NYSE

TAQ XDP PRODUCTS CLIENT SPECIFICATION
INTEGRATED, BBO, TRADES AND IMBALANCES FEEDS

NYSE

NYSE AMERICAN

NYSE ARCA

NYSE NATIONAL

Version	Date
2.2c	April 30, 2019

PREFACE

DOCUMENT HISTORY

VERSION NO.	DATE	CHANGE DESCRIPTION
2.1	Feb 24, 2017	Changes for XDP 2.1 Increased accuracy of all timestamps to nanoseconds (nnnnnnnnn) New values E and L in Security Status and Market State fields of Security Status message Added exchange code V for IEX in Security Status message Blanked out DB Exec ID field in Execution and Non-Displayed Trade msgs Added Retail Price Improvement msg, type 114 Added Indicative Match Price field to Imbalance msg RPI Indicator in Quote message now published by the Arca exchange
2.1a	Apr 25, 2017	Appendix B: corrected ftp file extensions to .gz and explanatory text
2.1b	May 18, 2017	Added new fields to Imbalance msg to support LULD amendment 12 Corrected external links and contact information
2.1c	May 25, 2017	Clarified/corrected Data Type information in 2.2 Corrected certain formatting
2.1d	September 12, 2017	**no changes in feed behavior, only spec clarifications** Updated Imbalance msg field descriptions and Appendix A to include specialized information for NYSE Tape A symbols Added NYSE to message publication times Corrected description of DBExecID field for NYSE Tape A symbols
2.1e	November 17, 2017	Updated doc to reflect correct NYSE Integrated Tape A filenames during interim (January 18, 2018 to Q2 2018) interim period
2.1f	December 04, 2017	Updated to mention that for Arca TAQ XDP products only, Symbol Index Mapping Message fields “MPV” and “Unit of Trade” may be blank until a date TBD
2.1g	February 02, 2018	Updated to include the NYSE National exchange
2.1h	May 01, 2018	Updated to accommodate other markets. Updated to include the new product offerings for historical TAQ NYSE Arca BBO and TAQ NYSE Arca Order Imbalances. Updated doc to include changes for TAQ NYSE Arca Trades in alignment with the real-time NYSE Arca Trades Feed. Eliminated a separate file for TAQ NYSE Arca Bust. TAQ NYSE Arca Trade includes Message types 220,221,222,and 223. Updated the access platform from NYSE FTP2(ftp2.nyxdata.com) to Managed File Transfer (MFT) on https://mftus.nyx.com/. MPV & Unit of Trade fields in the Symbol Index Mapping Message (Msg Type 3) are now populated for NYSE ARCA as with all markets. File name change for TAQ NYSE Arca Trades from EQY_US_ALL_ARCA_TRADE/EQY_US_ALL_ARCA_TRADE_YYYY/ EQY_US_ALL_ARCA_TRADE_YYYYMM/TAQ_ArcaEq_Trade_YYYYMMDD.csv.gz

VERSION NO.	DATE	CHANGE DESCRIPTION
		Updated the Imbalance the Clearing Price fields and 7 trailing fields – no longer set to 0 for Arca and American. Corrected 7 trailing fields: for NYSE, 0 for now.
2.2	November 30, 2018	Updated to include NYSE Tape A changes, specifically to the Imbalance Message, Msg Type 105 (3 additional fields – UnpairedQty, UnpairedSide, SignificantImbalance). Additional information on NYSE Auctions.
2.2a	January 31, 2019	Added support for the publication NYSE TRF Market Data - New Message Types 215 - 219.
2.2b	March 18, 2019	Additional clarification on new TRF filename and additional Integrated Feed files. Updated imbalance publication timer in NYSE to 3:50pm. Added Appendix C with additional historical TAQ file availability. Eliminated quote conditions in Quote Message (140) - C and W (NYSE only)
2.2c	April 30, 2019	Updated Trade Conditions for the TRF Market Data messages (Msg Type 215 - 219).

RELATED DOCUMENTS

NYSE Symbology Specification

Integrated Feed
BBO Feed
Trades Feed
Imbalances Feed

CONTACT INFORMATION

- Service Desk data.services@nyse.com
- Connectivity connectivity@nyse.com
- Proprietary Market Data MarketDataHelp@nyse.com

FURTHER INFORMATION

- For additional information about the product, visit the NYSE Historical Market Data Product Page

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1. TAQ XDP Integrated, BBO, Trades and Imbalance Products

1.1 OVERVIEW

In NYSE Group nomenclature, the term TAQ simply denotes a historical data product.

The TAQ XDP Products are a historical record of all data that was published by the NYSE XDP feeds on a particular day. Each TAQ XDP product corresponds to a single NYSE XDP real time feed.

Feed TAQ data is available on an end-of-day basis in flat file format, enabling you to recreate the market for any given time. On a per-market basis, the following feeds are available in TAQ format:

PRODUCT	MARKETS
TAQ NYSE Integrated Feed	NYSE, NYSE American, NYSE Arca, NYSE National
TAQ NYSE BBO	NYSE, NYSE American, NYSE Arca, NYSE National
TAQ NYSE Trades	NYSE, NYSE American, NYSE Arca, NYSE National, NYSE TRF
TAQ NYSE Order Imbalances	NYSE, NYSE American, NYSE Arca

1.2 ACCESS AND DATA FORMAT

All TAQ XDP product files consist of newline-terminated records in ASCII CSV format. The files are compressed using GNU Zip, and can be downloaded via NYSE Managed File Transfer (MFT) Site, https://mftus.nyx.com/.

For information on file paths and filenames, see Appendix B.

Note that previously, two formats were supported: this CSV format, and a pipe-delimited zipped format. The pipe-delimited format has been eliminated.

Each record in the TAQ file corresponds to a single data event in the real time feed. TAQ file records are in the same order as the data events were in the real time feed.

1.3 NYSE PRODUCTS

1.3.1 NYSE Product Characteristics

PRODUCT	DATA CHANNEL FILES	STOCK SUMMARY FILE	APPROX TOTAL FILE SIZE
TAQ NYSE Integrated Feed	4	Y	4 GB
TAQ NYSE BBO	2	N	1 GB
TAQ NYSE Trades	2	Y	100 MB
TAQ NYSE Order Imbalances	1	N	200 MB

1.3.2 NYSE American Product Characteristics

PRODUCT	DATA CHANNEL FILES	STOCK SUMMARY FILE	APPROX FILE SIZE
TAQ NYSE American Integrated	8	Y	50 MB
TAQ NYSE American BBO	2	N	20 MB
TAQ NYSE American Trades	1	Y	2 MB
TAQ NYSE American Imbalances	1	N	200 KB

1.3.3 NYSE Arca Product Characteristics

PRODUCT	DATA CHANNEL FILES	STOCK SUMMARY FILE	APPROX FILE SIZE
TAQ NYSE Arca Integrated	8	Y	4 GB
TAQ NYSE Arca Trades	1	Y	100 MB
TAQ NYSE Arca BBO	2	N	1 GB
TAQ NYSE Arca Order Imbalance	1	N	200 MB

1.3.4 NYSE National Product Characteristics

PRODUCT	DATA CHANNEL FILES	STOCK SUMMARY FILE	APPROX FILE SIZE
TAQ NYSE National Integrated	8	Y	50 MB
TAQ NYSE National BBO	2	N	20 MB
TAQ NYSE National Trades	1	Y	2 MB

1.4 SAMPLE DATA

Sample data is available on the NYSE public ftp server.

1.5 CONTRACTS AND LICENSING

Subscribers must execute the appropriate agreement (Exhibit A and/or NYSE Vendor Agreement) which will be generated upon submission of the online order from the product page for each product on the ICE dashboard. Upon the approval, NYSE will issue the credentials for accessing the data on the Managed File Transfer (MFT) platform. Please allow up to an hour for newly purchased data product(s) from the MFT directory setup to complete. Subscribers may download the data once and place the data on their internal database for internal users to access the data.

2. Message and Field Level Data

2.1 DISTRIBUTION OF MESSAGE TYPES AMONG TAQ XDP FILE PRODUCTS

Each TAQ XDP product contains a subset of all the message types described in this document, as shown below.

MSG TYPE	DESCRIPTION	INTEGRATED	BBO	TRADES	IMBALANCES
3	Symbol Index Mapping Message	Y	Y	Y	Y
34	Security Status Message	Y	Y	Y	Y
100	Add Order Message	Y			
101	Modify Order Message	Y			
104	Replace Order Message	Y			
102	Delete Order Message	Y			
103	Order Execution Message	Y			
110	Non-Displayed Trade Message	Y			
112	Trade Cancel Message	Y			
111	Cross Trade Message	Y			
113	Cross Correction Message	Y			
114	Retail Price Improvement Msg	Y			
105	Imbalance Message	Y			Y
106	Add Order Refresh Message	Y			
140	Quote Message		Y		
220	Trade Message			Y	
221	Trade Cancel Message			Y	
222	Trade Correction Message			Y	
223	Stock Summary Message	Y		Y	
215	TRF Trade Message			Y	
216	TRF Trade Cancel Message			Y	
217	TRF Trade Correction Message			Y	
218	TRF Prior Day Trade Message			Y	
219	TRF Prior Day Trade Cancel Message			Y	

2.2 DATA TYPES

1. Numeric fields consist of numeric ASCII characters only (0-9).
2. Alpha fields consist of alphabetic ASCII characters only (a-z and A-Z).
3. Prices are in decimal format. Examples; “25.222”, “0.125”, “100.6”, “2.30”, “4.444’ except for the UpperCollar and LowerCollar fields (Imbalance Message - Msg Type 105)
4. A sequence number is an increasing number that uniquely identifies each message per channel. It starts the day at 1 and increments by 1 for each new message per channel.
5. Timestamps are in hours, minutes, seconds, and nanoseconds, eg: “12:32:44.123456789”.
6. For all default values of 0 and spaces in the real time feeds, the value in CSV is blank, eg: “,,”, except as explicitly noted.
7. All symbols are expressed in NYSE Symbology.

3. Symbol Index Mapping Message (Msg Type 3)

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of this message: 3 – Symbol Index Mapping Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
Symbol	3	ASCII	See NYSE Symbology Specification
Market ID	4	Numeric	ID of the Originating Market: ▪ 1 – NYSE ▪ 3 – NYSE Arca Equities ▪ 4 – NYSE Arca Options ▪ 5 – NYSE Bonds ▪ 6 – Global OTC ▪ 8 – NYSE Amex Options ▪ 9 - NYSE American Equities ▪ 10 - NYSE National Equities
System ID	5	Numeric	ID of the originating matching engine server
Exchange Code	6	Alpha	Exchange where the this symbol is listed: ▪ 'N' – NYSE ▪ 'C' - NYSE National ▪ 'P' – NYSE Arca ▪ 'Q' – NASDAQ ▪ 'A' – NYSE American ▪ 'U' – OTCBB symbols for Global OTC ▪ 'V' – Other OTC symbols for Global OTC ▪ 'Z' – BATS
Security Type	7	Alpha	Type of Security used by Arca, American and National: ▪ 'A' – ADR ▪ 'C' - COMMON STOCK ▪ 'D' – DEBENTURES ▪ 'E' – ETF ▪ 'F' – FOREIGN ▪ 'H' – AMERICAN DEPOSITARY SHARES ▪ 'I' – UNITS ▪ 'L' – INDEX LINKED NOTES ▪ 'M' - MISC/LIQUID TRUST ▪ 'O' – ORDINARY SHARES ▪ 'P' - PREFERRED STOCK ▪ 'R' – RIGHTS ▪ 'S' - SHARES OF BENEFICIARY INTEREST

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
			▪ 'T' – TEST ▪ 'U' – UNITS ▪ 'W' – WARRANT Type of Security used by NYSE: ▪ 'A' – COMMON STOCK ▪ 'B' – PREFERRED STOCK ▪ 'C' – WARRANT ▪ 'D' – RIGHT ▪ 'E' – CORPORATE BOND ▪ 'F' – TREASURY BOND ▪ 'G' – STRUCTURED PRODUCT ▪ 'H' – ADR COMMON ▪ 'I' – ADR PREFERRED ▪ 'J' – ADR WARRANTS ▪ 'K' – ADR RIGHTS ▪ 'L' – ADR CORPORATE BOND ▪ 'M' – NY REGISTERED SHARE ▪ 'N' – GLOBAL REGISTERED SHARE ▪ 'O' – INDEX ▪ 'P' – FUND ▪ 'Q' – BASKET ▪ 'R' – UNIT ▪ 'S' – LIQUIDATING TRUST ▪ 'U' - UNKNOWN
Lot Size	8	Numeric	Round lot size in shares
PrevClosePrice	9	Numeric	The previous day's closing price for this security
PrevCloseVolume	10	Numeric	The previous day's closing volume for the security
Price Resolution	11	Numeric	▪ 0 - All Penny ▪ 1 - Penny/Nickel ▪ 5 - Nickel/Dime
Round Lot	12	Alpha	Round Lots Accepted: ▪ 'Y' – Yes ▪ 'N' – No
MPV	13	Numeric	The minimum increment for a trade price, in 100ths of a cent. Typically 1, or $0.0001, but for some Tick Pilot stocks can be 500, or $0.05.
Unit of Trade	14	Numeric	The security Unit of Trade in shares. Valid values are 1, 10, 50 and 100.

4. Security Status Message (Msg Type 34)

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
MsgType	1	Numeric	The type of this message: 34 – Security Status Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The unique ID of this message in the sequence of messages published for this specific symbol
Security Status	6	ASCII	The new status that this security is transitioning to. The following are Halt Status Codes: ▪ 3 - Opening Delay (NYSE Tape A only) ▪ 4 - Trading Halt ▪ 5 - Resume ▪ 6 - No open/no resume (NYSE Tape A only) The following are Short Sale Restriction Codes (published for all symbols traded on this exchange): ▪ A – Short Sale Restriction Activated (Day 1) ▪ C – Short Sale Restriction Continued (Day 2) ▪ D - Short Sale Restriction Deactivated Market Session values : ▪ P – Pre-opening ▪ E – Early session ▪ O – Core session ▪ L – Late session (Non-NYSE only) ▪ X – Closed If this security is not halted at the time of a session change, the Halt Condition field = ~. If this security is halted on a session change, Halt Condition is non-~, and the security remains halted into the new session. 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	7	ASCII	▪ Empty when not applicable ▪ '~' - Security not delayed/halted ▪ 'D' - News dissemination ▪ 'I' - Order imbalance ▪ 'P' - News pending ▪ 'M' – LULD 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
Price 1	8	Numeric	▪ 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. ▪ If none of the above, then this field is empty
Price 2	9	Numeric	▪ 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 ▪ If none of the above, then this field is empty
SSR Triggering Exchange ID	10	Alpha	Populated when securityStatus = 'A'. Empty when not populated. Valid Values are: ▪ 'N' – NYSE ▪ 'P' – NYSE Arca ▪ 'C' - NYSE National ▪ 'Q' – NASDAQ ▪ 'A' – NYSE American ▪ 'B' – NASDAQ OMX BX ▪ 'C' – NSX ▪ 'D' – FINRA ▪ 'I' – ISE ▪ 'J' – EDGA

			▪ 'K' – EDGX ▪ 'M' – CHX ▪ 'S' – CTS ▪ 'T' – NASDAQ OMX ▪ 'V' - IEX ▪ 'W' – CBSX ▪ 'X' – NASDAQ OMX PSX ▪ 'Y' – BATS Y ▪ 'Z' – BATS
SSR Triggering Volume	11	Numeric	This field is only populated when securityStatus = 'A' otherwise it's empty
Time	12	Numeric	▪ If securityStatus = 'A' , then this is SSR Trigger Time ▪ If securityStatus = 'T', then it is T-Time ▪ If none of the above, then this field is empty
SSRState	13	ASCII	Short Sale Restriction values: ▪ '~' – No Short Sale in Effect ▪ 'E' – Short Sale Restriction in Effect ▪ If information not available, then this field is empty
MarketState	14	ASCII	Market State values: ▪ 'P' – Pre-opening ▪ 'E' – Early session ▪ 'O' – Core session ▪ 'L' – Late session (Non-NYSE only) ▪ 'X' – Closed ▪ If information not avaliable, then this field is empty

5. Add Order Message – Msg Type 100

An Add Order message is published when a new visible order has been received and added to the book. The Order ID is assigned by the matching engine and is unique for this symbol for today only. It is unique across all markets, except that for NYSE Tape A symbols, it is only unique per matching engine instance.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 100 –Add Order Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
OrderID	6	Numeric	The unique ID assigned by the matching engine to this order
Price	7	Numeric	The order price
Volume	8	Numeric	The order quantity in shares
Side	9	Alpha	The side of the order (Buy/Sell). Valid values: 'B' – Buy 'S' – Sell
FirmID	10	Alpha	The market participant's firm ID, or space-filled if firm ID was not specified
NumParitySplits	11	Numeric	Resulting number of splits at this price level 0 = The number of parity splits at this price level is between 1 and 4 inclusive 5-254 = The number of parity splits at this price level 255 = 255 or more splits at this price level

6. Modify Order Message – Msg Type 101

A Modify Order message is sent when the price or volume of an order is changed due to an event other than a cancel-replace, or full or partial execution. The content of the price and volume fields represent the new values after modification.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 101 – Modify Order Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
OrderID	6	Numeric	The unique ID assigned by the matching engine to the existing order to be modified
Price	7	Numeric	The new order price
Volume	8	Numeric	The new order quantity in shares
PositionChange	9	Numeric	Currently defaulted to 0. 0 – Kept position in book 1 –Lost position in book
PrevPriceParitySplits	10	Numeric	Defaulted to 0. Future use by NYSE only. Resulting number of splits at the previous price 0 = The number of parity splits at this price level is between 1 and 4 inclusive 5-254 = The number of parity splits at this price level 255 = 255 or more splits at this price level
NewPriceParitySplits	11	Numeric	Defaulted to 0. Future use by NYSE only. Resulting number of splits at the new price (If price does not change, same as PrevPriceParitySplits) Values same as PrevPriceParitySplits

7. Replace Order Message – Msg Type 104

A Replace Order message is published when a cancel/replace order is received and executed. The sitting order is replaced with a new one containing the same symbol, side and attribution, a new Order ID, and the price and size specified. The sitting order must be removed from the book and replaced with the new order.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 104 – Replace Order Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
OrderID	6	Numeric	The unique ID assigned by the matching engine to the existing order to be replaced
NewOrderID	7	Numeric	The new Order ID of the replacement order
Price	8	Numeric	The new order price
Volume	9	Numeric	The new order quantity in shares
PrevPriceParitySplits	10	Numeric	Defaulted to 0. Future use by NYSE only. Resulting number of splits at previous price 0 = The number of parity splits at this price level is between 1 and 4 inclusive 5-254 = The number of parity splits at this price level 255 = 255 or more splits at this price level
NewPriceParitySplits	11	Numeric	Defaulted to 0. Future use by NYSE only. Resulting number of splits at the new price (If price does not change, same as PrevPriceParitySplits) Values same as PrevPriceParitySplits

8. Delete Order Message – Msg Type 102

A Delete Order message is published when an order is taken off of the book for any reason except for full execution, in which case an Order Execution message is sent.

Immediately before a trading session changes (eg: Early session to Core session), all orders that were submitted for the current or current+previous sessions are explicitly deleted with a Delete Order message.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 102 – Delete Order Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS.nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
OrderID	6	Numeric	The unique ID assigned by the matching engine to the order to be deleted
NumParitySplits	7	Numeric	Defaulted to 0. Future use by NYSE only. Resulting number of splits at the price level of the deleted order 0 = The number of parity splits at this price level is between 1 and 4 inclusive 5-254 = The number of parity splits at this price level 255 = 255 or more splits at this price level

9. Order Execution Message – Msg Type 103

An Order Execution message is sent when an order is partially or fully executed. The Volume field indicates the executed quantity. If the Price field is different from the price of the order, any remaining shares keep their original price. If the Volume field equals the number of shares previously remaining in the order, then the order has been fully executed and should be removed from the book. If the order has been partially executed, further Order Execution messages for this Order ID may be published.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 103 – Order Execution Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
OrderID	6	Numeric	The unique ID assigned by the matching engine to the order that was partially or fully executed
TradeID	7	Numeric	Unique ID assigned by the matching engine to this execution. Used by any subsequent Trade Cancel message to identify this execution. Allows correlation of Executions to Trades.
Price	8	Numeric	The execution price
Volume	9	Numeric	The executed quantity in shares
PrintableFlag	10	Numeric	0 = Not Printed to the SIP 1 = Printed to the SIP
NumParitySplits	11	Numeric	Defaulted to 0. Future use by NYSE only. Resulting number of splits at the price level at which the executed order was resting 0 = 1 to 4 parity splits at this price level 5-254 = The number of splits at this price level ▪ 255 = 255 or more splits at this price level

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
DBExecID	12	Numeric	For Pillar-powered markets, unused, defaulted to 0. For NYSE Tape A symbols, DB ExecID is assigned by the matching engine to all orders that participated in this trade event.

10. Non-Displayed Trade Message – Msg Type 110

A Non Displayed Trade message is sent as a result of a match between two non-displayed orders.

Customers who are only interested in building a book of displayed orders may safely ignore Non-Displayed Trade messages. Customers who are creating statistics or displays requiring the full record of trades in this market will need to process Non-Displayed Trade messages.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 110 – Non-Displayed Trade Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS.nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
TradeID	6	Numeric	Unique ID assigned by the matching engine to this trade event. Used by any subsequent Trade Cancel message to identify this execution.
Price	7	Numeric	The execution price
Volume	8	Numeric	Volume of the trade in shares
PrintableFlag	9	Numeric	0 = Not Printed to the SIP 1 = Printed to the SIP
DBExecID	10	Numeric	For Pillar-powered markets, unused, defaulted to 0. For NYSE Tape A symbols, DB ExecID is assigned by the matching engine to all orders that participated in this trade event.

11. Trade Cancel Message – Msg Type 112 and 221

In the event that an earlier trade has been reported in error, a Trade Cancel message is sent. This occurs whether the initial report was an Order Execution or a Non-Displayed Trade message.

Note that since Trade Cancel messages only affect trades that occurred in the past, customers who are only interested in building a book may safely ignore them.

Customers who are building a complete record of today's trades should remove the cancelled trade from their records and subtract its volume from any statistics.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 112 – Trade Cancel for TAQ Integrated 221 – Trade Cancel for TAQ Trades
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
TradeID	6	Numeric	The TradeID of the original Trade or Execution message to be cancelled

12. Retail Price Improvement Message – Msg Type 114

Published when RPI interest (hidden retail price improvement interest) is added or removed between the best bid and best offer price. When all RPI interest for this security is removed from the book, An RPI message with RPIIndicator = ‘ ‘ (space character) is published.

Note: This message type will not be published for NYSE Tape A symbols until they transition to trading on Pillar in 2018.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 114 – Retail Price Improvement Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS.nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Binary	The sequence number of this message in the set of all messages for this symbol
RPIIndicator	6	ASCII	The side(s) where Retail Price Improvement orders (RPI orders) exist. Valid values correspond to CQS values: ▪ ‘ ’ – Space means no retail interest (default) ▪ A – Retail interest on the bid side ▪ B – Retail interest on the offer side ▪ C – Retail interest on the bid and offer sides

13. Cross Trade Message – Msg Type 111

A Cross Trade message is published on completion of a crossing auction, and shows the bulk volume that traded in the auction. The Reason Code field indicates the auction type. Additionally, a non-printable Order Execution or Trade message will be published for each order that traded.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 111 – Cross Trade Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
CrossID	6	Numeric	Unique identifier for this Cross Trade. Used in Cross Correction message to identify the Cross Trade to correct
Price	7	Numeric	The execution price
Volume	8	Numeric	Volume executed in shares
CrossType	9	ASCII	Reason for the crossing auction. Valid values: 'E' – Market Center Early Opening Auction 'O' – Market Center Opening Auction '5' – Market Center Reopening Auction '6' – Market Center Closing Auction

14. Cross Correction Message – Msg Type 113

In the event that an earlier Cross Trade has been reported in error, a Cross Correction message is sent.

Note that since Cross Correction messages only affect cross auctions that occurred in the past, customers who are only interested in building a book may safely ignore them.

Customers who are building a complete record of today's volume should remove the previously reported volume from their statistics and add the volume of the Cross Correction to them.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 113 – Cross Correction Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
CrossID	6	Numeric	The CrossID of the original Cross Trade message to be corrected
Volume	7	Numeric	The corrected volume of Cross Trade message

15. Imbalance Message – Msg Type 105

Imbalance messages are sent periodically to update price and volume information during auctions. If there is no change to the calculated fields, no message will be generated. See *Appendix A: Information on Auctions* for details on the auction process in the NYSE, Arca and American markets.

NOTE: The last 5 new fields, as well as (for Arca and American) the 2 clearing price fields, will initially be set to 0. They will be fully populated in future releases for each market.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 105 – Imbalance Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	5	ASCII	See NYSE Symbology Specification
SymbolSeqNum	6	Numeric	The sequence number of this message in the set of all messages for this symbol
ReferencePrice	7	Numeric	For Pillar-powered markets, the Reference Price is used to calculate the Indicative Match Price. See Information on Auctions for details. For NYSE Tape A symbols, the Reference Price is the Last Sale if the last sale is at or between the current best quote. Otherwise the Reference Price is the Bid Price if the last sale is lower than Bid price, or the Offer price if the last sale is higher than Offer price. (see Information on Auctions for details) When Auction Type = P, this field will be set to NYSE Last Sale.
PairedQty	8	Numeric	For non-NYSE markets, the number of shares paired off at the Indicative Match Price. For NYSE, the number of shares paired off at the Reference Price.
TotalImbalanceQty	9	Numeric	For non-NYSE markets, the total imbalance quantity at the Indicative Match Price. For NYSE, the total imbalance quantity at the Reference Price.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
MarketImbalanceQty	10	Numeric	The total market order imbalance quantity at the Indicative Match Price. When Auction Type=P (NYSE only), this field will be set to the Extreme Order Imbalance quantity. For NYSE, unused and defaulted to 0.
AuctionTime	11	Numeric	Projected Auction Time (hhmm)
AuctionType	12	Alpha	▪ O – Early Opening Auction (non-NYSE only) ▪ M – Core Opening Auction ▪ H – Reopening Auction (Halt resume) ▪ R - Regulatory Imbalance (NYSE primaries only) ▪ C – Closing Auction ▪ P - Extreme Closing Order Imbalance - (NYSE primaries only)
ImbalanceSide	13	Alpha	The side of the TotalImbalanceQty ▪ B – Buy side ▪ S – Sell side Space – No imbalance. When Auction Type = 'P', this field will be set to Extreme Order Imbalance side
ContinuousBook ClearingPrice	14	Numeric	For non-NYSE markets, the price at which all interest on the book can trade, including auction and imbalance offset interest, and disregarding auction collars. For NYSE, the price closest to the reference price where the imbalance is 0. For regulatory imbalances, or if a continuous book clearing price is not reached, this field is defaulted to 0.
AuctionInterestClearingPrice	15	Numeric	For non-NYSE markets, the price at which all eligible auction-only interest would trade, subject to auction collars. For the NYSE closing auction only, the price closest to the reference price where the imbalance of closing-only interest is 0. If a closing-only clearing price is not reached, this field is defaulted to 0.
SSRFilingPrice	16	Numeric	For non-NYSE markets, not supported and defaulted to 0.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
			For NYSE non-Regulatory imbalances, if a Sell Short Restriction is in effect, the price at which Sell Short interest will be filed.
Indicative MatchPrice	17	Numeric	For non-NYSE markets, the price at which the highest number of shares would trade, subject to auction collars. It includes the non-displayed quantity of Reserve Orders. See Information on Auctions for details. For NYSE, set to 0.
UpperCollar	**18**	**Numeric**	If the IndicativeMatchPrice is not strictly between the UpperCollar and the LowerCollar, special auction rules apply. See Rule 7.35P for details. **For NYSE, set to 0**
LowerCollar	**19**	**Numeric**	If the IndicativeMatchPrice is not strictly between the UpperCollar and the LowerCollar, special auction rules apply. See Rule 7.35P for details. **For NYSE, set to 0**
AuctionStatus	**20**	**Numeric**	Indicates whether the auction will run 0 - Will run as always for Open and Close 1 - Will run, interest exists inside the collars or interest is fully paired off 2 - Will not run because there is an imbalance at or through the collars 3 - Will not run, will transition to the Closing auction instead
FreezeStatus	**21**	**Numeric**	0 - Imbalance freeze not yet in effect 1 - Imbalance freeze is in effect
NumExtensions	**22**	**Numeric**	Number of times the halt period has been extended. For NYSE, s**et to 0**
UnPaired Quantity	**23**	**Numeric**	For NYSE only, during the Closing Auction, the number of unpaired shares priced at or better than the Reference Price. For non-NYSE markets, 0.
Unpaired Side	**24**	Alpha	

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
			The side of the Unpaired Quantity B – Buy S – Sell Space – not applicable
Significant Imbalance	**25**	Alpha	For Pillar Day1 migration, field will be defaulted. For Auction Types = C or P in NYSE-listed symbols. Using historical closing data for each symbol, NYSE will set this indicator if the Continuous Book Clearing Price is more than a 'significant' range away from the Reference Price. ▪ Y - the current Imbalance is significant Space - not significant, or not applicable

16. Add Order Refresh Message – Msg Type 106

The Add Order Refresh message can be sent in either of two contexts:

1) If a client sends a Refresh Request to the Request Controller, an Add Order Refresh message is sent over the Refresh channels as part of the refresh response for every order currently sitting on the book.
2) If a primary XDP Publisher fails over to the backup, for every symbol, the backup sends a Symbol Clear message followed by a full refresh, which includes an Add Order Refresh message for every order currently sitting on the book of the symbol.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 106 – Add Order Refresh Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	5	ASCII	See NYSE Symbology Specification
SymbolSeqNum	6	Numeric	The sequence number of this message in the set of all messages for this symbol
OrderID	7	Numeric	The unique ID assigned by the matching engine to this order
Price	8	Numeric	The order price
Volume	9	Numeric	The order quantity in shares
Side	10	Alpha	The side of the order (Buy/sell). Valid values: ▪ 'B' – Buy ▪ 'S' – Sell
FirmID	11	ASCII	The participant's firm ID, or spaces if firm ID was not specified
NumParitySplits	12	Numeric	Future use. Defaulted to 0.

17. Quote Message – Msg Type 140

A quote message is sent when any event results in a new top of book value on either side of the market.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Binary	The type of message: 140 – Quote Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	5	ASCII	See NYSE Symbology Specification
SymbolSeqNum	6	Numeric	The symbol sequence number
Ask Price	7	Numeric	The Ask price.
Ask Volume	8	Numeric	The aggregate round lot size at the ask price, in shares.
Bid Price	9	Numeric	The Bid price
Bid Volume	10	Numeric	The aggregate round lot size at the bid price, in shares.
Quote Condition	11	ASCII	**All markets** ▪ R - Regular Quote **NYSE Tape A symbols only** ▪ O - Opening Quote (1st quote of the day) At the scheduled closing time, NYSE publishes an R-quote with prices and volumes set to 0.
RPI Indicator	12	ASCII	The side(s) where Retail Price Indication (RPI orders) exist. Valid values are: ▪ ‘ ’ – Space means no Retail Interest (Default) ▪ ‘A’ – Retail Interest on Bid Quote ▪ ‘B’ – Retail Interest on Offer Quote ▪ ‘C’ – Retail Interest on both the Bid and Offer Quote

18. Trade Message – Msg Type 220

A Trade message is sent when there is an execution on the order book. For more detail, see the Overview.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 220 – Trade Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS.nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
SymbolSeqNum	5	Numeric	The sequence number of this message in the set of all messages for this symbol
TradeID	6	Numeric	Unique identifier for this trade
Price	7	Numeric	The price of the Trade
Volume	8	Numeric	The volume of the trade in shares.
TradeCond1	9	ASCII	Settlement related conditions. Values: ■ ‘ ’ – (space, or 0x20) ■ ‘@’ - Regular Sale (Arca, American, National, NYSE)
TradeCond2	10	ASCII	The reason for Trade Through Exemption. Values: ■ ‘ ’ – (space, or 0x20) N/A ■ 6 – Market Center Closing Trade ■ F – Intermarket Sweep Order ■ O – Market Center Opening Trade
TradeCond3	11	ASCII	Extended hours/sequencing related conditions. Valid values: ■ ‘ ’ – (space, or 0x20) N/A ■ T – Extended Hours Trade
TradeCond4	12	ASCII	SRO Required Detail. Valid values: ■ ‘ ’ – (space, or 0x20) - Regular Sale ■ I – Odd Lot Trade ■ M – Official Closing Price

19. Trade Correction Message – Msg Type 222

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 222 – Trade Correction Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS. nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	5	ASCII	See NYSE Symbology Specification
SymbolSeqNum	6	Numeric	The symbol sequence number
OriginalTradeID	7	Numeric	The original TradeID of the Trade message being corrected
TradeID	8	Numeric	The TradeID of the corrected Trade message
Price	9	Numeric	The corrected price of the Trade
Volume	10	Numeric	The corrected volume of the trade in shares
TradeCond1	9	ASCII	Settlement related conditions. Values: ■ ' ' – (space, or 0x20) '@' - Regular Sale (Arca, American, National, NYSE)
TradeCond2	10	ASCII	The reason for Trade Through Exemption. Values: ■ ' ' – (space, or 0x20) N/A ■ 6 – Market Center Closing Trade ■ F – Intermarket Sweep Order O – Market Center Opening Trade
TradeCond3	11	ASCII	Extended hours/sequencing related conditions. Valid values: ■ ' ' – (space, or 0x20) N/A T – Extended Hours Trade
TradeCond4	12	ASCII	SRO Required Detail. Valid values: ■ ' ' – (space, or 0x20) - Regular Sale ■ I – Odd Lot Trade M – Official Closing Price

20. TRF Trade Message – Msg Type 215

XDP TAQ Trades for TRF will log the TRF Trade Message (Msg Type 215). The Structure will be the same as the existing NYSE Trades - Msg Type 220.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Message Type	1	Numeric	215 - Representing TRF Trade message
Sequence Number	2	Numeric	Sequence number value received in the msg seq num field of the msg Header. This represents the msg seq # assigned by XDP for the TRF Trade message
Source Time	3	HH:MM:SS. nnnnnnnnn	Source Time is produced from the following input fields on the TRF Trade message in nano-sec granularity: - Source Time - Source Time NS This is the trade timestamp from the matching engine.
Symbol	4	String	Symbol in NYSE Symbology. Symbol Index received on TRF Trade message is looked up against the Symbol Index Mapping message (msg type 3) to derive symbol.
Symbol Seq Num	5	Numeric	The symbol sequence number.
TradeID	6	Numeric	TradeID from TRF Trade message. TradeID is unique per symbol.
Price	7	Decimal	Price of the TRF Trade.
Volume	8	Numeric	The volume of the trade in shares.
Trade Cond-1	9	String	Settlement related conditions. Values: ■ ‘ ’ – (space, or 0x20) Regular Sale ■ C – Cash (TRF) ■ N– Next Day Trade (TRF) ■ R – Seller (TRF)

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Trade Cond-2	10	String	The reason for Trade Through Exemption. Values: ■ ‘ ’ – (space, or 0x20) N/A ■ F – Intermarket Sweep Order (TRF) ■ 4 – Derivatively priced (TRF) ■ 7 – Qualified Contingent Trade (TRF)
Trade Cond-3	11	String	Extended hours/sequencing related conditions. Values: ■ ‘ ’ – (space, or 0x20) N/A ■ T – Extended Hours Trade (TRF) ■ U – Extended Hours Sold (Out of Sequence) (TRF) ■ Z – Sold (TRF)
Trade Cond-4	12	String	SRO Required Detail. Values: ■ ‘ ’ – Regular Sale (space, or 0x20) ■ I – Odd Lot Trade ■ P – Prior Reference Price ■ V – Contingent Trade ■ W – Weighted Average Price

21. TRF Trade Cancel Message – Msg Type 216

XDP TAQ Trades for TRF will log the TRF Trade Cancel Message (Msg Type 216). The Structure will be the same as the existing NYSE Trades Cancel Message - Msg Type 221.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Message Type	1	Numeric	216 - Representing TRF Trade Cancel message
Sequence Number	2	Numeric	Sequence number value received in the msg seq num field of the msg Header. This represents the msg seq # assigned by XDP for the TRF Trade cancel message
Source Time	3	HH:MM:SS. nnnnnnnnn	Source Time is produced from the following input fields on the TRF Trade cancel message in nano-sec granularity: - Source Time - Source Time NS This is the trade cancel timestamp from the matching engine.
Symbol	4	String	See NYSE Symbology Specification
Symbol Seq Num	5	Numeric	The sequence number of this message in the set of all messages for this symbol
TradeID	6	Numeric	The TradeID of the original TRF Trade Execution message to be cancelled

22. TRF Trade Correction Message – Msg Type 217

XDP TAQ Trades for TRF will log the TRF Trade Correction Message (Msg Type 217). The Structure will be the same as the existing NYSE Trades Correction Message - Msg Type 222.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Message Type	1	Numeric	217 - Representing TRF Trade Correction message
Sequence Number	2	Numeric	Sequence number value received in the msg seq num field of the msg Header. This represents the msg seq # assigned by XDP for the TRF Trade Correction message
Source Time	3	HH:MM:SS.nnnnnnnnn	Source Time is produced from the following input fields on the TRF Trade Correction message in nano-sec granularity: - Source Time - Source Time NS This is the trade correction timestamp from the matching engine.
Symbol	4	String	See NYSE Symbology Specification
Symbol Seq Num	5	Numeric	The sequence number of this message in the set of all messages for this symbol
Original TradeID	6	Numeric	The original TradeID of the Trade message being corrected.
TradeID	7	Numeric	The TradeID of the corrected Trade message.
Price	8	Decimal	The corrected price of the Trade. Use the Price scale from the Symbol Index Mapping message.
Volume	9	Numeric	The corrected volume of the trade in shares.
Trade Cond-1	10	String	Settlement related conditions. Values: ■ ‘ ’ – (space, or 0x20) Regular Sale ■ C – Cash (TRF) ■ N– Next Day Trade (TRF) ■ R – Seller (TRF)
Trade Cond-2	11	String	The reason for Trade Through Exemption. Values: ■ ‘ ’ – (space, or 0x20) N/A ■ F – Intermarket Sweep Order (TRF)

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
			■ 4 – Derivatively priced (TRF) ■ 7 – Qualified Contingent Trade (TRF)
Trade Cond-3	12	String	Extended hours/sequencing related conditions. Values: ■ ‘ ’ – (space, or 0x20) N/A ■ T – Extended Hours Trade (TRF) ■ U – Extended Hours Sold (Out of Sequence) (TRF) ■ Z – Sold (TRF)
Trade Cond-4	13	String	SRO Required Detail. Values: ■ ‘ ’ – Regular Sale (space, or 0x20) ■ I – Odd Lot Trade ■ P – Prior Reference Price ■ V – Contingent Trade ■ W – Weighted Average Price

23. TRF Prior Day Trade Message – Msg Type 218

XDP TAQ Trades for TRF will log the TRF Prior Day Trade Message (Msg Type 218).

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Message Type	1	Numeric	218 - Representing TRF Prior Day Trade message
Sequence Number	2	Numeric	Sequence number value received in the msg seq num field of the msg Header. This represents the msg seq # assigned by XDP for the TRF Prior Day Trade message
Source Time	3	HH:MM:SS.nnnnnnnnn	Source Time is produced from the following input fields on the TRF Prior Day Trade message in nano-sec granularity: - Source Time - Source Time NS This is the timestamp from the matching engine when the Prior Day Trade message was generated.
Prior Day Time	4	String	Prior Day time is produced from the following input fields on the TRF Prior Day Trade message in nano-sec granularity: - Prior Day Time - Prior Day Time NS This is the participant input time when the trade was originally generated prior day.
Symbol	5	Numeric	Symbol in NYSE Symbology. Symbol Index received on TRF Prior Day Trade message (msg type 218) is looked up against the Symbol Index Mapping message (msg type 3) to derive symbol.
Symbol Seq Num	6	Numeric	Symbol Sequence Number on TRF Prior Day Trade message (msg type 218).
TradeID	7	Decimal	TradeID of the TRF Prior Day Trade message. TradeID is unique per symbol.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Price	8	Numeric	Price of the Trade from the TRF Prior Day Trade message. Price scale code from the Symbol Index Mapping message is applied to the price on msg type 218 and actual price published on the TAQ Trades messages. (Price scale code is not provided as-is on the Symbol Index Mapping message)
Volume	9	String	Trade Volume (in shares) from the TRF Prior Day Trade message.
Trade Cond-1	10	String	Settlement related conditions. Values: ■ ‘ ’ – (space, or 0x20) Regular Sale ■ C – Cash (TRF) ■ N– Next Day Trade (TRF) ■ R – Seller (TRF)
Trade Cond-2	11	String	The reason for Trade Through Exemption. Values: ■ ‘ ’ – (space, or 0x20) N/A ■ F – Intermarket Sweep Order (TRF) ■ 4 – Derivatively priced (TRF) ■ 7 – Qualified Contingent Trade (TRF)
Trade Cond-3	12	String	Extended hours/sequencing related conditions. Values: ■ ‘ ’ – (space, or 0x20) N/A ■ T – Extended Hours Trade (TRF) ■ U – Extended Hours Sold (Out of Sequence) (TRF) ■ Z – Sold (TRF)
Trade Cond-4	13	String	SRO Required Detail. Values: ■ ‘ ’ – Regular Sale (space, or 0x20) ■ I – Odd Lot Trade ■ P – Prior Reference Price ■ V – Contingent Trade ■ W – Weighted Average Price

24. TRF Prior Day Trade Cancel Message – Msg Type 219

XDP TAQ Trades for TRF will log the TRF Prior Day Trade Cancel Message (Msg Type 219).

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Message Type	1	Numeric	219 - Representing TRF Prior Day Trade Cancel message
Sequence Number	2	Numeric	Sequence number value received in the msg seq num field of the msg Header. This represents the msg seq # assigned by XDP for the TRF Trade cancel message
Source Time	3	HH:MM:SS. nnnnnnnnn	Source Time is produced from the following input fields on the TRF Trade cancel message in nano-sec granularity: - Source Time - Source Time NS This is the trade cancel timestamp from the matching engine.
Prior Day Time	4	HH:MM:SS. nnnnnnnnn	Prior Day time is produced from the following input fields on the TRF Prior Day Trade Cancel message in nano-sec granularity: - Prior Day Time - Prior Day Time NS This is the participant input time when the trade cancel was originally generated prior day.
Symbol	5	String	Symbol in NYSE Symbology. Symbol Index received on TRF Prior Day Trade cancel message is looked up against the Symbol Index Mapping message (msg type 3) to derive symbol.
Symbol Seq Num	6	Numeric	Symbol Sequence Number on TRF Prior Day trade cancel message.
TradeID	7	Numeric	TradeID from TRF Prior day Trade cancel message.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Price	8	Decimal	Price of the Original Trade from the TRF Prior Day Trade Cancel message. Price scale code from the Symbol Index Mapping message is applied to the price and actual price is published. (Price scale code is not provided as-is on the Symbol Index Mapping message)
Volume	9	Numeric	The volume of the original trade in Shares.

25. Stock Summary Message – Msg Type 223

On the Stock Summary channel (a separate channel from the main trades feed), a Stock Summary message per symbol is sent every 60 seconds. The message is sent regardless of whether there has been a change to the symbol in the last 60 seconds or not. In the event there is no volume on the stock, the trade summary message will not be disseminated.

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
Msg Type	1	Numeric	The type of message: 223 – Stock Summary Message
SequenceNumber	2	Numeric	A unique, sequential message ID that 'tags' each message and allows recipients to identify the message
SourceTime	3	HH:MM:SS.nnnnnnnnn	Timestamp of the matching engine event that resulted in this message, with nanosecond accuracy
Symbol	4	ASCII	See NYSE Symbology Specification
HighPrice	5	Numeric	The exchange high price of this stock for the day
LowPrice	6	Numeric	The exchange Low price of this stock for the day
Open	7	Numeric	The exchange Opening price of this stock for the day
Close	8	Numeric	The exchange Closing price of this stock for the day
TotalVolume	9	Numeric	The exchange cumulative volume for the stock throughout the day

APPENDIX A: Information on Auctions

NYSE AUCTIONS

The NYSE market conducts auctions for NYSE-listed (Tape A) symbols only. The NYSE market does not publish imbalances for IPO or Direct Listing symbols.

As a part of the auction process, Imbalance messages are published every second if there is any change from the previous second.

<table>
<tr><th>AUCTION TYPE</th><th>DESCRIPTION</th></tr>
<tr><td>Opening Auction (M)

and

Re-Opening Auction (H)</td><td>Interest Included
All electronic interest eligible to trade in the opening auction
DMM interest as needed to offset the imbalance
Order Cancellation
Orders can be cancelled at any time up to the conclusion of the auction
Reference Price Calculation

First, a provisional ref price is calculated, then the Reference Price is calculated from that.

The provisional ref price is:
The consolidated last sale price if there is one
The previous close price If there is no consolidated last sale
The Reference Price is:
The provisional ref price if no Mandatory Indication has been published
The provisional ref price if it is within the indication range
The indication low price if it is higher than the provisional ref price
The indication high price it is lower than the provisional ref price</td></tr>
<tr><td>Closing Auction (C)</td><td>Interest Included
For Paired Quantity, Unpaired Quantity, and Total Imbalance Quantity:
MOC and LOC orders
Imbalance offset orders
Closing D orders
For Continuous Book Clearing Price:
All electronic interest eligible to trade in the closing auction
DMM interest as needed to offset the imbalance
For Auction Interest Clearing Price:
MOC and LOC orders
Imbalance offset orders</td></tr>
</table>

AUCTION TYPE	DESCRIPTION
	Order Cancellation ▪ Orders can be cancelled any time during the auction period, except for MOC and LOC orders and Imbalance offset orders, which can be cancelled only up to 2 minutes before the scheduled auction closing time. **Reference Price Calculation** The Reference Price is: ▪ The NYSE last sale if it is at or within the NYSE best quote ▪ The NYSE best bid if the NYSE best bid is higher than the NYSE last sale ▪ The NYSE best offer if the NYSE best offer is lower than the NYSE last sale
Regulatory Closing Auction (R)	**Interest Included** ▪ MOC and LOC orders **Reference Price Calculation** ▪ The Reference Price is the NYSE last sale.
Extreme Imbalance Closing Auction (P)	**Interest Included** ▪ All electronic interest eligible to trade in the closing auction **Reference Price Calculation** ▪ The Reference Price is the NYSE last sale.

NYSE ARCA / NYSE AMERICAN AUCTIONS

Three single-price auctions are conducted during the day: the Early Opening Auction, the Core Opening Auction and the Closing Auction. As a part of the auction process, the reference price, indicative match price, matched volume, total imbalance, and market imbalance are disseminated every second if there is any change from the previous second.

This appendix covers normal cases. For full detail on exception cases, see Rule 7.35P.

Indicative Match Price Details

- The Indicative Match Price is the price that maximizes executable volume of auction-eligible shares, subject to Auction Collars.
- It includes the non-displayed quantity of Reserve Orders.
- If two or more prices maximize executable volume equally, in an effort to maintain continuity, the Indicative Match Price is whichever price is closest to the Reference Price.
- The final auction execution price is the Indicative Match Price at auction time.

Imbalance Calculation

AUCTION TYPE	DESCRIPTION
Early Opening Auction	**Interest Included** 1. Limit Orders designated for the Early Trading Session. 2. During the last minute before the Early Opening Auction time, the non-displayed quantity of Reserve Orders designated for the Early Open Auction is included in the Matched Volume and Total Imbalance Volume. **Order Cancellation** Orders can be cancelled at any time up to the conclusion of the auction. **Reference Price** ▪ The Reference Price is normally the listing market's previous Official Closing Price. See Rule 7.35P for full detail. Unexecuted session 1 eligible orders become eligible for the Early Session immediately upon conclusion of the Early Opening Auction.

<table>
<tr><td>Core Opening and Re-Opening Auctions</td><td>Interest Included
1. Limit, Market, MOO, LOO and Primary Peg orders
2. During the last 5 seconds before the Core Opening Auction time, the non-displayed quantity of Reserve Orders is included in the Matched Volume and Total Imbalance Volume.
Order Cancellation
Orders can be cancelled any time during the auction, except for MOO and LOO orders which can be cancelled only up to 1 minute before the conclusion of the auction.
Reference Price
▪ The Reference Price is normally the midpoint of the NBBO. See Rule 7.35P for full detail.</td></tr>
<tr><td>Closing Auction</td><td>Interest Included
1. Limit, Market, MOC, LOC and Primary Peg orders
2. During the last minute before the Closing Auction time, the non-displayed quantity of Reserve Orders is included in the Matched Volume and Total Imbalance Volume.
Reference Price
▪ The Reference Price is normally the Consolidated Tape last sale.
If the price closest to the Reference Price would trade through the exchange book, the indicative match price will be the best price available where no trade through occurs. See Rule 7.35P for full detail.</td></tr>
</table>

Imbalance Message Publication Times

For all markets, the initial publication of Symbol Index Mapping messages occurs shortly after system startup at approximately 12:15am ET. Please refer to the online calendar for Market times and early close days. NYSE National exchange does not conduct auctions.

<table>
<tr><th>DESCRIPTION</th><th>MARKET</th><th>NORMAL AUCTION PERIOD</th></tr>
<tr><td rowspan="2">Early Opening Auction</td><td>Arca</td><td>3:30am - 4:00am ET</td></tr>
<tr><td>American</td><td>7:00am - 9:30am ET</td></tr>
<tr><td rowspan="2">Core Opening Auction</td><td>Arca
American</td><td>8:00am - 9:30am ET</td></tr>
<tr><td>NYSE</td><td>8:30am - 9:30am ET</td></tr>
<tr><td rowspan="2">Closing Auction</td><td>Arca
American</td><td>3:00pm - 4:00pm ET</td></tr>
<tr><td>NYSE</td><td>3:50pm - 4:00pm ET</td></tr>
</table>

APPENDIX B: Filenames and Paths

On logging into the NYSE MFT Site, https://mftus.nyx.com/, the historical TAQ XDP files are accessible per your entitlements at the locations shown below.

PRODUCT	FILE PATH AND NAME
14 Integrated Feed files + **Stock Summary** *EXCH* **can be** **NYSE** **AMEX** **ARCA** **NATIONAL**	**Pillar-Powered Markets / Tapes:** EQY_US_EXCH_IBF/ EQY_US_EXCH_IBF_YYYY/ EQY_US_EXCH_IBF_YYYYMM/ EQY_US_EXCH_IBF_1_YYYYMMDD.GZ … EQY_US_EXCH_IBF_14_YYYYMMDD.GZ **From Nov. 20, 2017 to Q3 2019 for NYSE Tape A only:** EQY_US_EXCH_IBF/ EQY_US_EXCH_IBF_YYYY/ EQY_US_EXCH_IBF_YYYYMM/ EQY_US_EXCH_IBF_1A_YYYYMMDD.GZ … EQY_US_EXCH_IBF_4A_YYYYMMDD.GZ EQY_US_EXCH_STOCKSUM/ EQY_US_EXCH_STOCKSUM_YYYY/ EQY_US_EXCH_STOCKSUM_YYYYMM/ EQY_US_EXCH_STOCKSUM_YYYYMMDD.GZ
BBO **2 BBO files** *EXCH* **can be** **NYSE** **AMEX** **ARCA** **NATIONAL**	EQY_US_TAQ_EXCH_BBO/ EQY_US_TAQ_EXCH_BBO_YYYY/ EQY_US_TAQ_EXCH_BBO_YYYYMM/ EQY_US_TAQ_EXCH_BBO_1_YYYYMMDD.GZ EQY_US_TAQ_EXCH_BBO_2_YYYYMMDD.GZ

Trades **1 Trades file +** **Stock Summary** *EXCH* **can be** **NYSE** **AMEX** **ARCA** **NATIONAL**	EQY_US_TAQ_EXCH_TRADES/ EQY_US_TAQ_EXCH_TRADES_YYYY/ EQY_US_TAQ_EXCH_TRADES_YYYYMM/ EQY_US_TAQ_EXCH_TRADES_YYYYMMDD.GZ EQY_US_TAQ_EXCH_TRADES_TRF_YYYYMMDD.GZ EQY_US_EXCH_STOCKSUM/ EQY_US_EXCH_STOCKSUM_YYYY/ EQY_US_EXCH_STOCKSUM_YYYYMM/ EQY_US_EXCH_STOCKSUM_YYYYMMDD.GZ
Imbalances **1 file** *EXCH* **can be** **NYSE** **AMEX** **ARCA**	EQY_US_EXCH_REF_IMBALANCES/ EQY_US_EXCH_REF_IMBALANCES_YYYY/ EQY_US_EXCH_REF_IMBALANCES_YYYYMM/ EQY_US_EXCH_REF_IMBALANCES_YYYYMMDD.GZ

APPENDIX C: Additional Historical File Availability

Additional history of TAQ XDP is available under the following file names:

- TAQ NYSE American Order Imbalances
  - Ameximbalance from 20081201 to 20170814
  - EQY_US_AMEX_REF_IMBALANCES_PD from 20090623 to 20170814
  - EQY_US_AMEX_REF_IMBALANCES from 20170724 to Current

- TAQ NYSE Arca Trades
  - EQY_US_ALL_ARCA_TRADE from 20041001 to 20180727
  - EQY_US_TAQ_ARCA_TRADES from 20180730 to Current
  - EQY_US_ALL_ARCA_TRADE_BUST from 20041001 to 20140807

- TAQ NYSE Order Imbalances
  - EQY_US_NYSE_REF_IMBALANCES_PD from 20080514 to 20171024
  - EQY_US_NYSE_REF_IMBALANCES from 20080514 to Current

- TAQ NYSE Trades
  - EQY_US_NYSE_TRADE from 20070205 to 20171106
  - EQY_US_TAQ_NYSE_TRADES from 20171023 to Current

- TAQ NYSE American BBO
  - EQY_US_TAQ_MKT_BBO 20140721 to 20170721
  - EQY_US_TAQ_AMEX_BBO from 20170724 to Current