low Price Indication. If securityStatus = 'I', then this is Low Price Indication If securityStatus = 'R', then this is Rule 15 Low Indication Price.
Price 2	30	4	Binary	 Default value is 0 If securityStatus = 'I', then this is High Price Indication If securityStatus = 'G', then this is Pre-Opening Price Indication If securityStatus = 'R', then this is Rule 15 High Price Indication
SSR Triggering Exchange ID	34	1	ASCII	This field is only populated when securityStatus = 'A', and otherwise is defaulted to '0x20'. Valid values are: 'N' – NYSE 'P' – NYSE Arca 'Q' – NASDAQ 'A' – NYSE MKT 'B' – NASDAQ OMX BX 'C' – NSX 'D' – FINRA 'I' – ISE 'J' – EDGA 'K' – EDGX 'M' – CHX 'S' – CTS 'T' – NASDAQ OMX 'W' – CBSX 'X' – NASDAQ OMX 'W' – CBSX 'X' – NASDAQ OMX PSX 'Y' – BATS Y 'Z' – BATS
SSR Triggering Volume	35	4	Binary	Default value is 0. This field is only populated when securityStatus = 'A'
Time	39	4	Binary	Format: HHMMSSmmm (mmm = milliseconds) If securityStatus = 'A', then this is SSR Trigger Time If securityStatus = 'T', then it is T-Time (mmm

				always = 000) Default value is 0.
SSRState	43	1	ASCII	The current SSR state, which this msg updates if the Security Status field contains an SSR Code. Valid values: '~' – No Short Sale Restriction in Effect 'E' – Short Sale Restriction in Effect Default value is 0.
MarketState	44	1	ASCII	The current Market State, which this msg updates if the Security Status field contains a Market State Code. Valid values: 'O' – Opened 'P' – Pre-Opening 'X' – Closed Default value is 0.
SessionState	45	1	ASCII	The current Session State. Valid values: 'X' – Early Session State 'Y' – Core Session State 'Z' – Late Session State Default value is 0.

2.4 BQT MESSAGE – MSG TYPE 142

This message is sent when an event causes a change in one or both sides of the BBO. The output shows changes to BBO only. Individual market quotes that do not affect the BBO are not disseminated.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 35 bytes
Msg Type	2	2	Binary	The type of message 142 – BQT Message
Symbol Index	4	4	Binary	The unique ID of the symbol in the Symbol Index msg
Symbol Seq Number	16	4	Binary	The unique ID of this message in the sequence of messages published for this specific symbol.
Ask Price	12	4	Binary	The Ask price. Use the Price scale from the symbol mapping index.
Ask Volume	16	4	Binary	The Ask size.
Bid Price	20	4	Binary	The Bid price. Use the Price scale from the symbol mapping index.
Bid Volume	24	4	Binary	The Bid size.
Ask Quote Condition	28	1	ASCII	 'C' - Closing 'O' - Opening Quote 'R' - Regular Quote 'W' - Slow on the Bid and Ask due to a "Set Slow List"
Bid Quote Condition	29	1	ASCII	 'C' - Closing 'O' - Opening Quote 'R' - Regular Quote 'W' - Slow on the Bid and Ask due to a "Set Slow List"
Retail Pricing Indicator	30	1	Binary	Bit field: 0x00 No Retail Interest 0x01 Retail Interest on the Bid side 0x02 Retail Interest on the Ask side 0x03 Combination of Retail Interest on Bid & Ask side
Market ID of Best Ask	31	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT
Market ID of Best Bid	33	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT

2.5 CONSOLIDATED SINGLE-SIDED QUOTE MESSAGE – MSG TYPE 143

This message is sent when an event causes a change in only one side of a BBO.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 25 bytes
Msg Type	2	2	Binary	The type of message 143 – Consolidated Single-Sided Quote
Symbol Index	4	4	Binary	The unique ID of the symbol in the Symbol Index msg
Symbol Seq Number	16	4	Binary	The unique ID of this message in the sequence of messages published for this specific symbol.
Side	12	1	ASCII	Tthe side of the order - Buy/Sell. Valid values: 'B' – Buy 'S' – Sell (Offer)
Price	13	4	Binary	The price. Use the PriceScaleCode in the Symbol Mapping msg). See the XDP Common Client Specification .
Volume	17	4	Binary	The order quantity in shares.
Quote Condition	21	1	ASCII	 'C' - Closing 'O' - Opening Quote 'R' - Regular Quote 'W' - Slow on the Bid and Ask due to a "Set Slow List" 0x00 - empty quote (there is no BBO available for the given instrument)
Retail Pricing Indicator	22	1	ASCII	Bit field: 0x00 No Retail Interest 0x01 – Retail Interest on the Bid side 0x02 – Retail Interest on the Ask side 0x03 – Combination of Retail Interest on Bid & Ask side
Market ID	23	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT

3. Trade Messages

Several message types that appear in the Trades feed are sent on both the Trades and the BBO feeds, and are documented under BBO Messages. These message types are:

- Consolidated Symbol Clear Message Msg Type 32
- Consolidated Trading Session Change Message Msg Type 33
- Consolidated Security Status Message Msg Type 34

3.1 CONSOLIDATED TRADE MESSAGE – MSG TYPE 220

The Trade messages provided on the Trades feed are the same Trade messages provided to the CTA. All Trades are passed through and marked with the originating Market ID.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 56 bytes
Msg Type	2	2	Binary	The type of message 220 – Consolidated Trade message
Source Time	4	4	Binary	The time when this msg was generated in the order book, in seconds since Jan 1, 1970 00:00:00 UTC.
Source Time NS	8	4	Binary	The nanosecond offset from the SourceTime
Symbol Index	12	4	Binary	The unique ID of the symbol in the Symbol Index msg
Symbol Seq Number	16	4	Binary	The unique ID of this message in the sequence of messages published for this specific symbol.
Trade ID	20	4	Binary	The unique Trade ID assigned by the source system
Price	24	4	Binary	Tthe price of the trade. Use the Price scale from the Symbol Mapping msg.
Volume	28	4	Binary	Volume of the trade.
Trade Condition 1	32	1	ASCII	Settlement related conditions. '@' - Regular Sale 'C' - Cash 'N'- Next Day Trade 'R' - Seller
Trade Condition 2	33	1	ASCII	The reason for Trade Through Exemptions. '0x20' - N/A 'F' - Intermarket Sweep Order 'O' - Market Center Opening Trade '5' - Market Center Reopening Trade '6' - Market Center Closing Trade '9' - Corrected Last Sale Price
Trade Condition 3	34	1	ASCII	Extended hours/sequencing related conditions '0x20' - N/A 'L' - Sold Last 'T' - Extended Hours Trade 'U' - Extended Hours Sold (Out of Sequence) 'Z' - Sold
Trade Condition 4	35	1	ASCII	SRO Required Detail. '@' - Regular Sale '0x20' - N/A 'E' - Automatic Execution 'H' - Price Variation Trade 'I' - Odd Lot Trade 'K' - Rule 127 (NYSE only) or Rule 155 (NYSE MKT Only)

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
				'M' – Official Closing Price'Q' – Official Open Price
Trade Through Exempt	36	1	ASCII	'X' – 611 Trade through Exempt'0x20' – N/A
Liquidity Flag	37	1	Binary	This field indicates which side added liquidity to the trade. Bit Shift values: Ox01 Buy Side Ox02 Sell Side Ox04 No Liquidity added. A value of 32 or ' ' denotes information not available from source system.
Ask Price	38	4	Binary	The Ask price of the last quote at the time of the trade. Use the Price scale from the symbol mapping index.
Ask Volume	42	4	Binary	The Ask size of the last quote at the time of the trade.
Bid Price	46	4	Binary	The Bid price of the last quote at the time of the trade. Use the Price scale from the symbol mapping index.
Bid Volume	50	4	Binary	The Bid size of the last quote at the time of the trade.
Market ID	54	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT

3.2 CONSOLIDATED TRADE CANCEL/BUST MESSAGE - MSG TYPE 221

This message is sent when a trade is cancelled.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 26 bytes
Msg Type	2	2	Binary	The type of message 221 – Consolidated Trade Cancel/Bust
Source Time	4	4	Binary	The time when this msg was generated in the order book, in seconds since Jan 1, 1970 00:00:00 UTC.
Source Time NS	8	4	Binary	The nanosecond offset from the SourceTime
Symbol Index	12	4	Binary	The unique ID of the symbol in the Symbol Index msg
Symbol Seq Number	16	4	Binary	The unique ID of this message in the sequence of messages published for this specific symbol.
Trade ID	20	4	Binary	The ID of trade being cancelled.
Market ID	24	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT

3.3 CONSOLIDATED TRADE CORRECTION MESSAGE – MSG TYPE 222

This message is sent when a trade is corrected.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 43 bytes
Msg Type	2	2	Binary	The type of message 222 – Consolidated Trade Correction
Source Time	4	4	Binary	The time when this msg was generated in the order book, in seconds since Jan 1, 1970 00:00:00 UTC.
Source Time NS	8	4	Binary	The nanosecond offset from the SourceTime
Symbol Index	12	4	Binary	The unique ID of the symbol in the Symbol Index msg
Symbol Seq Number	16	4	Binary	The unique ID of this message in the sequence of messages published for this specific symbol.
Original Trade ID	20	4	Binary	The ID of the Trade being corrected.
Trade ID	24	4	Binary	The Trade ID identifies a unique Trade execution.
Price	28	4	Binary	The price of the trade. Use the Price scale from the symbol mapping index.
Volume	32	4	Binary	Volume of the trade.
Trade Condition 1	36	1	ASCII	This field contains settlement related conditions. '@' – Regular Sale 'C' – Cash 'N'– Next Day Trade 'R' – Seller
Trade Condition 2	37	1	ASCII	This field contains a Reason for Trade Through Exemptions. '0x20' - N/A 'F' - Intermarket Sweep Order 'O' - Market Center Opening Trade '4' - Derivatively Priced '5' - Market Center Reopening Trade '6' - Market Center Closing Trade '9' - Corrected Last Sale Price
Trade Condition 3	38	1	ASCII	This field contains extended hours/sequencing related conditions. '0x20' – N/A 'L' – Sold Last 'T' – Extended Hours Trade 'U' – Extended Hours Sold (Out of Sequence) 'Z' – Sold
Trade Condition 4	39	1	ASCII	This field contains the SRO Required Detail. '@' – Regular Sale '0x20' – N/A B' – Average Price Trade E' – Automatic Execution H' – Price Variation Trade I' – Odd Lot Trade KK – Rule 127 (NYSE only) or Rule 155 (NYSE MKT Only) M' – Official Closing Price P' – Prior Reference Price Q' – Official Open Price V' – Stock-Option Trade X' – Cross Trade

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Trade Through Exempt	40	1	ASCII	'X' – 611 Trade through Exempt'0x20' – N/A
Market ID	41	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT

3.4 CONSOLIDATED STOCK SUMMARY MESSAGE – MSG TYPE 229

The stock summary message is sent every 1 minute regardless of whether there is a change to a particular value or not. In the event that there is no volume on the stock, the stock summary message will not be disseminated.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 39-57 bytes. Note: The Msg Size varies with the 'Num Close Prices' field.
Msg Type	2	2	Binary	The type of message 229 – Consolidated Stock Summary
Source Time	4	4	Binary	The time when this msg was generated in the order book, in seconds since Jan 1, 1970 00:00:00 UTC.
Source Time NS	8	4	Binary	The nanosecond offset from the SourceTime
Symbol Index	12	4	Binary	The unique ID of the symbol in the Symbol Index msg
High Price	16	4	Binary	The High price of the stock for the day. Use the Price scale from the symbol mapping index.
Low Price	20	4	Binary	The Low price of the stock for the day. Use the Price scale from the symbol mapping index.
Open	24	4	Binary	The Opening price of the stock for the day. Use the Price scale from the symbol mapping index.
Total Volume	28	4	Binary	The cumulative volume for the stock throughout the day.
Market ID of High Price	32	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT
Market ID of Low Price	34	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT
Market ID of Open Price	36	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT
Num Close Prices	38	1	Binary	The number of Market ID/Closing Price pairs. Values can be 0–3.
Market ID of the Close	39	2	Binary	The ID of the Originating Market: 0 – NYSE Group (BQT) 1 – NYSE 3 – NYSE Arca 9 – NYSE MKT
Close	41	4	Binary	The Closing price of the stock for the day. Use the Price scale from the symbol mapping index. Note: The 'Market ID of the Close' field and the 'Close' field repeat as a pair for 'Num Close Prices' times.

4. Consolidated Volume Message

Message types 240 (Consolidated Volume Message) and 34 (Consolidated Security Status Message) are published on the consolidated volume channels.

<u>Consolidated Security Status Message – Msg Type 34</u> is documented under BBO Messages.

FIELD NAME	OFFSETS	SIZE (BYTES)	FORMAT	DESCRIPTION
Msg Size	0	2	Binary	Size of the message: 18 bytes.
Msg Type	2	2	Binary	The type of message 240 – Consolidated Volume message
Symbol Index	4	4	Binary	The unique ID of the symbol in the Symbol Index msg
Symbol Seq Number	16	4	Binary	The unique ID of this message in the sequence of messages published for this specific symbol.
Total Volume	12	4	Binary	The cumulative volume for the stock throughout the day.
Reason	16	1	Binary	Reason for this update 0 - New trade 1 - Trade Cancellation 2 - Trade Error 3 - Trade Correction 4 - Closing/End Trade Summary (Synchronization with CTS and UTDF for NYSE listed and NASDAQ symbols separately)
Complete	17	1	Binary	 0 – Normal. Data is complete. 1 – An unrecoverable gap was experienced in the input stream, so data may not be complete.

5. Product ID and Market ID

PRODUCT ID	CHANS	DESCRIPTION
25	1	NYSE BQT Trades
25	N/A	NYSE BQT Stock Summaries (no retrans/refresh available)
	1 - 4	NYSE BQT BBO
26	5 - 8	NYSE BQT Consolidated Volume, CTA symbols
	9 - 12	NYSE BQT Consolidated Volume, UTP symbols

EXCHANGE	MARKET ID
NYSE Group	0