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

NYSE

NYSE AMERICAN*

NYSE ARCA

Version	Date
2.1a	April 25, 2017

*** The name change from NYSE MKT to NYSE American will not be effective until filed with the SEC.**

PREFACE

DOCUMENT HISTORY

VERSION NO.	DATE	CHANGE DESCRIPTION
1.0	05/19/2015	Version 1.0 Initial Publicaton
1.0a	12/1/2015	PositionChange field in Modify Order message is defaulted to 0
1.0b	12/15/2015	Added DBExecID field to Order Execution Message – MSG TYPE 110 and Non-Displayed Trade Message – MSG TYPE 110.
1.0c	Sept 23, 2016	No change to products. Added text describing use of this document for NYSE/MKT TAQ XDP Imbalances. Revised section 1 for clarity.
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

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Announcements

- Visit the NYSE Subscription Page to subscribe to product news and operational status notifications for all proprietary data products.

RELATED DOCUMENTATION

For details of related TAQ products and the full range of TAQ offerings, please refer to the Historical Data Products section of NYXData.

For a listing of all Market Data products, please refer to the Data Products section of NYXData.

CONTENTS

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.

NYSE and MKT Integrated, BBO, Trades, and Imbalance 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.

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 File Transfer Protocol (FTP) from **ftp2.nyxdata.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		1 GB
TAQ NYSE Trades	1	Y	100 MB
TAQ NYSE Order Imbalances	1		200K 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		20 MB
TAQ NYSE AMERICAN Trades	1	Y	2 MB
TAQ NYSE AMERICAN Imbalances	1		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

1.4 SAMPLE DATA

Sample data is available on our 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 NYXdata website. Upon the approval, NYSE will issue the ftp credentials for accessing the data. Please allow up to an hour for newly purchased data product(s) from the FTP 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	

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’.
4. A sequence number is a monotonically 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 microseconds, eg: “12:32:44.123456”.
6. For all default values of 0 and spaces in the real time feeds, the value in CSV is blank, eg: “,,”.
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
System ID	5	Numeric	ID of the originating matching engine server
Exchange Code	6	Alpha	Exchange where the this symbol is listed: ▪ 'N' – NYSE ▪ '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 and American: ▪ '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 ▪ 'T' – TEST ▪ 'U' – UNITS

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
			▪ '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' - UNKOWN
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	This field specifies 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, 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 following are Halt Status Codes: ▪ ‘3’ - Opening Delay (NYSE only) ▪ ‘4’ - Trading Halt ▪ ‘5’ - Resume ▪ ‘6’ - No open/no resume (NYSE 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 : ▪ ‘P’ – Pre-opening ▪ ‘E’ – Early session (Arca and American only) ▪ ‘O’ – Core session ▪ ‘L’ – Late session (Arca and American only) ▪ ‘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	7	ASCII	▪ Empty when not applicable ▪ '~' - Security not delayed/halted ▪ 'D' - News dissemination ▪ 'I' - Order imbalance ▪ 'P' - News pending ▪ 'M' – LULD pause ▪ 'S' - Related security (not used)

			▪ '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 ▪ 'Q' – NASDAQ ▪ 'A' – NYSE American ▪ 'U' – OTCBB symbol for Global OTC ▪ 'V' – Other OTC symbols for Global OTC ▪ '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 (Arca and American only) ▪ 'O' – Core session ▪ 'L' – Late session (Arca and American 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.

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	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	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	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	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.

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	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

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 identifier for this trade. 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	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
DBExecID	12	Numeric	Unused. This field is always empty.

10. Non-Displayed Trade Message – Msg Type 110

An 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 identifier for this trade. 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	Unused. This field is always empty.

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.

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, in 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 down to 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.

For more information, see Appendix A: Information on Auctions.

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, 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	Used to calculate the Indicative Match Price.
PairedQty	8	Numeric	The number of shares paired off at the Indicative Match Price.
TotalImbalanceQty	9	Numeric	The total imbalance quantity at the Indicative Match Price.
MarketImbalanceQty	10	Numeric	The total market order imbalance quantity at the Indicative Match Price.
AuctionTime	11	Numeric	Projected Auction Time (hhmm)
AuctionType	12	Alpha	▪ 'O' – Early Opening Auction ▪ 'M' – Core Opening Auction ▪ 'H' – Reopening Auction (Halt resume) ▪ 'C' – Closing Auction
ImbalanceSide	13	Alpha	The side of the imbalance (Buy/Sell) ▪ 'B' – Buy ▪ 'S' – Sell ▪ Space – No imbalance
ContinuousBook ClearingPrice	14	Numeric	Not supported, defaulted to 0.
ClosingOnly ClearingPrice	15	Numeric	Not supported, defaulted to 0.
SSRFilingPrice	16	Numeric	Not supported, defaulted to 0.
Indicative MatchPrice	17	Numeric	The price that has the highest executable volume of auction-eligible shares, subject to Auction Collars. It

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
			includes the non-displayed quantity of Reserve Orders. See Appendix A: Information on Auctions for details.

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, 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

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, 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 size at the ask price
Bid Price	9	Numeric	The Bid price
Bid Volume	10	Numeric	The aggregtate size at the bid price
Quote Condition	11	ASCII	Valid values: ▪ 'C' - Closing ▪ 'O' - Opening Quote ▪ 'R' - Regular Quote ▪ 'W' - Slow on the Bid and Ask due to a "Set Slow List"
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

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. Valid values: ▪ @ – Regular Sale (Arca, American) **NYSE only** ▪ ‘ ’ – (space) Regular Sale ▪ C – Cash ▪ N– Next Day Trade ▪ R – Seller
TradeCond2	10	ASCII	The reason for Trade Through Exemptions. Valid values: **All markets** ▪ ‘ ’ – N/A (0x20) ▪ 5 – Market Center Reopening Trade ▪ 6 – Market Center Closing Trade ▪ 9 – Corrected Last Sale Price **NYSE only** ▪ F – Intermarket Sweep Order ▪ O – Market Center Opening Trade
TradeCond3	11	ASCII	Extended hours/sequencing related conditions. Valid values: **All markets** ▪ ‘ ’ – (space, or 0x20) N/A ▪ Z – Sold

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
			NYSE only ▪ L – Sold Last **Arca and American only** ▪ T – Extended Hours Trade ▪ U – Extended Hours Sold (Out of Sequence)
TradeCond4	12	ASCII	SRO Required Detail. Valid values: **All markets** ▪ I – Odd Lot Trade **NYSE only** ▪ ‘ ’ – (space, or 0x20) N/A ▪ H – Aberrant Trade ▪ K – Rule 127 **Arca and American only** ▪ @ - Regular Sale ▪ M – Official Closing Price ▪ Q – Official Open 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, 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	11	ASCII	Settlement related conditions. Valid values: ▪ @ – Regular Sale (Arca, American) **NYSE only** ▪ ‘ ’ – (space) Regular Sale ▪ C – Cash ▪ N– Next Day Trade ▪ R – Seller
TradeCond2	12	ASCII	The reason for Trade Through Exemptions. Valid values: **All markets** ▪ ‘ ’ – N/A (0x20) ▪ 5 – Market Center Reopening Trade ▪ 6 – Market Center Closing Trade ▪ 9 – Corrected Last Sale Price **NYSE only** ▪ F – Intermarket Sweep Order ▪ O – Market Center Opening Trade
TradeCond3	13	ASCII	Extended hours/sequencing related conditions. Valid values: **All markets** ▪ ‘ ’ – (space, or 0x20) N/A ▪ Z – Sold

FIELD NAME	FIELD ORDER	FORMAT	DESCRIPTION
			NYSE only ■ L – Sold Last **Arca and American only** ■ T – Extended Hours Trade ■ U – Extended Hours Sold (Out of Sequence)
TradeCond4	14	ASCII	SRO Required Detail. Valid values: **All markets** ■ I – Odd Lot Trade **NYSE only** ■ ‘ ’ – (space, or 0x20) N/A ■ H – Aberrant Trade K – Rule 127 **Arca and American only** ■ @ - Regular Sale ■ M – Official Closing Price ■ Q – Official Open Price

20. Stock Summary Message – Msg Type 223

On a separate channel from the main feed, the Stock Summary channel, 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.

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 when the matching engine generated this event
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

A.1 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

FIELD NAME	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.
Core Opening and Re-Opening Auctions	**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**

FIELD NAME	DESCRIPTION
	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.
Closing Auction	**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.

NYSE Arca and NYSE American Publication Times

MESSAGE	PUBLICATION PERIOD	PUBLICATION FREQUENCY
NYSE Opening Imbalances	60 minutes before market open until 30 minutes before market open	Every 5 minutes
	30 minutes before market open until 10 minutes before market open	Every 1 minute
	10 minutes before market open until 5 minutes after market open or until the stock opens	Every 15 seconds
NYSE Closing Imbalances	15 minutes before market close until market close	Every 5 seconds

APPENDIX B: Filenames and Paths

On logging into the NYSE FTP Site, ftp2.nyxdata.com, the historical TAQ XDP files are accessible per your entitlements at the locations shown below.

PRODUCT	FILE PATH AND NAME
Integrated 8 Integrated files + Stock Summary *EXCH* can be **NYSE** **AMEX** **ARCA**	EQY_US_*EXCH*_IBF/ EQY_US_*EXCH*_IBF_yyyy/ EQY_US_*EXCH*_IBF_yyyymm/ EQY_US_*EXCH*_IBF_yyymmdd/ **EQY_US_*EXCH*_IBF_1_yyyymmdd.gz** **EQY_US_*EXCH*_IBF_2_yyyymmdd.gz** **…** **EQY_US_*EXCH*_IBF_8_yyyymmdd.gz** EQY_US_*EXCH*_STOCKSUM/ EQY_US_*EXCH*_STOCKSUM_yyyy/ EQY_US_*EXCH*_STOCKSUM_yyyymm/ EQY_US_*EXCH*_STOCKSUM_yyyymmdd/ **EQY_US_*EXCH*_STOCKSUM_yyyymmdd.gz**
BBO 2 BBO files *EXCH* can be **NYSE** **AMEX**	EQY_US_TAQ_*EXCH*_BBO/ EQY_US_TAQ_*EXCH*_BBO_yyyy/ EQY_US_TAQ_*EXCH*_BBO_yyyymm/ EQY_US_TAQ_*EXCH*_BBO_yyyymmdd/ **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**	EQY_US_TAQ_*EXCH*_TRADES/ EQY_US_TAQ_*EXCH*_TRADES_yyyy/ EQY_US_TAQ_*EXCH*_TRADES_yyyymm/ EQY_US_TAQ_*EXCH*_TRADES_yyyymmdd/ **EQY_US_TAQ_*EXCH*_TRADES_yyyymmdd.gz** EQY_US_*EXCH*_STOCKSUM/ EQY_US_*EXCH*_STOCKSUM_yyyy/ EQY_US_*EXCH*_STOCKSUM_yyyymm/ EQY_US_*EXCH*_STOCKSUM_yyyymmdd/ **EQY_US_*EXCH*_STOCKSUM_yyyymmdd.gz**
Imbalances 1 file *EXCH* can be **NYSE** **AMEX**	EQY_US_*EXCH*_REF_IMBALANCES/ EQY_US_*EXCH*_REF_IMBALANCES_yyyy/ EQY_US_*EXCH*_REF_IMBALANCES_yyyymm/ EQY_US_*EXCH*_REF_IMBALANCES_yyyymmdd/ **EQY_US_*EXCH*_REF_IMBALANCES_yyyymmdd.gz**