

UTP Data Feed Services Specification

Binary Version 1.3a

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1 Overview

1.1 Introduction

All messages sent from the SIP host to the client are sequenced, and their delivery is guaranteed by the lower level INET [MoldUdp64](#) protocol.

<http://www.nasdaqtrader.com/content/technicalsupport/specifications/dataproducts/moldudp64.pdf>

1.2 Data Types

1.2.1 Table of Types

Type	Description
byte	Single digit Alpha Field
short	Big-Endian Unsigned 16-Bit Integer
int	Big-Endian Unsigned 32-Bit Integer
long	Big-Endian Unsigned 64-Bit Integer
byte[]	Fixed Width Alpha Field
varbyte[]	Variable Width Alpha Field - Length contained in the prior field within the same message

1.2.2 Numeric Types

- Unsigned big-endian (network byte order) binary values
- Numeric types include *short*, *int*, *long*
- Prices represented by *long* fields have implied 6 decimal places.
- Prices represented by *short* fields have implied 2 decimal places.
- Timestamps are *long* and represent nanoseconds since Epoch.

1.2.3 Alpha Types

- ASCII encoded
- Left justified and padded on the right with spaces
- Alpha fields include *byte*, *byte[]*, and *varbyte[]*

1.3 Message Table

Category	Type	Allowed Participant	Quote Feed	Trade Feed	Message Description
Quote Messages					
Q	E	All	Y	N	UTP Quote Short-form
Q	F	All	Y	N	UTP Quote Long-form
Q	M	FINRA	Y	N	FINRA ADF Market Participant Quote
Trade Messages					
T	A	All	N	Y	Trade Report Message Short-form
T	W	All	N	Y	Trade Report Message Long-form
T	Z	All	N	Y	Trade Cancel/Error
T	Y	All	N	Y	Trade Correction
T	H	All	N	Y	Prior Day As-Of Trade
Administrative Messages					
A	A	All	Y	Y	General Administrative
A	H	Nasdaq	Y	Y	CROSS SRO Trading Action
A	K	All	Y	Y	Market Center Trading Action
A	B	All	Y	Y	Issue Symbol Directory
A	V	Nasdaq	Y	Y	Reg SHO Short Sale Restrict Indicator
A	P	SIP	Y	Y	Limit Up – Limit Down Price Band
A	C	SIP	Y	Y	Market Wide Circuit Breaker Decline
A	D	SIP	Y	Y	Market Wide Circuit Breaker Status
A	Z	All	N	Y	Closing Trade Summary Report
V	M	All	N	Y	Total Consolidated and Market Volume
A	R	All	Y	N	Session Close Recap
A	E	Nasdaq	Y	Y	Auction Collar Message
Control Messages					
C	I	SIP	Y	Y	Start Of Day
C	J	SIP	Y	Y	End Of Day
C	O	All	Y	Y	Market Session Open
C	C	All	Y	Y	Market Session Close
C	Z	SIP	Y	Y	End Of Transmissions
C	X	All	N	Y	End Of Trade Reporting
C	S	SIP	N	Y	End Of Consolidated Last Sale Eligible
C	P	All	Y	N	Quote Wipe-Out

2 Messages

2.1 Message Header

All outbound data feed messages will precede each message specific data section with a message header.

Name	Offset	Length	Type	Notes
version	0	1	byte	Protocol Version
msgCategory	1	1	byte	Message Category
msgType	2	1	byte	Message Type
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token

The message header contains a one-byte alpha *version* field to allow for each message format to be updated, while still supporting previous versions of a message during transition.

The *orig* field (Market Center Originator ID) is a 1 byte, alphanumeric character that indicates the UTP participant or system that originated the message. [Refer to Section 3.1](#)

The *subMarketId* (Sub-Market Center Identifier) is a one-byte alphanumeric field that will be used for NASD reported trades to indicate the originating market center of a trade transaction. FINRA, as the regulator of the over-the-counter market, is responsible for reporting internalized trades of its member firms. FINRA may, however, align with other UTP participant exchanges to facility the collection, verification, and reporting of internalized trade transactions to the UTP SIP.

Since the FINRA acts as the regulator for all over-the-counter transactions, the UTDF Market Center ID field will carry the value of “D” for FINRA, when the transaction is collected as part of a joint trade reporting facility, the UTP SIP will indicate the originating UTP market center in the Sub-Market Center field.

Since it is possible for each UTP participant to align with FINRA in creating a trade reporting facility the Sub Market Center Value will be aligned with the UTP market center originator ID. [Refer to Section 3.2](#)

The *sipTime* is the time the outbound message is produced by the SIP.

The field *timestamp1* is a participant-provided timestamp representing the number of nanoseconds since Epoch. The value is a long numeric. The SIP will simply pass through the value provided by the participant where applicable.

- **If from an Exchange:** denotes the Exchange Matching Engine Publication timestamp for a transaction. Exchanges use a clock sync methodology ensuring that timestamps are accurate within tolerances of 100 microseconds or less.
- **If from the FINRA Alternative Display Facility (ADF) and/or a FINRA Trade Reporting Facility (TRF):** denotes the time of execution that a FINRA member reports to the FINRA ADF or a FINRA TRF. FINRA shall convert times that its members report to it in seconds or milliseconds to nanoseconds and shall provide such times to the Processor in nanoseconds since Epoch.

The *partToken* (Participant Token) is a long value. The Participant Token field is intended for UTP SIP internal use only and Data Recipients should ignore/disregard this field to the extent that it does not impact their normal data processing.

2.2 UTP Quotation Messages (UQDF)

The following message formats are used to disseminate quotation data for NASDAQ listed securities.

2.2.1 UTP Quote Message Short-form (QE)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	Q – Quote Messages (UTP Quote Feed Only)
msgType	2	1	byte	E – Short-format UTP Quotation Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
symbol	29	5	byte[]	Security Identifier
bidPrice	34	2	short	Bid Price
bidSize	36	2	short	Bid Size
askPrice	38	2	short	Ask Price
askSize	40	2	short	Ask Size
quoteCond	42	1	byte	Quote Condition
sipGenUpdate	43	1	byte	SIP Generated Update Flag
luldBboIndicator	44	1	byte	LULD BBO Indicator
rii	45	1	byte	Retail Interest Indicator
nbboIndicator	46	1	byte	NBBO Appendage Indicator
luldNbboIndicator	47	1	byte	LULD National BBO Indicator

The SIP will use the short form of this message format only if the UTP participant's quotation meets the following criteria:

- The Issue Symbol is 5 characters or less
- Both Bid and Ask Prices have a maximum price of \$655.35
- Both Bid and Ask Prices only use 2 decimal precision
- Both Bid and Ask Sizes are less than 65535
- Quote is not a FINRA quote.

2.2.2 UTP Quote Message Long-form (QF)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	Q – Quote Messages (UTP Quote Feed Only)
msgType	2	1	byte	F – Long-format UTP Quotation Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
timestamp2	29	8	long	FINRA Timestamp
symbol	37	11	byte[]	Security Identifier
bidPrice	48	8	long	Bid Price
bidSize	56	4	int	Bid Size
askPrice	60	8	long	Ask Price
askSize	68	4	int	Ask Size
quoteCond	72	1	byte	Quote Condition
sipGenUpdate	73	1	byte	SIP Generated Update Flag
luldBboIndicator	74	1	byte	LULD BBO Indicator
rii	75	1	byte	Retail Interest Indicator
nbboIndicator	76	1	byte	NBBO Appendage Indicator
luldNbboIndicator	77	1	byte	LULD National BBO Indicator
finraAdfMpidIndicator	78	1	byte	FINRA ADF MPID Appendage Indicator

- **If from an Exchange:** *timestamp2* will be set to 0

- **If from the FINRA Alternative Display Facility (ADF):**

If the FINRA ADF provides a proprietary feed of its quotation information, then the FINRA ADF will publish the time of the quotations as also published on the facility’s proprietary feed. The ADF shall convert times that it reports quotations on its proprietary feed in seconds or milliseconds to nanoseconds and shall provide such times to the Processor in nanoseconds since Epoch in the *timestamp2* field.

If the FINRA ADF does not have a proprietary quotation feed, *timestamp2* will be set to 0.

2.2.3 National BBO Appendage

If the UTP participant's quotation impacts the national best bid and offer of the issue, a National BBO Appendage will be added to the original short- or long-form message. The appendage will include all relevant information concerning the Best Bid and Best Ask of the issue and the originating market center.

Within the Quotation message, the National BBO Indicator will denote the type of appendage to be included. The allowable National BBO Indicator values are as follows:

Code	Value
0	No National BBO Change – The UTP participant's quote does not affect the National BBO. Vendors should continue to show the existing National BBO. No appendage is required.
1	No National BBO Can be Calculated – The National BBO cannot be calculated therefore vendors should show National BBO fields as blank. No appendage is required.
2	Short Form National BBO Appendage Attached – A new National BBO was generated as a result of the UTP participant's quote update and the new National BBO information is contained in the attached short form appendage. See criteria for the short form appendage below.
3	Long Form National BBO Appendage Attached – A new National BBO was generated as a result of the UTP participant's quote update and the new information is contained in the attached long form appendage.
4	Quote Contains All National BBO Information – Current UTP participant's quote is itself the National BBO. Vendors should update National BBO to reflect this new quote and single market center. (National Best Bid Market Center and National Best Ask Market Center fields should be updated to reflect the Market Center Originator ID value in the UQDF message header.) No appendage is required.

To economize on bandwidth, the simplest form of the National BBO Appendage will be used whenever possible.

2.2.3.1 National BBO Appendage Short-form

Name	Offset	Length	Type	Notes
nbboQuoteCond	0	1	byte	NBBO Quote Condition
nbBidMarketCenter	1	1	byte	National Best Bid Market Center
nbBidPrice	2	2	short	National Best Bid Price
nbBidSize	4	2	short	National Best Bid Size
nbAskMarketCenter	6	1	byte	National Best Ask Market Center
nbAskPrice	7	2	short	National Best Ask Price
nbAskSize	9	2	short	National Best Ask Size

2.2.3.2 National BBO Appendage Long-form

Name	Offset	Length	Type	Notes
nbboQuoteCond	0	1	byte	NBBO Quote Condition
nbBidMarketCenter	1	1	byte	National Best Bid Market Center
nbBidPrice	2	8	long	National Best Bid Price
nbBidSize	10	4	int	National Best Bid Size
nbAskMarketCenter	14	1	byte	National Best Ask Market Center
nbAskPrice	15	8	long	National Best Ask Price
nbAskSize	23	4	int	National Best Ask Size

2.2.4 FINRA ADF MPID Appendage

If the FINRA ADF participant's BBO quotation impacts their single participant at either the Bid or Ask side of their market for the issue, a FINRA ADF MPID Appendage will be added to the original short- or long-form message. This appendage will include the ADF's single participant for its best bid and size and/or the ADF's single participant for its best ask and size.

Within the Quotation message, the FINRA ADF MPID Indicator will denote the type of appendage to be included. The allowable values are as follows:

Code	Value
0	No ADF MPID changes - Current ADF quote does not affect the FINRA MPID. Vendors should continue to show the existing FINRA MPID(s). No appendage required.
1	No ADF MPID exists - There is no calculation of the FINRA MPID(s). Vendors should show the FINRA MPID fields as blank. No appendage is required.
2	ADF MPID(s) attached - FINRA MPID was generated and the information is contained in the attached appendage..
<space>	Not applicable - Quotation originates from a UTP participant other than the FINRA. Vendors should continue to show the existing FINRA MPID(s). No appendage is required.

The following appendage will be added to the UTP Quote message when necessary:

Name	Offset	Length	Type	Notes
bidAdfMpid	0	4	byte[]	Bid ADF MPID
askAdfMpid	4	4	byte[]	Ask ADF MPID

2.2.5 FINRA ADF Market Participant Quotation Message (QM)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	Q – Quote Messages (UTP Quote Feed Only)
msgType	2	1	byte	M – FINRA ADF Quotation Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
timestamp2	29	8	long	FINRA Timestamp
symbol	37	11	byte[]	Security Identifier
bidPrice	48	8	long	Bid Price
bidSize	56	4	int	Bid Size
askPrice	60	8	long	Ask Price
askSize	68	4	int	Ask Size
quoteCond	72	1	byte	Quote Condition
mpid	73	4	byte[]	FINRA Market Participant

For FINRA quotes that do not affect the NBBO or FINRA BBO a FINRA ADF Market Participant Quotation Message will be sent.

If the FINRA ADF provides a proprietary feed of its quotation information, then the FINRA ADF will publish the time of the quotations as also published on the facility’s proprietary feed. The ADF shall convert times that it reports quotations on its proprietary feed in seconds or milliseconds to nanoseconds and shall provide such times to the Processor in nanoseconds since Epoch in the *timestamp2* field.

If the FINRA ADF does not have a proprietary quotation feed, *timestamp2* will be set to 0.

2.3 Trade Messages (UTDF)

The following message formats are used to disseminate Trade Reports, Trade Corrections, and Trade Cancellations/Errors for NASDAQ listed securities.

If the sale condition code is equal to "R" (Seller), the Seller Sale's Day (*saleDays*) field will reflect the number of days that may elapse before delivery of the stock. If the sale condition is not "R", it will be zero filled.

timestamp2 will be used by the FINRA ADF and/or a FINRA TRF to provided timestamp representing the number of nanoseconds since Epoch.

- **If from an Exchange:** *timestamp2* should be set to 0
- **If from the FINRA Alternative Display Facility (ADF) or a FINRA Trade Reporting Facility (TRF):**

If the FINRA ADF or a FINRA TRF provides a proprietary feed of trades reported by the facility, then the FINRA facility will publish the time of the transmission as also published on the facility's proprietary trade feed. The TRF or ADF shall convert times that it reports trades on its proprietary trade feed in seconds or milliseconds to nanoseconds and shall provide such times to the Processor in nanoseconds since Epoch.

If the FINRA ADF or the FINRA TRF facility does not have a proprietary trade feed, *timestamp2* should be set to 0.

The *tradeId* is an identifier for tracking trades. Any Cancel/Error or Correction messages will include the trade Id of the trade being canceled or corrected in the *origTradeId* field. The *tradeId* is unique per participant per sub market center per symbol per session.

The tuple *orig, subMarketId, symbol, tradeId* will be unique within a trading session.

2.3.1 Trade Report Message Short-form (TA)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Trade Messages (UTP Trade Feed Only)
msgType	2	1	byte	A – Short-format Trade Report Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
timestamp2	29	8	long	FINRA Timestamp
symbol	37	5	byte[]	Security Identifier
tradeId	42	8	long	Trade Id
price	50	2	short	Trade Price
volume	52	2	short	Trade Volume
cond	54	4	byte[]	Sale Condition
tradeThrExempt	58	1	byte	Trade Through Exempt Flag
consPriceChangeInd	59	1	byte	Consolidated Price Change Indicator
partPriceChangeInd	60	1	byte	Participant Price Change Indicator

The SIP will use the short form of trade report message format only if the UTP participant’s transaction meets the following criteria:

- The Issue Symbol is 5 characters or less
- Trade price has a maximum price of \$655.35
- Trade price only uses 2 decimal precision
- Trade Volume is less than 65535
- Sale Condition modifier is not equal to “R” (Seller)

2.3.2 Trade Report Message Long-form (TW)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Trade Messages (UTP Trade Feed Only)
msgType	2	1	byte	W – Long-format Trade Report Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
timestamp2	29	8	long	FINRA Timestamp
symbol	37	11	byte[]	Security Identifier
tradeId	48	8	long	Trade Id
price	56	8	long	Trade Price
volume	64	4	int	Trade Volume
cond	68	4	byte[]	Sale Condition
tradeThrExempt	72	1	byte	Trade Through Exempt Flag
saleDays	73	2	short	Seller's Sale Days
consPriceChangeInd	75	1	byte	Consolidated Price Change Indicator
partPriceChangeInd	76	1	byte	Participant Price Change Indicator

If the sale condition code is equal to “R” (Seller), the *saleDays* field will reflect the number of days that may elapse before delivery of the stock. If the sale condition is not “R”, this field will be zero filled.

2.3.3 Trade Cancel/Error Message (TZ)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Trade Messages (UTP Trade Feed Only)
msgType	2	1	byte	Z – Trade Cancel/Error Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
timestamp2	29	8	long	FINRA Timestamp
symbol	37	11	byte[]	Security Identifier
cancelType	48	1	byte	Trade Cancellation Type
origTradeId	49	8	long	Original Trade Id
origPrice	57	8	long	Original Trade Price
origVolume	65	4	int	Original Volume
origCond	69	4	byte[]	Original Sale Condition
origTradeThrExempt	73	1	byte	Original Trade Through Exempt Flag
origSaleDays	74	2	short	Original Seller’s Sale Days
consHighPrice	76	8	long	Consolidated High Price
consLowPrice	84	8	long	Consolidated Low Price
consLastPrice	92	8	long	Consolidated Last Price
consVolume	100	8	long	Consolidated Volume
consPriceChangeInd	108	1	byte	Consolidated Price Change Indicator
consLastPriceOrig	109	1	byte	Market Center Originator ID
partHighPrice	110	8	long	Market Participant High Price
partLowPrice	118	8	long	Market Participant Low Price
partLastPrice	126	8	long	Market Participant Last Price
partVolume	134	8	long	Market Participant Volume

2.3.4 Trade Correction Message (TY)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Trade Messages (UTP Trade Feed Only)
msgType	2	1	byte	Y – Trade Correction Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
timestamp2	29	8	long	FINRA Timestamp
symbol	37	11	byte[]	Security Identifier
origTradeId	48	8	long	Original Trade Id
origPrice	56	8	long	Original Trade Price
origVolume	64	4	int	Original Volume
origCond	68	4	byte[]	Original Sale Condition
origTradeThrExempt	72	1	byte	Original Trade Through Exempt Flag
origSaleDays	73	2	short	Original Seller's Sale Days
corrTradeId	75	8	long	Corrected Trade Id
corrPrice	83	8	long	Corrected Trade Price
corrVolume	91	4	int	Corrected Volume
corrCond	95	4	byte[]	Corrected Sale Condition
corrTradeThrExempt	99	1	byte	Corrected Trade Through Exempt Flag
corrSaleDays	100	2	short	Corrected Seller's Sale Days
consHighPrice	102	8	long	Consolidated High Price
consLowPrice	110	8	long	Consolidated Low Price
consLastPrice	118	8	long	Consolidated Last Price
consVolume	126	8	long	Consolidated Volume
consPriceChangeInd	134	1	byte	Consolidated Price Change Indicator
consLastPriceOrig	135	1	byte	Market Center Originator ID
partHighPrice	136	8	long	Market Participant High Price
partLowPrice	144	8	long	Market Participant Low Price
partLastPrice	152	8	long	Market Participant Last Price
partVolume	160	8	long	Market Participant Volume

2.3.5 Prior Day As-Of Trade Message (TH)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Trade Messages (UTP Trade Feed Only)
msgType	2	1	byte	H – As-Of Trade Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
timestamp2	29	8	long	FINRA Timestamp
symbol	37	11	byte[]	Security Identifier
tradeId	48	8	long	Trade Id
price	56	8	long	Trade Price
volume	64	4	int	Trade Volume
cond	68	4	byte[]	Sale Condition
tradeThrExempt	72	1	byte	Trade Through Exempt Flag
saleDays	73	2	short	Seller's Sale Days
asOfAction	75	1	byte	As-Of Action
priorTime	76	8	long	Timestamp of Trade

The *tradeId* for as-of trades is a pass-through value sent by the Participant. There is no guarantee of uniqueness, and may be 0 if the Participant chooses not to include a *tradeId*.

2.4 Administrative Messages

2.4.1 Trade and Quote Services (UQDF & UQDF)

2.4.1.1 General Administrative Message (AA)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	A – General Administrative Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
textLen	29	2	short	Text Length
text	31	var	varbyte[]	Text

2.4.1.2 CROSS SRO Trading Action Message (AH)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	H – Trading Action Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
action	40	1	byte	Trading Action Code
actionSequence	41	4	int	Trading Action Sequence Number
actionTime	45	8	long	Timestamp of when the action occurred.
reason	53	6	byte[]	Reason for the Trading Action

This fixed format message will be used to inform subscribers of trading actions – such as halts, pauses, quotation resumptions and trading resumptions – impacting the trading of a NASDAQ-listed issue across all UTP participants.

The *actionSequence* field is intended for UTP SIP internal use only and Data Recipients should ignore/disregard this field to the extent that it does not impact their normal data processing.

2.4.1.3 Market Center Trading Action Message (AK)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	K – Market Center Trading Action Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
action	40	1	byte	Trading Action Code
actionTime	41	8	long	Timestamp of when the action occurred.
mcId	49	1	byte	Market Center Identifier

This fixed format message will inform UTP data feed subscribers of when a UTP participant invokes or releases a market center-specific trading halt for a NASDAQ-listed security. In contrast to the Cross SRO Trading Action (Category A – Type H) data format, the Market Center Trading Action (Category A – Type K) message impacts trading activity only for the UTP participant identified in the Market Center (MC) ID field.

Other UTP participants may continue to quote and trade the issue as normal. Because the issue remains active on other markets, the UTP participant will remove their quotes or mark their quotes as non-NBBO eligible during the market center-specific trading halt.

2.4.1.4 Issue Symbol Directory Message (AB)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	B – Issue Symbol Directory Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
oldSymbol	40	11	byte[]	Old Security Identifier
name	51	30	byte[]	Issue Name
type	81	1	byte	Issue Type
subtype	82	2	byte[]	Issue Subtype
mktTier	84	1	byte	Market Tier
auth	85	1	byte	Authenticity
sstInd	86	1	byte	Short Sale Threshold Indicator
roundLotSz	87	2	short	Round Lot Size
finStatInd	89	1	byte	Financial Status Indicator

The *roundLotSz* indicates the number of shares that make up a round lot for the given security. Allowable values are 00001 to 99999. For most NASDAQ issues, the round lot size is 100 shares.

2.4.1.5 Regulation SHO Short Sale Price Test Restricted Indicator Message (AV)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	V – Reg SHO Restriction Indicator Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
regShoAction	40	1	byte	Reg SHO Action

The Securities and Exchange Commission (SEC) implemented changes to Rule 201 of the Regulation SHO (Reg SHO). For details, please refer to SEC Release Number 34-61595.

In association with the Reg SHO rule change, the UTP SIP will introduce a Reg SHO Short Sale Price Test Restricted Indicator. As part of the pre-opening spin process, NASDAQ, as the primary listing market, will generate Reg SHO Short Sale Price Test Restricted Indicator messages indicating the Rule 201 status for all NASDAQ-listed securities. NASDAQ will also send the Reg SHO Short Sale Price Test Restricted Indicator message in the event of an intraday status change.

2.4.1.6 Limit Up – Limit Down Price Band Message (AP)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	P – LULD Price Band Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
luldPriceBandInd	40	1	byte	LULD Price Band Indicator
luldTime	41	8	long	LULD Price Band Effective Time
limitDownPrice	49	8	long	Limit Down Price
limitUpPrice	57	8	long	Limit Up Price

The Securities and Exchange Commission (SEC) adopted a Plan, to be implemented in two phases, to provide for a market-wide Limit Up–Limit Down (LULD) mechanism intended to address extraordinary market volatility in NMS Stocks. The new LULD procedures are designed to prevent trades in individual NMS Stocks from occurring outside of specified Upper and Lower Limit Price Bands.

2.4.1.7 Market Wide Circuit Breaker Decline Level Message (AC)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	C – MWCB Decline Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
mwcbLevel1	29	8	long	MWCB Level 1
mwcbLevel2	37	8	long	MWCB Level 2
mwcbLevel3	45	8	long	MWCB Level 3

A Market Wide Circuit Breaker (MWCB) Level message will inform participants and the UTP data recipients what the daily MWCB breach points are set to for the current trading day.

The MWCB Levels will generally remain in effect for the remainder of the current trading day and will be reset each trading day based on the prior day’s closing value of the S&P 500 index. However, there can be situations where the breach levels were set due to erroneous activity. In this case the breach levels may reset and disseminate the MWCB breach levels again. Participants and UTP data recipients should process and use the most recently disseminated levels for that trading day.

2.4.1.8 Market Wide Circuit Breaker Status Message (AD)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	D – MWCB Status Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
mwcbStatus	29	1	byte	MWCB Status Level Indicator

A Market Wide Circuit Breaker (MWCB) Status message will inform participants and the UTP data recipients when a MWCB has breached one of the established levels. The MWCB Status message will be generated **once** for each level if the S&P 500 declines past the established breaker decline level for the trading day.

2.4.1.9 Auction Collar Message (AE)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	E – Auction Collar Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
symbol	29	11	byte []	Security Identifier
actionSequence	40	4	int	Trading Action Sequence Number
CollarReferencePrice	44	8	long	Reference price used to set collar
CollarUpPrice	52	8	long	Collar Up Price
CollarDownPrice	60	8	long	Collar Down Price
CollarExtension	68	1	byte	Collar Extension Indicator

Primary markets using an automated reopening will calculate new Auction Collars, in compliance with rules around prices for re-opening, when applicable and publish this new Auction Collar Message (Category A – Type E) to SIP.

The initial Auction Collars will be published immediately after the LULD Trading Pause.

Subsequent Auction Collars will be published approximately every five minutes, while in an LULD Trading Pause, until the primary market is able to reopen.

The collar extension indicator will be used to reflect when a new collar has been published. The first collar extension, at the time of the pause, will be set to zero indicating the first collar message and will increment by 1 for each new message received by the primary market and disseminated via the SIP, during the pause event.

Should a security have multiple pause events during the trading day, at every new pause, the collar extension indicator is reset to zero by the primary market.

2.4.2 Trade Services Only (UTDF only)

2.4.2.1 Closing Trade Summary Report Message (AZ)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	Z –Closing Trade Summary Report Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
dailyConsHighPrice	40	8	long	Daily Consolidated High Price
dailyConsLowPrice	48	8	long	Daily Consolidated Low Price
dailyConsClosePrice	56	8	long	Daily Consolidated Closing Price
consLastPriceOrig	64	1	Byte	Market Center Originator ID
consVolume	65	8	long	Consolidated Volume
tradeActionInd	73	1	byte	Trading Action Indicator
numMktCenterAtch	74	2	short	Number of Market Center Attachments

Attachment(s) – Market Center Closing Price & Volume Summary

Name	Offset	Length	Type	Notes
mcId	0	1	byte	Market Center Identifier
mcClosingPrice	1	8	long	Market Center Closing Price
mcVolume	9	8	long	Market Center Volume
mcCloseInd	17	1	byte	Market Center Close Indicator
partHighPrice	18	8	long	Market Participant High Price
partLowPrice	26	8	long	Market Participant Low Price

The Closing Trade Summary Report will be disseminated three times daily at the following times:

- The initial report will be disseminated at approximately 4:30 p.m., ET, and will reflect the closing price for UTP participants who choose to have their official closing price calculated in time for this report as well as the preliminary closing prices for the consolidated market and other UTP participants in NASDAQ-listed issues.
- This second report will be disseminated at 5:20 p.m., ET, and will reflect the closing price for UTP participants who choose to have their official closing price calculated in time for this report as well as the preliminary closing

prices for the consolidated market and other UTP participants in NASDAQ-listed issues.

- The final instance of the Closing Trade Summary report will be generated upon receipt of the last End of Trading Reporting control message from UTP participants (approximately 20:10 Eastern Time). This report will contain the final closing price and volume data for the consolidated market as well as all UTP participants in a NASDAQ-listed issue.

If the market center provides an official closing price value, the UTP SIP will populate the “Market Center Closing Price Indicator” value in the message attachment with the value of “M”. If the market center does not provide an official closing price value, the message will reflect the final last sale eligible trade received by the UTP SIP from the market center for the given issue.

For all instances of the Closing Trade Summary Report, the message shall consist of a consolidated trade summary followed by any associated market center attachment(s). Please note that firms should process all three instances of the Closing Trade Summary Report for the most up-to-date and accurate information.

Note: Under certain market event circumstances, the UTP SIP reserves the right to amend the time of dissemination for any one or all of the closing trade summary reports without prior notification.

2.4.2.2 Total Consolidated & Market Center Volume Message (VM)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	V – Administrative Messages
msgType	2	1	byte	M – Total Consolidated and Market Center Volume Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
totalConsVolume	29	8	long	Total Consolidated Volume
numMktCenterAttch	37	2	short	Number of Market Center Attachments

Attachment(s) – Market Center Volume

Name	Offset	Length	Type	Notes
mcId	0	1	byte	Market Center Identifier
mcVolume	1	8	long	Current Market Center Volume

The Total Consolidated & Market Center Volume message will be used to relay intra-day values for the current total cumulative consolidated share volume and each active market center current cumulative volume activity as reported by all UTP participants in all NASDAQ issues. The consolidated volume report reflects trading activity up to the time that the message was generated. Only market centers with positive volume will be disseminated for a given time interval.

The Total Consolidated Volume Report message format consists of two parts:

- **Message Label:** This section provides the current total cumulative consolidated share volume. It also denotes how many market center attachments are being relayed as part of this message.
- **Message Attachment(s):** This section provides the market center identifier and the current market center volume for the given time interval.

2.4.3 Quote Services Only (UQDF only)

2.4.3.1 Session Close Recap Message (AR)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Administrative Messages
msgType	2	1	byte	R – Session Close Recap Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
nbBidMarketCtr	40	1	byte	National Best Bid Market Center
nbBidPrice	41	8	long	National Best Bid Price
nbBidSize	49	8	long	National Best Bid Size
nbAskMarketCtr	57	1	byte	National Best Ask Market Center
nbAskPrice	58	8	long	National Best Ask Price
nbAskSize	66	8	long	National Best Ask Size
specialCond	74	1	byte	Special Condition
numMktCenterAttch	75	2	short	Number of Market Center Attachments

Attachment(s) – Market Center Close Recap

Name	Offset	Length	Type	Notes
mcId	0	1	byte	Market Center Identifier
bidPrice	1	8	long	Market Center Bid Price
bidSize	9	8	long	Market Center Bid Size
askPrice	17	8	long	Market Center Ask Price
askSize	25	8	long	Market Center Ask Size

At the request of the market data community, the UTP SIP generates a Session Close Recap message that reflects the National BBO quotation information at the close of the normal market session. To generate this recap, the UTP SIP takes a snapshot of the National BBO at the time that the Market Close event is generated. The UTP SIP also includes as attachments most recent quote update from each UTP participant at the time of the snapshot event.

Please note that the UQDF Session Close Recap message is intended for informational purposes only. The UTP Operating Plan does not recognize an official NBBO closing value at this time.

The Session Close Recap Message is comprised of two sections. The label contains the National BBO at the market close. The attachment(s) reflects the UTP participant BBO quotation(s) at the market close.

2.5 Control Messages

Control Messages are utilized to inform the user(s) of various conditions and events during the trading day.

2.5.1 Trade and Quote Services (UQDF & UQDF)

2.5.1.1 Start Of Day (CI)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	C – Control Messages
msgType	2	1	byte	I – Start of Day Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token

The Start of Day control message signifies the beginning of each operational cycle for SIP Processing. Each day, the Start of Day control message will be sent to inform SIP subscribers that all subsequent data transmitted will be real-time updates and should be treated accordingly.

2.5.1.2 End Of Day (CJ)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	C – Control Messages
msgType	2	1	byte	J – End of Day Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token

The End of Day control message signals the end of active message dissemination for the UTP SIP operational cycle. The system shall generate and disseminate the End of Day control message upon receipt of the appropriate inbound control messages from all inbound sources.

2.5.1.3 Market Session Open (CO)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	C – Control Messages
msgType	2	1	byte	O – Market Session Open Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token

The Market Session Open Control Message signifies the opening of market systems for the session indicated in the Message Header. This message signifies the beginning of the Normal Market Session.

Please note that each UTP participant may choose to provide a Market Session Open control message.

2.5.1.4 Market Session Close (CC)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	C – Control Messages
msgType	2	1	byte	C –Market Session Close Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token

The Session Close Control Message signals the closing of market systems for the session indicated in the Message Header. Upon receipt of this message, Vendors should close the appropriate market center security records in their files. Please note that each UTP participant may choose to provide a Market Session Close control message.

2.5.1.5 End of Transmissions (CZ)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 - Protocol Version
msgCategory	1	1	byte	C - Control Messages
msgType	2	1	byte	Z - End of Transmissions Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token

The End of Transmissions Message signals that there will be no further transmissions of data sent through the UTP SIP line. This message will be transmitted at the end of the day, and will be the last message of the day.

2.5.2 Trade Services Only (UTDF only)

2.5.2.1 End Of Trade Reporting (CX)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	C – Control Messages
msgType	2	1	byte	X – End of Trade Reporting Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token

The End of Trade Reporting Control Message signals that SIP has completed its trade entry eligibility and that no further data will be accepted by the UTP SIP for the market session. Upon dissemination of the last End of Trade Reporting control message, the UTP SIP will generate the Closing Trade Summary Report.

2.5.2.2 End of Consolidated Last Sale Eligibility (CS)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	C – Control Messages
msgType	2	1	byte	S – End of Consolidated Last Sale Eligibility
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token

The End of Consolidated Last Sale Eligibility control message signals the closing of the trade-reporting window for consolidated last sale calculation eligibility. Under the UTP plan, all participants must report trade transactions that impact the last sale price within 10 seconds of the normal market session close. The message will be generated 10 seconds after the market close message from the primary market.

2.5.3 Quote Services Only (UQDF only)

2.5.3.1 Quote Wipe-Out (CP)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	C – Control Messages
msgType	2	1	byte	P – Quote Wipe-Out Message
orig	3	1	byte	Market Center Originator ID
subMarketId	4	1	byte	Sub Market Center ID
sipTime	5	8	long	SIP Timestamp
timestamp1	13	8	long	Participant Timestamp
partToken	21	8	long	Participant Token

The Quote Wipe-Out message will be sent to indicate that a UTP Participant is experiencing a problem with their internal systems and, as a result, are not able to update their UTP BBO quotation information. The SIP will identify the UTP participant subject to the Quote Wipe Out via the Market Center Originator ID field.

During the Quote Wipe-out the SIP will zero out all quotes for associated market center and recalculate the National BBO as necessary. Once the UTP participant resumes its normal operations, that participant will be required to enter fresh quotation information.

Note: The SIP shall only disseminate the Quote Wipe-Out Control message when a UTP participant is requesting the SIP to remove its quote from **ALL** NASDAQ-listed securities.

The SIP has the capability to remove a UTP participant's quote at the security level. If a UTP participant experiences a quoting problem that affects a single issue or a limited range of issues, the SIP has the capability of closing the market center's quote in only the impacted securities. Since the UTP participant is still active in other NASDAQ issues, however, the SIP will not send out a Quote Wipe-Out control message.

3 Code Definitions

3.1 Market Center Originator ID

Description	Value
NYSE MKT, LLC	A
NASDAQ OMX BX, Inc.	B
National Stock Exchange Inc.	C
FINRA ADF	D
Market Independent (Generated By SIP)	E
International Securities Exchange, LLC	I
Bats EDGA Exchange, Inc	J
Bats EDGX Exchange, Inc	K
Chicago Stock Exchange, Inc	M
New York Stock Exchange LLC	N
NYSE Arca, Inc.	P
NASDAQ Stock Market, LLC	Q
Investors' Exchange, LLC	V
Chicago Board Options Exchange, Inc.	W
NASDAQ OMX PHLX Inc. LLC	X
Bats BYX-Exchange, Inc.	Y
Bats BZX Exchange Inc.	Z

3.2 Sub-Market Center ID

Description	Value	Status
NYSE MKT, LLC TRF	A	
NASDAQ OMX BX, Inc. TRF	B	
National Stock Exchange Inc. TRF	C	
International Securities Exchange, LLC TRF	I	
Bats EDGA Exchange, Inc	J	
Bats EDGX Exchange, Inc	K	
Chicago Stock Exchange, Inc TRF	M	
New York Stock Exchange LLC TRF	N	Active
NYSE Arca Inc. TRF	P	
NASDAQ Stock Market, LLC TRF	Q	Active
Investors' Exchange, LLC	V	
Chicago Board Options Exchange, Inc. TRF	W	
NASDAQ OMX PHLX Inc. LLC TRF	X	
Bats BYX-Exchange, Inc.	Y	
Bats BZX Exchange Inc.	Z	
No sub-market; Trade originates from FINRA Alternative Display Facility.	<space>	

3.3 Quote Condition Code

At the market center level, the allowable values are as follows:

Description	Value
*Manual Ask, automated Bid	A
*Manual Bid, automated Ask	B
Fast trading	F
*Manual Bid and Ask	H
Order imbalance	I
Closed quote	L
Non-firm quote	N
*Opening quote automated	O
*Regular, two-sided open quote automated	R
Manual Bid and Ask (non-firm)	U
Order influx	X
*Automated bid, no offer; or automated offer, no bid	Y
No open/no resume	Z
Intraday Auction	4

* Indicates that quotation including this quote condition is NBBO eligible.

At the National BBO level the following definitions will be supported. These values are intended to indicate the status of the NBBO as being either open or closed and are not an indication of an automatic status.

Description	Value
NBBO Closed	L
NBBO Regular, two-sided open	R
NBBO Regular, one-sided open	Y

Note: Firms should not use the Quote Condition field alone to determine trading status for a given issue. Firms must process the Trading Action administrative message for trading halt, trading pause, quotation resumption, and trading resumption status changes for NASDAQ-listed securities.

3.4 SIP Generated Update

Description	Value
Transaction originated from the market participant identified in the Market Center Originator ID field of the Message Header.	<space>
This message is the result of a SIP-generated transaction (e.g. price band change)	E

3.5 LULD BBO Indicator

Description	Value
Limit Up Limit Down Not Applicable	<space>
Bid Price above Upper Limit Price Band – Bid is Non-Executable	A
Ask Price below Lower Limit Price Band – Ask is Non-Executable	B
Bid and Ask outside price band. Not Executable	C

3.6 LULD National BBO Indicator

Description	Value
Limit Up Limit Down Not Applicable	<space>
National Best Bid and National Best Ask are Executable	A
National Best Bid below Lower Limit Price Band – National Best Bid is Non-Executable	B
National Best Ask above Upper Limit Price Band – National Best Ask is Non-Executable	C
National Best Bid below Lower Limit Price Band and National Best Ask above Upper Limit Price Band – National Best Bid and National Best Ask are Non-Executable	D
National Best Bid equals Upper Limit Price Band – National Best Bid is in Limit State	E
National Best Offer equals Lower Limit Price Band – National Best Ask is in Limit State	F
National Best Bid equals Upper Limit Price Band – National Best Bid is in Limit State and National Best Ask above Upper Limit Price Band – National Best Ask is Non-Executable	G
National Best Ask equals Lower Limit Price Band – National Best Ask is in Limit State and National Best Bid below Lower Limit Price Band – National Best Bid is Non-Executable	H
National Best Bid equals Upper Limit Price Band and National Best Ask equals Lower Limit Price Band *crossed not in limit state	I

3.7 Retail Interest Code

Description	Value
Retail Interest Not Applicable	<space>
Retail Interest On Bid Quote	A
Retail Interest On Ask Quote	B
Retail Interest On both Bid and Ask Quote	C

3.8 NBBO Appendage Indicator

Description	Value
No National BBO Change – The UTP participant’s quote does not affect the National BBO. Vendors should continue to show the existing National BBO. No appendage is required.	0
No National BBO Can be Calculated – The National BBO cannot be calculated therefore vendors should show National BBO fields as blank. No appendage is required..	1
Short Form National BBO Appendage Attached – A new National BBO was generated as a result of the UTP participant’s quote update and the new National BBO information is contained in the attached short form appendage. See criteria for the short form appendage below.	2
Long Form National BBO Appendage Attached – A new National BBO was generated as a result of the UTP participant’s quote update and the new information is contained in the attached long form appendage.	3
Quote Contains All National BBO Information – Current UTP participant’s quote is itself the National BBO. Vendors should update National BBO to reflect this new quote and single market center. (National Best Bid Market Center and National Best Ask Market Center fields should be updated to reflect the Market Center Originator ID value in the UQDF message header.) No appendage is required.	4

3.9 FINRA ADF MPID Appendage Indicator

Description	Value
Not applicable - Quotation originates from a UTP participant other than the FINRA. Vendors should continue to show the existing FINRA MPID(s). No appendage is required..	<space>
No ADF MPID changes – Current ADF quote does not affect the FINRA MPID. Vendors should continue to show the existing FINRA MPID(s). No appendage required.	0
No ADF MPID exists – There is no calculation of the FINRA MPID(s). Vendors should show the FINRA MPID fields as blank. No appendage is required.	1
ADF MPID(s) attached - FINRA MPID was generated and the information is contained in the attached appendage.	2

3.10 Consolidated Price Change Indicator

Description	Value
No prices changed	0
Consolidated Last price changed	1
Consolidated Low price changed	2
Consolidated Last and Consolidated Low prices changed	3
Consolidated High price changed	4
Consolidated Last and Consolidated High prices changed	5
Consolidated High and Consolidated Low prices changed	6
All Consolidated prices changed	7

3.11 Participant Price Change Indicator

Description	Value
No prices changed	0
Participant Last price changed	1
Participant Low price changed	2
Participant Last and Low prices changed	3
Participant High price changed	4
Participant Last and High prices changed	5
Participant High and Low prices changed	6
All Participant prices changed	7

3.12 Reg SHO Action Code

Description	Value
No price test in effect	0
Reg SHO in effect due to an intra day price drop in security	1
Reg SHO Restriction remains in effect	2

3.13 Trade Through Exempt Code

Description	Value
611 Trade Through Exempt	X
Not 611 Trade Through Exempt	<space>

3.14 Sale Condition

The Sale Condition field is used to indicate the type of trade transaction entered by a UTP participant. Market data subscribers may use this field to determine when to update the high, low, and last sale prices and volume for an issue.

As part of SEC Regulation NMS UTP participants will be required to identify trade transactions that have been exempted from the trade through rule.

3.14.1 Sale Condition Modifiers

Condition	Modifier
Regular Sale	@
Acquisition	A
Bunched Trade	B
Cash Sale	C
Distribution	D
Placeholder	E
Intermarket Sweep	F
Bunched Sold Trade	G
Price Variation Trade	H
Odd Lot Trade	I
Rule 155 Trade (AMEX)	K
Sold Last	L
Market Center Official Close	M
Next Day	N
Opening Prints	O
Prior Reference Price	P
Market Center Official Open	Q

Condition	Modifier
Seller	R
Split Trade	S
Form T	T
Extended trading hours (Sold Out of Sequence)	U
Contingent Trade	V
Average Price Trade	W
Cross Trade	X
Yellow Flag Regular Trade	Y
Sold (out of sequence)	Z
Stopped Stock (Regular Trade)	1
Derivatively priced	4
Re-Opening Prints	5
Closing Prints	6
Qualified Contingent Trade ("QCT")	7
Placeholder For 611 Exempt	8
Corrected Consolidated Close (per listing market)	9

3.14.2 UTP Sale Condition Matrix

Modifier	Condition	Consolidated Processing Guidelines		Market Center Processing Guidelines		
		Update High/Low	Update Last	Update High/Low	Update Last	Update Volume
@	Regular Sale	Yes	Yes	Yes	Yes	Yes
A	Acquisition	Yes	Yes	Yes	Yes	Yes
B	Bunched Trade	Yes	Yes	Yes	Yes	Yes
C	Cash Sale	No	No	No	No	Yes
D	Distribution	Yes	Yes	Yes	Yes	Yes
E	Placeholder	TBD	TBD	TBD	TBD	TBD
F	Intermarket Sweep	Yes	Yes	Yes	Yes	Yes
G	Bunched Sold Trade	Yes	No ¹	Yes	No ¹	Yes
H	Price Variation Trade	No	No	No	No	Yes
I	Odd Lot Trade	No	No	No	No	Yes
K	Rule 155 Trade (AMEX)	Yes	Yes	Yes	Yes	Yes
L	Sold Last	Yes	Yes ²	Yes	Yes	Yes
M	Market Center Official Close	No	No	Yes	Yes	No
N	Next Day	No	No	No	No	Yes
O	Opening Prints	Yes	Yes	Yes	Yes	Yes
P	Prior Reference Price	Yes	No ¹	Yes	No ¹	Yes
Q	Market Center Official Open ³	No	No	Yes	No	No
R	Seller	No	No	No	No	Yes
S	Split Trade	Yes	Yes	Yes	Yes	Yes
T	Form T	No	No	No	No	Yes
U	Extended trading hours (Sold Out of Sequence)	No	No	No	No	Yes
V	Contingent Trade	No	No	No	No	Yes
W	Average Price Trade	No	No	No	No	Yes
X	Cross Trade	Yes	Yes	Yes	Yes	Yes
Y	Yellow Flag Regular Trade	Yes	Yes	Yes	Yes	Yes
Z	Sold (out of sequence)	Yes	No ¹	Yes	No ¹	Yes
1	Stopped Stock (Regular Trade)	Yes	Yes	Yes	Yes	Yes
4	Derivatively priced	Yes	No ¹	Yes	No ¹	Yes
5	Re-Opening Prints	Yes	Yes	Yes	Yes	Yes
6	Closing Prints	Yes	Yes	Yes	Yes	Yes
7	Qualified Contingent Trade ("QCT")	No	No	No	No	Yes
8	Placeholder For 611 Exempt	TBD	TBD	TBD	TBD	TBD
9	Corrected Consolidated Close (per listing market)	Yes	Yes	No	No	No

¹ *UTDF Subscribers should only update the field values if the trade is the first or only last sale eligible trade transaction of the business day from any UTP participant.*

² *UTDF subscribers should update consolidated last sale field if received prior to the End of Last Sale Eligibility Control Message (16:00:10). After End of Last Sale Eligibility Control Message is received the transaction would only update the market center-specific last sale value but not the consolidated last sale value.*

³ *Please note that direct data recipients, which maintain individual market center open values, should use the “Q” value as the official market center opening value and populate data displays accordingly.*

Notes:

- For the sale condition modifier of “M” (Market Center Close Price), UTDF subscribers should note that this value is available to, but may not be supported by, all UTP participants. If a UTP Participant does not provide this sale condition code, UTDF subscribers should continue to show its final last sale eligible trade as the closing price for the market center.
- The “M” sale condition modifier will update the last sale price for the market center, but not the consolidated market. If the market center responsible for the consolidated last sale price submits a separate “M” transaction, it is possible that the two last sale values will not match.
- For the sale condition modifier of “Q” (Market Center Open Price), UTDF subscribers should note that this value is available to, but may not be supported by, all UTP participants.
- For statistical update of the High/Low/Last, if there are multiple sale conditions within the trade record, a “no” update for any one of the statistics will take precedence for that related statistical record and no update will occur for the related value.

3.14.3 Sale Condition Combination Table

Level1 Byte: Settlement Type	Level2 Byte: Reason for TT Exemption	Level3 Byte: Extended Hours or Sold	Level4 Byte: SRO Trade Detail
@ = Regular Trade	F = Intermarket Sweep	T = Form T	1 = Stopped Stock
C = Cash	O = Opening Prints	L = Sold Last	A = Acquisition
N = Next Day	4 = Derivatively Priced	Z = Sold (Out of Sequence)	B = Bunched
R = Seller	5 = Re-Opening Prints	U = Extended trading hours - Sold Out of Sequence	D = Distribution
Y = Yellow Flag	6 = Closing Prints		E = Placeholder Future
	7 = Qualified Contingent Trade ("QCT")		G = Bunched Sold Trade
	8 = Placeholder For 611 Exempt		H = Price Variation
	9 = Corrected Consolidated Close (per listing market)		I = Odd Lot Trade
			K = Rule 155
			M = Market Center Official Close Price
			P = Prior Reference Price
			Q = Market Center Official Open Price
			S = Split Trade
			V = Contingent Trade
			W = Average Price Trade
			X = Cross Trade
	<Space>	<Space>	<Space>

3.14.4 Sale Condition and Trade Through Exempt Combinations

Participant is required to submit the Reg NMS sale condition data in proper byte location sequence and proper trade through exempt flag as follows:

Scenario A: If the trade record is marked as 611 exempt (X) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
X	@, C, N, R, or Y	F, O, 4, 5, 6, 7, 8, 9, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Scenario B: If the trade record is marked as Not 611 exempt (space) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
<space>	@, C, N, R, or Y	O, 5, 6, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

3.14.5 Sale Condition Notes

Note 1: The Form T (T) Sale Condition should be applied for the following:

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 2: The U Extended Hours (Sold out of sequence) Sale Condition should be applied when transactions executed during the following time periods are reported more than 10 seconds after execution.

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 3: The Sale Condition “M”, Market Center Close Price, is used to indicate the “official” closing value as determined by a market center. A message generated with this condition will contain the market center generated closing price. The “M” sale condition modifier shall only affect the market center closing/last sale value and will not affect the consolidated market value.

Note 4: The Sale Condition “Q”, Market Center Open Price, is used to indicate the “official” open value as determined by a Market Center. A message generated with this condition will contain the Market Center generated open price. The “Q” sale condition shall only affect the Market Center open high/low values and will not affect any of the consolidated market values.

Note 5: Certain UTP Participants utilize the “W” sale condition (average price trades) to report stopped stock transactions. Because “W” sale condition trades reflect other transaction prices, the trades with this sale condition will not affect the consolidated or market center high, low, or last sale prices. Volume statistics, however, will be impacted.

Note 6: Odd lot transactions will be rejected back to the participant via Error Code “Invalid Volume”, for the following reasons:

- Invalid Volume
- Report Volume is zero and sale condition does not equal “9”, “M” or “Q”
- Report Volume contains volume less than a round lot **and sale condition does not equal “1”**

Note 7: The Sale Condition “Y”, Yellow Flag, is used to convey periods of time when a Market Center may be experiencing technical difficulties. This sale condition will affect the Market Center and Consolidated last sale, high, low and volume values.

Note 8: The Sale Condition “9”, Corrected Consolidated Close (per listing market), will be allowed to be used only by the Listing Market and may be used to adjust the consolidated last sale price. The Corrected Consolidated Close will be eligible to set the High, Low and Last for the consolidated statistics and will not update the participant records. Volume will always be reported as zero and will appear in Level 2 of the extended sale condition modifier field on the UTDF and CTS data feeds. Corrected Consolidated Close transactions will be rejected back to participants for the following reasons:

Sale Condition “9” Processing scenario	Validation Processing
Sale Condition “9” Trades received before allowable reporting time of 30 seconds after market close	Invalid Reporting Time
Sale Condition “9” Trades received from non-listing market	Invalid User Origin
Sale Condition “9” Trades received from Listing Market with Volume Other than Zero (0)	Invalid Volume

3.15 Trade Cancel Type Code

Description	Value
Cancel	C
Error	E

3.16 As-Of Action

Description	Value
As-Of Trade Addition	A
As-Of Trade Cancel	C

3.17 Trading Action Reason Code

Description	Value
Halt News Pending	T1
Halt News Dissemination	T2
Single Stock Trading Pause In Affect	T5
Regulatory Halt Extraordinary Market Activity	T6
Halt ETF	T8
Trading Halted; For information requested by NASDAQ	T12
Halt Non Compliance	H4
Halt Filings Not Current	H9
Halt SEC Trading Suspension	H10
Halt Regulatory Concern	H11
Operations Halt, Contact Market Operations	O1
IPO Issue not yet Trading	IP01
Corporate Action	M1
Quotation Not Available	M2
Volatility Trading Pause	LUDP
Volatility Trading Pause – Straddle Condition	LUDS
Market Wide Circuit Breaker Halt – Level 1	MWC1
Market Wide Circuit Breaker Halt – Level 2	MWC2
Market Wide Circuit Breaker Halt – Level 3	MWC3
Market Wide Circuit Breaker Halt – Carry over from previous day	MWC0
News and Resumption Times	T3
Single Stock Trading Pause/Quotation-Only Period	T7
Qualifications Issues Reviewed/Resolved; Quotations/Trading to Resume	R4
Filing Requirements Satisfied/Resolved; Quotations/Trading To Resume	R9
Issuer News Not Forthcoming; Quotations/Trading To Resume	C3
Qualifications Halt ended; maint. Req. met; Resume	C4
Qualifications Halt Concluded; Filings Met; Quotes/Trades To Resume	C9
Trade Halt Concluded By Other Regulatory Auth,; Quotes/Trades Resume	C11
New Issue Available	R1
Issue Available	R2
IPO security released for quotation	IPOQ
IPO security – positioning window extension	IPOE
Market Wide Circuit Breaker Resumption	MWCQ
Reason Not Available	<space>

3.18 Trading Action Code

Description	Value
Trading Halt	H
Quotation Resumption, including after EMA	Q
Trading Resumption	T
Volatility Trading Pause	P

3.19 Market Center Close Indicator

Description	Value
Market Center Closing Price is based on transaction with "M" sale condition modifier.	M
Market Center Closing Price is not based on a transaction with an "M" sale condition modifier.	<space>

3.20 Trading Action Indicator

Description	Value
Trading Halt In Effect	H
Regular Trading In Effect	<space>

3.21 Special Condition

Description	Value
One-sided National BBO at Market Close.	O
Trading Halt In Effect at Market Close.	H
No Eligible Market Participant Quotes in Issue at Market Close.	M
No Special Condition exists.	<space>

3.22 Authenticity

Description	Value
Live/Production	P
Test	T
Demo	D
Deleted	X

3.23 Issue Type

Description	Value
American Depository Receipt	A
Bond	B
Common Stock	C
Depository Receipt	F
144A	I
Limited Partnership	L
Note	N
Ordinary Shares	O
Preferred Stock	P
Other Securities	Q
Rights	R
Shares of Beneficial Interest	S
Convertible Debenture	T
Unit	U
Units of Beneficial Interest	V
Warrant	W

(Note: The list above reflects the allowable values in the Nasdaq security master database. Only a subset of these values are currently in use.)

3.24 Issue Subtype

Description	Value
Trust Preferred	A
Alpha Index ETNs	AI
Index Linked Note	B
Common Shares	C
Commodity Based Trust Shares	CB
Commodity Futures Trust Shares	CF
Commodity-Linked Securities	CL
Commodity Index Trust Shares	CM
Collateralized Mortgage Obligation	CO
Currency Trust Shares	CT
Commodity-Currency-Linked Securities	CU
Currency Warrants	CW
Global Depositary Shares	D
ETF-Unit Investment Trust	E
Equity Gold Shares	EG
ETN-Equity Index-Linked Securities	EI
Exchange Traded Managed Fund (ETMF)	EM
Exchange Traded Note	EN
Equity Units	EU
HOLDRS	F
ETN-Fixed Income-Linked Securities	FI
ETN-Futures-Linked Securities	FL
Exchange Traded Debt	G
ETF-Management Investment Company	I
Interest Rate	IR
Index Warrant	IW
Index-Linked Exchangeable Notes	IX
Corporate Backed Trust Security	J
Contingent Litigation Right/Warrant	L
Limited Liability Company	LL

Description	Value
Equity Linked Note	M
Managed Fund Shares	MF
ETN-Multi-Factor Index-Linked Securities	ML
Managed Trust Securities	MT
NY Registry Shares	N
Income Depositary Shares	O
Third Party Trust Certificate	P
Poison Pill	PP
Partnership Units	PU
Closed End Funds	Q
Reg-S	R
Commodity-Redeemable Commodity-Linked Securities	RC
ETN-Redeemable Futures-Linked Securities	RF
REIT	RT
Commodity-Redeemable Currency-Linked Securities	RU
SEED	S
Spot Rate Closing	SC
Spot Rate Intraday	SI
Tracking Stock	T
Trust Certificate	TC
Trust Units	TU
Portal	U
Contingent Value Right	V
Trust Issued Receipts	W
World Currency Option	WC
Trust	X
Other	Y
N/A	Z

3.25 Market Tier

Description	Value
Nasdaq Global Select Market	Q
Nasdaq Global Market	G
Nasdaq Capital Market	S

3.26 Short Sale Threshold Indicator

Description	Value
Issue is restricted under SEC Rule 203(b)(3)	Y
Issue is not restricted	N
Threshold Indicator not available	<space>

3.27 Financial Status Indicator

Description	Value
Creations and/or Redemptions Suspended for Exchange Traded Product	C
Deficient: Issuer Failed to Meet NASDAQ Continued Listing Requirements	D
Delinquent: Issuer Missed Regulatory Filing Deadline	E
Bankrupt: Issuer Has Filed for Bankruptcy	Q
Normal (Default): Issuer Is NOT Deficient, Delinquent, or Bankrupt.	N
Deficient and Bankrupt	G
Deficient and Delinquent	H
Delinquent and Bankrupt	J
Deficient, Delinquent, and Bankrupt	K

Notes: External Market Data Distributors must provide the Financial Status Indicator field for NASDAQ-listed securities to their customer displays. Once the Financial Status Indicator field is in place, NASDAQ plans to discontinue the use of fifth character symbol suffixes for delinquent or bankrupt issues.

3.28 LULD Price Band Indicator

Description	Value
Opening Update	A
Intra-Day Update	B
Restated Value	C
Suspended during trading halt or trading pause	D
Re-Opening Update	E
Outside price band rule hours	F
None provided	<space>

3.29 Market Wide Circuit Breaker Status Level Indicator

Description	Value
Market Wide Circuit Breaker Decline Level 1 Breached (7% decline)	1
Market Wide Circuit Breaker Decline Level 2 Breached (13% decline)	2
Market Wide Circuit Breaker Decline Level 3 Breached (20% decline)	3

4 Binary and ASCII Protocol Differences and Notes

1. Underlying delivery protocol for UTP Binary is MoldUdp64.
2. Explicit blocking of messages using message and block separators has been removed. MoldUdp64 supports blocking of messages, so no need at the application level.
3. All messages in UTP Binary include a Version in order to allow multiple versions of messages to be allowed for transition.
4. Transaction Id is now called Participant Token and is a 64 bit long value instead of a 7 Byte ASCII value.
5. All times are now 64 bit long values that represent nanoseconds since Epoch.
6. 64 bit long prices have 6 decimal places implied.
7. 16 bit short prices have 2 decimal places implied.
8. Line Integrity message (CT) has been removed as heartbeats are now handled within the MoldUdp64 protocol.
9. Removed Currency Field as it is always US Dollars. If that needs to change a new version of the message should be created supporting currency.
10. Removed all Reserved fields.
11. Removed Sequence Number Reset (CL), as sequences are now handled at the MoldUdp64 level.
12. Removed End of Retransmission Requests (CK) as retransmissions are now handled by MoldUdp64 Re-request ports.
13. Removed FINRA ADF Quote (QM, QN) NBBO appendage, as they are no longer used.
14. Added tradeId for tracking trades across corrections and cancels. No longer uses message sequence.
15. Only support a single FINRA ADF Quote message (QM) which is the long version of the original OMDf(QM, QN) messages.
16. Removed FINRA appendage support from Short Quote.
17. Added Retail Interest Indicator to Short Quote.
18. Added timestamp2 to Long Quote to support FINRA Quote.
19. Added timestamp2, 4 byte Sale Condition, and Trade Through Exempt Flag to the Short Trade.
20. Removed the 1 byte Sale Condition. Only support the 4 byte version in trade messages.
21. Include the calculation and dissemination of the market participant statistical level tracking of High / Low / Last and volume.

5 Revision History

Revision	Date	Change
1.0	10/27/2015	Initial Version
1.2	12/24/2015	Include the calculation and dissemination of the market participant statistical level tracking of High / Low / Last and volume.
1.2a	01/19/2016	Minor edits to clean up terminology throughout the document.
1.2b	03/03/2016	<ul style="list-style-type: none"> • Minor edits to text formatting throughout document • Corrected allowable values on page 50 to correctly identify Issue Sub Types • Correct the definition of Trade Condition "M" to read Market Center Official Close
1.2c	03/18/2016	At the request of Bats we modified their exchange Naming Convention
1.2d	03/28/2016	Corrected field consVolume in the Trade Cancel/Error message (TZ) to the correct type which is 8 byte long.
1.2e	4/12/2016	Corrected sale condition field type from byte to byte[]. Added clarification that the End of Trade Reporting Control Message (CX) is generated by the SIP prior to final Closing Trade Summary Report.
1.2f	6/8/2016	Added NBBO Quote Condition descriptions. Corrected AP, AC and AD messages allowed participant in the message table. Clarified 611 trade through exempt code.
1.3	02/24/2017	Added Auction Collar Message (AE) to section 2.4.1.9
1.3a	6/30/2017	Revised the last sale trade reporting eligibility from 90 seconds down to 10 seconds.