



**Computer-to-Computer Interface (CTCI)
Trade Reporting Programming Specifications**

August 2020

Version 2020-02

Confidentiality/Disclaimer

This specification is being provided to you strictly for informational purposes solely for the purpose of developing or operating systems for your use that interact with systems of Nasdaq, Inc. and its affiliates (collectively, "Nasdaq"). This specification is proprietary to Nasdaq. Nasdaq reserves the right to withdraw, modify, or replace the specification at any time, without notice. No obligation is made by Nasdaq regarding the level, scope, or timing of Nasdaq's implementation of the functions or features discussed in this specification. THE SPECIFICATION IS "AS IS", "WITH ALL FAULTS" AND Nasdaq MAKES NO WARRANTIES AND DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, OR STATUTORY RELATED TO THE SPECIFICATIONS. Nasdaq IS NOT LIABLE FOR ANY INCOMPLETENESS OR INACCURACIES. Nasdaq ARE NOT LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR INDIRECT DAMAGES RELATING TO THE SPECIFICATIONS OR THEIR USE. It is further agreed by you by using this specification that you agree not to copy, reproduce, or permit access to the information contained in the specification except to those with a need-to-know for the purpose noted above. Copyright 2018, Nasdaq, Inc. as an unpublished work. All Rights reserved.

Revision History

Change	Description	Date
<u>Version 2020-02: New Market Center</u>		<u>Aug 2020</u>
Section 4.2.1 Section 4.2.3 Section 4.2.10 Section 4.3.4 Section 4.3.5	Field value added <ul style="list-style-type: none"> Related Market Center 	
Version 2020-01: New Market Center		Mar 2020
Section 4.2.1 Section 4.2.3 Section 4.2.10 Section 4.3.4 Section 4.3.5	Field value added <ul style="list-style-type: none"> Related Market Center 	
Version 2018-03: TRF Chicago and Short Sale Field Clarifications		Jun 2018
Section 4.5	Clarification for short sale reporting production effective dates	
Section 4.2.1 Section 4.2.3 Section 4.2.10	Clarification for short sale reporting production effective dates	
Section 4.2.1 Section 4.2.3 Section 4.2.10 Section 4.2.11 Section 4.3.4 Section 4.3.5 Section 4.3.8	Clarification for FINRA / Nasdaq TRF Chicago production effective dates	
Section 4.2.1 Text Field Definitions	Field name modification <ul style="list-style-type: none"> Control Number Field values modification <ul style="list-style-type: none"> Related Market Center 	
Section 4.2.3 Executing Party (EP) Trade Entry (Function G) – Expanded ACT EP Version	Field values modification <ul style="list-style-type: none"> Position 148-148: Related Market Center 	
Section 4.2.10 Executing Party (EP) Trade Entry (Function K) - Expanded Modifier Time Fields and Reversal version	Field values modification <ul style="list-style-type: none"> Position 148-148: Related Market Center Position 192-192: Reference Reporting Facility 	
4.2.11 Contra Party (CP) Trade Entry (Function M)	Field modifications: <ul style="list-style-type: none"> Position 166-166: Reference Reporting Facility 	
Section 4.3.4 Trade Entry Acknowledgment (TGEN/CGEN) – Expanded ACT EP Message Format	Field values modification <ul style="list-style-type: none"> Position 182-182: Related Market Center 	

Change	Description	Date
Section 4.3.5 Trade Entry Acknowledgment (TKEN/CKEN) Expanded ACT EP Message Format	Field values modification <ul style="list-style-type: none"> Position 182-182: Related Market Center Position 227-227: Reference Reporting Facility 	
4.3.8 Trade Entry Allege (TKAL/CKAL)	Field modifications: <ul style="list-style-type: none"> Position 218-218: Reference Reporting Facility 	
4.3.9 Error Trade (Function E)	Field name modification Control Number	
Section 4.2.1 Text Field Definitions	B/S/X Indicator deprecated	
Section 4.2.1 Text Field Definitions	Fields added: <ul style="list-style-type: none"> ShortSaleIndicatorSide 	
Section 4.2.2 Executing Party (EP) Trade Entry (Function F) – Reg NMS Compliant Version	Field modifications: <ul style="list-style-type: none"> Position 4-4: Deprecated. Position 33-33: Side Position 34-34: Short Sale Indicator 	
Section 4.2.3 Executing Party (EP) Trade Entry (Function G) – Expanded ACT EP Version	<ul style="list-style-type: none"> Field modifications: Position 4-4: Deprecated. Position 33-33: Side Position 34-34: Short Sale Indicator 	
Section 4.2.4 Contra Party (CP) Trade Entry (Function W):	Field modifications: <ul style="list-style-type: none"> Position 4-4: Deprecated. Position 33-33: Side Position 34-34: Short Sale Indicator 	
Section 4.2.4 Contra Party (CP) Trade Entry (Function W): CQS Message Format	Field modifications: <ul style="list-style-type: none"> Position 4-4: Deprecated. Position 33-33: Side Position 34-34: Short Sale Indicator 	
Section 4.2.5 Accept Trade (Function A)	Field modifications: Position 19-19: Short Sale Indicator	
Section 4.2.10 Executing Party (EP) Trade Entry (Function K) - Expanded Modifier Time Fields and Reversal version	Field modifications: <ul style="list-style-type: none"> Position 4-4: Deprecated. Position 33-33: Side Position 34-34: Short Sale Indicator 	
Section 4.2.11 Contra Party (CP) Trade Entry (Function M)	Field modifications: <ul style="list-style-type: none"> Position 4-4: Deprecated. Position 98-98: Side Position 99-99: Short Sale Indicator 	
Section 4.3.3 Trade Entry Acknowledgment (TREN/CREN)	Field modifications: <ul style="list-style-type: none"> Position 14-14: Deprecated. Position 43-43: Side Position 44-44: Short Sale Indicator 	
Section 4.3.4 Trade Entry Acknowledgment (TGEN/CGEN) – Expanded ACT EP Message Format	Field modifications: <ul style="list-style-type: none"> Position 14-14: Deprecated. Position 43-43: Side Position 44-44: Short Sale Indicator 	

Change	Description	Date
Section 4.3.5 Trade Entry Acknowledgment (TKEN/CKEN) Expanded ACT EP Message Format	Field modifications: <ul style="list-style-type: none"> Position 14-14: Deprecated. Position 43-43: Side Position 44-44: Short Sale Indicator 	
Section 4.3.6 Trade Entry Allege (TRAL/CRAL)	Field modifications: <ul style="list-style-type: none"> Position 14-14: Deprecated. Position 43-43: Side Position 44-44: Short Sale Indicator 	
Section 4.3.7 Trade Entry Allege (TGAL/CGAL)	Field modifications: <ul style="list-style-type: none"> Position 14-14: Deprecated. Position 43-43: Side Position 44-44: Short Sale Indicator 	
Section 4.3.8 Trade Entry Allege (TKAL/CKAL)	Field modifications: <ul style="list-style-type: none"> Position 14-14: Deprecated. Position 43-43: Side Position 44-44: Short Sale Indicator 	
Section 4.3.11 Trade Update Notification (TTUD)	Field modifications: <ul style="list-style-type: none"> Position 14-14: Deprecated. Position 34-34: Side Position 35-35: Short Sale Indicator 	
Section 4.3.12 Trade Update Notification (TRUD)	Field modifications: <ul style="list-style-type: none"> Position 14-14: Deprecated. Position 43-43: Side Position 44-44: Short Sale Indicator 	
Section 4.5 Short Sale Reporting.	Description modified to reflect change in reporting of short sale information	
Version 2018-02: Modifications for TRF Chicago Deprecated		May-2018
Version 2018-01: Short Sale Reporting Change Deprecated		March-2018

Table of Contents

1	Introduction	8
1.1	Document Overview	8
1.2	CTCI Overview	9
1.3	Communications Protocols	10
2	Standard Input Messages	11
2.1	General Message Format	12
2.1.1	Message Header Format	12
2.1.2	Message Body Format	12
2.1.3	Message Trailer Format	13
2.2	Application Messages	15
2.2.1	Message Header Format	15
2.2.2	Message Body Format	17
2.2.3	Message Trailer Format	17
2.3	Admin Messages	18
2.3.1	Message Header Format	18
2.3.2	Message Body Format	19
2.3.3	Message Trailer Format	19
2.4	SUPER Messages	21
2.4.1	Message Header Format	21
2.4.2	Message Body Format	21
2.4.3	Message Trailer Format	24
3	Standard Output Messages	25
3.1	General Message Format	25
3.1.1	Message Header Format	25
3.1.2	Message Body Format	27
3.1.3	Message Trailer Format	27
3.1.4	Message Numbers	28
3.2	SUPER Messages	30
3.2.1	Message Acknowledgment	30
3.2.1.1	Acknowledgement Message Body Format #1	30
3.2.1.2	Acknowledgement Message Body Format #2	30
3.2.2	Number Gap Message	31
3.3	Reject Messages	33
3.3.1	Switch Reject Messages	33
3.3.2	Application Reject Messages	34
4	FINRA/Nasdaq TRF Trade Reporting Messages	36
4.1	Party Identification on Trade Entry	40
4.2	Trade Reporting Input Messages	42
4.2.1	Text Field Definitions	42
4.2.2	Executing Party (EP) Trade Entry (Function F) (Reg NMS Compliant version) ..	55
4.2.3	Executing Party (EP) Trade Entry (Function G) Expanded ACT EP version	62
4.2.4	Contra Party (CP) Trade Entry (Function W)	70
4.2.5	Accept Trade (Function A)	80
4.2.6	Break Trade (Function B)	81
4.2.7	Cancel Trade (Function C)	82
4.2.8	Decline Trade (Function D)	83
4.2.9	Error Trade (Function E)	84

4.2.10	Executing Party (EP) Trade Entry (Function K) Expanded Modifier Time Fields and Reversal version	85
4.2.11	Contra Party (CP) Trade Entry (Function M)	94
4.3	Trade Reporting Output Messages	101
4.3.1	UM Notification Message	101
4.3.2	Output Message Types	102
4.3.3	Trade Entry Acknowledgment (TREN/CREN) (previously called Reg NMS Message Format for TTEN/CTEN)	105
4.3.4	Trade Entry Acknowledgment (TGEN/CGEN) Expanded ACT EP Message Format	112
4.3.5	Trade Entry Acknowledgment (TKEN/CKEN) Expanded ACT EP Message Format	121
4.3.6	Trade Entry Allege (TRAL/CRAL)	131
4.3.7	Trade Entry Allege (TGAL/CGAL)	137
4.3.8	Trade Entry Allege (TKAL/CKAL)	143
4.3.9	Locked-in Trade Acknowledgment (TCLK)	150
4.3.10	Locked-in Trade Acknowledgment (TGLK/CGLK)	152
4.3.11	Trade Update Notification (TTUD)	154
4.3.12	Trade Update Notification (TRUD)	159
4.3.13	Break Trade Acknowledgment (TCBK)	165
4.3.14	Cancel Trade Acknowledgment (TCAN)	167
4.3.15	Decline Trade Acknowledgment (TCDE)	168
4.3.16	Error Trade Acknowledgment (TCER)	169
4.3.17	Participant Authorization Indicator (TCPI)	170
4.4	Reject Message Format	173
4.5	Short Sale Reporting	180
4.6	Trade Status Tables	182
5	Appendix A: TCP/IP Connection	185

1 Introduction

1.1 Document Overview

This document contains the subscriber requirements for using Nasdaq's Computer-to-Computer Interface (CTCI) to access Trade Reporting¹. The document outlines only the messages transmitted via CTCI and not via other entry points for Nasdaq Trade Reporting.

This document should be used by FINRA member firms acting on their own behalf and by third party software vendors/service bureaus acting on behalf of a FINRA member.

The document contains these sections:

- Standard input messages;
- Standard output messages;
- FINRA/Nasdaq TRF trade reporting;
- Appendix A: TCP/IP Connection;
- Appendix B: IBM WebSphere MQ; and

The standard input and output sections detail the formats for messages to and from the Nasdaq Switch. The other sections detail the input and output messages that are specific to a particular application. Appendix A describes how a subscriber can submit and receive messages to and from the CTCI using the TCP/IP protocol. Appendix B provides a link to *CTCI WebSphere MQ V1.1 Subscriber Intercommunication Specification*.

These conventions are used throughout the document:

- Fields defined as required must be present in the message.
- Fields defined as alphabetic can only hold A-Z (no spaces or numbers).
- Fields defined as numeric can only hold 0-9 (no spaces or alpha characters).
- Embedded spaces cannot be entered in alphabetic or numeric fields.
- Messages are limited to 1024 characters (including the header and trailer).
- Lines within messages are limited to 253 characters, including the end-of-line delimiter.
- All lines are terminated by a CR/LF pair.
- Fields within square brackets are optional.
- Multiple fields within brackets must all be present if any are.

¹MFQS and TRACE specifications are in separate documents.

<http://www.nasdaqtrader.com/Trader.aspx?id=TradingSpecs>

<http://www.finra.org/Industry/Compliance/MarketTransparency/TRACE/Documentation/>

1.2 CTCI Overview

Nasdaq provides a CTCI facility that allows subscribers to record and to report transactions executed otherwise than on an exchange in all NMS stocks as defined in Rule 600(b)(47) of SEC Regulation NMS from their computer systems to Nasdaq's computer systems via the Nasdaq Message Switch (Switch) using a two-way communications link over dedicated point-to-point circuits. Nasdaq also provides other protocols that subscribers may use for trade reporting and clearing. FINRA members that use the FINRA/Nasdaq Trade Reporting Facility must comply with the Rule 6300A and 7200A Series, as well as all other applicable rules.

CTCI uses a Transmission Control Protocol/Internet Protocol (TCP/IP) interface connection that allows incremental bandwidth.

Nasdaq supports IBM WebSphere MQ over the CTCI TCP/IP interface connection. IBM WebSphere MQ, a message queue middleware that extends business applications and enables them to communicate with one another, offers customers the ability to incorporate different systems a common messaging infrastructure. CTCI TCP/IP customers may implement WebSphere MQ software to facilitate interaction between their computer-to-computer-interface and other internal systems. See Appendix B: [IBM WebSphere MQ](#)

Nasdaq Support



Nasdaq Technical Support: 212.231.5180



Email: tradingervices@nasdaqomx.com

FINRA Support



FINRA Operations: 866.776.0800



Email: Finraoperations@finra.org

1.3 Communications Protocols

Computerized firms that elect to use the CTCI will conform to the TCP/IP protocol detailed in Appendix A.

The subscriber is responsible for all line and equipment costs required for the use of the CTCI. In the TCP/IP environment, the system will support bandwidth from 56 kbps up to full T1 rates. A subscriber may order a redundant line(s) for backup.

CTCI permits a firm acting as a Service Bureau to interface with Nasdaq applications on behalf of multiple firms. Two station configuration methods for this Service Bureau capability are available:

1. One or more stations can be defined for each Service Bureau client. Since each client station will be configured and used just as if they were a direct link to the actual client, *no* Service Bureau-specific message formatting rules contained herein apply to this type of configuration.
2. Multiple clients can be associated to one or more Service Bureau stations. Since the Service Bureau station will be configured and used on behalf of multiple clients, *all* Service Bureau-specific message formatting rules contained herein apply to this type of configuration.

2 Standard Input Messages

The Nasdaq Message Switch supports three types of input messages:

- Application (section [2.2](#));
- ADMIN (section [2.3](#)); and
- SUPER (section [2.4](#)).

Application messages carry application-specific data in the message body to the Nasdaq application system designated in the message header. For example, a Contra Party message is an application message.

ADMIN messages are text messages sent to and logged in the Switch as communication checks.

SUPER messages are used to communicate with the Nasdaq Message Switch itself. These messages are used to notify the switch of the status of the user station, to turn sequence number checking on or off, to reset the sequence numbers, and to initiate retransmission of missed or lost CTCI output messages.

2.1 General Message Format

Input messages consist of:

- a message header that defines the message origin, category, and destination;
- a message body that consists of one or more lines of text; and
- an optional message trailer that consists of one line of text carrying the message sequence number.

Message headers, body, and trailers are constructed from lines of text. Each line consists of one or more data fields. All lines except the last line must be terminated with an end-of-line delimiter, which is either a Carriage Return/Line Feed pair <CR/LF> or a single Line Feed <LF> (for the sake of uniformity only the <CR/LF> pair will be used throughout this document to represent the end-of-line delimiter). Some of the data fields may be optional depending on the message category or destination. When an optional field is omitted and the result is a blank line the required end-of-line delimiter must still be provided.

Messages delivered to the Nasdaq Message Switch via TCP/IP are enclosed within a message envelope consisting of a 13-byte header and a 2-byte sentinel ("UU"). These 15 bytes are in addition to the header, body, and trailer described here. Transmission of blocked messages is not permitted, that is, each 15 byte "message envelope" must contain only one message, regardless of the message destination. Please see Appendix A: TCP/IP Connection for more details.

2.1.1 Message Header Format

```
Line 0:      [Origin] <CR/LF>
Line 1:      [Data]  <CR/LF>
Line 1A:     [Category] space [Destination] <CR/LF>
Blank Line:  <CR/LF>
```

The header consists of four lines. The first line is line 0 and contains the origin of the message. The second line is line 1 and contains the data. The third line is line 1a and contains the category and destination of the message. The fourth line is always a blank line.

2.1.2 Message Body Format

```
Line 2:      [first line of message body] <CR/LF>
Line 3:      [possible 2nd line] <CR/LF>
Line n:      [possible additional lines] <CR/LF>
```

The body consists of one or more lines. The first line is always line 2. For application messages, the content of the message body varies according to the destination application and the function being specified. For ADMIN messages, the body consists of one or more lines of user-defined text. For SUPER messages, the body consists of one or more lines of Switch-defined text.

2.1.3 Message Trailer Format

Trailer 1: [trailer data]

The trailer consists of a single line carrying the message sequence number. If the user elects to provide message sequence numbers for validation by the Switch, the message trailer line is required for all input messages. If the user elects not to provide message sequence numbers for validation by the Switch, the message trailer line can be omitted from ADMIN and application input messages. It cannot be omitted for SUPER messages. The message trailer is the last line of a message and is, therefore, never terminated with a <CR/LF>.

The Nasdaq Switch supports four input message trailer formats:

Format	Description	Examples
Format 1	A fixed 4-digit, zero-filled sequence number.	0034
Format 2	A hyphen (-), followed by a 1-4 digit sequence number.	-34
Format 3	The letters "OL" followed by an optional third alphabetic character and/or a space followed by a 1-4 digit sequence number. The sequence number can be zero-filled if desired. This sequence can appear anywhere on the last line. A space is used to separate the sequence number from any following user-defined data.	OL34 OLX 0034 [user-defined data]OLX 0034[<u>space</u> user-defined data]
Format 4	A 1-4 digit sequence number at the beginning of the line, followed by a space and a user-defined character string starting with a <i>non-numeric</i> character. The sequence number can be zero-filled if desired.	34 <u>space</u> AXD 0034 <u>space</u> /200008041717

If a user elects to provide message sequence numbers for validation by the Switch, the following should be kept in mind:

1. The allowed range for sequence numbers is 0001 to 9999.
2. Once 9999 is reached, the number rolls over to 0001 (not 0000), and any currently outstanding gaps for the station will be erased.
3. Each station requires its own unique sequence number series.
For example:
 - The first message from Station 1 will be number 0001.
 - The second message from Station 1 will be number 0002.
 - If the next message is from Station 2, it will be number 0001, starting a new series specifically for Station 2.

4. The Switch will issue a NUMBER GAP message to any station where a gap in the provided message sequence numbers has been detected. The user is strongly urged to fill any gap (by retransmitting the missed message including the original i.e., missing, sequence number) as soon as possible, as the Switch allows only 16 outstanding gaps per station.
5. The sequence number in the required trailer of SUPER messages can have any value because this message type is never used to detect or fill a gap.
6. The station input sequence number, maintained by the Switch:
 - has value of the next expected sequence number from the user without exception;
 - has a start-of-day value of 0001;
 - can be altered programmatically with SUPER messages;
 - can be altered manually by Nasdaq Tandem Operations staff;
 - all input messages, including SUPER messages, "consume" a station input sequence number. For example, if two non-SUPER messages are sent with the legitimate sequence numbers 0041 and 0042, then two SYSTEM CHECK (SUPER) messages are sent with sequence number values of 0001 and 0100, and then another non-SUPER message is sent, then the SUPER message sequence numbers will not be flagged as out of the ordinary in any way. The non-SUPER message sent must contain the input sequence number 0045 because the two SUPER messages "consumed" the input sequence numbers 0043 and 0044.
7. The subscriber may retransmit a SUPER message, but the message will not fill a gap reported by any NUMBER GAP message. A self-addressed ADMIN message should be sent to fill a gap caused by a missed SUPER message.
8. A SUPER message should never be the first message sent to a station when a session is restored after a communication outage. If messages were in-flight when the session was lost, any SUPER message sent to stations as the first message following session reestablishment will adversely affect input gap detection, and one or more missing messages from the previous session will not be reported with a NUMBER GAP message. It is recommended that a self-addressed ADMIN message be the first message sent to stations when a session is re-established.

To read more about ADMIN messages, see section [2.3](#). To read more about SUPER messages, see section [3.2](#). Number Gap Messages are explained in section [3.2.2](#).

2.2 Application Messages

Application messages carry application-specific data in the message body to the Nasdaq application system designated in the message header. Please see section 4 for additional trade reporting information.

2.2.1 Message Header Format

Input Application Message Header Format

Line 0: [Entry Originator] **<CR/LF>**
 Line 1: [Branch Office] **space** [Branch Office Seq. #] **<CR/LF>**
 Line 1A: **Category space Destination <CR/LF>**
 Blank Line: **<CR/LF>**

Examples for line 1:

ABCD**space**1234**<CRLF>**

A**space**7**<CRLF>**

DR 2850/120601**<CRLF>** (optional format for ACES only)

For EP Trade entry Function G and No-Was entry Function J, Line 1 can hold up to 20 characters, including embedded spaces.

Line	Field	Description	Req'd
0	Entry Originator	1 to 6 characters For service bureaus, the field must contain the 4-character EPID (as specified by FINRA) of the firm represented by the transaction. The Nasdaq Switch will populate the field if it is not supplied.	Y for firms acting as a service bureau & when either "PMXR" or "PMXN" is used in the destination field, even if the user is not a service bureau N for firms not acting as a service bureau
	<CR/LF>	line delimiter	Y even if the Entry Originator field is not entered
1	Branch Office*	1 to 4 alpha characters. Used to denote the firm's branch office.	Y
	Branch Office Seq. #	1 to 4 numeric characters	N
	Optional Entry date (ACES only)		N
	<CR/LF>	line delimiter	Y

Line	Field	Description	Req'd
1A**	Category	"ORDER" or "OTHER" For NNMS and Nasdaq market center, this field must contain the string "ORDER". For all other Nasdaq applications this field must contain the string "OTHER".	Y
	space	field separator	Y if destination is filled in
	Destination	A required field. It must contain: i) "ACT" which will route EP Trade Entries and CP trade entries to trade reporting primary processing. ii) "ACTB" which will route the other trade reporting transactions (i.e. Error, Cancel, Acceptance, Decline, Break Trade, Browse Request) to trade reporting secondary processing. iii) "ACTR" which will route clearing firm data (Buy and Sell side thresholds) to Risk Management processing. Wrong assignment of Destination Code will result in an "Invalid Format" reject.	Y
	<CR/LF>	line delimiter	Y
blank line	<CR/LF>	line delimiter used to separate the message header from the message body	Y

* If you are entering a trade reporting message, the format of the branch sequence allows for 1-8 alphanumeric with embedded spaces. See section [4](#).
If you are entering a trade report or a no-was submission using the expanded format (functions G and J), the branch office and sequence number fields combined may be up to 20 characters, including embedded spaces.

** Line 1A is required for all new CTCI users. When omitted, the destination of the message is determined by the content of the SECID field in the message body. New CTCI users should always populate the destination field as omission of the destination may cause incorrect routing. Current CTCI users are encouraged to do this as well.

2.2.2 Message Body Format

ADMIN message body format is discussed in section [2.3.2](#). SUPER message body format is discussed in sections [3.2.1.1](#) and [3.2.1.2](#).

The body of each application message (versus SUPER or ADMIN) sent from the user to the Switch is application-specific. Please refer to one of the following sections for information about the format of the application message body:

- Nasdaq Market Center trade reporting messages are described in section [4](#).

2.2.3 Message Trailer Format

Trailer 1: [trailer data]

The Nasdaq Switch supports four input message trailer formats:

Format	Description	Examples
Format 1	A fixed 4-digit, zero-filled sequence number.	0034
Format 2	A hyphen (-), followed by a 1-4 digit sequence number.	-34
Format 3	The letters "OL" followed by an optional third alphabetic character and/or a space followed by a 1-4 digit sequence number. The sequence number can be zero-filled if desired. This sequence can appear anywhere on the last line. A space is used to separate the sequence number from any following user-defined data.	OL34 OLX 0034 [user-defined data]OLX 0034[spaceuser-defined data]
Format 4	A 1-4 digit sequence number at the beginning of the line, followed by a space and a user-defined character string starting with a <i>non-numeric</i> character. The sequence number can be zero-filled if desired.	34spaceAXD 0034space/200008041717

2.3 Admin Messages

Input Admin messages should be used in the following recovery situations.

- A self-addressed ADMIN message should be sent in place of a SUPER message when the Switch sends the user a NUMBER GAP message (see Section 3.2.2) and the gap corresponds to a missed SUPER message; the sequence number of the missing SUPER message must be used by this ADMIN message in order to remove the gap created by the missed SUPER message. If necessary, the SUPER message can be resent after the gap has been filled by the ADMIN message.
- When a session is restored after a communications problem, an ADMIN message should be the first message sent to a station, so that the input gap detection by the Switch is accurate. An application message may also be used for this purpose.

When an ADMIN message is used as described above, it is recommended that the destination field on Line 1A be populated with a value that will cause the message to be routed back to the originator; the user can obtain the "address" for this specific purpose from the output message trailer <DestId> field, described in section 3.1.3. Such a self-addressed message not only handles the situations described above, but also proves to the user that data can flow in both directions.

2.3.1 Message Header Format

Input Admin Message Header Format

Line 0: <Originator><CR/LF>
 Line 1: <CR/LF>
 Line 1A: <Category>space<Destination><CR/LF>
 Blank Line: <CR/LF>

Line	Field	Description	Req'd
0	Entry Originator	1 to 6 characters The Nasdaq Switch will populate the field if it is not supplied.	N for firms not acting as a service bureau
	<CR/LF>	line delimiter	Y even if the Entry Originator field is not entered
1	Variable Data	0 to 253 characters Field that the CTCI subscriber may use to enter any data.	N
	<CR/LF>	line delimiter	Y
1a	Category	"ADMIN" Identifies the message category. This field must contain the string "ADMIN".	Y
	space	field separator	Y

Line	Field	Description	Req'd
	Destination	1 to 6 character address code Holds the address of the message destination. It is recommended that this field be populated with an address that will route it back to the originator (a "self-addressed" message). The Nasdaq Customer Subscriber Test group (CST) can provide the user with the appropriate destination code for use in sending themselves self-addressed Admin messages.	Y
	<CR/LF>	line delimiter	Y
blank	<CR/LF>	Blank line used to separate the message header from the message body.	Y

2.3.2 Message Body Format

Input Admin Message Body Format

Line 2: [Variable Data] <CR/LF>
Line 3 ...: [Additional Data] <CR/LF>

Line	Field	Description	Req'd
2	Variable Data	Free form text. of an Admin Message. This is a free format message containing information destined for the individual address identified in the Destination field of the message header.	Y
	<CR/LF>	line delimiter	Y
3	Additional Data	Free form additional lines of message text. Each line requires a <CR/LF> to separate it from the following line.	N

2.3.3 Message Trailer Format

Trailer 1: [trailer data]

The Nasdaq Switch supports four input message trailer formats:

Format	Description	Examples
Format 1	A fixed 4-digit, zero-filled sequence number.	0034
Format 2	A hyphen (-), followed by a 1-4 digit sequence number.	-34

Format	Description	Examples
Format 3	The letters "OL" followed by an optional third alphabetic character and/or a space followed by a 1-4 digit sequence number. The sequence number can be zero-filled if desired. This sequence can appear anywhere on the last line. A space is used to separate the sequence number from any following user-defined data.	OL34 OLX 0034 [user-defined data]OLX 0034[<u>space</u> user-defined data]
Format 4	A 1-4 digit sequence number at the beginning of the line, followed by a space and a user-defined character string starting with a <i>non-numeric</i> character. The sequence number can be zero-filled if desired.	34 <u>space</u> AXD 0034 <u>space</u> /200008041717

2.4 SUPER Messages

Input SUPER messages are used to communicate with the Nasdaq Message Switch. These messages are used to notify the switch of the status of the user station, to turn sequence number checking on or off, to reset the sequence numbers, and to initiate retransmission of missed or lost CTCI output messages.

2.4.1 Message Header Format

Line 0: [Entry Originator] <CR/LF>
 Line 1: [Variable Data] <CR/LF>
 Line 1A: [Category] <CR/LF>
 Blank Line: <CR/LF>

Line	Field	Description	Req'd
0	Entry Originator	1 to 6 characters For service bureaus, the field must contain the 4-character EPID (as specified by FINRA) of the firm represented by the transaction. The Nasdaq Switch will populate the field if it is not supplied.	Y for firms acting as a service bureau N for firms not acting as a service bureau
	<CR/LF>	line delimiter	Y even if the Entry Originator field is not entered
1	Variable Data	0-253 characters Field which the CTCI subscriber may use to enter any data.	N
	<CR/LF>	line delimiter	Y
1a	Category	"SUPER" Identifies the message category. This field must contain the string "SUPER". SUPER messages do not have a destination field.	Y
	<CR/LF>	line delimiter	Y
blank	<CR/LF>	blank line used to separate the message header from the message body.	Y

2.4.2 Message Body Format

In order to be processed automatically by the Switch, the message body portion of a SUPER Message must match one of the expected SUPER message formats. If the text does not conform to one of the specified formats, the message will be rejected.

Line 2: **[Function Text]**
 Line 3-n: **[Additional Lines of Text as required]**

Line	Field	Description	Req'd
2	Function Text	See the following table for the supported SUPER message functions. In some cases, the Function Text may consist of multiple lines, with a <CR/LF> between each one. The last line does not require a <CR/LF> as a terminator.	Y

SUPER Message Functions

SUPER Function Text	Processing
GOOD MORNING	Indicates the subscriber is ready to begin receiving messages from the Switch.
GOOD NIGHT	Indicates the subscriber has no further traffic to send and is no longer prepared to receive traffic. This command will cause the station output queue to be drained.
SUSPEND SEQ CHECK	Instructs the Switch to suspend input sequence number checking for this subscriber station. This command is only valid if sequence checking was previously instituted.
ALLOW SEQ CHECK	Instructs the Switch to resume input sequence number checking from the next received input sequence number. This command is only valid if suspension of sequence checking was previously instituted.
SYSTEM CHECK	A test message allowing a subscriber to check its ability to communicate with the Switch.
RESET ORDER SEQ<CR/LF> nnnn or RESET ORDER SEQ<CR/LF> ANY	Instructs the Switch to expect a new input sequence number. Two options are provided: nnnn - Numeric string specifying the sequence number provided with the next input message. ANY - Literal indicating that sequence number checking is to commence from the sequence number of the next input message. Either form of this message will erase all previously created number gaps.
REVERT TO SEQ 1	Instructs the Switch to reset to start-of-day numbering in both directions (input and output). This message will erase all previously created number gaps.
RESTART LAST RCVD<CR/LF> nnnn	Instructs the Switch that a subscriber switching facility has been restored after a failure.

SUPER Function Text	Processing
	<p>The Switch will reset the next output sequence number to nnnn + 1, where nnnn is typically the last message sequence number that had been received by the subscriber.</p>
<p>RTVL LAST OUT [mm] or RTVL OUT nnnnn mm</p> <p>Other options: ROUTE=[ADDR] ID=[SID]</p>	<p>Permits a subscriber to request a resend of messages previously transmitted by the Switch. The optional field mm is the number of messages to be retrieved and must be between 1 and 15 (default is 1). If more than 15 messages are requested then multiple SUPER messages must be used. LAST OUT mm instructs the Switch to resend the most recent mm messages.</p> <p>OUT nnnnn mm instructs the Switch to resend mm messages starting with the message which had output retrieval number nnnnn.</p> <p>Valid values for nnnnn are 1 through 65535.</p> <p>Retrieval of INPUT messages is no longer supported.</p> <p>If the "ROUTE=" option is used, the retrieved messages will be sent to <ADDR>.</p> <p>If the "ID=" option is used, the retrieved messages will be messages belonging to the station defined by <SID>.</p> <p>A station may only use the ROUTE= and ID= options if it has been granted those privileges.</p> <p>NOTE: The previous specification showed <CR/LF> after the RTVL. This is still a valid input format. However, the response to this command echoes this information as a single line, i.e., no <CR/LF> after RTVL. While both formats are acceptable, we choose to represent it in this spec with a single line in an attempt to avoid confusion.</p>
<p>NUMBER GAP nnnnn or NUMBER GAP nnnnn nnnnn</p> <p>Other options: ROUTE=[ADDR] ID=[SID]</p>	<p>As input to the Switch:</p> <p>Indicates that a subscriber has detected a gap in the Switch assigned output sequence number and is requesting the resend of the message originally sent with retrieval number nnnnn. The Switch will resend the related message with a new output sequence number; the optional second trailer line in the output message will indicate the retrieval number previously assigned to the message i.e., nnnnn.</p> <p>Up to two messages can be retrieved by a single NUMBER GAP message (nnnnn nnnnn denotes 2 distinct retrieval numbers, not a range).</p> <p>Valid values for nnnnn are 1 through 65535 only.</p>

SUPER Function Text	Processing
	<p>See the discussion of the RTVL command for info about the optional ROUTE= and ID= fields.</p> <p>NOTE: The previous specification showed <CR/LF> after the NUMBER GAP. This is still a valid input format. However, the response to this command echoes this information as a single line, i.e., no <CR/LF> after NUMBER GAP. While both formats are acceptable, we choose to represent it in this spec with a single line in an attempt to avoid confusion.</p>

Because the station output queue is a first-in-first-out (FIFO) queue, the subscriber CTCI design must take into account the fact that SUPER message rejects and acknowledgements are always appended to the existing (and potentially deep) queue. There is currently no way to push output messages onto the top of an output queue.

2.4.3 Message Trailer Format

Trailer 1: [trailer data]

The Nasdaq Switch supports four input message trailer formats:

Format	Description	Examples
Format 1	A fixed 4-digit, zero-filled sequence number.	0034
Format 2	A hyphen (-), followed by a 1-4 digit sequence number.	-34
Format 3	The letters "OL" followed by an optional third alphabetic character and/or a space followed by a 1-4 digit sequence number. The sequence number can be zero-filled if desired. This sequence can appear anywhere on the last line. A space is used to separate the sequence number from any following user-defined data.	OL34 OLX 0034 [user-defined data]OLX 0034[<u>space</u> user-defined data]
Format 4	A 1-4 digit sequence number at the beginning of the line, followed by a space and a user-defined character string starting with a <i>non-numeric</i> character. The sequence number can be zero-filled if desired.	34 <u>space</u> AXD 0034 <u>space</u> /200008041717

3 Standard Output Messages

3.1 General Message Format

Output messages consist of:

- a message header that defines the start of the message, its origin, its destination, its output sequence number, and the message type;
- a message body that consists of one or more lines of text; and
- an optional message trailer that carries the date and time, the message retrieval number, and other information.

Messages sent from the Nasdaq Message Switch via TCP/IP are enclosed within a message envelope consisting of a 13-byte header and a 2-byte sentinel ("UU"). These 15 bytes are in addition to the header, body, and trailer described here. Please see Appendix A for more details.

Message headers and trailers are constructed from lines of text. Each line consists of one or more data fields and is terminated by a Carriage Return/Line Feed pair <CR/LF>.

An output message header consists of up to 4 fields with a user defined field separator between each field. The separator defaults to space if the user has not specified something else. The user can select which fields they would like to receive and can specify the order in which the fields should be placed in the header.

Assuming that the user has elected to receive all fields in the default order, the format is as follows:

3.1.1 Message Header Format

The message header format is one line containing four fields. The field separators can, however, be <CR/LF>, which makes the message header four lines.

```

Line 1:      [Destination Code]   [field separator]
              [Originator Code]   [field separator]
              [Sequence Number]   [field separator]
              [Message
Type]        <CR/LF>
```

Line	Field	Description
1	Destination Code	The Destination Code is a 1-6 character identifier that defaults to the Station ID of the user. The user may specify a custom code. Custom codes may also be specified for each message. See field 4. The user may elect not to receive this field.
	Field Separator	The field separator is defined by the user (<u>space</u> , <CR/LF>, <LF>, etc.). If the user does not specify a separator, a <u>space</u> is used by default.

Line	Field	Description															
	Originator Code	The Originator Code is a 1-6 character identifier that defaults to the Station ID of the originator of the message. The user may specify custom Originator Codes for each message type. See field 4. The user may elect not to receive this field.															
	Field Separator	The field separator is defined by the user (space , <CR/LF> , <LF> , etc.). If the user does not specify a separator, a space is used by default.															
	Sequence Number	4 numeric characters. Output message sequence number. The number is in the range 0001 to 9999. When 9999 is reached, the number wraps to 0001 (0000 is not used). The "REVERT TO SEQ 1" Super Message resets this field. The user may elect not to receive this field.															
	Field Separator	The user defines the field separator (space , <CR/LF> , <LF> , etc.). If the user does not specify a separator, a space is used by default.															
	Message Type	<p>The message type is a 1-character code that specifies the nature of the message. The user may select the user's own codes. If custom codes are not used, the defaults are as follows:</p> <table> <tr><td>R</td><td>=</td><td>Report</td></tr> <tr><td>A</td><td>=</td><td>Admin</td></tr> <tr><td>S</td><td>=</td><td>Status</td></tr> <tr><td>P</td><td>=</td><td>Super</td></tr> <tr><td>T</td><td>=</td><td>Other</td></tr> </table> <p>The type of an application output message is determined by the Category Field of Input Header Line 1A of the message input to the switch by the application. It does not indicate which application produced the message. Standard Input information is in section 2 of this document. The user may elect not to receive this field.</p>	R	=	Report	A	=	Admin	S	=	Status	P	=	Super	T	=	Other
R	=	Report															
A	=	Admin															
S	=	Status															
P	=	Super															
T	=	Other															
	<CR/LF>	Line delimiter. A <CR/LF> is used to separate the output message header from the message body. It is present even if the user elects not to receive any of the fields defined above.															

As part of Nasdaq's on-going effort to maximize Switch performance and capacity, Nasdaq will require that the last three characters of the six-character Common Message Switch (CMS) output header Originator Code be reserved for Nasdaq's use. If you, therefore, plan to code your firm's internal systems to use the Originator Code to identify system of origin, you should compare the first three characters of the Originator Code.

Below are the three-letter codes that should be used to identify the system of origin:

System of Origin	(Mnemonic)
ACT SM	ACT

Nasdaq reserves the right to change an application mnemonic at any time.

3.1.2 Message Body Format

An output message body consists of one or more lines, with the first line referred to as Line 1. The number of lines and their content varies with the class of the message.

Line 1: [first line of message body] <CR/LF>
 Line 2: [possible 2nd line] <CR/LF>
 Line n: [possible additional lines] <CR/LF>

See Sections 3.1.4 - 3.3.2 for format information specific to each message class.

3.1.3 Message Trailer Format

An output message trailer consists of either one or two lines depending upon the type of message. Each line in the trailer is optional and the user may elect to not receive either one. If present, the format is as follows:

Trailer 1: [Date/Time]**space**[Dest ID]**slash**[Rtvl #]<CR/LF>
 Trailer 2: [Resend]**space**[Alt Route]**space**[Poss Dup]

Line	Field	Description
Trailer 1	Date/Time	12 character numeric field. The format of the Date/Time field is HHMMSSDDMMYY (hours, minutes, seconds, day, month, year).
	space	Field separator.
	DestID	1-6 character Destination Station ID. This is identical to the default Destination Code found in the output message header. It is not affected if the user chooses to have a custom Destination Code.
	slash	Field separator (/).
	Rtvl #	4 or 6 character numeric field. The switch maintains a 6-digit retrieval number (RN) from 000001 to 065535. When 065535 is reached, the number wraps to 000001. A user will receive the default 4-digit RN or can choose to receive the 6-digit RN (recommended). The 4-digit RN is merely the rightmost 4 digits of the number maintained by the switch. The 4-digit wrapping sequence is [00]0001 to [00]9999, [01]0000 to [01]9999, [02]..., [06]0000 to [06]5535, [00]0001 to [00]9999 and so on.
	<CR/LF>	Line delimiter. The <CR/LF> is only present if the trailer includes Trailer Line 2.
Trailer 2*	Resend	An optional " RSND " followed by [destID] / [Rtvl #]. Used when the switch resends a message (due to an input Super RTVL or Super Number Gap message). The switch places the character string "RSND" in this field, followed by a 1-6 character Destination Id, a slash , and the 4 or 6 character retrieval number of the original message. Optional.
	space	Field separator. A space will be present if another field follows the Resend field

Line	Field	Description
	Alt Route	Holds the 1-6 character Destination ID of the original location the message was addressed to when the message has been rerouted. Optional.
	space	Field separator. A space will be present if another field follows the Alt Route field.
	Poss Dup	An optional " PD ". Holds the string value "PD" if the switch needs to indicate that this message may possibly be a duplicate of an earlier attempt to deliver the message. Optional.

*Trailer Line 2 is present only when the Switch must indicate unusual situations to the user (message resend, alternate routing, possible duplicate message). If the line is present, it will consist of one, two, or all three of the fields, with a **space** between each one.

A message that successfully passes the Switch validation and safestore procedures is forwarded to the specified application, which performs additional validation on the text of the message. If an error is detected, the user will receive a reject message explaining why the original message could not be processed. All reject messages sent from applications will be forwarded to the subscriber via the Switch and will be contained in a Standard Switch Output Message.

If the text from an application is too large, the Switch will replace the text with the character string "-->" so that the message does not exceed 1024 characters. This string replaces the entire echo.

See section [3.3.2](#) for additional reject information.

3.1.4 Message Numbers

Each output message delivered by the Switch is assigned two numbers:

1. A Message Sequence Number located in the output header.
2. A Message Retrieval Number located in the output trailer.

The Message Sequence and Message Retrieval numbers are independently maintained for each station and will normally be sequential.

The user detects missing messages by monitoring the Message Sequence Number for gaps, but must request message retrievals by using the Message Retrieval Number. The Message Sequence Number may wrap, be set back to 0001 via a REVERT TO SEQ 1 (SUPER) Message, or be manually altered by the Tandem Operations Staff, at any time so the Message Retrieval Number is necessary to uniquely identify all transmitted messages.

The Retrieval Number wraps to 0 after 65,535. Only the most recently output 65,535 messages are ever retrievable, so if output message counts for a particular station are expected to exceed 65,535 during the trading day the user may opt to configure multiple stations and employ the Switch's Balanced Delivery feature.

"Balanced Delivery" is a Message Switch configuration feature that allows subscriber-bound messages to be queued in round robin fashion to more than one output queue. This technique

spreads like-addressed output messages over many output stations, effectively reducing the number of messages transmitted per station while increasing overall throughput.

This feature requires that multiple stations be configured for the firm and that any addresses used to direct messages to the 'prime' station queue be added to our Balanced Delivery Configuration (BDFILE) file. Configuration must be coordinated and tested with the Nasdaq Testing Facility (NTF).

3.2 SUPER Messages

3.2.1 Message Acknowledgment

Super Messages received by the Switch are subject to message validation, except that the Switch does not validate the value of the message sequence number contained in the trailer of a message. If the Switch rejects the message, a reject message is sent to the user. If the Switch accepts the message, a response is sent to the user to indicate the disposition of the Super Message. The format of the Super Message Acknowledgment is the Standard Switch Output Message format, as described in Section [3.1](#). The Super Message Acknowledgment message is a STATUS message.

If the Super message was processed successfully, the body of the Super Acknowledgement message is formatted as follows:

3.2.1.1 Acknowledgement Message Body Format #1

Line 1: [message category] <CR/LF>
 Line 2: [message text] <CR/LF>

Line	Field	Description
1	message category	"STATUS". This field identifies the message category and will contain " STATUS ".
	<CR/LF>	Line delimiter
2	message text	"SUPER MSG PROCESSED". This field contains the string "SUPER MSG PROCESSED", indicating that the function requested in the Super message has been performed.

If the message could not be processed due to an error in content or formatting or it could not be processed immediately, the body will contain:

3.2.1.2 Acknowledgement Message Body Format #2

Line 1: [message category] <CR/LF>
 Line 2: [message text] <CR/LF>
 Line 3: [additional clarification] <CR/LF>
 Line 4-n: [input msg echo] <CR/LF>

Line	Field	Description
1	message category	"STATUS". This field identifies the message category and will contain " STATUS ".
	<CR/LF>	Line delimiter
2	message text	"SUPER MSG RECEIVED". This field contains the string "SUPER MSG RECEIVED", indicating that the switch received the Super message.
	<CR/LF>	Line delimiter

Line	Field	Description
3	additional clarification	Variable text.
	<CR/LF>	Line delimiter
4-n	input msg echo	Copy of the super message. These lines are a copy of the entire input Super message, including the header.
	<CR/LF>	Line delimiter

3.2.2 Number Gap Message

If input message sequence checking is enabled and the Switch receives a message with a sequence number other than the number expected, the Switch will generate either a Number Gap status message or a Sequence Number Reject message. This message will be formatted as a separate output message in the Standard Switch Output Message format, as described in Section [3.1](#). Number Gap messages are SUPER messages.

The body of the Number Gap message is formatted as follows:

Line 1: [message category] <CR/LF>
 Line 2: [message type] <CR/LF>
 Lines 3 - 6: [nnnn] [nnnn] [nnnn] [nnnn] <CR/LF>

Line	Field	Description
1	message category	"STATUS". This field identifies the message category and will contain " STATUS ".
	<CR/LF>	Line delimiter.
2	message type	"NUMBER GAP". This field contains the string "NUMBER GAP", indicating that this is a Number Gap message from the switch.
	<CR/LF>	Line delimiter.
3-6	nnnn nnnn nnnn nnnn	Up to 4 sets of 4 numeric characters. A number gap message can report up to 16 gaps, with up to 4 space separated sequence numbers on each line. The value nnnn represents the input sequence number of a missed message.
	<CR/LF>	Line delimiter

When 16 gaps become outstanding then all subsequent input will be rejected (reason: REJ-INVALID MSG SEQ NO) until one of the following occurs:

- one or more missing messages are resent with the original sequence number;
- one or more gaps are filled with the "self-addressed" ADMIN message (see [Section 3.3](#));
- the station gap table is erased upon receipt of either the REVERT TO SEQ 1 or RESET ORDER SEQUENCE (SUPER) message;
- The Nasdaq Trade Desk manually sets the next expected input sequence number, which also erases the station gap table.

3.3 Reject Messages

3.3.1 Switch Reject Messages

The Switch rejects a message received from a CTCI subscriber when the message fails to pass one of the Switch validation tests. The subscriber will receive a reject message in the Standard Switch Output Message format, as described in Section [3.1](#). All reject messages are STATUS messages.

The body of a reject message is formatted as follows:

```

Line 1:      [message category]      <CR/LF>
Line 2:      [message type]          [reason]  <CR/LF>
Lines 3 - n: [input msg Echo]        <CR/LF>

```

Line	Field	Description
1	message category	"STATUS" This field identifies the message category and will contain "STATUS".
	<CR/LF>	Line delimiter
2	message type	"REJ-" This field contains the string "REJ-", indicating that this is a Reject message from the switch.
	Reason	Fixed text. This field indicates the reason for the rejection. If there was a problem with the input message, the following text may be reported in the reason field: <ul style="list-style-type: none"> MSG EXCEEDS MAX SIZE, message is greater than 1024 chars INVALID FIRM, origin code is invalid INVALID BRID/SEQ NO, branch office identifier is invalid INVALID CATEGORY, category is invalid DESTINATION INVALID, destination code is invalid FORMAT ERROR, message is not in the proper format INVALID MSG SEQ NO, message sequence number is missing, badly formatted, equal to zero, or the maximum number of gaps (16) was exceeded SEQ NO REPEATED, sequence number duplicates the number of an earlier message. The message will not be accepted. TOO MANY DESTINATIONS, Admin Message contains too many destination codes. NOT ACCEPTING INPUTS, input station has been closed by the System Operator or the User. UNKNOWN STATION, EPID entered on Line 0 by a Service Bureau firm does not equal the first four characters of the station associated with the select address. REJspace-spaceSYSTEM UNAVAILABLE, The destination

Line	Field	Description
		application/system is unavailable.
3-n	input msg echo	This is a copy of the entire rejected message, including the header and trailer.
	<CR/LF>	line delimiter

3.3.2 Application Reject Messages

A message that successfully passes the Switch validation and safestore procedures is forwarded to the specified application, which performs additional validation on the text of the message. If an error is detected, the user will receive a reject message explaining why the original message could not be processed. All reject messages sent from Nasdaq applications will be forwarded to the subscriber via the Switch and will be contained in General Output Message format, as described in Section [3.1](#). All reject messages are STATUS messages.

If the application cannot process a message received from the user it will generate a Status Message that will indicate why the message was rejected. The format of an application reject message body is as follows:

Application Reject Message Body

Line 1: [optional EPID] <CR/LF>
 Line 2: [message category] <CR/LF>
 Line 3: [reason] <CR/LF>
 Line 4-n: [echo] <CR/LF>

Line	Field	Description
1	optional EPID	4 characters (if present). Contains the 4-character EPID of the entering firm or the EPID of the firm the Service Bureau is acting for. If this option is utilized for multi-station lines, it will equal the 4-character EPID associated with the station.
	<CR/LF>	Line delimiter
2	message category	"STATUS". This field identifies the message category and will contain "STATUS".
	<CR/LF>	Line delimiter
3	reason	This field contains the text explaining why the application rejected the message.
	<CR/LF>	Line delimiter
4-n	Echo	These lines are a copy of the entire input Application message, including the header and trailer.
	<CR/LF>	Line delimiter

Because the Switch may change the category destination to "OTHER m" on inbound messages to Nasdaq Market Center, "OTHER m" is a valid Category/Destination combination for reject messages sent from Nasdaq market center to users (Line 4-n echo of original message). The destination code "m" is however, not valid for inbound messages (user to Nasdaq Market Center). While Nasdaq Market Center does echo back the original

message, the echo may contain "m" because the destination code was changed to "m" before Nasdaq Market Center received the message.

4 FINRA/Nasdaq TRF Trade Reporting Messages

This section describes the format of the messages to be used to submit and receive messages from the FINRA/Nasdaq TRF. The FINRA/Nasdaq TRF performs three major functions:

- on-line trade reporting if the trade is tape-reportable;
- on-line trade comparison for clearing purpose; and
- risk management.

In trade comparison, the system will perform on-line trade matching, trade acceptance, trade reconciliation, and forward locked-in trades to registered clearing corporations (i.e., DTCC) for clearing. Trades entered into the system against "Not Ready" firms will be submitted as one-sided to DTCC. In risk management, the system will provide clearing brokers with on-line credit information and trading activities of their correspondents.

Trade reporting is available for all FINRA member firms that are members of a clearing corporation or have a clearing arrangement. A participant may operate in a CTCI, a Nasdaq terminal, or a hybrid (CTCI and terminal) environment. CTCI participants are expected to build and update a trade reporting image file of their own trades in their interface systems by using the trade reporting input and output messages. CTCI firms can request that Nasdaq discontinue transmission of any of the output messages. Participants will be able to enter, browse, correct, accept or decline trades through their CTCI interfaces during the reconciliation cycle that consists of T-day (original trade entries) and T+1 to T+n day. CTCI Participants may request retransmission of any trade or group of trades to update their image files during the permissible hours. CTCI Participants may receive an end-of-day recap report of their trades from Nasdaq to reconcile their image files, if elected.

When a trade is entered, a control number will be assigned to identify the trade throughout its processing and a status will be assigned to reflect its processing state. As trades are entered, Nasdaq will perform trade reporting for reportable trades, perform on-line M1 match on accepted trades, forward proper acknowledgment messages to the trade entry firms (EP/CP) and allege messages to the contra parties of the trades. Acknowledgment and allege messages will contain the terms of the trade, the Nasdaq-assigned status and control number that uniquely identifies each trade. These messages will enable CTCI participants to build their own image files. CTCI participants will utilize the Nasdaq-assigned control numbers to communicate with the system for subsequent trade report correction and trade reconciliation processes. Nasdaq will forward proper notification messages to the trading parties as trades are being reconciled. Each Notification message will contain the control number and the updated status of the reconciled trade such that the trading parties will be able to update their image files.

Similarly, Nasdaq will forward copies of all messages to respective clearing firms for trades pertaining to their correspondents if they are chosen. Clearing firms may build their image files to monitor their correspondents trading activities and to perform risk management functions. However, clearing firms can only perform trade reporting and reconciliation on behalf of their correspondents through a give-up arrangement.

The above message flow and image file techniques are applicable to CTCI and hybrid environments only. A hybrid participant will receive the above message flow by its CTCI even if a trade is entered from a Nasdaq terminal. A Nasdaq terminal participant, however, will operate from the Nasdaq file and will not receive all of the above messages.

These specifications are applicable to both the T-day and as-of (T+1 to T+n) trade reporting and clearing processes. T-day original EP trade entries will be processed for trade reporting and dissemination. Any trade executed during or off market hours, which has not been reported during T-day may be reported to the system on T+1 or later on an as-of basis.

A retransmission of TRADE REPORTING 1 or TRADE REPORTING 2 messages may be requested by phone on a current day basis. The following information must be provided as part of the request:

Trade Reporting Day	TRADE REPORTING 1 (T-day) messages, TRADE REPORTING 2 (T+1 to T+n day) messages, or both.
Message Type	Specify if only one type (e.g. TCPI). If multiple message types, then all types will be retransmitted.
Start Time	Start (original send) time for the messages to be retransmitted.
End Time	End time for the messages to be transmitted.
Poss Dupe	Specify if PD is to be included.
Address	Specify if the retransmission is to be directed to an address other than the regular one(s) (the CTCI I1I2 specified in the firm profile) for these messages. Note: A specified address may not be for a terminal or printer.

This facility retransmits the requested messages in their original form. However, when retransmitted, their sequence numbers assigned by the message switch will be current, i.e. not a repeat of their originally transmitted numbers.

Trade Reporting Daily Operational Schedule

All times are Eastern. This schedule may be subject to change. Participants will be notified with sufficient time to adjust their interface schedule if such changes occur.

TRADE REPORTING 1 Activity	U.S.*
Start (Pre-market session .T period)	08:00:00 – 09:29:00
Start of Market Hours Trade Tape Entry – Nasdaq & CQS	09:30:00 – 16:00:00
Start of After Market Hours .T Entry - Nasdaq	16:00:01–20:00:00
Trade Reporting Auto Append of .T	16:00:00
Last Sale Calculation Ends	17:15:00
After Market Hours .T End	20:00:00**
Nasdaq Supervisory Entry End	20:31:00
Contra Response End (Browse)	20:48:00
CTCI Recap	21:45:00
DTCC Transmission	Real Time beginning at 8:30:00 a.m.

TRADE REPORTING 2 Activity	U.S.
Entry Start	08:00:00
Entry End	17:21:00
End of Trade Action	20:20:00**
DTCC Transmission	Real Time beginning at 8:30:00 a.m.

Notes: *For comparison or clearing only entry, the operating hours are 8:00:00 – 20:30:00.
 ** New post market hours schedule will be in effect starting October 12, 2015

Nasdaq CTCI Switch

Input messages received from subscribers will be forwarded to the system for processing through the NASDMS Switch. The Switch will perform the validations for each block of input messages received. Block validations performed by the Switch will include communication validation (e.g., parity) and verification of the message sequence number, the message length, the destination address, and the general message format. The Switch will always generate a response to the originator for each block of input messages received. The response can be a positive acknowledgment if the input messages pass the switch validation, or a negative acknowledgment or rejection if the input messages fail the Switch validation. Switch Input Messages are described in section [2](#).

All output message blocks forwarded by the Switch to an output destination (i.e., subscriber station) will be contained in the Switch Output Message Envelope format. Switch Output Messages are described in section [3](#).

Header/ Trailer Format

Note that the trade reporting branch sequence number value is different from the one for other market center services.

Line	Field	Description
0	Entry Originator	1 to 6-character Entry Originator ID. This field is optional for firms that are not acting as a service bureau. For firms acting as a service bureau, this field is mandatory and must contain the four character EPID (as specified by FINRA) of the firm acting either as the EP, (i.e., the firm entering the EP Trade Entry, Decline, Error, Cancel, , Break Trade), or as the CP, (i.e., the firm entering the Acceptance, Decline, CP Trade Entry, Cancel, Break Trade).
	CR LF	Required line delimiter- carriage return, line feed.
1	Branch Seq#	1-20 character alphanumeric (A-Z, a-z, 0-9, embedded spaces, left justified, pad with trailing spaces)
	CR LF	Required line delimiter.
1A	Category	This field identifies the message category. Contains the constant "OTHER" for trade reporting.
	Space	Required field separator.
	Destination	A required field. It must contain: i) "ACT" which will route EPID (Reporting Party side) Trade Entries and CPID (non-Reporting Party side) trade entries to trade reporting primary processing. ii) "ACTB" which will route the other trade reporting transactions (i.e. Error, Cancel, Acceptance, Decline, Break Trade, Browse Request) to trade reporting secondary processing. iii) "ACTR" which will route clearing firm data (Buy and Sell side thresholds) to Risk Management processing. Wrong assignment of Destination Code will result in an "Invalid Format" reject.
	CR, LF, LF	Required line delimiter.

4.1 Party Identification on Trade Entry

Field	Description
EPID	The Executing Party ID is the MPID of the Executing Broker or the party with the reporting obligation
CPID	Contra Party ID is the MPID of the Contra Party (the non reporting side of the trade).
SPID	The Submitting Party ID is the MPID of the Party that has an established "Give up" relationship with an Executing Broker or Contra Party. Submitting Parties are authorized in accordance with FINRA rules and their relationships with the EPID and/or CPID are validated by the system.

Message Type	Description
Executing Broker Trade Entry	<p>Tape reporting is driven by the Executing Broker Trade Entry. Executing Broker Trade Entry is submitted by the EPID (Executing Party or the party with the reporting obligation).</p> <p>CTCI Formatting Note:</p> <ul style="list-style-type: none"> The EPID (Executing Party or the party with the reporting obligation) will be entered in the EPID field. The EPGU field must be spaces. <p>Clearing</p> <ul style="list-style-type: none"> Executing Broker Trade Entry can be submitted as "locked in", meaning no additional action is required by a Contra Party (CPID). Executing Broker Trade Entry can also be submitted with the expectation that the Contra Party side (CPID) will either Accept, Decline, or Compare the trade by entering a Contra Party Trade Entry that matches the Executing Broker Trade Entry.
"Give Up" Executing Broker Trade Entry	<p>An Executing Broker Trade "Give Up" is an Executing Broker Trade Entry that is entered by a Submitting Party (SPID) "giving up" the EPID (Executing Party or the party with the reporting obligation).</p> <p>The submitting party may be the Contra Party (CPID), or an authorized reporting party in accordance with FINRA rules, provided that the required paperwork and agreements are recorded in the System.</p> <p>CTCI Formatting Note:</p> <ul style="list-style-type: none"> EPID (Executing Party or the party with the reporting obligation) will be entered in the EPGU field. The submitting party will be

	<p><i>entered in the EPID field.</i></p> <p>Clearing</p> <ul style="list-style-type: none"> • "Give Up" Executing Broker Trade Entry can be submitted as "locked in", meaning no additional action is required by a Contra Party (CPID). • "Give Up" Executing Broker Trade Entry can also be submitted with the expectation that the Contra Party side (CPID) will either Accept, Decline, or Compare the trade by entering a Contra Party Trade Entry that matches the Executing Broker Trade Entry.
CP Trade Entry	Contra Party Trade Entry is used to Compare against the entered Executing Broker Trade Entry (EPID) Executing Party or the party with the reporting obligation).
"Give UP" Contra Party Trade Entry	<p>A Contra Party Trade "Give Up" is a Contra Party Trade Entry that is entered by a Submitting Party (SPID) "giving up" the Contra Party (CPID).</p> <p>CTCI Formatting Note:</p> <ul style="list-style-type: none"> • <i>CPID (Contra Party) will be entered in the CPGU field. The submitting party will be entered in the CPID field.</i>

4.2 Trade Reporting Input Messages

EP Trade Entry Reg-NMS Compliant (Function F) Extended EP Trade Entry (Function G)	<p>A trade that has been transacted between the EP and the CP, and the EP is reporting this trade to the system from the EP's version. A EP Trade Entry will be processed for trade reporting if it is reportable. If the trade is submitted for comparison the clearing flag = blank the EP Trade Entry will initiate a M1 trade match with entries from the contra side (i.e., CP Trade Entries) to effect a locked-in trade. If a EP original trade or As-of T+1 to T+n trade against an active trade reporting participant remains unmatched (i.e., open trade) at the end of the entry day, it will be forwarded to TRADE REPORTING 2 for continued trade reconciliation processing during the subsequent business day. If it still remains open by 2:30 p.m. of that day, Nasdaq will automatically lock in the trade. This trade will be forwarded to DTCC as a locked-in trade. An open EP original trade or As-of (T+1 to T+n) trade against an inactive trade reporting participant will be forwarded to DTCC as a one sided trade at the end of the entry day.</p>
Error Entry (Function E)	<p>The EP may use an Error entry for a previously EP entered trade that was reported today but in fact never took place. This is available only for EP Trade Entries that are in the open status. If the trade is already locked in the firms must use the Break function.</p>
Cancel Entry (Function C)	<p>The EP or the OE CP may use a Cancel entry to cancel a previously entered trade that was reported today but both buyer and seller have mutually agreed to cancel. This is available only for EP Trade Entries that are in the open status. If the trade is already locked in the firms must use the Break function.</p>
Acceptance Entry (Function A)	<p>The CP enters this message to accept a EP entered trade that confirms the trade is correct and affects it as a locked-in trade.</p>
Decline Entry (Function D)	<p>The CP or EP enters this message to decline or reject a contra-entered trade that informs the contra that there are discrepancies in this trade and that further resolution may be required.</p>
CP Trade Entry (Function W)	<p>The CP Trade Entry specifies the CP's version of the trade. The CP may use the CP Trade Entry to enter his version of the trade, which the system will seek to match to a contra (i.e., EP) trade entry to affect a locked-in trade. The CP may use the trade reporting Acceptance message to accept an EP Trade Entry and affect a locked-in trade. With the exception of trade reporting, the CP Trade Entry will be processed the same way as the EP Trade Entry as described in (see also function A). In the event where a Nasdaq-listed symbol is greater than 5 characters, the security class (SEC CLS) must be set to CQS (C).</p>
Break Trade (Function B)	<p>The EP and the CP will use the Break Trade message to break a locked-in trade. A locked-in trade will be broken only after the system has received Break Trade messages from both the EP and the CP.</p>

4.2.1 Text Field Definitions

The following table contains the general definitions for all fields that are contained within the trade reporting transaction text. Any specific information that is relevant to a particular transaction type can be found in the description of the transaction. These definitions apply to both input and output messages.

Field	Description
Advertisement Instruction	Valid Values: Blank = do not publish "1" = publish
As-of	This field is used to denote whether the trade is an As-of trade entry. Ex-clearing transactions can have a day modifier only. Valid values: Blank = T-Day trade Y = As-of T+1 to T+n Trade
B/S/X	<p>This field is relative to the side submitting. (I.E. for EP Trade Entry there is only one B/S/X indicator, which is relative to the EPID side of the trade regardless of the EP Trade Entry is being submitted for comparison or as locked-in.) CP Trade Entry B/S/X Indicator is relative to the CPID side of the trade (I.E. opposite the corresponding EP Trade Entry B/S/X Indicator).</p> <p>1- character alpha field. Valid values:</p> <p>B = reporting firm (i.e., EP) bought S = reporting firm sold X = reporting firm internalized or crossed trade. Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt</p> <p>A cross trade (i.e. an "X" in the B/S/X field) will be sent to the DTCC if the "Clearing" field is Space filled. If a crossed trade is not to be sent to the DTCC the "Clearing" field must be set to "N".</p> <p>The "short" sale Side codes are for CTCI entry formats only and are not applicable to entries by terminal.</p> <p>A Cross trade involving a customer "short" sale is indicated by entering the reporting firm's EPID in both the EPID and CPID fields in conjunction with the Side code: C.</p> <p>For more information regarding short selling please see section 4.5</p> <p>The use of B/S/X field for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.</p>

Field	Description
Clearing Flag	<p>1-character field used to denote the clearing and matching specifications of the trade. Valid values:</p> <p>Ø = for NQT. Intended for trade matching and clearing.</p> <p>G = FINRA AGU for clearing (See Note 2)</p> <p>N = Not intended for trade matching or clearing.</p> <p>L = Already locked-in by an external system (non-trade reporting); not intended for trade matching, sent as locked-in trade to the DTCC. (Output only)</p> <p>Q = QSR trade entry that will not clear through ACT.</p> <p>Z = QSR trade entry that will clear through ACT.</p> <p>S = Nasdaq QSR for clearing</p> <p>A = Nasdaq AGU for clearing</p> <p>U = AGU for clearing, not risk eligible</p> <p>R = Risk update only, not sent to clearing</p> <p>Y = Clearing, non-risk eligible</p> <p>Note 1: If the trade is not intended for clearing this field must contain N or Q.</p> <p>Note 2: The G Clearing function allows an Introducing Broker to enter and lock-in a trade when it is responsible for both sides of the trade. This occurs when two of its Give-ups trade with each other or the Introducing Broker trades with one of its own Give-up firms. Currently, the Introducing Broker may submit a EP Entry for one side and either Accept the trade or submit an CP Entry to match the trade. By specifying the G Clearance Flag, the Introducing Broker avoids the need to Accept the trade or submit the CP Side. Nasdaq will submit this trade to DTCC as an M1 Matched Locked-in trade. In order to use this function, the Introducing Broker:</p> <ul style="list-style-type: none"> • must use the EP Trade Entry Function (not valid for CP); • use equivalent EPID and CPID; • enter an EPGU and/or an CPGU; and • may report contra side information in a manner similar to a QSR trade. <p>If the trade contains invalid clearing information for either side of the trade, the trade will be rejected. These trades will be subject to Blockbuster/Sizable trade processing. If the trade passes validation, Nasdaq will assign a status of M to the trade.</p>
Contra (CPID) Branch Sequence	<p>1-8 alphanumeric character field that is used for a EP Trade Entry. Required where the reporting party or contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.</p> <p>For Function G and J messages, this field is expanded to 20 characters.</p>
Decimal Price	<p>12-character field used for reporting a six decimal Unit Price Trade in DDDDDDDvcccccc format (Trading Digit must = A); or for reporting a decimal Contract Amount in 0999999999v99 format (Trading Digit</p>

Field	Description
	<p>must = B). (v is an implied decimal point)</p> <p>Decimal Price Field Examples:</p> <p>Example 1: Six Decimal Unit Price (Unit Price = 6.0258)</p> <p>Trading Digit field = "A"</p> <p>Decimal Price Expansion field = "000006025800"</p> <p>Example 2: Two Decimal Contract Amount (Contract Amount = 6758.75)</p> <p>Trading Digit field = "B"</p> <p>Decimal Price Expansion field = "000000675875"</p>
Execution Time	Field denoting the time of execution in military time (HHMMSS) format. For example, if the trade was executed at 2:03:02 p.m. the entry will be 140302.
Millisecond Execution Time	<p>Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field.</p> <p>Include the milliseconds (mmm) of the Execution Time field (HHMMSS).</p> <p>Must include milliseconds if firm captures milliseconds. If milliseconds not populated, the system will fill with the milliseconds with zeros</p> <p>Milliseconds will be available starting November 10th, 2014.</p>
Filler	Reserved for future use.
Function	<p>F = Reg-NMS compliant EP Trade Entry</p> <p>G = Expanded Reg-NMS compliant EP Trade Entry</p> <p>W = CP Trade Entry</p> <p>E = Error</p> <p>C = Cancel</p> <p>A = Accept</p> <p>B = Break</p> <p>D = Decline</p>
Intended Market Center	<p>Defines the market to which the trade entry is reported.</p> <p>Q = Nasdaq Exchange function</p> <p>D = FINRA/Nasdaq TRF (Default)</p> <p>If Special Trade Indicator is other than Y, S, X, or blank, Intended Market Center must be Q.</p>
Memo	Optional 10-character alphanumeric subscriber MEMO field. The subscriber may enter any alpha-numeric characters for memo purposes and the system will not validate such entry. This field shall be space filled if MEMO is not entered. Fill unused positions with spaces.
EPID Clear Number	Optional 4-digit field used to identify the Number EP clearing broker who will clear this trade for the EP. This field is required when an EP (EPID) execution broker has multiple clearing brokers and wants the

Field	Description
	trade to be cleared by a specified clearing broker other than the one specified in the Authorization Table. If this field is not entered, it shall be space filled and the clearing number specified in the Authorization Table will be used.
EPID/PA	Required 1-character P/A Indicator field for the EP (EPID). It denotes whether the EP (EPID) is acting as "P" for principal, "R" for Riskless Principal, "A" for agent. A value of "I" = Intrabroker/Internal is allowed only on riskless entries submitted to the Nasdaq exchange function. If this field is not entered, the subscriber system shall insert a "P" in this field.
EPGU	4-character alpha ID of the EP (EPID) give-up firm if this transaction is an EP give up trade. This field will be space filled if it is not an EP give up.
EPID	Required 4-character alpha field containing the identifier of the Submitting Party on the Reporting side (EPID) of the trade.
Control Number	Nasdaq-assigned, unique alphanumeric control number to every transaction entered into the system.
CPID Clear Number	Optional 4-digit field is used to identify the CPID clearing broker who will clear this trade for the CPID. This field is required when an CPID execution broker has multiple clearing brokers and wants the trade to be cleared by a specified clearing broker other than the one specified in the Authorization Table (i.e., default main clearing number). If this field is not entered, it shall be space filled and the clearing number specified in the Authorization Table will be used.
CPID P/A	1-character P/A Indicator field for the CPID. Valid values: P = principal R = Riskless Principal A = agent If this field is not entered, the subscriber system shall insert an "A" in this field.
CPGU	4-character alpha identifier of the CP give-up firm, if this transaction is a CP give up trade. This field will be space filled if it is not a CP give up.
CPID	4-character alpha field containing the identifier of the Contra Party on the non-Reporting Party side (CPID) to the trade. This is a required field if the trade is intended to be processed for clearing. If there is no contra party (i.e., a customer or non-FINRA member broker-dealer) then this field shall be space filled.
Price Override	1-character field that is used by the originator to indicate that the entered price is valid although it may fall outside the price reasonability check made by the system. The alpha "O" character will be used to specify a price override. If there is no price override, fill the field with a space.
Reference	6-character alphanumeric field, left justified, filled unused positions with spaces. Optionally, the subscriber may assign this Reference

Field	Description
Number	Number as a unique identifier to each trade. The subscriber may change this Reference Number in subsequent transaction pertaining to the same trade (i.e., Error). The system will not validate this field. Nasdaq will always return the subscriber entered Reference Number in the acknowledgment message (i.e., TREN) associated with the trade to the enterer and will space fill this field in the allege message (i.e., TTAL) to the contra party of the trade.
Related Market Center	<p>Available on transaction reports submitted through ACT such as step-outs, Non-tape, and riskless principal transactions, the market where the underlying transaction was reported, as applicable.</p> <p>Blank</p> <p>A = NYSE MKT trade B = Nasdaq BX trade C = National Stock Exchange trade E = MEMX Exchange trade F = Foreign Market G = BATS Y Exchange trade H = BATS Exchange trade I = International Securities Exchange trade J = Direct Edge A Exchange trade K = Direct Edge X Exchange trade L = LTSE Exchange M = Chicago Stock Exchange trade N = New York Stock Exchange trade P = NYSE ARCA trade Q = Nasdaq Exchange trade V = IEX Exchange Trade W = Chicago Board Options Exchange trade X = Nasdaq PSX trade O = Unknown Market Center U = Unspecified Multiple Market trades Y = MIAAX Pearl Exchange trade 0 = ADF 1 = FINRA/Nasdaq TRF Carteret 2 = FINRA/Nasdaq TRF Chicago 3 = FINRA/NYSE TRF</p> <p>FINRA / Nasdaq TRF Chicago modifications are effective as of September 10, 2018.</p>
Reversal Indicator	<p>Denotes whether the entry is a Reversal transaction. All user-entered reversals must be denoted as "as-of".</p> <p>Space = not a reversal R = reversal reported through ACT K = reversal reported through ACT</p> <p>Reversal Trades will now require 3 new fields. When Reversal Indicator</p>

Field	Description
	<p>is set to either "R" or "K", firms will be required to populate the Original Control Number, Original Control Date, and Reference Reporting Facility on Function K message. Reversals will be validated on the following criteria:</p> <ul style="list-style-type: none"> • Original control date • Original control # • Security • Executing party (unless give-up is present. The give-up MPID will be used if entered) • Trade Date • Trade status of the original trade • Execution Time <p>If the validation criterion above fails, the reversal will be rejected.</p> <p>Please Note:</p> <ul style="list-style-type: none"> - All trade details must match the original trade. - Timestamps of reversals must match the original trade down to the millisecond. - Reversals must be entered using the same party role as the original trade. If the original trade was entered as "executing party" trade, then the reversal must also be entered as "execution party". If the reversal is entered as a contra party reversal, the reversal would be rejected.
SEC CLS	<p>Used to denote the class of security for the trade. Valid values:</p> <p>R = Nasdaq Capital Market</p> <p>N = Nasdaq Global Select Market or Nasdaq Global Market</p> <p>C = CQST = TARS/DTCC Reconciliation Symbol (Output Only)</p> <p>This field is optional for input and may be space-filled. In the accepted response TREN and TRAL messages, Nasdaq will return the proper security class designator character based on the reported security symbol. A "C" must be entered*, for CQS issues, if the reported security symbol is a TMTR symbol (1 to 14 characters) instead of the Nasdaq assigned symbol (4 to 5 characters). In this case, Nasdaq will return both the TMTR symbol and the Nasdaq symbol in the TREN and TRAL messages. If an As-of T+2 to T+n Trade Entry or Trade Reversal is performed against a symbol that is not valid for entry date - 1 but is a TARS/DTCC Reconciliation Symbol, Nasdaq will transmit a T and the Nasdaq symbol format will be used (regardless of the value that was entered).</p> <p>*In regards to Function W, in the event where a Nasdaq-listed symbol is greater than 5 characters, the security class (SEC CLS) must be set to CQS (C).</p>
Seller Days	<p>For a Seller Option, Cash, or Next Day trade, use the respective assigned modifier. Number of days for delivery is tracked in the field,</p>

Field	Description
	<p>"Seller Days", allowed values are as follows:</p> <ul style="list-style-type: none"> • Space for Regular way trade. • 00 for Sale Condition "C" - Cash. • 01 for Sale Condition "N" - Next Day. • 03-60 for Sale Condition "R" - Seller.
ShortSaleIndicator	<p>Reason for short sale. Valid values: S = Sold Short E = Sold Short Exempt</p> <p>The Short Sale Indicator field is available for Short Sale Reporting starting July 16, 2018. After October 15, 2018, this is a required field for short sale reporting.</p>
Side	<p>Valid Values: B = Buy S = Sell X = Cross</p> <p>For match eligible trades, the seller has the responsibility to report short sells and the short sell explanation ("ShortSaleIndicator"). For more information regarding short selling please see section 4.5.</p> <p>The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Special Trade Indicator	<p>This field allows the following entries:</p> <p>2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = a "special trade" and instructs the DTCC not to include the trade in CNS settlement. S = a FINRA "Step-out" trade*** X = a "special and FINRA Step-out trade" and instructs the DTCC not to include the trade in CNS settlement.*** ∅ = None of the Above F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy***Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035</p>

Field	Description																																				
	<p>**Clearing Copy designation will be used for Nasdaq NextShares.</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Matching Criteria</p> <table> <tr> <th><i>Special Trade Indicator</i></th><th><i>Matches</i></th></tr> <tr> <td>NONE (on an MM trade)</td><td>NONE</td></tr> <tr> <td>NONE (on an OE trade)</td><td>NONE or CLEARING_ONLY_NON_REG</td></tr> <tr> <td>SPECIAL (on an MM trade)</td><td>SPECIAL</td></tr> <tr> <td>SPECIAL (on an OE trade)</td><td>SPECIAL or SPECIAL_CLEARING_ONLY_NON</td></tr> <tr> <td>STEPOUT_EXCH</td><td>STEPOUT_EXCH</td></tr> <tr> <td>FEE_XFER_EXCH</td><td>FEE_XFER_EXCH</td></tr> <tr> <td>POSITION_TRANSFER</td><td>POSITION_TRANSFER</td></tr> <tr> <td>STEPOUT(S)</td><td>STEPIN(2)</td></tr> <tr> <td>SPECIAL_STEPOUT(X)</td><td>SPECIAL_STEPIN(A)</td></tr> <tr> <td>STEPOUT_WITH_FEES(B)</td><td>STEPIN(2)</td></tr> <tr> <td>SPECIAL_STEPOUT_WITH_FEE(C)</td><td>SPECIAL_STEPIN(A)</td></tr> <tr> <td>STEPIN(2)</td><td>STEPOUT(S) or STEPOUT_WITH_FEES(B)</td></tr> <tr> <td>SPECIAL_STEPIN(A)</td><td>SPECIAL_STEPOUT(X) or SPECIAL_STEPOUT_WITH_FEES(C)</td></tr> <tr> <td>CLEARING ONLY/NON REGULATORY</td><td>NONE</td></tr> <tr> <td>SPECIAL_CLEARING_ONLY/NON_R EGULATORY</td><td>SPECIAL</td></tr> <tr> <td>CLEARING_COPY</td><td>CLEARING_COPY</td></tr> <tr> <td>SPECIAL_CLEARING_COPY</td><td>SPECIAL_CLEARING_COPY</td></tr> </table>	<i>Special Trade Indicator</i>	<i>Matches</i>	NONE (on an MM trade)	NONE	NONE (on an OE trade)	NONE or CLEARING_ONLY_NON_REG	SPECIAL (on an MM trade)	SPECIAL	SPECIAL (on an OE trade)	SPECIAL or SPECIAL_CLEARING_ONLY_NON	STEPOUT_EXCH	STEPOUT_EXCH	FEE_XFER_EXCH	FEE_XFER_EXCH	POSITION_TRANSFER	POSITION_TRANSFER	STEPOUT(S)	STEPIN(2)	SPECIAL_STEPOUT(X)	SPECIAL_STEPIN(A)	STEPOUT_WITH_FEES(B)	STEPIN(2)	SPECIAL_STEPOUT_WITH_FEE(C)	SPECIAL_STEPIN(A)	STEPIN(2)	STEPOUT(S) or STEPOUT_WITH_FEES(B)	SPECIAL_STEPIN(A)	SPECIAL_STEPOUT(X) or SPECIAL_STEPOUT_WITH_FEES(C)	CLEARING ONLY/NON REGULATORY	NONE	SPECIAL_CLEARING_ONLY/NON_R EGULATORY	SPECIAL	CLEARING_COPY	CLEARING_COPY	SPECIAL_CLEARING_COPY	SPECIAL_CLEARING_COPY
<i>Special Trade Indicator</i>	<i>Matches</i>																																				
NONE (on an MM trade)	NONE																																				
NONE (on an OE trade)	NONE or CLEARING_ONLY_NON_REG																																				
SPECIAL (on an MM trade)	SPECIAL																																				
SPECIAL (on an OE trade)	SPECIAL or SPECIAL_CLEARING_ONLY_NON																																				
STEPOUT_EXCH	STEPOUT_EXCH																																				
FEE_XFER_EXCH	FEE_XFER_EXCH																																				
POSITION_TRANSFER	POSITION_TRANSFER																																				
STEPOUT(S)	STEPIN(2)																																				
SPECIAL_STEPOUT(X)	SPECIAL_STEPIN(A)																																				
STEPOUT_WITH_FEES(B)	STEPIN(2)																																				
SPECIAL_STEPOUT_WITH_FEE(C)	SPECIAL_STEPIN(A)																																				
STEPIN(2)	STEPOUT(S) or STEPOUT_WITH_FEES(B)																																				
SPECIAL_STEPIN(A)	SPECIAL_STEPOUT(X) or SPECIAL_STEPOUT_WITH_FEES(C)																																				
CLEARING ONLY/NON REGULATORY	NONE																																				
SPECIAL_CLEARING_ONLY/NON_R EGULATORY	SPECIAL																																				
CLEARING_COPY	CLEARING_COPY																																				
SPECIAL_CLEARING_COPY	SPECIAL_CLEARING_COPY																																				
Symbol	Required 5-character alpha field, left justified. It will contain the 4 or 5 character Security ID. Fill unused position with a space. For CQS securities or securities with symbols greater than 5 characters (i.e. when the SEC CLS field = C), the symbol field will be expanded to 14 characters, left justified, space-filled																																				
Trade Date	The date that the trade was executed. For a Reversal transaction, the date must be T+2 or older. . The format is MMDDYYYY. If the trade date field is blank and the trade is As-of, then the date is yesterday.																																				

Field	Description						
	<p>If the trade date field is blank and the trade is not As-of, then the trade date is today. Otherwise, this field must be filled in.</p> <p>"Non-Execution Day" trades must be:</p> <ul style="list-style-type: none">- entered as "as-of"- be marked "non-clearing"- These trades can be either TRF or exchange trades <p>"Non-Execution Day" trades will not be disseminated to the SIP(s). The "Late modifier" is conditionally assigned when the trade was reported any time after 8:15am the following business day.</p> <p>"Trades greater than 365 days" must be:</p> <ul style="list-style-type: none">- entered as "as-of"- be marked "non-clearing"- These trades must be Nasdaq TRF trades						
Trade Modifier	<p>A 4-character field used to indicate either that the trade was executed under special conditions and/or that the trade is being reported out of sequence. The field is positional, space fill unused positions. With the Reg NMS Message Formats (Functions F & H) all trade modifiers are applicable to TRADE REPORTING 1 EP original trades for trade reporting only and are not applicable to TRADE REPORTING 1 CP trades and TRADE REPORTING 2 As-Of trades (including EP As-of trade reports). The following table describes the modifiers that are applicable to TRADE REPORTING 1 and their entry format.</p> <p>Please note that the .RA and .RX modifier series is allowable on As-of trade reports currently for the pre-Reg NMS Message Formats.</p> <p>Modifiers may be combined, within the allowances of the SIAC CTA and UTP Specification documents.</p> <p>The Trade Modifier field's first position must be populated. Possible modifiers in this field are (as below) @, R, N, and C. All other modifiers are optional and are entered as below in their correct positions, space delimited. An example of multiple modifiers is as follows:</p> <p>Derivatively Priced trade report with a Weighted Average Price: Trade Through Exempt flag = Y Modifier @4 W</p> <table><tr><th>Description</th><th>Format (note 1)</th><th>Byte/Level</th></tr><tr><td>Regular</td><td>@ (previously space)</td><td>1</td></tr></table>	Description	Format (note 1)	Byte/Level	Regular	@ (previously space)	1
Description	Format (note 1)	Byte/Level					
Regular	@ (previously space)	1					

Field	Description		
	Seller Option	R (previously SNN) (note 2)	1
	Next Day	N (previously ND)	1
	Cash Option	C	1
	Intermarket Sweep Inbound	F	2
	Intermarket Sweep Outbound	3	2
	Derivatively Priced	4	2
	Identifies a trade that requires the FINRA Self Help designator	2	2
	Identifies a trade that requires the FINRA Sub- penny designator	J	2
	Identifies a trade that requires the Qualified Contingent Trade designator	V	2
	Identifies a error correction submission	7	2
	Identifies a print protection submission	8	2
	Outside of Market hours	T (note 7)	3
	Out of Sequence or Late	Z (previously SLD) (note 3)	3
	Pre/Post-market Out of Sequence	U	3
	Prior Reference Price <ul style="list-style-type: none"> May only be submitted when the Modifier 4 time field is more than 10 seconds prior to the execution of the trade 	P (previously PRP) (note 8)	4
	Average Price Trade	W	4
	Stop Stock (Regular Trade) <ul style="list-style-type: none"> May only be submitted when the Modifier 4 time field is more than 10 seconds 	1	4

Field	Description			
		prior to the execution of the trade		
		Identifies an away from market trade as defined in FINRA Rule 6380A(e)(2).	R (previously .RA)	4
		Identifies a trade that was effected pursuant to the exercise of an OTC option.	X (previously .RX)	4
	<p>Note 1: The System allows the entry of multiple trade modifiers. Tape reportable trades which were entered within the .T Time (i.e., 8:00 a.m. to 9:29:59.999 a.m. and 4:00 p.m. to 8:00 p.m.) the "T" modifier must be entered regardless of priority. Off Hours trades that cannot be reported before 8:00 P.M. on T-Day should be reported on T+1 on an As-of basis.</p> <p>Note 2: For a Seller Option, Cash, or Next Day trade, use the respective assigned modifier. Number of days for delivery is tracked in the new field, "Seller Days", allowed values are as follows:</p> <ul style="list-style-type: none"> • 00 for Sale Condition "C" - Cash. • 01 for Sale Condition "N" - Next Day. • 03-60 for Sale Condition "R" - Seller. <p>Note 3: The modifier Z (formerly SLD) is entered if the EP original trade is tape reportable and is reported out of sequence or is not transmitted within 10 seconds of execution. If the EP original trade is entered into the subscriber's system within 10 seconds of execution but is not transmitted to the FINRA/Nasdaq TRF within 10 seconds of execution (i.e., communication line is down, etc.) then the subscriber's on-line system must insert the Z modifier into the EP original trade message.</p> <p>Note 4: Nasdaq will append a modifier "T" ("T" appended by system) if a "T" modifier is not entered during the .T periods (8:00am ET to 9:29:59.999 am ET or 4:00:00.001 pm ET to 8:00:00 ET).</p> <p>Note 5: Appended to transactions that, although reported timely, actually relate to an obligation to trade that arose at an earlier point in the day or refer to a prior reference price.</p> <p>Note 9: Nasdaq will append a modifier "Z" if the system had to append a "Z".</p> <p>Note 10: Nasdaq will return UMs to firms representing values in the modifier field as disseminated by the ACT system, i.e. appended or suppressed values.</p>			

Field	Description
Trade Reference Number	A Firm populated field to discretely tie a Media eligible transaction to one or more non-Media eligible transactions. The firm might populate this field with the same value on a Media trade and the subsequent non-Media Riskless Principal trade for example
Trade Report Flag	Optional field applicable to both TRADE REPORTING 1 and TRADE REPORTING 2 for trade reportable securities. It is used to override the eligibility of a trade report. The only allowable entry in this field is "N". If an "N" is entered, the trade will not be disseminated (e.g. sent to the tape) regardless of its trade report eligibility. If this field is not entered, it shall be space filled and the eligibility for trade reporting is determined by the FINRA/Nasdaq TRF using the prevailing trade reporting rules. As part of the FINRA reporting obligation validations implemented on 2/29/16, all OE Trades are required to have "Trade Report Flag=N".
Trade Through Exempt	Indicates whether the trade is Exempt from the Trade-Through rule or not. Valid values are: N = No Trade-Through Exemption. Y = Trade-Through Exemption.
Trading Digit	Indicates whether share price or contract amount was entered. A = Six Decimal Unit Price B = Two Decimal Contract Amt Price
Volume	An 8-digit numeric field, right justified, filled with leading zeros. Firms must enter the actual number of shares. Unlike trades entered by terminal, volume amounts of 10,000 or greater will not be flagged and returned as a potential error. For any tape reportable trade that is greater than 9,999,999 shares, the trade must be broken into multiple trades such that each trade will have volume smaller than or equal to 9,999,999 shares.

4.2.2 Executing Party (EP) Trade Entry (Function F) (Reg NMS Compliant version)

An Executing Party (EP) will use this message to enter a T to T+n EP Reg NMS compliant Trade Entry into the system. The EP Trade Entry will initiate an M1 trade matching process with those Contra Party firm (CP) entered un-matched trades of the corresponding trade date to effect a locked-in trade.

An EP Trade Entry may be designated for trade reporting only, for trade clearing only, or for both trade reporting and clearing; a trade reportable EP Trade Entry, in which the RPT (Trade Report Flag) contains a "B", will be processed for tape reporting if it is a T date trade, or Form T if it is a T+1 to T+n trade.

The EP Trade Entry may generate the following output message flow. These messages are described in sections 4.3 and 4.4:

- If an EP Trade Entry is rejected by any reason, the current **reject message** containing the reject reason and the echo of the trade will be returned to the entering EP.
- If an EP Trade Entry is accepted, a **TREN** Acknowledgment message containing the Nasdaq-assigned "U" (for trade reporting and clearing) or "T" (for trade reporting only) status and Control Number, and the echo of the trade will be returned to the entering EP. The entering EP may use this message to build the initial trade record in its image file.
- If the entering EP is a correspondent of a clearing firm and the clearing firm has elected to receive clearing correspondent messages, a **CREN** with identical contents (with the exception of the submitter's proprietary data) of the TREN will be forwarded to the specified clearing firm.
- If an EP Trade Entry is accepted, a **TRAL** Allege message containing the same contents as the TREN will be forwarded to the CP side of the trade. The CP may use this message to build the initial trade record in its image file.
- If the contra side CP is a correspondent of a clearing firm and the clearing firm has elected to receive clearing correspondent messages, a **CRAL** with identical contents of the TRAL will be forwarded to the specified clearing firm.

ACT Executing Party (EP) Message format:

Field Name	Position	Format	Description
Function	1-1	X(1)	F = EP Trade Entry
As-of	2-2	X(1)	Valid values: Y = As-of (T+1 to T+n) space= Original (T-Day entry)
Security Class	3-3	X(1)	Valid U.S. Market values: N = Nasdaq Global Select Market or Nasdaq Global Market R = Nasdaq Capital Market C = CQS

Field Name	Position	Format	Description
B/S/X	4-4	X(1)	<p>Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt</p> <p>Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR</p> <p>The use of B/S/X field for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.</p>
Reference Number	5-10	X(6)	User assigned reference number
Volume	11-18	9(8)	Number of shares
Symbol	19-32	X(14)	SECID
Side	33-33	X(1)	<p>Valid Values: B = Buy S = Sell X = Cross</p> <p>The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Short Sale Indicator	34-34	X(1)	<p>Reason for short sale. Valid values: S = Sold Short E = Sold Short Exempt</p> <p>The ShortSaleIndicator field is available for Short Sale Reporting starting July 16, 2018. After October 15, 2018, this is a required field for short sale reporting.</p>
Reserved	35-36	9(2)	blank
Millisecond Execution Time	37-39	9(3)	Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 74-79).

Field Name	Position	Format	Description
			Include the milliseconds (mmm) of the Execution Time field (HHMMSS).
Price Trade Digit	40-40	X(1)	Valid values: A = Decimal Unit Price B = Contract Amount
Trade Modifier	41-44	X(4)	Users can combine multiple values, up to four allowed. The system will reject invalid combinations. See section 4.1.1 Text Field Definitions, for more details. Valid values: @ - Regular 1 - Stop Stock (Regular Trade) 4 - Derivatively Priced C - Cash Option F - Intermarket Sweep - identifies a trade that requires FINRA ISO Inbound identification 3 - Intermarket Sweep - identifies a trade that requires FINRA ISO Outbound identification N - Next Day P - Prior Reference Price R - Seller Option T - Outside Market Hours U = Pre/Post Market Out of Sequence W - Average Price Z - Out of Sequence or Late R - identifies an away from market trade as defined in FINRA Rule 6380A(e)(2).. X - identifies a trade that was effected pursuant to the exercise of an OTC option. 2 - identifies a trade that requires the FINRA Self Help designator J - identifies a trade that requires the FINRA Sub-penny designator V - identifies a trade that requires the Qualified Contingent Trade designator 7 - identifies a error correction submission 8 - identifies a print protection submission Refer to Section 4.1.1 for details on order of position/priority.
Price Override	45-45	X(1)	Valid values: O = Override

Field Name	Position	Format	Description
			space = No override
CPID	46-49	X(4)	CPID of the CP side
CPGU	50-53	X(4)	CPID of give up on the CP side
CP Clear Number	54-57	9(4)	space = Major clear Number
EPID	58-61	X(4)	Required EPID of the EP side
EPGU	62-65	X(4)	EPID of give up on the EP side
EP Clear Number	66-69	9(4)	space = Major clear Number
EP PA Indicator	70-70	X(1)	Valid values: P = Principal A = agent R = Riskless Principal This is a required field on all trade reports
Trade Report Flag	71-71	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	72-72	X(1)	Valid values: space = clear G = Automatic Give-up Lock-in N = no clear Q = QSR no clear Z = QSR clear
Special Trade Indicator	73-73	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy**

Field Name	Position	Format	Description
			<p>*Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares.</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching criteria</p>
Execution Time	74-79	9(6)	<p>Required HHMMSS</p> <p>Milliseconds timestamp is required under bytes 37-39.</p>
Memo	80-89	X(10)	User Memo
Decimal Price	90-101	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Contra Branch Sequence	102-109	X(8)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	110-117	9(8)	<p>Must be entered for T+2 or older, mmddyyyy format.</p> <p>Absence of this field indicates current day or previous day depending on the "as-of" flag.</p> <p>"Non-Execution Day" trades must be:</p>

Field Name	Position	Format	Description
			<ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades can be either TRF or exchange trades <p>"Non-Execution Day" trades will not be disseminated to the SIP(s). The "Late modifier" is conditionally assigned when the trade was reported any time after 8:15am the following business day.</p> <p>"Trades greater than 365 days" must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades must be Nasdaq TRF trades
Reversal Indicator	118-118	X(1)	Valid values: Space = not a reversal R = reversal reported through ACT K = reversal reported through ACT
CP P/A Indicator	119-119	X(1)	Valid values: P = Principal A = agent space = no capacity indicated R = Riskless Principal <p>Firms must submit a CP P/A Indicator on any trade not eligible for match (examples: AGU, QSR, etc...) except on cross trades and customer trades.</p>
Clearing Price	120-131	X(12)	Price inclusive of explicit fees. Cannot equal trade price. If the Trade Digit is A, then use a 6v6 format in this field. If the Trade Digit is B, then use a 10v2 format in this field. Use of this field is optional.
Trade Through Exempt	132-132	X(1)	N = No Trade Through Exemption Y = Trade Through Exemption
Seller Days	133-134	X(2)	For a Seller Option, Cash, or Next Day trade, use the respective assigned modifier and may not be reported as a late trade. Number of days for delivery is tracked in the field, "Seller Days", allowed values are as follows: Space for Regular Way Trade 00 For Sale Condition C – Cash 01 For Sale Condition N – Next Day 03-60 For Sale Condition R – Seller.

Field Name	Position	Format	Description
			If Trade Modifier field is populated with "R"-Seller's Option, this field must be populated.
Filler	135-141	X(7)	Space filled.

4.2.3 Executing Party (EP) Trade Entry (Function G) Expanded ACT EP version

An Executing Party (EP) will use this message to enter a T to T+n EP Expanded Reg NMS compliant Trade Entry into the system. The EP Trade Entry will initiate an M1 trade matching process with those Contra Party (CP) entered un-matched trades of the corresponding trade date to effect a locked-in trade.

This message is based upon the Reg-NMS compliant Function F, with the additional optional fields of Intended Market Center (required for trades with certain attributes), Related Market Center (also required for trades with certain attributes), Trade Reference Number, and Advertisement Instruction.

An EP Trade Entry may be designated for trade reporting only, for trade clearing only, or for both trade reporting and clearing; a trade reportable EP Trade Entry, in which the RPT (Trade Report Flag) contains a "b", will be processed for tape reporting if it is a T date trade, or Form T if it is a T+1 to T+n trade.

The EP Trade Entry may generate the following output message flow. These messages are described in sections 4.3 and 4.4:

- If an EP Trade Entry is rejected by any reason, the current **reject message** containing the reject reason and the echo of the trade will be returned to the entering EP.
- If an EP Trade Entry is accepted, a **TGEN** Acknowledgment message containing the Nasdaq-assigned "U" (for trade reporting and clearing) or "T" (for trade reporting only) status and Control Number, and the echo of the trade will be returned to the entering EP. The entering EP may use this message to build the initial trade record in its image file.
- If the entering EP is a correspondent of a clearing firm and the clearing firm has elected to receive clearing correspondent messages, a **CGEN** with identical contents (with the exception of the submitter's proprietary data) of the TGEN will be forwarded to the specified clearing firm.
- If an EP Trade Entry is accepted, a **TGAL** Allege message containing the same contents as the TTEN will be forwarded to the CP side of the trade. The CP may use this message to build the initial trade record in its image file.
- If the contra side CP is a correspondent of a clearing firm and the clearing firm has elected to receive clearing correspondent messages, a **CGAL** with identical contents of the TTAL will be forwarded to the specified clearing firm.

Expanded ACT Executing Party (EP) Message format:

Field Name	Position	Format	Description
Function	1-1	X(1)	G = EP Trade Entry
As-of	2-2	X(1)	Valid values: Y = As-of (T+1 to T+n) space= Original (T-Day entry)
Security Class	3-3	X(1)	Valid U.S. Market values: N = Nasdaq Global Select Market or Nasdaq

Field Name	Position	Format	Description
			Global Market R = Nasdaq Capital Market C = CQS
B/S/X	4-4	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR The use of B/S/X field for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.
Reference Number	5-10	X(6)	User assigned reference number
Volume	11-18	9(8)	Number of shares
Symbol	19-32	X(14)	SECID
Side	33-33	X(1)	Valid Values: B = Buy S = Sell X = Cross The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Short Sale Indicator	34-34	X(1)	Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.

Field Name	Position	Format	Description
Reserved	35-36	9(2)	blank
Millisecond Execution Time	37-39	9(3)	<p>Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 74-79).</p> <p>Include the milliseconds (mmm) of the Execution Time field (HHMMSS).</p>
Price Trade Digit	40-40	X(1)	<p>Valid values:</p> <p>A = Decimal Unit Price</p> <p>B = Contract Amount</p>
Trade Modifier	41-44	X(4)	<p>Users can combine multiple values, up to four allowed. The system will reject invalid combinations. See section 4.1.1 Text Field Definitions, for more details.</p> <p>Valid values:</p> <p>@ - Regular</p> <p>1 - Stop Stock (Regular Trade)</p> <p>4 - Derivatively Priced</p> <p>C - Cash Option</p> <p>F - Intermarket Sweep - identifies a trade that requires NASD ISO Inbound identification</p> <p>3 - Intermarket Sweep - identifies a trade that requires FINRA ISO Outbound identification</p> <p>N - Next Day</p> <p>P - Prior Reference Price</p> <p>R - Seller Option</p> <p>T - Outside Market Hours</p> <p>U = Pre/Post Market Out of Sequence</p> <p>W - Average Price</p> <p>Z - Out of Sequence or Late</p> <p>R - identifies an away from market trade as defined in FINRA Rule 6380A(e)(2).</p> <p>X - identifies a trade that was effected pursuant to the exercise of an OTC option.</p> <p>2 - identifies a trade that requires the FINRA Self Help designator</p> <p>J - identifies a trade that requires the FINRA Sub-penny designator</p> <p>V - identifies a trade that requires the Qualified Contingent Trade designator</p> <p>7 - identifies a error correction submission</p> <p>8 - identifies a print protection submission</p> <p>Refer to Section 4.1.1 for details on order of</p>

Field Name	Position	Format	Description
			position/priority.
Price Override	45-45	X(1)	Valid values: O = Override space = No override
CPID	46-49	X(4)	CPID of the CP side
CPGU	50-53	X(4)	CPID of give up on the CP side
CP Clear Number	54-57	9(4)	space = Major clear Number
EPID	58-61	X(4)	Required EPID of the EP side
EPGU	62-65	X(4)	EPID of give up on the EP side
EP Clear Number	66-69	9(4)	space = Major clear Number
EP PA Indicator	70-70	X(1)	Valid values: P = Principal A = agent R = Riskless Principal This is a required field on all trade reports
Trade Report Flag	71-71	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	72-72	X(1)	Valid values: space = clear G = FINRA AGU Lock-in N = no clear Q = QSR no clear Z = QSR clear S = Nasdaq QSR for clearing A = Nasdaq AGU for clearing U = AGU clearing, not risk eligible R = Risk update only, not sent to clearing Y = Clearing, non-risk eligible
Special Trade Indicator	73-73	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the

Field Name	Position	Format	Description
			<p>above)</p> <p>F = Nasdaq Sales Fee Transfer</p> <p>Q = Nasdaq Step-Out</p> <p>M = Clearing Only/Non Regulatory*</p> <p>N = Special and Clearing Only/Non Regulatory*</p> <p>O = Clearing Copy**</p> <p>P = Special and Clearing Copy**</p> <p>*Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares.</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	74-79	9(6)	<p>Required HHMMSS</p> <p>Milliseconds timestamp is required under bytes 37-39.</p>
Memo	80-89	X(10)	User Memo
Decimal Price	90-101	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Contra Branch Sequence	102-121	X(20)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.

Field Name	Position	Format	Description
Trade Date	122-129	9(8)	<p>Must be entered for T+2 or older, mmddyyyy format.</p> <p>Absence of this field indicates current day or previous day depending on the "as-of" flag.</p> <p>"Non-Execution Day" trades must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades can be either TRF or exchange trades <p>"Non-Execution Day" trades will not be disseminated to the SIP(s). The "Late modifier" is conditionally assigned when the trade was reported any time after 8:15am the following business day.</p> <p>"Trades greater than 365 days" must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades must be Nasdaq TRF trades
Reversal Indicator	130-130	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>
CP P/A Indicator	131-131	X(1)	<p>Valid values:</p> <p>P = Principal</p> <p>A = agent</p> <p>space = no capacity indicated</p> <p>R = Riskless Principal</p> <p>Firms must submit a CP P/A Indicator on any trade not eligible for match (examples: AGU, QSR, etc...) except on cross trades and customer trades.</p>
Clearing Price	132-143	X(12)	<p>Price inclusive of explicit fees. Cannot equal trade price. If the Trade Digit is A, then use a 6v6 format in this field. If the Trade Digit is B, then use a 10v2 format in this field. Use of this field is optional.</p>
Trade Through Exempt	144-144	X(1)	<p>N = No Trade Through Exemption</p> <p>Y = Trade Through Exemption</p>

Field Name	Position	Format	Description
Seller Days	145-146	X(2)	For a Seller Option, Cash, or Next Day trade, use the respective assigned modifier and may not be reported as a late trade. Number of days for delivery is tracked in the field, "Seller Days", allowed values are as follows: Space for Regular Way Trade 00 For Sale Condition C – Cash 01 For Sale Condition N – Next Day 03-60 For Sale Condition R – Seller. If Trade Modifier field is populated with "R"- Seller's Option, this field must be populated.
Intended Market Center	147-147	X(1)	Defines the market to which the trade entry is reported. Q = Nasdaq Exchange function D = FINRA/Nasdaq TRF (Default) If Special Trade Indicator is other than Y, S, X, or blank, Intended Market Center must be Q.
Related Market Center	148-148	X(1)	Available on transaction reports submitted through ACT such as step-outs, Non-tape, and riskless principal transactions, the market where the underlying transaction was reported, as applicable. Blank A = NYSE MKT trade B = Nasdaq BX trade C = National Stock Exchange trade <u>E = MEMX Exchange trade</u> F = Foreign Market G = BATS Y Exchange trade H = BATS Exchange trade I = International Securities Exchange trade J = Direct Edge A Exchange trade K = Direct Edge X Exchange trade L = LTSE Exchange M = Chicago Stock Exchange trade N = New York Stock Exchange trade P = NYSE ARCA trade Q = Nasdaq Exchange trade V = IEX Exchange Trade W = Chicago Board Options Exchange trade X = Nasdaq PSX trade O = Unknown Market Center U = Unspecified Multiple Market trades <u>Y = MIAAX Pearl Exchange trade</u> 0 = ADF 1 = FINRA/Nasdaq TRF Carteret

Field Name	Position	Format	Description
			2 = FINRA/Nasdaq TRF Chicago 3 = FINRA/NYSE TRF FINRA / Nasdaq TRF Chicago modifications are effective as of September 10, 2018.
Trade Reference Number	149-154	X(6)	A Firm populated field to discretely tie a Media eligible transaction to one or more non-Media eligible transactions. The firm might populate this field with the same value on a Media trade and the subsequent non-Media Riskless Principal trade for example
Advertisement Instruction	155-155	X(1)	Valid Values: Blank = do not publish "1" = publish

4.2.4 Contra Party (CP) Trade Entry (Function W)

A Contra Party firm (CP) will use this message to enter its trade details on clearing transactions. The CP Trade Entry will initiate an M1 trade matching process with those EP entered un-matched trades of the corresponding trade date to affect a locked-in trade.

An CP Trade Entry may be designated for trade comparison and clearing only.

The CP Trade Entry may generate the following output message flow. These messages are described in sections [4.3](#) and [4.4](#):

- If an CP Trade Entry is rejected by any reason, the current **reject message** containing the reject reason and the echo of the trade will be returned to the entering CP.
- If an CP Trade Entry is accepted, a **TTEN** Acknowledgment message containing the Nasdaq-assigned "O" status and Control Number, and the echo of the trade will be returned to the entering CP. The entering CP may use this message to build the initial trade record in its image file.
- If the entering CP is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a **CTEN** with identical contents of the TTEN will be forwarded to the specified clearing firm.
- If an CP Trade Entry is accepted, a **TTAL** Allege message containing the same contents as the TTEN will be forwarded to the EP side of the trade. The EP may use this message to build the initial trade record in its image file.
- If the contra side EP is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a **CTAL** with identical contents of the TTAL will be forwarded to the specified clearing firm.

The CP Trade Entry has the exact format as the EP Trade Entry, but the data entered in each field will be interpreted as the CP's version of the trade.

Nasdaq Message Format

Field Name	Position	Format	Description
Function	1-1	X(1)	W = CP Trade Entry
As-of	2-2	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day Entry)
Security Class	3-3	X(1)	Valid U.S. Market values: N = Global Select or Global R = Capital
B/S/X	4-4	X(1)	Valid values: B = Bought S = Sold Z = Sold Short E = Sold-Short Exempt The use of B/S/X field for Short Sale Reporting will be deprecated starting July

Field Name	Position	Format	Description
			16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.
Reference Number	5-10	X(6)	User assigned reference number that denotes the CP firm's own reference number if it is entered.
Volume	11-18	9(8)	Number of shares
Symbol	19-23	X(5)	Nasdaq SECID
Side	24-24	X(1)	Valid Values: B = Buy S = Sell X = Cross The Side Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Short Sale Indicator	25-25	X(1)	Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Reserved	26-27	9(2)	N/A
Millisecond Execution Time	28-30	9(3)	Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 64-69). Include the milliseconds (mmm) of the Execution Time field (HHMMSS).
PriceTrade Digit	31	X(1)	Valid values: A = Decimal Unit Price B = Contract Amount
Trade Modifier	32-34	X(3)	00-02, 04-60 You must include a space before your entry.
Price Override	35	X(1)	Valid values:

Field Name	Position	Format	Description
			O = Override space = No override
CPID	36-39	X(4)	Required CPID of the CP side.
CPGU	40-43	X(4)	CPID of give up on the CP side.
CP Clear Number	44-47	9(4)	space = Major clear Number
EPID	48-51	X(4)	Required EPID of the EP side.
EPGU	52-55	X(4)	EPID of give up on the EP side.
EP Clear Number	56-59	9(4)	space = Major clear Number
CP PA Indicator	60	X(1)	Valid values: P = Principal A = agent R = Riskless Principal This is required on all trade reports
Trade Report Flag	61	X(1)	Valid values: space = Report to tape N = Do not report to tape As part of the FINRA reporting obligation validations implemented on 2/29/16, all OE Trades are required to have "Trade Report Flag=N".
Clearing Flag	62	X(1)	Valid values: space = clear N = no clear
Special Trade Indicator	63	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory*

Field Name	Position	Format	Description
			<p>O = Clearing Copy** P = Special and Clearing Copy**</p> <p>*Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares.</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	64-69	9(6)	<p>Required HHMMSS</p> <p>Milliseconds timestamp is required under bytes 28-30.</p>
Memo	70-79	X(10)	User Memo
Decimal	80-91	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Reserved	92-99	X(8)	N/A; space-filled
Trade Date	100-107	9(8)	Must be entered for T+2 or older, mmddyyyy format.

Field Name	Position	Format	Description
			<p>Absence of this field indicates current day or previous day depending on the "as-of" flag.</p> <p>"Non-Execution Day" trades must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades can be either TRF or exchange trades <p>"Non-Execution Day" trades will not be disseminated to the SIP(s). The "Late modifier" is conditionally assigned when the trade was reported any time after 8:15am the following business day.</p> <p>"Trades greater than 365 days" must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades must be Nasdaq TRF trades
Reversal Indicator	108	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>
EP PA Indicator	109	X(1)	<p>Valid values:</p> <p>P = Principal</p> <p>A = Agent</p> <p>space = no capacity indicated</p> <p>R = Riskless Principal</p> <p>Firms must submit an EP PA Indicator on any trade not eligible for match except on cross trades and customer trades.</p>
Clearing Price	110-121	X(12)	<p>Price inclusive of explicit fees. Cannot equal trade price. If the Trade Digit is A, then use a 6v6 format in this field. If the Trade Digit is B, then use a 10v2 format in this field. Use of this field is optional.</p>
Filler	122-128	X(7)	Space-filled

CQS Message Format

Field Name	Position	Format	Description
Function	1	X(1)	W = CP Trade Entry
As-of	2	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day Entry)
Security Class	3	X(1)	C = CQS or Expanded Symbol
B/S/X	4	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR. The use of B/S/X for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.
Reference Number	5-10	X(6)	User assigned reference number that denotes the CP firm's own reference number if it is entered.
Volume	11-18	9(8)	Number of shares
Symbol	19-32	X(14)	CQS or TMTR SECID
Side	33-33	X(1)	Valid Values: B = Buy S = Sell X = Cross The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.

Field Name	Position	Format	Description
Short Sale Indicator	34-34	X(1)	Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Reserved	35-36	9(2)	blank
Millisecond Execution Time	37-39	9(3)	Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 73-78). Include the milliseconds (mmm) of the Execution Time field (HHMMSS).
Price Trade Digit	40	X(1)	Valid values: A = Decimal Unit Price B = Contract Amount
Trade Modifier	41-43	X(3)	00-02, 04-60 You must include a space before your entry.
Price Override	44	X(1)	Valid values: O = Override space = No override
CPID	45-48	X(4)	Required CPID of the CP side.
CPGU	49-52	X(4)	CPID of give up on the CP side.
CP Clear Number	53-56	9(4)	space = Major clear Number
EPID	57-60	X(4)	Required EPID of the EP side.
EPGU	61-64	X(4)	EPID of give up on the EP side.
EP Clear Number	65-68	9(4)	space = Major clear Number
CP PA Indicator	69	X(1)	Valid values: P = Principal A = agent R = Riskless Principal This is required on all trade reports
Trade Report Flag	70	X(1)	N/A, must be space filled. On Step-out transactions, if the Trade Report Flag is set to space Nasdaq will make adjustments to the Section 31 fee

Field Name	Position	Format	Description
			for the transaction, if the Trade Report Flag is set to "N" no Section 31 fee adjustment will take place, and the Clearing Flag must be set to space.
Clearing Flag	71	X(1)	Valid values: space = clear N = no clear
Special Trade Indicator	72	X(1)	<p>Valid values:</p> <p>2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy**</p> <p>*Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares.</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p>

Field Name	Position	Format	Description
			<ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	73-78	9(6)	<p>Required HHMMSS</p> <p>Milliseconds timestamp is required under bytes 37-39.</p>
Memo	79-88	X(10)	User Memo
Decimal	89-100	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Reserved	101-108	X(8)	N/A; space-filled
Trade Date	109-116	9(8)	<p>Must be entered for T+2 or older, mmddyyyy format.</p> <p>Absence of this field indicates current day or previous day depending on the "as-of" flag.</p> <p>"Non-Execution Day" trades must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades can be either TRF or exchange trades <p>"Non-Execution Day" trades will not be disseminated to the SIP(s). The "Late modifier" is conditionally assigned when the trade was reported any time after 8:15am the following business day.</p> <p>"Trades greater than 365 days" must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades must be Nasdaq TRF trades
Reversal Indicator	117	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p>

Field Name	Position	Format	Description
			R = reversal reported through ACT K = reversal reported through ACT
EP PA Indicator	118	X(1)	Valid values: P = Principal A = Agent space = no capacity indicated R = Riskless Principal Firms must submit a EP PA Indicator on any trade not eligible for match except on cross trades and customer trades.
Clearing Price	119-130	X(12)	Price inclusive of explicit fees. Cannot equal trade price. If the Trade Digit is A, then use a 6v6 format in this field. If the Trade Digit is B, then use a 10v2 format in this field. Use of this field is optional.
Filler	131-137	X(7)	space-filled

4.2.5 Accept Trade (Function A)

A CP firm may accept an EP Trade Entry by using this message to effect a locked-in trade instead of entering his side of the trade and having the system to match the trade. By accepting an EP Trade Entry, it signifies that the CP confirms and agrees to the terms of the trade.

Message Format

Field Name	Position	Format	Description
Function	1-1	X(1)	A = CP accepts an EP trade by the Control Number
Reference Number	2-7	X(6)	User assigned reference number. An optional subscriber-assigned reference number. The CP may assign its own reference number when accepting an EP trade entry.
Control Number	8-17	X(10)	Alphanumeric control number associated with the trade to be accepted A required Nasdaq-assigned 10-digit alphanumeric Control Number used to identify the trade that the CP firm is accepting.
CP PA Indicator	18-18	X(1)	Valid values: P = Principal A = agent R = Riskless Principal This is required on all trade reports
Short Sale Indicator	19-19	X(1)	Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.

4.2.6 Break Trade (Function B)

An EP or CP enters this message to break a locked-in trade. A locked-in trade will be broken only after both EP and CP have submitted their Break Trade Transactions. A Cancel will be disseminated once the EP side has submitted the Break Trade Transaction against a reported trade. Broken trades will be prevented from any further trade reconciliation action and will be deleted at the end of the entry day.

Message Format

Field Name	Position	Format	Description
Function	1-1	X(1)	B = CP/EP breaks a locked-in trade
Reference Number	2-7	X(6)	An optional subscriber-assigned Reference Number.
Control Number	8-17	X(10)	Required Control Number that the system had assigned to the trade when it was originally received from the subscriber. The Control Number is used to uniquely identify the trade record in the file that will be broken.

4.2.7 Cancel Trade (Function C)

An EP or a CP will use this message to cancel a trade entry that he previously reported, provided the trade is not locked-in. However, a QSR firm may cancel a QSR locked-in trade. A CP entered Cancel trade in TRADE REPORTING 1 and TRADE REPORTING 2 will not forward a cancel trade report to the tape but will stop the trade from being processed for clearing. An EP entered Cancel trade will disseminate a cancel trade report to the tape if it was entered in TRADE REPORTING 1 and the original trade was disseminated. An EP Cancel trade entered in TRADE REPORTING 2 will function the same way as an Error trade. Nasdaq will forward A TCAN message to both the EP and the CP to advise them that the specified trade is updated to Cancel status. All canceled trades will be deleted at the end of the entry day.

The Cancel trade has the same text format as the Error trade except the Function = C to denote a Cancel trade.

Message Format

Field Name	Position	Format	Description
Function	1-1	X(1)	C = CP/EP cancels its own trade which entered previously
Reference Number	2-7	X(6)	User assigned Reference Number.
Control Number	8-17	X(10)	Control Number associated with the trade to be cancelled.

4.2.8 Decline Trade (Function D)

The CP or EP enters this message to decline or reject a Contra party's trade entry because of a disagreement with the terms of the trade. Declined trades will be assigned status "D". However the contra party is still allowed to accept the transaction.

Message Format

Field Name	Position	Format	Description
Function	1-1	X(1)	D = CP declines a EP trade or vice versa
Reference Number	2-7	X(6)	An optional subscriber-assigned Reference Number. The declining party may assign its own Reference Number when declining the Contra party's trade entry.
Control Number	8-17	X(10)	A required Nasdaq-assigned Control Number used to identify the trade that the subscriber is declining.

4.2.9 Error Trade (Function E)

An EP will use this message to error a previously reported trade provided that the trade is not locked-in (i.e., matched or accepted by the CP). An Error trade entered in TRADE REPORTING 1 will be disseminated to the tape if the original trade was reported to the tape. An Error trade entered in TRADE REPORTING 2 that pertains to an As-of entry or to an open trade carry over from TRADE REPORTING 1, will not be disseminate an error trade report to the tape but will mark the specified trade as error. Nasdaq will forward a TCER message to both the EP and the CP to advise them that the specified trade is updated to Error status. Nasdaq will prevent an errored trade from M1 match, from being accepted by the CP, will not be forward it to clearing, and will delete it at the end of the entry day.

Message Format

Field Name	Position	Format	Description
Function	1-1	X(1)	EP reports an error for a previously entered trade. E = Error Trade
Reference Number	2-7	X(6)	User-assigned Reference Number.
Control Number	8-17	X(10)	Control Number associated with the error trade used to uniquely identify the trade record in the trade reporting file that is in error.

4.2.10 Executing Party (EP) Trade Entry (Function K) Expanded Modifier Time Fields and Reversal version

An Executing Party (EP) will use this message to enter a T to T+n EP Expanded Reg NMS compliant Trade Entry into the system. The EP Trade Entry will initiate an M1 trade matching process with those Contra Party (CP) entered un-matched trades of the corresponding trade date to effect a locked-in trade. This message allows new functionality to require Modifier 2, Modifier 4 Time fields on certain trades and require Original Control Date and Original Control Number on Reversals.

This message is based upon the Reg-NMS compliant Function F, with the additional optional fields of Intended Market Center (required for trades with certain attributes), Related Market Center (also required for trades with certain attributes), Trade Reference Number, and Advertisement Instruction.

An EP Trade Entry may be designated for trade reporting only, for trade clearing only, or for both trade reporting and clearing; a trade reportable EP Trade Entry, in which the RPT (Trade Report Flag) contains a "b", will be processed for tape reporting if it is a T date trade, or Form T if it is a T+1 to T+n trade.

The EP Trade Entry may generate the following output message flow. These messages are described in sections 4.3 and 4.4:

- If an EP Trade Entry is rejected by any reason, the current reject message containing the reject reason and the echo of the trade will be returned to the entering EP.
- If an EP Trade Entry is accepted, a TGEN Acknowledgment message containing the Nasdaq-assigned "U" (for trade reporting and clearing) or "T" (for trade reporting only) status and Control Number, and the echo of the trade will be returned to the entering EP. The entering EP may use this message to build the initial trade record in its image file.
- If the entering EP is a correspondent of a clearing firm and the clearing firm has elected to receive clearing correspondent messages, a CGEN with identical contents (with the exception of the submitter's proprietary data) of the TGEN will be forwarded to the specified clearing firm.
- If an EP Trade Entry is accepted, a TGAL Allege message containing the same contents as the TTEN will be forwarded to the CP side of the trade. The CP may use this message to build the initial trade record in its image file.
- If the contra side CP is a correspondent of a clearing firm and the clearing firm has elected to receive clearing correspondent messages, a CGAL with identical contents of the TTAL will be forwarded to the specified clearing firm.

Expanded ACT Executing Party (EP) Message format:

Field Name	Position	Format	Description
Function	1-1	X(1)	K = EP Trade Entry
As-of	2-2	X(1)	Valid values: Y = As-of (T+1 to T+n) space= Original (T-Day entry)

Field Name	Position	Format	Description
Security Class	3-3	X(1)	Valid U.S. Market values: N = Nasdaq Global Select Market or Nasdaq Global Market R = Nasdaq Capital Market C = CQS
B/S/X	4-4	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR. The use of B/S/X field for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.
Reference Number	5-10	X(6)	User assigned reference number
Volume	11-18	9(8)	Number of shares
Symbol	19-32	X(14)	SECID
Side	33-33	X(1)	Valid Values: B = Buy S = Sell X = Cross The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Short Sale Indicator	34-34	X(1)	Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade

Field Name	Position	Format	Description
			The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Reserved	35-36	9(2)	blank
Millisecond Execution Time	37-39	9(3)	<p>Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 74-79).</p> <p>Include the milliseconds (mmm) of the Execution Time field (HHMMSS).</p>
Price Trade Digit	40-40	X(1)	<p>Valid values:</p> <p>A = Decimal Unit Price</p> <p>B = Contract Amount</p>
Trade Modifier	41-44	X(4)	<p>Users can combine multiple values, up to four allowed. The system will reject invalid combinations. See section 4.1.1 Text Field Definitions, for more details.</p> <p>Valid values:</p> <p>@ - Regular</p> <p>1 - Stop Stock (Regular Trade)</p> <p>4 - Derivatively Priced</p> <p>C - Cash Option</p> <p>F - Intermarket Sweep - identifies a trade that requires NASD ISO Inbound identification</p> <p>3 - Intermarket Sweep - identifies a trade that requires NASD ISO Outbound identification</p> <p>N - Next Day</p> <p>P - Prior Reference Price</p> <p>R - Seller Option</p> <p>T - Outside Market Hours</p> <p>U = Pre/Post Market Out of Sequence</p> <p>W - Average Price</p> <p>Z - Out of Sequence or Late</p> <p>R - identifies an away from market trade as defined in FINRA Rule 6380A(e)(2).</p> <p>X - identifies a trade that was effected pursuant to the exercise of an OTC option.</p> <p>2 - identifies a trade that requires the NASD Self Help designator</p> <p>J - identifies a trade that requires the NASD Sub-penny designator</p>

Field Name	Position	Format	Description
			V – identifies a trade that requires the Qualified Contingent Trade designator 7 – identifies a error correction submission 8 – identifies a print protection submission Refer to Section 4.1.1 for details on order of position/priority.
Price Override	45-45	X(1)	Valid values: O = Override space = No override
CPID	46-49	X(4)	CPID of the CP side
CPGU	50-53	X(4)	CPID of give up on the CP side
CP Clear Number	54-57	9(4)	space = Major clear Number
EPID	58-61	X(4)	Required EPID of the EP side
EPGU	62-65	X(4)	EPID of give up on the EP side
EP Clear Number	66-69	9(4)	space = Major clear Number
EP PA Indicator	70-70	X(1)	Valid values: P = Principal A = agent R = Riskless Principal This is a required field on all trade reports
Trade Report Flag	71-71	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	72-72	X(1)	Valid values: space = clear G = FINRA AGU Lock-in N = no clear Q = QSR no clear Z = QSR clear S = Nasdaq QSR for clearing A = Nasdaq AGU for clearing U = AGU clearing, not risk eligible R = Risk update only, not sent to clearing Y = Clearing, non-risk eligible
Special Trade	73-73	X(1)	Valid values:

Field Name	Position	Format	Description
Indicator			<p>2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy**</p> <p>*Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares.</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	74-79	9(6)	Required HHMMSS

Field Name	Position	Format	Description
			Milliseconds timestamp is required under bytes 37-39.
Memo	80-89	X(10)	User Memo
Decimal Price	90-101	9(12)	Unit Price = 999999V999999 for Trade Digit "A" Contract Price = 0999999999V99 for Trade Digit "B"
Contra Branch Sequence	102-121	X(20)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	122-129	9(8)	<p>Must be entered for T+2 or older, mmddyyyy format.</p> <p>Absence of this field indicates current day or previous day depending on the "as-of" flag.</p> <p>"Non-Execution Day" trades must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades can be either TRF or exchange trades <p>"Non-Execution Day" trades will not be disseminated to the SIP(s). The "Late modifier" is conditionally assigned when the trade was reported any time after 8:15am the following business day.</p> <p>"Trades greater than 365 days" must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades must be Nasdaq TRF trades
Reversal Indicator	130-130	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>
CP P/A Indicator	131-131	X(1)	<p>Valid values:</p> <p>P = Principal</p> <p>A = agent</p> <p>space = no capacity indicated</p> <p>R = Riskless Principal</p>

Field Name	Position	Format	Description
			Firms must submit a CP P/A Indicator on any trade not eligible for match (examples: AGU, QSR, etc...) except on cross trades and customer trades.
Clearing Price	132-143	X(12)	Price inclusive of explicit fees. Cannot equal trade price. If the Trade Digit is A, then use a 6v6 format in this field. If the Trade Digit is B, then use a 10v2 format in this field. Use of this field is optional.
Trade Through Exempt	144-144	X(1)	N = No Trade Through Exemption Y = Trade Through Exemption
Seller Days	145-146	X(2)	For a Seller Option, Cash, or Next Day trade, use the respective assigned modifier and may not be reported as a late trade. Number of days for delivery is tracked in the field, "Seller Days", allowed values are as follows: Space for Regular Way Trade 00 For Sale Condition C – Cash 01 For Sale Condition N – Next Day 03-60 For Sale Condition R – Seller. If Trade Modifier field is populated with "R"-Seller's Option, this field must be populated.
Intended Market Center	147-147	X(1)	Defines the market to which the trade entry is reported. Q = Nasdaq Exchange function D = FINRA/Nasdaq TRF (Default) If Special Trade Indicator is other than Y, S, X, or blank, Intended Market Center must be Q.
Related Market Center	148-148	X(1)	Available on transaction reports submitted through ACT such as step-outs, Non-tape, and riskless principal transactions, the market where the underlying transaction was reported, as applicable. Blank A = NYSE MKT trade B = Nasdaq BX trade C = National Stock Exchange trade <u>E = MEMX Exchange trade</u> F = Foreign Market G = BATS Y Exchange trade H = BATS Exchange trade

Field Name	Position	Format	Description
			<p>I = International Securities Exchange trade J = Direct Edge A Exchange trade K = Direct Edge X Exchange trade L = LTSE Exchange M = Chicago Stock Exchange trade N = New York Stock Exchange trade P = NYSE ARCA trade Q = Nasdaq Exchange trade V = IEX Exchange Trade W = Chicago Board Options Exchange trade X = Nasdaq PSX trade O = Unknown Market Center U = Unspecified Multiple Market trades <u>Y = MIAAX Pearl Exchange trade</u> 0 = ADF 1 = FINRA/Nasdaq TRF Carteret 2 = FINRA/Nasdaq TRF Chicago 3 = FINRA/NYSE TRF</p> <p>FINRA / Nasdaq TRF Chicago modifications are effective as of September 10, 2018.</p>
Trade Reference Number	149-154	X(6)	A Firm populated field to discretely tie a Media eligible transaction to one or more non-Media eligible transactions. The firm might populate this field with the same value on a Media trade and the subsequent non-Media Riskless Principal trade for example
Advertisement Instruction	155-155	X(1)	Valid Values: Blank = do not publish "1" = publish
Modifier 2 Time	156-164	X(9)	<p>Modifier 2 Time will be required when firm enters a modifier 2 of "3" (Outbound ISO).</p> <p>Firms will receive a reject when:</p> <ul style="list-style-type: none"> - A Mod 2 Time is entered on a Trade Report that is not flagged as an Outbound ISO in Trade Modifier <p><i>If milliseconds are not populated, the system will append ".000" to the trade report timestamps.</i></p> <p>Format must be: HHMMSSsss</p>
Modifier 4 Time	165-173	X(9)	Modifier 4 Time will be required when firm enters a modifier 4 of "P" (Prior Reference Price) or "1" (Stop Stock).

Field Name	Position	Format	Description
			<p>Firms will receive a reject when:</p> <ul style="list-style-type: none"> - A Trade Modifier of PRP or Stop Stock is entered without a Mod 4 Time - A Mod 4 Time is entered on a trade report that where the Trade Modifier is not a PRP or Stop Stock - The Mod 4 Time is not more than 10 seconds before the execution time <p><i>If milliseconds are not populated, the system will append ".000" to the trade report timestamps.</i></p> <p>Format must be: HHMMSSsss</p>
Original Control Date	174-181	9(8)	<p>Original Control Number Date of Original Trade</p> <p>*Required on Reversal trade reports*</p> <p>Format: mmddyyyy</p>
Original Control Number	182-191	X(10)	<p>Firm must enter original Control Number of reversed trade</p>
Reference Reporting Facility	192-192	X(1)	<p>Firm can enter Referenced Reporting Facility of reversal.</p> <p>Valid values:</p> <p>A = ADF B = FINRA/Nasdaq TRF Chicago Q = FINRA/Nasdaq TRF Carteret N = FINRA/NYSE TRF O = ORF (OTC Equity Reporting Facility) Space = default (the current TRF)</p> <p>FINRA / Nasdaq TRF Chicago modifications are effective as of September 10, 2018.</p>

4.2.11 Contra Party (CP) Trade Entry (Function M)

A Contra Party firm (CP) will use this message to enter its trade details on clearing transactions. The CP Trade Entry will initiate an M1 trade matching process with those EP entered un-matched trades of the corresponding trade date to affect a locked-in trade. **This message allows new functionality to require Modifier 2, Modifier 4 Time fields on certain trades and require Original Control Date and Original Control Number on Reversals.**

An CP Trade Entry may be designated for trade comparison and clearing only.

The CP Trade Entry may generate the following output message flow. These messages are described in sections [4.3](#) and [4.4](#):

- If an CP Trade Entry is rejected by any reason, the current **reject message** containing the reject reason and the echo of the trade will be returned to the entering CP.
- If an CP Trade Entry is accepted, a **TTEN** Acknowledgment message containing the Nasdaq-assigned "O" status and Control Number, and the echo of the trade will be returned to the entering CP. The entering CP may use this message to build the initial trade record in its image file.
- If the entering CP is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a **CTEN** with identical contents of the TTEN will be forwarded to the specified clearing firm.
- If an CP Trade Entry is accepted, a **TTAL** Allege message containing the same contents as the TTEN will be forwarded to the EP side of the trade. The EP may use this message to build the initial trade record in its image file.
- If the contra side EP is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a **CTAL** with identical contents of the TTAL will be forwarded to the specified clearing firm.

The CP Trade Entry has the exact format as the EP Trade Entry, but the data entered in each field will be interpreted as the CP's version of the trade.

Message Format

Field Name	Position	Format	Description
Function	1	X(1)	M = CP Trade Entry
As-of	2	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day Entry)
Security Class	3	X(1)	Valid U.S. Market values: N = Global Select or Global R = Capital
B/S/X	4-4	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short

Field Name	Position	Format	Description
			<p>C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt</p> <p>Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR.</p> <p>The use of B/S/X field for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.</p>
Reference Number	5-10	X(6)	User assigned reference number that denotes the CP firm's own reference number if it is entered.
Volume	11-18	9(8)	Number of shares
Symbol	19-32	X(14)	CQS or TMTR SECID
Millisecond Execution Time	33-35	9(3)	<p>Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 64-69).</p> <p>Include the milliseconds (mmm) of the Execution Time field (HHMMSS).</p>
PriceTrade Digit	36	X(1)	<p>Valid values: A = Decimal Unit Price B = Contract Amount</p>
Trade Modifier	37-40	X(4)	<p>Users can combine multiple values, up to four allowed. The system will reject invalid combinations. See section 4.1.1 Text Field Definitions, for more details.</p> <p>Valid values:</p> <p>@ - Regular C - Cash Option N - Next Day R - Seller Option</p> <p>Refer to Section 4.1.1 for details on order of position/priority.</p>
Price Override	41	X(1)	Valid values:

Field Name	Position	Format	Description
			O = Override space = No override
CPID	42-45	X(4)	Required CPID of the CP side.
CPGU	46-49	X(4)	CPID of give up on the CP side.
CP Clear Number	50-53	9(4)	space = Major clear Number
EPID	54-57	X(4)	Required EPID of the EP side.
EPGU	58-61	X(4)	EPID of give up on the EP side.
EP Clear Number	62-65	9(4)	space = Major clear Number
CP PA Indicator	66	X(1)	Valid values: P = Principal A = agent R = Riskless Principal This is required on all trade reports
Trade Report Flag	67	X(1)	Valid values: space = Report to tape N = Do not report to tape As part of the FINRA reporting obligation validations implemented on 2/29/16, all OE Trades are required to have "Trade Report Flag=N".
Clearing Flag	68	X(1)	Valid values: space = clear N = no clear
Special Trade Indicator	69	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory*

Field Name	Position	Format	Description
			<p>O = Clearing Copy** P = Special and Clearing Copy**</p> <p>*Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares.</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	70-75	9(6)	<p>Required HHMMSS</p> <p>Milliseconds timestamp is required under bytes 28-30.</p>
Memo	76-85	X(10)	User Memo
Decimal	86-97	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Side	98-98	X(1)	<p>Valid Values: B = Buy S = Sell X = Cross</p> <p>The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a</p>

Field Name	Position	Format	Description
			required field for short sale reporting.
Short Sale Indicator	99-99	X(1)	<p>Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade</p> <p>The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Reserved	100-105	X(6)	N/A; space-filled
Trade Date	106-113	9(8)	<p>Must be entered for T+2 or older, mmddyyyy format.</p> <p>Absence of this field indicates current day or previous day depending on the "as-of" flag.</p> <p>"Non-Execution Day" trades must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades can be either TRF or exchange trades <p>"Non-Execution Day" trades will not be disseminated to the SIP(s). The "Late modifier" is conditionally assigned when the trade was reported any time after 8:15am the following business day.</p> <p>"Trades greater than 365 days" must be:</p> <ul style="list-style-type: none"> - entered as "as-of" - be marked "non-clearing" - These trades must be Nasdaq TRF trades
Reversal Indicator	114	X(1)	<p>Valid values: Space = not a reversal R = reversal reported through ACT K = reversal reported through ACT</p>
EP PA Indicator	115	X(1)	<p>Valid values: P = Principal A = Agent</p>

Field Name	Position	Format	Description
			space = no capacity indicated R = Riskless Principal Firms must submit a EP PA Indicator on any trade not eligible for match except on cross trades and customer trades.
Clearing Price	116-127	X(12)	Price inclusive of explicit fees. Cannot equal trade price. If the Trade Digit is A, then use a 6v6 format in this field. If the Trade Digit is B, then use a 10v2 format in this field. Use of this field is optional.
Seller Days	128-129	9(2)	For a Seller Option, Cash, or Next Day trade, use the respective assigned modifier and may not be reported as a late trade. Number of days for delivery is tracked in the field, "Seller Days", allowed values are as follows: Space for Regular Way Trade 00 For Sale Condition C – Cash 01 For Sale Condition N – Next Day 03-60 For Sale Condition R – Seller. If Trade Modifier field is populated with "R"- Seller's Option, this field must be populated.
Reserved	130-138	X(9)	Space-filled
Reserved	139-147	X(9)	Space-filled
Original Control Date	148-155	9(8)	Original Control Number Date of Original Trade *Required on Reversal trade reports* Format: mmddyyyy
Original Control Number	156-165	X(10)	Firm must enter original Control Number of reversed order
Reference Reporting Facility	166	X(1)	For a reversal, the firm should enter the TRF to which the original trade was reported. Valid values: A = ADF B = FINRA/Nasdaq TRF Chicago Q = FINRA/Nasdaq TRF Carteret N = FINRA/NYSE TRF O = ORF (OTC Equity Reporting Facility) Space = default (the current TRF)

Field Name	Position	Format	Description
			FINRA / Nasdaq TRF Chicago modifications are effective as of September 10, 2018.

4.3 Trade Reporting Output Messages

An input message block that successfully passes the Switch validations and safestore procedures is forwarded to the trade reporting application, which will perform additional validations on the text of the input message. If an error is detected, the originating subscriber shall receive a reject message explaining why the original message could not be processed. If no errors are detected and the input message is accepted by Nasdaq, the application will send an Acknowledgment message to the originating subscriber and a Notification message to the contra party. All Reject and Notification messages released from the Application Processor will be forwarded to the subscriber via the NASDMS Switch in Switch Output Message format if the subscriber is employing a CTCI and will be contained in a Switch Output Message Envelope. Note that if the rejected text is too large, the Switch Trailer will overlay the text such that the block does not exceed 1024 characters.

There is no guarantee that messages will be received in a logical sequence. While rare, it is possible for a TCLK message to precede a TTEN or TTAL. Subscribers should take this into consideration in their design.

4.3.1 UM Notification Message

Note: Pre vs. Post Reg NMS Message Format for Trade Reporting Output Messages, UMs defined as TTEN/CTEN-TREN/CREN-TGEN/CGEN,TTAL/CTAL-TRAL/CRAL-TGAL/CGAL, TTNW-TRNW-TGNW and TTUD-TRUD, are mutually exclusive and not dependent on the message format used for trade report submission, but instead are dependent on firm preference set on the Nasdaq ACT Firm Profile. Firms are encouraged to call Nasdaq Subscriber Services to opt in for the new UM message formats if they wish.

If an input message (i.e., Trade Entry, Error, Cancel, Decline, or Break is accepted by the application (i.e., it passes all validations), an appropriate UM Notification Message will be forwarded to the proper subscriber. The UM Notification Messages contain sufficient data to enable subscribers to build their own image files to perform trade reporting and trade clearing procedures. In addition, if one of the parties to a trade exceeds its assigned Net Trade Threshold, the affected party and its clearing agent will receive an Alert UM. If a trade causes the party to fall back within the NTT, a Fallback UM will be sent. If the firm selected header options but has not specified customized headers, then the default message header origin will be ACTXXX where XXX represents 1 - 3 alphanumeric characters and the default message header type field will contain T (OTHER). Following the optional header line(s), the UM notification message will be received by the subscriber as the text portion of a Standard Switch Output Message and is described below:

Line 1:

OTHER MPID: Receiving firm MPID

CR LF: Required line delimiter

Line 2:

Trade Reporting Message Type: This field identifies the UM Notification message header and will contain the type of message being sent. See section 4.3 for a list of Output Message Types.

Line 3:

This line is the detail data of the UM Notification Message corresponding to the Output Message Type specified in Line 2.

4.3.2 Output Message Types

Message	Description
TREN/CREN	(previously called Reg NMS Message Format for TTEN/CTEN) Denotes a Reg NMS compliant Entry Acknowledgment Message. When an EP or a CP enters an original or As-of trade and Nasdaq accepts the trade, this message will be forwarded to the originator.
TGEN/CGEN	Expanded ACT EP Trade Entry Acknowledgement message. Reg-NMS compliant message expanded to include the following four fields: Intended Market Center, Related Market Center, Trade Reference Number, Advertisement Instruction. When an EP or a CP enters an original or As-of trade Function G and Nasdaq accepts the trade, this message will be forwarded to the originator.
TKEN/CKEN	Expanded ACT EP Trade Entry Acknowledgement message. Reg-NMS compliant message expanded to include the following four fields: Intended Market Center, Related Market Center, Trade Reference Number, Advertisement Instruction. When an EP or a CP enters an original or As-of trade Function G and Nasdaq accepts the trade, this message will be forwarded to the originator.
TGAL/CGAL	Denotes an Entry Allege Notification Message when the user has elected to receive expanded ACT REG-NMS message formats. When an EP or a CP enters an original or As-of trade and Nasdaq accepts the trade, this message will be forwarded to the contra party. Note: If a subscriber chooses to build an image file, which contains all trades entered by the firm or trades other firms entered against the firm, then respective TGEN and TGAL messages should be used to build it. Other UM messages described below will be used to update the statuses and/or contents of these trades. Similarly, a clearing firm may build an image file using CGEN and CGAL messages for its correspondents' trades to meet its own internal business requirements. A "T" type (e.g., TGEN) UM message has a corresponding "C" type (e.g., CGEN) UM message available for the clearing firms to update their correspondents' trades.
TKAL/CKAL	Denotes an Entry Allege Notification Message when the user has elected to receive expanded ACT REG-NMS message formats. When an EP or a CP enters an original or As-of trade and Nasdaq accepts the trade, this message will be forwarded to the contra party. Note: If a subscriber chooses to build an image file, which contains all trades entered by the firm or trades other firms entered against the firm, then respective TGEN and TGAL messages should be used to build it. Other UM messages described below will be used to update the statuses and/or contents of these trades. Similarly, a clearing firm may build an image file using CGEN and CGAL messages for its correspondents' trades to meet its own internal business requirements. A "T" type (e.g., TGEN) UM message has a corresponding "C" type (e.g., CGEN) UM message available for the clearing firms to update their correspondents' trades.
TRAL/CRAL	(previously called Reg NMS Message Format for TTAL/CTAL) Denotes a Reg NMS compliant Entry Allege Notification Message. When an EP or a CP enters an original or As-of trade and Nasdaq accepts the trade, this message will be forwarded to the contra party. Note: If a subscriber chooses to build an image file, which contains all trades entered by the

Message	Description
	firm or trades other firms entered against the firm, then respective TREN and TRAL messages should be used to build it. Other UM messages described below will be used to update the statuses and/or contents of these trades. Similarly, a clearing firm may build an image file using CREN and CRAL messages for its correspondents' trades to meet its own internal business requirements. A "T" type (e.g., TREN) UM message has a corresponding "C" type (e.g., CREN) UM message available for the clearing firms to update their correspondents' trades.
TRUD	(previously called Reg NMS Message Format for TTEN/CTEN) Denotes a Reg NMS compliant Trade Update Notification Message. If an EP or a CP updates clearing information in its trade via the NWII Scan function, both parties to the trade will receive the updated clearing information in their CTCI via this message. Note: All UM Notification Messages other than TTUD contain only the message category on line 2. TTUD also contains Parameters and Update Sequence Number, respectively.
TCER	Denotes an Error UM Notification Message. This message will be forwarded to both the EP and the CP when the EP errors an EP entered trade.
TCAN	Denotes a Cancel UM Notification Message. If a trade is canceled by the EP or the CP, this message will be forwarded to both the CP and the EP.
TCLK	Denotes a Locked-in Trade Notification Message. If an EP trade is Locked-in by a CP acceptance, or if buy and sell entries are Locked-in by M1 trade matching, this message will be forwarded to both buyer and seller.
TGLK	Denotes a Locked-in Trade Notification Message. If an EP trade is Locked-in by a CP acceptance, or if buy and sell entries are Locked-in by M1 trade matching, this message will be forwarded to both buyer and seller. This message differs from the TCLK in that it contains the Intended Market Center field and an additional filler field.
TCBK	Denotes a Break Trade UM Notification Message. If the buyer or seller enters a Break Trade transaction to break a locked-in trade, this message will be forwarded to both buyer and seller.
TCDE	Denotes a Decline UM Notification Message. This message will be forwarded to both the EP and the CP when a trade is Declined by either one.
TCPI	Denotes the current Participant Indicators. This message will be transmitted online when any one of a participant's Regulatory, the system or Clearing Flag change. A full broadcast of all current Participant Indicators will also be transmitted as a Start of Day transmission. Nasdaq will specify the Start of Day transmission time, which is typically at 07:00.
TCBT	Denotes a Blockbuster Trade (BBT) and is sent to the clearing firm of a correspondent executing broker.
TCST	Denotes a Sizeable Trade and is sent to the executing broker and the clearing firm of a correspondent executing broker.
TCAK	Transmits a record of the current or updated levels of the Buy and Sell

Message	Description
	thresholds set by the executing broker and their clearing firm.
TTAJ	Transmits a record of the current or updated levels of the Buy and Sell SuperCap limits set by the executing broker's clearing firm. This message is used to acknowledge the enhanced risk management input function J.
TTNT/TTNP	Denotes that the dollar value of this trade has contributed to the cumulative Net Amount Traded (NAT) such that the resulting NAT exceeds one or both of the trading party's (i.e. the executing broker as EP, CP, EPGU, or CPGU) Net Trade Threshold (NTT). This threshold alert message shall be forwarded to each party of the trade whose NTT is exceeded and to its clearing firm, if any. The TTNP version of the message will be sent when the trade causes the firm to exceed 70% of its limit set by the clearing firm.
TTFB/TTFP	Denotes that the dollar value of this trade has contributed to the cumulative NAT such that the resulting NAT has fallen back below one or both of the party's NTT. This threshold fallback message shall be forwarded to the party(s) of the trade whose NAT was now within its NTT limit and to its clearing firm, if any.

4.3.3 Trade Entry Acknowledgment (TREN/CREN) (previously called Reg NMS Message Format for TTEN/CTEN)

When an EP or a CP enters a Reg NMS compliant trade entry and Nasdaq accepts the entry, this message will be forwarded to the originator. If the entering firm is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a CTEN with identical contents of the TTEN will be forwarded to the specified clearing firm.

Line 1: Other MPID Cr Lf
 Line 2: TTEN Cr Lf
 Line 3: Control Number (Trade Text) Cr Lf

The trade text field contains the trade and will be formatted as an EP Trade Entry Message (section [4.1.3](#)) or as a CP Trade Entry (section [4.1.4](#)). The function field will contain the status of the trade.

Reg NMS Message Format

Field Name	Position	Format	Description
Control Number	1-10	X(10)	Control number that the system had assigned to the trade when it was accepted by the system. The control number is required to uniquely identify the record in the file for subsequent processing.
Trade Status	11-11	X(1)	Valid values: A = Accepted (locked-in trade) B = Broken C = Canceled D = Declined E = Errored G = Trades forwarded as one-sided to DTCC H = A blockbuster or sizable trade being held pending clearing firm action or expiration of 15 minute held period I = A blockbuster or sizable trade that was inhibited from being locked in by the clearing firm. K = Sizable trade killed by Nasdaq at the end of the 15 minute held period L = Automatic Locked-in trade (end of T+1) M = M1 Matched (locked-in trade) O = CP Entered trade R = Locked-in trades from other Nasdaq systems or QSR trades T = Trades entered for Ticker only U = Unanswered (EP entry) X = Trades purged from the trade reporting file

Field Name	Position	Format	Description
			The Automatic Locked-in or "L" status, as well as the "G", and "X" statuses are assigned by the system during off-line processing. Therefore these statuses are not available during the on-line day for querying or manipulating by the subscribers. However, trades with these off-line statuses will be forwarded to the participants during EOD recap.
As-of	12-12	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day entry)
Security Class	13-13	X(1)	Valid U.S. market values: N = Nasdaq Global Select Market or Nasdaq Global Market R = Nasdaq Capital Market C = CQS
B/S/X	14-14	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR. The use of B/S/X for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.
Reference Number	15-20	X(6)	User assigned reference number
Volume	21-28	9(8)	Number of shares
Symbol	29-42	X(14)	SECID

Field Name	Position	Format	Description
Side	43-43	X(1)	Valid Values: B = Buy S = Sell X = Cross The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting
Short Sale Indicator	44-44	X(1)	Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Reserved	45-46	9(2)	N/A
Millisecond Execution Time	47-49	9(3)	Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 84-89). Include the milliseconds (mmm) of the Execution Time field (HHMMSS).
Price Trade Digit	50-50	X(1)	Valid values: A = Decimal Unit Price B = Contract Amount

Field Name	Position	Format	Description
Trade Modifier	51-54	X(4)	Multi-value, space delimited string. Valid values: @ - Regular 1 - Stop Stock (Regular Trade) 4 - Derivatively Priced C - Cash Option F - Intermarket Sweep - identifies a trade that requires FINRA ISO Inbound identification 3 - Intermarket Sweep - identifies a trade that requires FINRA ISO Outbound identification N - Next Day P - Prior Reference Price R - Seller Option T - Outside Market Hours U = Pre/Post-Market Out of Sequence W - Average Price Z - Out of Sequence or Late R - identifies a trade at a price that is substantially unrelated to the current market price. X - identifies a trade that was effected pursuant to the exercise of an OTC option. 2 - identifies a trade that requires the FINRA Self Help designator J - identifies a trade that requires the FINRA Sub-penny designator V - identifies a trade that requires the Qualified Contingent Trade designator 7 - identifies a error correction submission 8 - identifies a print protection submission Refer to Section 4.1.1 for details on order of position/priority.
Price Override	55-55	X(1)	Valid values: O = Override space = No override
CPID	56-59	X(4)	CPID of the CP side
CPGU	60-63	X(4)	CPID of give up on the CP side
CP Clear Number	64-67	9(4)	space = Major clear Number
EPID	68-71	X(4)	Required EPID of the EP side
EPGU	72-75	X(4)	EPID of give up on the EP side
EP Clear Number	76-79	9(4)	space = Major clear Number

Field Name	Position	Format	Description
EP PA Indicator	80-80	X(1)	Valid values: P = Principal A = agent R = Riskless Principal
Trade Report Flag	81-81	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	82-82	X(1)	Valid values: space = clear G = Automatic Give-up Lock-in N = no clear Q = QSR no clear Z = QSR clear L = Ext. Sys. Locked-in (for Nasdaq ESI executions)
Special Trade Indicator	83-83	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy** *Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035 **Clearing Copy designation will be used for Nasdaq NextShares .

Field Name	Position	Format	Description
			<p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	84-89	9(6)	<p>Required HHMMSS</p> <p>Milliseconds timestamp is required under bytes 47-49.</p>
Memo	90-99	X(10)	User Memo
Decimal Price	100-111	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Contra Branch Sequence	112-119	X(8)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	120-127	9(8)	Must be entered for T+2 or older, mmddyyyy format.
Reversal Indicator	128-128	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>
CP P/A Indicator	129-129	X(1)	<p>Valid values:</p> <p>P = Principal</p> <p>A = Agent</p> <p>space = no capacity indicated</p> <p>R = Riskless Principal</p>

Field Name	Position	Format	Description
Trade-Through Exempt	130	X(1)	N = No Trade Through Exemption Y = Trade Through Exemption
Seller Days	131-132	X(2)	Space for Regular Way trade 00 for Sale Condition C – Cash 01 for Sale Condition N – Next Day 03-60 for Sale Condition R – Seller. If Trade Modifier field is populated with "R" this field will be populated.
Exchange Indicator	133-135	X(3)	Populated on CREN only. Valid values: "NQ " = Nasdaq Exchange trade "TRF" = Non-exchange trade
Filler	136-142	X(7)	Space Filled (reserve for future use)
Clearing Price	143-154	X(12)	Price inclusive of explicit fees. This field will be included only for firms who select this option in their firm profiles.
TMTR Symbol	155-168	X(14)	The TMTR Symbol if CQS security. This field is included in the message if the Security Class is either C or Z. If not, the field is not sent.

4.3.4 Trade Entry Acknowledgment (TGEN/CGEN) Expanded ACT EP Message Format

When an EP or a CP enters an Expanded Reg NMS compliant trade entry and Nasdaq accepts the entry, this message will be forwarded to the originator. If the entering firm is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a CGEN with identical contents of the TGEN will be forwarded to the specified clearing firm.

Line 1: Other MPID Cr Lf

Line 2: TGEN Cr Lf

Line 3: Control Number (Trade Text) Cr Lf

The trade text field contains the trade and will be formatted as an EP Trade Entry Message (section [4.1.3](#)) or as a CP Trade Entry (section [4.1.4](#)). The function field will contain the status of the trade.

Expanded ACT EP Message Format

Field Name	Position	Format	Description
Control Number	1-10	X(10)	Control number that the system had assigned to the trade when it was accepted by the system. The control number is required to uniquely identify the record in the file for subsequent processing.
Trade Status	11-11	X(1)	Valid values: A = Accepted (locked-in trade) B = Broken C = Canceled D = Declined E = Errored G = Trades forwarded as one-sided to DTCC H = A blockbuster or sizable trade being held pending clearing firm action or expiration of 15 minute held period I = A blockbuster or sizable trade that was inhibited from being locked in by the clearing firm. K = Sizable trade killed by Nasdaq at the end of the 15 minute held period L = Automatic Locked-in trade (end of T+1) M = M1 Matched (locked-in trade) O = CP Entered trade R = Locked-in trades from other Nasdaq systems or QSR trades T = Trades entered for Ticker only U = Unanswered (EP entry) X = Trades purged from the trade reporting

Field Name	Position	Format	Description
			file The Automatic Locked-in or "L" status, as well as the "G", and "X" statuses are assigned by the system during off-line processing. Therefore these statuses are not available during the on-line day for querying or manipulating by the subscribers. However, trades with these off-line statuses will be forwarded to the participants during EOD recap.
As-of	12-12	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day entry)
Security Class	13-13	X(1)	Valid U.S. market values: N = Nasdaq Global Select Market or Nasdaq Global Market R = Nasdaq Capital Market C = CQS
B/S/X	14-14	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR. The use of B/S/X field for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.
Reference Number	15-20	X(6)	User assigned reference number
Volume	21-28	9(8)	Number of shares
Symbol	29-42	X(14)	SECID

Field Name	Position	Format	Description
Side	43-43	X(1)	Valid Values: B = Buy S = Sell X = Cross The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Short Sale Indicator	44-44	X(1)	Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Reserved	45-46	9(2)	N/A
Millisecond Execution Time	47-49	9(3)	Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 84-89). Include the milliseconds (mmm) of the Execution Time field (HHMMSS).
Price Trade Digit	50-50	X(1)	Valid values: A = Decimal Unit Price B = Contract Amount

Field Name	Position	Format	Description
Trade Modifier	51-54	X(4)	Multi-value, space delimited string. Valid values: @ - Regular 1 - Stop Stock (Regular Trade) 4 - Derivatively Priced C - Cash Option F - Intermarket Sweep - identifies a trade that requires FINRA ISO Inbound identification 3 - Intermarket Sweep - identifies a trade that requires FINRA ISO Outbound identification N - Next Day P - Prior Reference Price R - Seller Option T - Outside Market Hours U = Pre/Post-Market Out of Sequence W - Average Price Z - Out of Sequence or Late R - identifies a trade at a price that is substantially unrelated to the current market price. X - identifies a trade that was effected pursuant to the exercise of an OTC option. 2 - identifies a trade that requires the FINRA Self Help designator J - identifies a trade that requires the FINRA Sub-penny designator V - identifies a trade that requires the Qualified Contingent Trade designator 7 - identifies a error correction submission 8 - identifies a print protection submission Refer to Section 4.1.1 for details on order of position/priority.
Price Override	55-55	X(1)	Valid values: O = Override space = No override
CPID	56-59	X(4)	CPID of the CP side
CPGU	60-63	X(4)	CPID of give up on the CP side
CP Clear Number	64-67	9(4)	space = Major clear Number
EPID	68-71	X(4)	Required EPID of the EP side
EPGU	72-75	X(4)	EPID of give up on the EP side
EP Clear Number	76-79	9(4)	space = Major clear Number

Field Name	Position	Format	Description
EP PA Indicator	80-80	X(1)	Valid values: P = Principal A = agent R = Riskless Principal
Trade Report Flag	81-81	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	82-82	X(1)	Valid values: space = clear G = FINRA Automatic Give-up Lock-in N = no clear Q = QSR no clear Z = QSR clear L = Ext. Sys. Locked-in (for Nasdaq ESI executions) S = Nasdaq QSR for clearing A = Nasdaq AGU for clearing U = AGU clearing, not risk eligible R = Risk update only, not sent to clearing Y = Clearing, non-risk eligible
Special Trade Indicator	83-83	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy**

Field Name	Position	Format	Description
			<p>*Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares.</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	84-89	9(6)	<p>Required HHMMSS</p> <p>Milliseconds timestamp is required under bytes 47-49.</p>
Memo	90-99	X(10)	User Memo
Decimal Price	100-111	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Contra Branch Sequence	112-131	X(20)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	132-139	9(8)	Must be entered for T+2 or older, mmddyyyy format.
Reversal Indicator	140-140	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>

Field Name	Position	Format	Description
CP P/A Indicator	141-141	X(1)	Valid values: P = Principal A = Agent space = no capacity indicated R = Riskless Principal
Trade-Through Exempt	142-142	X(1)	N = No Trade Through Exemption Y = Trade Through Exemption
Seller Days	143-144	X(2)	Space for Regular Way trade 00 for Sale Condition C – Cash 01 for Sale Condition N – Next Day 03-60 for Sale Condition R – Seller. If Trade Modifier field is populated with "R" this field will be populated.
Exchange Indicator	145-147	X(3)	Populated on CREN only. Valid values: "NQ " = Nasdaq Exchange trade "TRF" = Non-exchange trade
Filler	148-154	X(7)	Space Filled (reserve for future use)
Clearing Price	155-166	X(12)	Price inclusive of explicit fees. This field will be included only for firms who select this option in their firm profiles.
TMTR Symbol	167-180	X(14)	The TMTR Symbol if CQS security. This field is included in the message if the Security Class is either C or Z. If not, the field is not sent.
Intended Market Center	181-181	X(1)	Defines the market to which the trade entry is reported. Q = Nasdaq Exchange function D = FINRA/Nasdaq TRF (Default)

Field Name	Position	Format	Description
Related Market Center	182-182	X(1)	<p>Available on transaction reports submitted through ACT such as step-outs, Non-tape, and riskless principal transactions, the market where the underlying transaction was reported, as applicable.</p> <p>Blank A = NYSE MKT trade B = Nasdaq BX trade C = National Stock Exchange trade <u>E = MEMX Exchange trade</u> F = Foreign Market G = BATS Y Exchange trade H = BATS Exchange trade I = International Securities Exchange trade J = Direct Edge A Exchange trade K = Direct Edge X Exchange trade L = LTSE Exchange M = Chicago Stock Exchange trade N = New York Stock Exchange trade P = NYSE ARCA trade Q = Nasdaq Exchange trade V = IEX Exchange Trade W = Chicago Board Options Exchange trade X = Nasdaq PSX trade O = Unknown Market Center U = Unspecified Multiple Market trades <u>Y = MIAX Pearl Exchange trade</u> 0 = ADF 1 = FINRA/Nasdaq TRF Carteret 2 = FINRA/Nasdaq TRF Chicago 3 = FINRA/NYSE TRF</p> <p>FINRA / Nasdaq TRF Chicago modifications are effective as of September 10, 2018.</p>
Trade Reference Number	183-188	X(6)	A Firm populated field to discretely tie a Media eligible transaction to one or more non-Media eligible transactions. The firm might populate this field with the same value on a Media trade and the subsequent non-Media Riskless Principal trade for example
Advertisement Instruction	189-189	X(1)	<p>Valid Values:</p> <p>Blank = do not publish "1" = publish</p>
Reg Fee Flag	190-190	X(1)	Future field to be defined.

4.3.5 Trade Entry Acknowledgment (TKEN/CKEN) Expanded ACT EP Message Format

When an EP or a CP enters an Expanded Reg NMS compliant trade entry and Nasdaq accepts the entry, this message will be forwarded to the originator. If the entering firm is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a CKEN with identical contents of the TKEN will be forwarded to the specified clearing firm.

Line 1: Other MPID Cr Lf

Line 2: TKEN Cr Lf

Line 3: Control Number (Trade Text) Cr Lf

The trade text field contains the trade and will be formatted as an EP Trade Entry Message (section [4.1.3](#)) or as a CP Trade Entry (section [4.1.4](#)). The function field will contain the status of the trade.

Expanded ACT EP Message Format

Field Name	Position	Format	Description
Control Number	1-10	X(10)	Control number that the system had assigned to the trade when it was accepted by the system. The control number is required to uniquely identify the record in the file for subsequent processing.
Trade Status	11-11	X(1)	Valid values: A = Accepted (locked-in trade) B = Broken C = Canceled D = Declined E = Errored G = Trades forwarded as one-sided to DTCC H = A blockbuster or sizable trade being held pending clearing firm action or expiration of 15 minute held period I = A blockbuster or sizable trade that was inhibited from being locked in by the clearing firm. K = Sizable trade killed by Nasdaq at the end of the 15 minute held period L = Automatic Locked-in trade (end of T+1) M = M1 Matched (locked-in trade) O = CP Entered trade R = Locked-in trades from other Nasdaq systems or QSR trades T = Trades entered for Ticker only U = Unanswered (EP entry) X = Trades purged from the trade reporting

Field Name	Position	Format	Description
			file The Automatic Locked-in or "L" status, as well as the "G", and "X" statuses are assigned by the system during off-line processing. Therefore these statuses are not available during the on-line day for querying or manipulating by the subscribers. However, trades with these off-line statuses will be forwarded to the participants during EOD recap.
As-of	12-12	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day entry)
Security Class	13-13	X(1)	Valid U.S. market values: N = Nasdaq Global Select Market or Nasdaq Global Market R = Nasdaq Capital Market C = CQS
B/S/X	14-14	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR. The use of B/S/X for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.
Reference Number	15-20	X(6)	User assigned reference number
Volume	21-28	9(8)	Number of shares
Symbol	29-42	X(14)	SECID

Field Name	Position	Format	Description
Side	43-43	X(1)	Valid Values: B = Buy S = Sell X = Cross The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Short Sale Indicator	44-44	X(1)	Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Reserved	45-46	9(2)	N/A
Millisecond Execution Time	47-49	9(3)	Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 84-89). Include the milliseconds (mmm) of the Execution Time field (HHMMSS).
Price Trade Digit	50-50	X(1)	Valid values: A = Decimal Unit Price B = Contract Amount

Field Name	Position	Format	Description
Trade Modifier	51-54	X(4)	Multi-value, space delimited string. Valid values: @ - Regular 1 - Stop Stock (Regular Trade) 4 - Derivatively Priced C - Cash Option F - Intermarket Sweep - identifies a trade that requires FINRA ISO Inbound identification 3 - Intermarket Sweep - identifies a trade that requires FINRA ISO Outbound identification N - Next Day P - Prior Reference Price R - Seller Option T - Outside Market Hours U = Pre/Post-Market Out of Sequence W - Average Price Z - Out of Sequence or Late R - identifies an away from market trade as defined in FINRA Rule 6380A(e)(2).. X - identifies a trade that was effected pursuant to the exercise of an OTC option. 2 - identifies a trade that requires the FINRA Self Help designator J - identifies a trade that requires the FINRA Sub-penny designator V - identifies a trade that requires the Qualified Contingent Trade designator 7 - identifies a error correction submission 8 - identifies a print protection submission Refer to Section 4.1.1 for details on order of position/priority.
Price Override	55-55	X(1)	Valid values: O = Override space = No override
CPID	56-59	X(4)	CPID of the CP side
CPGU	60-63	X(4)	CPID of give up on the CP side
CP Clear Number	64-67	9(4)	space = Major clear Number
EPID	68-71	X(4)	Required EPID of the EP side
EPGU	72-75	X(4)	EPID of give up on the EP side
EP Clear Number	76-79	9(4)	space = Major clear Number

Field Name	Position	Format	Description
EP PA Indicator	80-80	X(1)	Valid values: P = Principal A = agent R = Riskless Principal
Trade Report Flag	81-81	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	82-82	X(1)	Valid values: space = clear G = FINRA Automatic Give-up Lock-in N = no clear Q = QSR no clear Z = QSR clear L = Ext. Sys. Locked-in (for Nasdaq ESI executions) S = Nasdaq QSR for clearing A = Nasdaq AGU for clearing U = AGU clearing, not risk eligible R = Risk update only, not sent to clearing Y = Clearing, non-risk eligible
Special Trade Indicator	83-83	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy** *Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing

Field Name	Position	Format	Description
			<p>Notice 2015-035 (effective on or about February 1, 2016)</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares. (effective on or about February 1, 2016)</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	84-89	9(6)	<p>Required HHMMSS</p> <p>Milliseconds timestamp is required under bytes 47-49.</p>
Memo	90-99	X(10)	User Memo
Decimal Price	100-111	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Contra Branch Sequence	112-131	X(20)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	132-139	9(8)	Must be entered for T+2 or older, mmddyyyy format.
Reversal Indicator	140-140	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>

Field Name	Position	Format	Description
CP P/A Indicator	141-141	X(1)	Valid values: P = Principal A = Agent space = no capacity indicated R = Riskless Principal
Trade-Through Exempt	142-142	X(1)	N = No Trade Through Exemption Y = Trade Through Exemption
Seller Days	143-144	X(2)	Space for Regular Way trade 00 for Sale Condition C – Cash 01 for Sale Condition N – Next Day 03-60 for Sale Condition R – Seller. If Trade Modifier field is populated with "R" this field will be populated.
Exchange Indicator	145-147	X(3)	Populated on CREN only. Valid values: "NQ " = Nasdaq Exchange trade "TRF" = Non-exchange trade
Filler	148-154	X(7)	Space Filled (reserve for future use)
Clearing Price	155-166	X(12)	Price inclusive of explicit fees. This field will be included only for firms who select this option in their firm profiles.
TMTR Symbol	167-180	X(14)	The TMTR Symbol if CQS security. This field is included in the message if the Security Class is either C or Z. If not, the field is not sent.
Intended Market Center	181-181	X(1)	Defines the market to which the trade entry is reported. Q = Nasdaq Exchange function D = FINRA/Nasdaq TRF (Default)

Field Name	Position	Format	Description
Related Market Center	182-182	X(1)	<p>Available on transaction reports submitted through ACT such as step-outs, Non-tape, and riskless principal transactions, the market where the underlying transaction was reported, as applicable.</p> <p>Blank A = NYSE MKT trade B = Nasdaq BX trade C = National Stock Exchange trade <u>E = MEMX Exchange trade</u> F = Foreign Market G = BATS Y Exchange trade H = BATS Exchange trade I = International Securities Exchange trade J = Direct Edge A Exchange trade K = Direct Edge X Exchange trade L = LTSE Exchange M = Chicago Stock Exchange trade N = New York Stock Exchange trade P = NYSE ARCA trade Q = Nasdaq Exchange trade V = IEX Exchange Trade W = Chicago Board Options Exchange trade X = Nasdaq PSX trade O = Unknown Market Center U = Unspecified Multiple Market trades <u>Y = MIAX Pearl Exchange trade</u> 0 = ADF 1 = FINRA/Nasdaq TRF Carteret 2 = FINRA/Nasdaq TRF Chicago 3 = FINRA/NYSE TRF</p> <p>FINRA / Nasdaq TRF Chicago modifications are effective as of September 10, 2018</p>
Trade Reference Number	183-188	X(6)	A Firm populated field to discretely tie a Media eligible transaction to one or more non-Media eligible transactions. The firm might populate this field with the same value on a Media trade and the subsequent non-Media Riskless Principal trade for example
Advertisement Instruction	189-189	X(1)	<p>Valid Values: Blank = do not publish "1" = publish</p>
Reg Fee Flag	190-190	X(1)	Future field to be defined.

Field Name	Position	Format	Description
Modifier 2 Time	191-199	X(9)	<p>Modifier 2 Time will be required when firm enters a modifier 2 of "3" (Outbound ISO).</p> <p><i>If milliseconds are not populated, the system will append ".000" to the trade report timestamps.</i></p> <p>Format must be: HHMMSSsss</p>
Modifier 4 Time	200-208	X(9)	<p>Modifier 4 Time will be required when firm enters a modifier 4 of "P" (Prior Reference Price) or "1" (Stop Stock).</p> <p>Firms will receive a reject when:</p> <ul style="list-style-type: none"> - A Trade Modifier of PRP or Stop Stock is entered <i>without</i> a Mod 4 Time - A Mod 4 Time is entered on a trade report that where the Trade Modifier <i>is not</i> a PRP or Stop Stock - The Mod 4 Time is <i>not</i> more than 10 seconds before the execution time <p><i>If milliseconds are not populated, the system will append ".000" to the trade report timestamps.</i></p> <p>Format must be: HHMMSSsss</p>
Original Control Date	209-216	9(8)	<p>Original Control Number Date of Original Trade</p> <p>*Required on Reversal trade reports*</p> <p>Format: mmddyyyy</p>
Original Control Number	217-226	X(10)	<p>Firm must enter original Control Number of reversed order</p>

Field Name	Position	Format	Description
Reference Reporting Facility	227-227	X(1)	<p>For a reversal, the firm should enter the TRF to which the original trade was reported.</p> <p>Valid values: Space = default (the current TRF)</p> <p>Alternative values: A = ADF B = FINRA/Nasdaq TRF Chicago Q = FINRA/Nasdaq TRF Carteret N = FINRA/NYSE TRF O = ORF (OTC Equity Reporting Facility)</p> <p>FINRA / Nasdaq TRF Chicago modifications are effective as of September 10, 2018.</p>

4.3.6 Trade Entry Allege (TRAL/CRAL)

When an EP or a CP enters a Reg NMS compliant trade entry and the entry is accepted by Nasdaq, this message will be forwarded to the contra party. If the entering firm is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a CRAL with identical contents of the TRAL will be forwarded to the specified clearing firm.

Line 1: Other MPID Cr Lf

Line 2: TRAL Cr Lf

Line 3: Control Number (Trade Text) Cr Lf

The trade text field contains the trade and will be formatted as an EP Trade Entry Message (section [4.1.3](#)) or as a CP Trade Entry (section [4.1.4](#)). The function field will contain the status of the trade.

Reg NMS Message format:

Field Name	Position	Format	Description
Control Number	1-10	X(10)	Control number that the system had assigned to the trade when it was accepted by the system. The control number is required to uniquely identify the record in the file for subsequent processing.
Trade Status	11-11	X(1)	Status of the trade.
As-of	12-12	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day entry)
Security Class	13-13	X(1)	Valid U.S. market values: N = Nasdaq Global Select Market or Nasdaq Global Market R = Nasdaq Capital Market C = CQS
B/S/X	14-14	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt Cross trades will not be supported for AGU

Field Name	Position	Format	Description
			<p>or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR.</p> <p>The use of B/S/X for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.</p>
Reference Number	15-20	X(6)	Blank
Volume	21-28	9(8)	Number of shares
Symbol	29-42	X(14)	SECID
Side	43-43	X(1)	<p>Valid Values: B = Buy S = Sell X = Cross</p> <p>The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Short Sale Indicator	44-44	X(1)	<p>Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade</p> <p>The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Reserved	45-46	9(2)	N/A
Millisecond Execution Time	47-49	9(3)	<p>Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 84-89).</p> <p>Include the milliseconds (mmm) of the Execution Time field (HHMMSS).</p>
Price Trade Digit	50-50	X(1)	<p>Valid values: A = Decimal Unit Price B = Contract Amount</p>

Field Name	Position	Format	Description
Trade Modifier	51-54	X(4)	Valid values: @ - Regular 1 - Stop Stock (Regular Trade) 4 - Derivatively Priced C - Cash Option F - Intermarket Sweep - identifies a trade that requires FINRA ISO Inbound identification 3 - Intermarket Sweep - identifies a trade that requires FINRA ISO Outbound identification N - Next Day P - Prior Reference Price R - Seller Option T - Outside Market Hours U - Pre/Post-Market Out of Sequence W - Average Price Z - Out of Sequence or Late R - identifies an away from market trade as defined in FINRA Rule 6380A(e)(2).. X - identifies a trade that was effected pursuant to the exercise of an OTC option. 2 - identifies a trade that requires the FINRA Self Help designator J - identifies a trade that requires the FINRA Sub-penny designator V - identifies a trade that requires the Qualified Contingent Trade designator 7 - identifies a error correction submission 8 - identifies a print protection submission Refer to Section 4.1.1 for details on order of position/priority.
Price Override	55-55	X(1)	Valid values: O = Override space = No override
CPID	56-59	X(4)	CPID of the CP side
CPGU	60-63	X(4)	CPID of give up on the CP side
CP Clear Number	64-67	9(4)	space = Major clear Number
EPID	68-71	X(4)	Required EPID of the EP side
EPGU	72-75	X(4)	MPID of give up on the EP side
EP Clear Number	76-79	9(4)	space = Major clear Number
EP PA Indicator	80-80	X(1)	Valid values:

Field Name	Position	Format	Description
			P = Principal A = agent R = Riskless Principal
Trade Report Flag	81-81	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	82-82	X(1)	Valid values: space = clear G = Automatic Give-up Lock-in N = no clear Q = QSR no clear Z = QSR clear L = Ext. Sys. Locked-in (for Nasdaq ESI executions) On Step-out transactions, if the Trade Report Flag is set to space FINRA will make adjustments to the Section 31 fee for the transaction, if the Trade Report Flag is set to "N" no Section 31 fee adjustment will take place, and the Clearing Flag must be set to space or G.
Special Trade Indicator	83-83	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy** *Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing

Field Name	Position	Format	Description
			<p>Notice 2015-035 (effective on or about February 1, 2016)</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares. (effective on or about February 1, 2016)</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	84-89	9(6)	<p>Required HHMMSS E.T.</p> <p>Milliseconds timestamp is required under bytes 47-49.</p>
Memo	90-99	X(10)	Space Filled.
Decimal Price	100-111	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Contra Branch Sequence	112-119	X(8)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	120-127	9(8)	Must be entered for T+2 or older, mmddyyyy format.
Reversal Indicator	128-128	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>

Field Name	Position	Format	Description
CP P/A Indicator	129-129	X(1)	Valid values: P = Principal A = Agent space = no capacity indicated R = Riskless Principal
Trade-Through Exempt	130-130	X(1)	N = No Trade Through Exemption Y = Trade Through Exemption
Seller Days	131-132	X(2)	Space for Regular Way trade 00 for Sale Condition C – Cash 01 for Sale Condition N – Next Day 03-60 for Sale Condition R – Seller. If Trade Modifier field is populated with “R” this field will be populated.
Filler	133-142	X(10)	Space Filled (reserve for future use)
Clearing Price	143-154	X(12)	Price inclusive of explicit fees. This field will be included only for firms who select this option in their firm profiles.
TMTR Symbol	155-168	X(14)	The TMTR Symbol if CQS security. This field is included in the message if the Security Class is either C or Z. If not, the field is not sent.

4.3.7 Trade Entry Allege (TGAL/CGAL)

When an EP or a CP enters an expanded Reg NMS compliant trade entry and the entry is accepted by Nasdaq, this message will be forwarded to the contra party. If the entering firm is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a CGAL with identical contents of the TGAL will be forwarded to the specified clearing firm.

Line 1: Other MPID Cr Lf

Line 2: TGAL Cr Lf

Line 3: Control Number (Trade Text) Cr Lf

The trade text field contains the trade and will be formatted as an EP Trade Entry Message (section [4.1.3](#)) or as a CP Trade Entry (section [4.1.4](#)). The function field will contain the status of the trade.

Reg NMS Message format:

Field Name	Position	Format	Description
Control Number	1-10	X(10)	Control number that the system had assigned to the trade when it was accepted by the system. The control number is required to uniquely identify the record in the file for subsequent processing.
Trade Status	11-11	X(1)	Status of the trade.
As-of	12-12	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day entry)
Security Class	13-13	X(1)	Valid U.S. market values: N = Nasdaq Global Select Market or Nasdaq Global Market R = Nasdaq Capital Market C = CQS
B/S/X	14-14	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt The use of B/S/X for Short Sale Reporting

Field Name	Position	Format	Description
			will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.
Reference Number	15-20	X(6)	Blank
Volume	21-28	9(8)	Number of shares
Symbol	29-42	X(14)	SECID
Side	43-43	X(1)	Valid Values: B = Buy S = Sell X = Cross The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Short Sale Indicator	44-44	X(1)	Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.
Reserved	45-46	9(2)	N/A
Millisecond Execution Time	47-49	9(3)	Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 84-89). Include the milliseconds (mmm) of the Execution Time field (HHMMSS).
Price Trade Digit	50-50	X(1)	Valid values: A = Decimal Unit Price B = Contract Amount

Field Name	Position	Format	Description
Trade Modifier	51-54	X(4)	Valid values: @ - Regular 1 - Stop Stock (Regular Trade) 4 - Derivatively Priced C - Cash Option F - Intermarket Sweep - identifies a trade that requires FINRA ISO Inbound identification 3 - Intermarket Sweep - identifies a trade that requires FINRA ISO Outbound identification N - Next Day P - Prior Reference Price R - Seller Option T - Outside Market Hours U - Pre/Post-Market Out of Sequence W - Average Price Z - Out of Sequence or Late R - identifies an away from market trade as defined in FINRA Rule 6380A(e)(2).. X - identifies a trade that was effected pursuant to the exercise of an OTC option. 2 - identifies a trade that requires the FINRA Self Help designator J - identifies a trade that requires the FINRA Sub-penny designator V - identifies a trade that requires the Qualified Contingent Trade designator 7 - identifies a error correction submission 8 - identifies a print protection submission
Price Override	55-55	X(1)	Valid values: O = Override space = No override
CPID	56-59	X(4)	CPID of the CP side
CPGU	60-63	X(4)	CPID of give up on the CP side
CP Clear Number	64-67	9(4)	space = Major clear Number
EPID	68-71	X(4)	Required EPID of the EP side
EPGU	72-75	X(4)	EPID of give up on the EP side
EP Clear Number	76-79	9(4)	space = Major clear Number
EP PA Indicator	80-80	X(1)	Valid values: P = Principal A = agent

Field Name	Position	Format	Description
			R = Riskless Principal
Trade Report Flag	81-81	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	82-82	X(1)	Valid values: space = clear G = FINRA Automatic Give-up Lock-in N = no clear Q = QSR no clear Z = QSR clear L = Ext. Sys. Locked-in (for Nasdaq ESI executions) S = Nasdaq QSR for clearing A = Nasdaq AGU for clearing U = AGU clearing, not risk eligible R = Risk update only, not sent to clearing Y = Clearing, non-risk eligible
Special Trade Indicator	83-83	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy** *Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035 (effective on or about February 1, 2016) **Clearing Copy designation will be used for Nasdaq NextShares . (effective on or

Field Name	Position	Format	Description
			<p>about February 1, 2016)</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	84-89	9(6)	<p>Required HHMMSS E.T.</p> <p>Milliseconds timestamp is required under bytes 47-49.</p>
Memo	90-99	X(10)	Space Filled.
Decimal Price	100-111	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Contra Branch Sequence	112-131	X(20)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	132-139	9(8)	Must be entered for T+2 or older, mmddyyyy format.
Reversal Indicator	140-140	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>
CP P/A Indicator	141-141	X(1)	<p>Valid values:</p> <p>P = Principal</p> <p>A = Agent</p> <p>space = no capacity indicated</p> <p>R = Riskless Principal</p>

Field Name	Position	Format	Description
Trade-Through Exempt	142-142	X(1)	N = No Trade Through Exemption Y = Trade Through Exemption
Seller Days	143-144	X(2)	Space for Regular Way trade 00 for Sale Condition C – Cash 01 for Sale Condition N – Next Day 03-60 for Sale Condition R – Seller. If Trade Modifier field is populated with “R” this field will be populated.
Intended Market Center	145-145	X(1)	Defines the market to which the trade entry is reported. Q = Nasdaq Exchange function D = FINRA/Nasdaq TRF (Default)
Filler	146-154	X(9)	Space Filled (reserve for future use)
Clearing Price	155-166	X(12)	Price inclusive of explicit fees. This field will be included only for firms who select this option in their firm profiles.
TMTR Symbol	167-180	X(14)	The TMTR Symbol if CQS security. This field is included in the message if the Security Class is either C or Z. If not, the field is not sent.
Reg Fee Flag	181-181	X(1)	Future field to be defined.

4.3.8 Trade Entry Allege (TKAL/CKAL)

When an EP or a CP enters an expanded Reg NMS compliant trade entry and the entry is accepted by Nasdaq, this message will be forwarded to the contra party. If the entering firm is a correspondent of a clearing firm and the clearing firm is elected to receive clearing correspondent messages, a CKAL with identical contents of the TKAL will be forwarded to the specified clearing firm.

Line 1: Other MPID Cr Lf

Line 2: TKAL Cr Lf

Line 3: Control Number (Trade Text) Cr Lf

The trade text field contains the trade and will be formatted as an EP Trade Entry Message (section 4.1.3) or as a CP Trade Entry (section 4.1.4). The function field will contain the status of the trade.

Reg NMS Message format:

Field Name	Position	Format	Description
Control Number	1-10	X(10)	Control number that the system had assigned to the trade when it was accepted by the system. The control number is required to uniquely identify the record in the file for subsequent processing.
Trade Status	11-11	X(1)	Status of the trade.
As-of	12-12	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day entry)
Security Class	13-13	X(1)	Valid U.S. market values: N = Nasdaq Global Select Market or Nasdaq Global Market R = Nasdaq Capital Market C = CQS
B/S/X	14-14	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt Cross trades will not be supported for AGU

Field Name	Position	Format	Description
			<p>or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR.</p> <p>The use of B/S/X for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.</p>
Reference Number	15-20	X(6)	Blank
Volume	21-28	9(8)	Number of shares
Symbol	29-42	X(14)	SECID
Side	43-43	X(1)	<p>Valid Values: B = Buy S = Sell X = Cross</p> <p>The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Short Sale Indicator	44-44	X(1)	<p>Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade</p> <p>The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Reserved	45-46	9(2)	N/A
Millisecond Execution Time	47-49	9(3)	<p>Millisecond timestamp is required if firm captures milliseconds. Field is the milliseconds to the Execution Time field (bytes 84-89).</p> <p>Include the milliseconds (mmm) of the Execution Time field (HHMMSS).</p>
Price Trade Digit	50-50	X(1)	<p>Valid values: A = Decimal Unit Price B = Contract Amount</p>

Field Name	Position	Format	Description
Trade Modifier	51-54	X(4)	Valid values: @ - Regular 1 - Stop Stock (Regular Trade) 4 - Derivatively Priced C - Cash Option F - Intermarket Sweep - identifies a trade that requires FINRA ISO Inbound identification 3 - Intermarket Sweep - identifies a trade that requires FINRA ISO Outbound identification N - Next Day P - Prior Reference Price R - Seller Option T - Outside Market Hours U - Pre/Post-Market Out of Sequence W - Average Price Z - Out of Sequence or Late R - identifies an away from market trade as defined in FINRA Rule 6380A(e)(2).. X - identifies a trade that was effected pursuant to the exercise of an OTC option. 2 - identifies a trade that requires the FINRA Self Help designator J - identifies a trade that requires the FINRA Sub-penny designator V - identifies a trade that requires the Qualified Contingent Trade designator 7 - identifies a error correction submission 8 - identifies a print protection submission
Price Override	55-55	X(1)	Valid values: O = Override space = No override
CPID	56-59	X(4)	CPID of the CP side
CPGU	60-63	X(4)	CPID of give up on the CP side
CP Clear Number	64-67	9(4)	space = Major clear Number
EPID	68-71	X(4)	Required EPID of the EP side
EPGU	72-75	X(4)	EPID of give up on the EP side
EP Clear Number	76-79	9(4)	space = Major clear Number
EP PA Indicator	80-80	X(1)	Valid values: P = Principal A = agent R = Riskless Principal

Field Name	Position	Format	Description
Trade Report Flag	81-81	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	82-82	X(1)	Valid values: space = clear G = FINRA Automatic Give-up Lock-in N = no clear Q = QSR no clear Z = QSR clear L = Ext. Sys. Locked-in (for Nasdaq ESI executions) S = Nasdaq QSR for clearing A = Nasdaq AGU for clearing U = AGU clearing, not risk eligible R = Risk update only, not sent to clearing Y = Clearing, non-risk eligible
Special Trade Indicator	83-83	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy** *Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035 (effective on or about February 1, 2016) **Clearing Copy designation will be used for Nasdaq NextShares . (effective on or

Field Name	Position	Format	Description
			<p>about February 1, 2016)</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	84-89	9(6)	<p>Required HHMMSS E.T.</p> <p>Milliseconds timestamp is required under bytes 47-49.</p>
Memo	90-99	X(10)	Space Filled.
Decimal Price	100-111	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Contra Branch Sequence	112-131	X(20)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	132-139	9(8)	Must be entered for T+2 or older, mmddyyyy format.
Reversal Indicator	140-140	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>
CP P/A Indicator	141-141	X(1)	<p>Valid values:</p> <p>P = Principal</p> <p>A = Agent</p> <p>space = no capacity indicated</p> <p>R = Riskless Principal</p>

Field Name	Position	Format	Description
Trade-Through Exempt	142-142	X(1)	N = No Trade Through Exemption Y = Trade Through Exemption
Seller Days	143-144	X(2)	Space for Regular Way trade 00 for Sale Condition C – Cash 01 for Sale Condition N – Next Day 03-60 for Sale Condition R – Seller. If Trade Modifier field is populated with "R" this field will be populated.
Intended Market Center	145-145	X(1)	Defines the market to which the trade entry is reported. Q = Nasdaq Exchange function D = FINRA/Nasdaq TRF(Default)
Filler	146-154	X(9)	Space Filled (reserve for future use)
Clearing Price	155-166	X(12)	Price inclusive of explicit fees. This field will be included only for firms who select this option in their firm profiles.
TMTR Symbol	167-180	X(14)	The TMTR Symbol if CQS security. This field is included in the message if the Security Class is either C or Z. If not, the field is not sent.
Reg Fee Flag	181-181	X(1)	Future field to be defined.
Modifier 2 Time	182-190	X(9)	Modifier 2 Time will be required when firm enters a modifier 2 of "3" (Outbound ISO). <i>If milliseconds are not populated, the system will append ".000" to the trade report timestamps.</i> Format must be: HHMMSSsss
Modifier 4 Time	191-199	X(9)	Modifier 4 Time will be required when firm enters a modifier 4 of "P" (Prior Reference Price) or "1" (Stop Stock). Firms will receive a reject when: <ul style="list-style-type: none"> - A Trade Modifier of PRP or Stop Stock is entered <i>without</i> a Mod 4 Time - A Mod 4 Time is entered on a trade report that where the Trade Modifier <i>is not</i> a PRP or Stop Stock - The Mod 4 Time is <i>not</i> more than 10 seconds before the execution time

Field Name	Position	Format	Description
			<p><i>If milliseconds are not populated, the system will append ".000" to the trade report timestamps.</i></p> <p>Format must be: HHMMSSsss</p>
Original Control Date	200-207	9(8)	<p>Original Control Number Date of Original Trade</p> <p>*Required on Reversal trade reports*</p> <p>Format: mmddyyyy</p>
Original Control Number	208-217	X(10)	Firm must enter original Control Number of reversed order
Reference Reporting Facility	218-218	X(1)	<p>For a reversal, the firm should enter the TRF to which the original trade was reported.</p> <p>Valid values:</p> <p>A = ADF B = FINRA/Nasdaq TRF Chicago Q = FINRA/Nasdaq TRF Carteret N = FINRA/NYSE TRF O = ORF (OTC Equity Reporting Facility) Space = default (the current TRF)</p> <p>FINRA / Nasdaq TRF Chicago modifications are effective as of September 10, 2018.</p>

4.3.9 Locked-in Trade Acknowledgment (TCLK)

Because Nasdaq will match buy entries and sell entries regardless of their being EP or CP entries, the TCLK and TCBK messages will transmit "Buy/Sell" control numbers instead of "EP/CP" control numbers.

If the Trade is locked-in by M1 trade matching, the trade's status will be changed to "M". If the EP trade is locked-in by an CP Acceptance Transaction, the status will be changed to "A".

Line 1: OTHER MPID cr lf

Line 2: TCLK cr lf

Line 3: (REF Number) (Buy Control Number) (Sell Control Number)

or

Line 3A: (REF Number) (EP Control Number) (one character lock-in method code)
cr lf

Line 3 will appear when a trade is locked-in from an M1 match; LINE 3A will appear when a trade is locked-in by Contra Accept.

Trade Match Message Format

Field Name	Position	Format	Description
Reference Number	1-6	X(6)	Contains the Reference Number, if any, that was last provided by the party to which this message is directed, in connection with his entry's Control Number.
Buy Control Number	7-16	X(10)	Control Number that will be used to identify the Buy side of the locked-in trade. If the trade was locked-in through CP acceptance this field will contain the control number of the EP entry regardless of its being a Buy or Sell entry.
Sell Control Number	17-26	X(10)	Control Number that will be used to identify the Sell side of the locked-in trade if the trade was locked-in through M1 trade matching.

CP Acceptance or Midday Auto-lock of Carryover Trades Message Format

Field Name	Position	Format	Description
Reference Number	1-6	X(6)	User assigned Reference Number.
EP Control Number	7-16	X(10)	Control Number associated with the buy side of the trade.
Lock-In Code	17-17	X(1)	Valid values: A = locked-in by acceptance, else sell control number S = locked-in by acceptance with short sale indication (sent to CP responsible party accepting the trade only)

Field Name	Position	Format	Description
			X = locked-in by acceptance with short sale exempt indication (sent to CP responsible party accepting the trade only) L = denotes an auto locked in trade against the contra side Z = denotes a split locked in trade against the contra side
Filler	18-26	X(9)	Future field to be defined.

4.3.10 Locked-in Trade Acknowledgment (TGLK/CGLK)

This version is different from the previous version TCLK in that it adds the Intended Market Center field and a six-byte reserved field to the end of the messages.

Because Nasdaq will match buy entries and sell entries regardless of their being EP or CP entries, the TGLK and TCBK messages will transmit "Buy/Sell" control numbers instead of "EP/CP" control numbers.

If the Trade is locked-in by M1 trade matching, the trade's status will be changed to "M". If the EP trade is locked-in by an CP Acceptance Transaction, the status will be changed to "A".

Line 1: OTHER MPID cr lf
 Line 2: TGLK cr lf
 Line 3: (REF Number) (Buy Control Number) (Sell Control Number)
 or
 Line 3A: (REF Number) (EP Control Number) (one character lock-in method code)
 cr lf

Line 3 will appear when a trade is locked-in from an M1 match; LINE 3A will appear when a trade is locked-in by Contra Accept.

Trade Match Message Format

Field Name	Position	Format	Description
Reference Number	1-6	X(6)	Contains the Reference Number, if any, that was last provided by the party to which this message is directed, in connection with his entry's Control Number.
Buy Control Number	7-16	X(10)	Control Number that will be used to identify the Buy side of the locked-in trade. If the trade was locked-in through CP acceptance this field will contain the control number of the EP entry regardless of its being a Buy or Sell entry.
Sell Control Number	17-26	X(10)	Control Number that will be used to identify the Sell side of the locked-in trade if the trade was locked-in through M1 trade matching.
Intended Market Center	27-27	X(1)	Defines the market to which the trade entry is reported. Q = Nasdaq Exchange function D = FINRA/Nasdaq TRF (Default)
Reserved	28-33	9(6)	N/A

CP Acceptance or Midday Auto-lock of Carryover Trades Message Format

Field Name	Position	Format	Description
Reference Number	1-6	X(6)	User assigned Reference Number.
EP Control Number	7-16	X(10)	Control Number associated with the buy side of the trade.
Lock-In Code	17-17	X(1)	Valid values: A = locked-in by acceptance, else sell control number S = locked-in by acceptance with short sale indication (sent to CP responsible party accepting the trade only) X = locked-in by acceptance with short sale exempt indication (sent to CP responsible party accepting the trade only) L = denotes an auto locked in trade against the contra side Z = denotes a split locked in trade against the contra side
Filler	18-26	X(9)	Future field to be defined.
Intended Market Center	27-27	X(1)	Defines the market to which the trade entry is reported. Q = Nasdaq Exchange function D = FINRA/Nasdaq TRF (Default)
Reserved	28-33	9(6)	N/A

4.3.11 Trade Update Notification (TTUD)

If an EP or a CP updates clearing information in its trade via the NWII Browse function, both parties to the trade will receive the updated clearing information in their CTCI via this message.

This message is identical to the TTEN message with these exceptions:

- In line 2, after the message identifier: TTUD, there will appear a 2 character update sequence number which will denote the number of times the trade has been updated. The Update Sequence Number (NN) will be two (2) numerical character field denoting the number of times that the clearing information of the trade has been updated. This field may contain the values of 01 to 99.
- The full updated text will be transmitted in line 3. The length of line 3 is determined by the length of the original text message. For formats of text messages refer to EP Trade Entry (section [4.1.3](#)) and CP Trade Entry (section [4.1.4](#)).

Line 1: OTHER MPID cr lf

Line 2: TTUDNN cr lf

Line 3: CONTROL Number (Text of original message) cr lf

Line 3A: CONTROL Number (Text of original message, plus 14 character TMTR symbol) cr lf

Pre-REG NMS Message Format

Field Name	Position	Format	Description
Control Number	1-10	X(10)	Control Number associated with the trade reporting record
Trade Status	11-11	X(1)	Trade Status
As-of	12-12	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day entry)
Security Class	13-13	X(1)	Valid values: U. S. Market: N = Global Select or Global R = Capital C = CQS
B/S/X	14-14	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt K = Sell-side customer Sold-Short Exempt

Field Name	Position	Format	Description
			<p>A = Contra side sold short Exempt</p> <p>Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR.</p> <p>The use of B/S/X for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.</p>
Reference Number	15-20	X(6)	User assigned reference number
Volume	21-28	9(8)	Number of shares
Symbol	29-33	X(5)	Nasdaq SECID
Side	34-34	X(1)	<p>Valid Values: B = Buy S = Sell X = Cross</p> <p>The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Short Sale Indicator	35-35	X(1)	<p>Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade</p> <p>The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Reserved	36-37	9(2)	N/A
Reserved	38-40	9(3)	N/A
Price Trade Digit	41-41	X(1)	<p>Valid values: A = Decimal Unit Price B = Contract Amount</p>
Trade Modifier	42-44	X(3)	<p>Valid values: SLD = Late SNN = Seller's Option C = Cash ND = Next Day T = .T ST = .T trades received more than 10 seconds after execution</p>

Field Name	Position	Format	Description
			PRP = Prior Reference Price space = Regular W = Average Price or Stop Stock Trade TS = T appended by system SLS = SLD appended by system If submitting a Clearing only transaction for matching of ex-clearing transactions (i.e. C, ND or Snn) the field will be redefined to: Trade modifier: X(1), space-filled Days: 9(2), 00 for Cash, 01 for ND, 02, 04-60 for Snn, space for normal 3-day settlement
Price Override	45-45	X(1)	Valid values: O = Override space = No override
CPID	46-49	X(4)	CPID of the CP side.
CPGU	50-53	X(4)	CPID of give up on the CP side.
CP Clear Number	54-57	9(4)	space = major clear number
EPID	58-61	X(4)	Required EPID of the EP side.
EPGU	62-65	X(4)	EPID of give up on the EP side.
EP Clear Number	66-69	9(4)	space = major clear number
EP PA Indicator	70-70	X(1)	Valid values: P = Principal A = agent R = Riskless Principal
Trade Report Flag	71-71	X(1)	Valid values: space = Report to tape N = Do not report to tape
Clearing Flag	72-72	X(1)	Valid values: space = clear G = Automatic Give-up Lock-in N = no clear Q = QSR no clear Z = QSR clear L = Ext. Sys. Locked-in (The "L" value is output for Nasdaq ESI executions.)
Special Trade Indicator	73-73	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees***

Field Name	Position	Format	Description
			<p>D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy**</p> <p>*Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035 (effective on or about February 1, 2016)</p> <p>**Clearing Copy designation will be used for Nasdaq NextShares. (effective on or about February 1, 2016)</p> <p>*** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).</p> <p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	74-79	9(6)	Required HHMMSS
Memo	80-89	X(10)	User Memo

Field Name	Position	Format	Description
Decimal Price	90-101	9(12)	Unit Price = 999999V999999 for Trade Digit "A" Contract Price = 0999999999V99 for Trade Digit "B"
Contra Branch Sequence	102-109	X(8)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	110-117	9(8)	Must be entered for T+2 or older, mmddyyyy format.
Reversal Indicator	118-118	X(1)	Valid values: Space = not a reversal R = reversal reported through ACT K = reversal reported through ACT
CP P/A Indicator	119	X(1)	Valid values: P = Principal A = Agent space = no capacity indicated R = Riskless Principal
Filler	120-125	X(6)	space-filled (reserve for future use)
Clearing Price	126-137	X(12)	Price inclusive of explicit fees. This field will be included only for firms who select this option in their firm profiles.
TMTR Symbol		X(14)	The TMTR Symbol if CQS security. This field is included in the message if the Security Class is either C or Z. If not, the field is not sent.

4.3.12 Trade Update Notification (TRUD)

If an EP or a CP updates clearing information in its Reg NMS compliant trade via the NWII Browse function, both parties to the trade will receive the updated clearing information in their CTCI via this message.

This message is identical to the TTEN message with these exceptions:

- In line 2, after the message identifier: TTUD, there will appear a 2 character update sequence number which will denote the number of times the trade has been updated. The Update Sequence Number (NN) will be two (2) numerical character field denoting the number of times that the clearing information of the trade has been updated. This field may contain the values of 01 to 99.
- The full updated text will be transmitted in line 3. The length of line 3 is determined by the length of the original text message. For formats of text messages refer to EP Trade Entry (section [4.1.3](#)) and CP Trade Entry (section [4.1.4](#)).

Line 1: OTHER MPID cr lf

Line 2: TTUDNN cr lf

Line 3: CONTROL Number (Text of original message) cr lf

Line 3A: CONTROL Number (Text of original message, plus 14 character TMTR symbol) cr lf

Reg NMS Message Format

Field Name	Position	Format	Description
Control Number	1-10	X(10)	Control Number associated with the trade reporting record
Trade Status	11-11	X(1)	Trade Status
As-of	12-12	X(1)	Valid values: Y = As-of (T+1 to T+n) space = Original (T Day entry)
Security Class	13-13	X(1)	Valid values: N = Nasdaq Global Select Market or Nasdaq Global Market R = Nasdaq Capital Market C = CQS
B/S/X	14-14	X(1)	Valid values: B = Bought S = Sold X = Crossed Z = Sold Short C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short) P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP E = Sold-Short Exempt

Field Name	Position	Format	Description
			<p>K = Sell-side customer Sold-Short Exempt A = Contra side sold short Exempt</p> <p>Cross trades will not be supported for AGU or QSR trades beginning 2/29/16. Cross Trades will be rejected if designated as AGU or QSR.</p> <p>The use of B/S/X for Short Sale Reporting will be deprecated starting July 16, 2018 and retired Oct 15, 2018. The fields Side and Short Sale Indicator will be available for Short Sale Reporting starting July 16, 2018.</p>
Reference Number	15-20	X(6)	User assigned reference number
Volume	21-28	9(8)	Number of shares
Symbol	29-42	X(14)	SECID
Side	43-43	X(1)	<p>Valid Values: B = Buy S = Sell X = Cross</p> <p>The Side field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Short Sale Indicator	44-44	X(1)	<p>Valid Values: S = Sold Short E = Sold Short Exempt space = not a short sale trade</p> <p>The Short Sale Indicator field is available for Short Sale Reporting from July 16 through October 15. After October 15, 2018, this is a required field for short sale reporting.</p>
Reserved	45-46	9(2)	N/A
Reserved	47-49	9(3)	N/A
Price Trade Digit	50-50	X(1)	<p>Valid values: A = Decimal Unit Price B = Contract Amount</p>
Trade Modifier	51-54	X(4)	<p>Valid values: @ - Regular 1 - Stop Stock (Regular Trade) 4 - Derivatively Priced C - Cash Option D - Distribution F - Intermarket Sweep - identifies a trade</p>

Field Name	Position	Format	Description
			<p>that requires FINRA ISO Inbound identification</p> <p>3 – Intermarket Sweep - identifies a trade that requires FINRA ISO Outbound identification</p> <p>N – Next Day</p> <p>P – Prior Reference Price</p> <p>R – Seller Option</p> <p>T – Outside Market Hours</p> <p>U - Pre/Post Market Out of Sequence</p> <p>W – Average Price</p> <p>Z – Out of Sequence or Late</p> <p>R - identifies an away from market trade as defined in FINRA Rule 6380A(e)(2)..</p> <p>X - identifies a trade that was effected pursuant to the exercise of an OTC option.</p> <p>2 – identifies a trade that requires the FINRA Self Help designator</p> <p>J – identifies a trade that requires the FINRA Sub-penny designator</p> <p>V – identifies a trade that requires the Qualified Contingent Trade designator</p> <p>7 – identifies a error correction submission</p> <p>8 – identifies a print protection submission</p> <p>Refer to Section 4.1.1 for details on order of position/priority.</p>
Price Override	55-55	X(1)	<p>Valid values:</p> <p>O = Override</p> <p>space = No override</p>
CPID	56-59	X(4)	CPID of the CP side.
CPGU	60-63	X(4)	CPID of give up on the CP side.
CP Clear Number	64-67	9(4)	space = major clear number
EPID	68-71	X(4)	Required EPID of the EP side.
EPGU	72-75	X(4)	EPID of give up on the EP side.
EP Clear Number	76-79	9(4)	space = major clear number
EP PA Indicator	80-80	X(1)	<p>Valid values:</p> <p>P = Principal</p> <p>A = agent</p> <p>R = Riskless Principal</p>
Trade Report Flag	81-81	X(1)	<p>Valid values:</p> <p>space = Report to tape</p>

Field Name	Position	Format	Description
			N = Do not report to tape
Clearing Flag	82-82	X(1)	Valid values: space = clear G = Automatic Give-up Lock-in N = no clear Q = QSR no clear Z = QSR clear L = Ext. Sys. Locked-in (The "L" value is output for Nasdaq ESI executions.)
Special Trade Indicator	83-83	X(1)	Valid values: 2 = FINRA Step-In Trade*** A = FINRA Special and Step-In Trade*** B = FINRA Step Out with fees*** C = FINRA Special and Step Out with fees*** D = Position Transfer Y = Special trade S = FINRA Step-out trade*** X = FINRA Special and Step-out trade*** space = Not Special Trade (none of the above) F = Nasdaq Sales Fee Transfer Q = Nasdaq Step-Out M = Clearing Only/Non Regulatory* N = Special and Clearing Only/Non Regulatory* O = Clearing Copy** P = Special and Clearing Copy** *Clearing Only/Non Regulatory designations will be used in regards to FINRA Rule Filing Notice 2015-035 (effective on or about February 1, 2016) **Clearing Copy designation will be used for Nasdaq NextShares . (effective on or about February 1, 2016) *** As of 2/29/16, validations on proper step-in and step-out designations will begin. Any TRF trade designated as a step-out must be entered by the Executing Party (MM). Any TRF trade designated as a step-in must be entered as a Contra Party (OE).

Field Name	Position	Format	Description
			<p>On FINRA Step-Out transactions with fees (i.e. Special Trade indicator "B", "C", "S" or "X"):</p> <ol style="list-style-type: none"> 1. Firms must set Trade Report Flag = N (FINRA will assess the FINRA Section 3 fee). 2. The Clearing Flag must be set to space or G. <p>Please see Special Trade indicator Text Field definition for matching</p>
Execution Time	84-89	9(6)	Required HHMMEPSS
Memo	90-99	X(10)	User Memo
Decimal Price	100-111	9(12)	<p>Unit Price = 999999V999999 for Trade Digit "A"</p> <p>Contract Price = 0999999999V99 for Trade Digit "B"</p>
Contra Branch Sequence	112-119	X(8)	Required where the contra party was also required to submit an OATS Execution Report to FINRA pursuant to FINRA Rule 7450.
Trade Date	120-127	9(8)	Must be entered for T+2 or older, mmddyyyy format.
Reversal Indicator	128-128	X(1)	<p>Valid values:</p> <p>Space = not a reversal</p> <p>R = reversal reported through ACT</p> <p>K = reversal reported through ACT</p>
CP P/A Indicator	129-129	X(1)	<p>Valid values:</p> <p>P = Principal</p> <p>A = Agent</p> <p>space = no capacity indicated</p> <p>R = Riskless Principal</p>
Trade-Through Exempt	130-130	X(1)	<p>N = No Trade Through Exemption</p> <p>Y = Trade Through Exemption</p>
Seller Days	131-132	X(2)	<p>Space for Regular Way trade</p> <p>00 for Sale Condition C – Cash</p> <p>01 for Sale Condition N – Next Day</p> <p>03-60 for Sale Condition R – Seller.</p> <p>If Trade Modifier field is populated with "R" this field will be populated.</p>
Filler	133-139	X(7)	space-filled (reserve for future use)
Clearing Price	126-137	X(12)	Price inclusive of explicit fees. This field will be included only for firms who select this

Field Name	Position	Format	Description
			option in their firm profiles.
TMTR Symbol		X(14)	The TMTR Symbol if CQS security. This field is included in the message if the Security Class is either C or Z. If not, the field is not sent.

4.3.13 Break Trade Acknowledgment (TCBK)

Line 1: OTHER MPID cr If

Line 2: TCBK cr If

Line 3: (REF Number) (Buy Control Number) (Sell Control Number) Status Break indicator cr If

Line 3A: (REF Number) (EP Control Number) (A) Status Break indicator cr If

Line 3 will appear when a trade is locked-in from an M1 match; Line 3A will appear instead when a trade is locked-in by Contra Accept.

Message Format

Field Name	Position	Format	Description
Reference Number	1-6	X(6)	Contains the Reference Number, if any, that was last provided by recipient
Buy Control Number	7-16	X(10)	Nasdaq-assigned control number that will be used to identify the Buy side of the broken locked-in trade. In the case of a trade locked-in by CP Acceptance, this field will contain the control number of the EP entry regardless of its being a Buy or Sell entry.
Sell Control Number	17-26	X(10)	Nasdaq-assigned control number that will be used to identify the Sell side of the broken locked-in trade if the trade was locked-in through M1 trade matching before the Trade Breaking transaction. If the locked-in trade resulted from the CP's Acceptance transaction, this control number will not be available and this field will contain the character "A".
Status	27-27	X(1)	Contains the current status of the locked-in trade. Valid values: A = The trade is still locked-in (by trade acceptance) because both trading parties' Break Trade transaction have not been received. M = The trade is still locked-in (by trade matching) because both trading parties' Break Trade transactions have not been received. B = The locked-in trade is effectively broken because both trading parties' Break Trade transactions have been received.
Break Indicator	28-28	X(1)	Valid values: B = Buyer alone has submitted its Break Trade transaction. S = Seller alone has submitted its Break Trade transaction.

Field Name	Position	Format	Description
			<p>X = both the Buyer and the Seller have submitted their Break Trade transactions, and the locked-in trade is effectively broken <i>before</i> it is sent to DTCC</p> <p>x = denotes that the locked-in trade is broken <i>after</i> it has been sent to DTCC. This will result in a T-day reversal in DTCC contract sheets.</p> <p>I = denotes that the locked-in trade is canceled from its external execution system by the reporting party <i>after</i> it has been sent to DTCC. This will result in a T-day reversal in DTCC contract sheets.</p>

4.3.14 Cancel Trade Acknowledgment (TCAN)

Line 1: OTHER MPID cr If

Line 2: TCAN cr If

Line 3: (REF Number) (Control Number) cr If

Message Format

Field Name	Positions	Format	Description
Reference Number	1-6	X(6)	User assigned Reference Number.
Control Number	7-16	X(10)	Control Number that the system had assigned to the transaction when it was originally received from the subscriber. The control number is required to uniquely identify the Canceled trade reporting record in the trade reporting File.

4.3.15 Decline Trade Acknowledgment (TCDE)

Line 1: OTHER MPID cr If

Line 2: TCDE cr If

Line 3: (REF Number) (Control Number) cr If

Message Format

Field Name	Position	Format	Description
Reference Number	1-6	X(6)	User assigned Reference Number.
Control Number	7-16	X(10)	Control Number that the system had assigned to the transaction when it was originally received from the subscriber. The control number is required to uniquely identify the Declined trade reporting record in the trade reporting file.

4.3.16 Error Trade Acknowledgment (TCER)

Line 1: OTHER EPID cr If

Line 2: TCER cr If

Line 3: (REF Number) (Control Number) cr If

Message Format

Field Name	Position	Format	Description
Reference Number	1-6	X(6)	User assigned Reference Number.
Control Number	7-16	X(10)	Control Number that the system had assigned to the transaction when it was originally received from the subscriber. The control number is required to uniquely identify the Errored trade reporting record in the trade reporting File.

4.3.17 Participant Authorization Indicator (TCPI)

Line 1: MPID cr If (Receiving Firm ID)

Line 2: TCPI cr If

Line 3: Date NN MPID II EI CI RI AI CLR BR Major RMI CLR#

In the Start of Day transmission and if a firm has multiple clearing arrangements, each arrangement will appear separately. If one of those relationships changes on-line, only the changed relationship will be transmitted. This occurs when a clearing broker resets a capmark or when a supervisor resets the capmark on behalf of a clearing broker.

In the event that more than one record is transmitted in the same message, the fields from "MPID" to "RMI" will be repeated (as many times as are indicated in the "NN" field).

In order for a trade to be accepted by Nasdaq, all of the Regulatory Indicators must be in an "Active" state for the firm(s) that are involved in the trade in their respective capacity as either Introducing, Executing and/or Clearing broker. Any "Suspended" state for a firm acting in one of those capacities will cause Nasdaq to reject the trade.

Message Format

Field Name	Position	Format	Description
Date	1-6	X(6)	The current date in "mmddyy" format.
Number of records	7-8	9(2)	The number of TCPI records in this message. Valid entries are numeric 01-99.
Executing Broker	9-12	X(4)	The EPID whose indicators follow.
Introducing Broker Indicator	13-13	X(1)	The Introducing Broker is the firm who "gives-up" another firm during the execution of the trade. In trade reporting the Introducing Broker is the firm found in the "CPID" (or "EPID") field of a trade entry when another firm is entered in the "CPGU" (or "EPGU") field. A firm is authorized to be an "introducing" broker (i.e. able to give-up another broker). Valid values: A = Active S = Suspended
Executing Broker Indicator	14-14	X(1)	The Executing Brokers are those firms on either side who "own" the trade. Firms appearing in the EPID/CPID fields own the trade when their side of the trade does not include a give-up. In the case of a give-up the Executing Broker is the firm that appears in the EPGU/CPGU fields. A firm is authorized to be an "executing" broker. Valid values: A = Active S = Suspended

Field Name	Position	Format	Description
Clearing Broker Indicator	15-15	X(1)	The Clearing Brokers are those firms who will clear the trade. For trade reporting purposes they appear in the EP Clearing Number/CP Clearing Number fields. A firm is authorized to act as a "clearing" agent. Valid values: A = Active S = Suspended
Responsibility Indicator	16-16	X(1)	A firm, when in a give-up situation takes responsibility for trade reporting functions (e.g. a firm is in the EPGU or CPGU fields of a trade entry and wishes to act on his own behalf). Designates the party on each side of a trade that is Responsible for interfacing to Nasdaq with respect to that trade. In the case of a trade not involving a give-up on one side the Responsible party is the EPID or CPID for that side. In the case of a trade involving a "give-up" on one or both sides (i.e. where a firm ID is in the EPGU/CPGU fields) only one party from each side will be enabled to interface with ACT. The Responsible Indicator tells Nasdaq if the give-up firm (the "Executing Broker", as defined above) will or will not act on its own behalf. If for any trade the give-up firm is Responsible, only that firm can use the trade reporting query/update capabilities for its side. If the give-up firm is not the Responsible party, only the EPID/CPID (the Introducing Brokers, as defined above) will be allowed to interface with Nasdaq on behalf of its respective give-up firm. Valid values: Y = Yes N = No
Trade Reporting Availability Indicator	17-17	X(1)	There are four availability states denoting the extent of a firm's participation in Trade Reporting. Valid values: N = Not ready A = Available E = Effective Tomorrow U = Unavailable for technical reasons
Clearing Broker	18-21	X(4)	Clearing Broker MPID of the EPID in the third field (If a firm is a self-clearing firm, the CBID will equal the EPID).

Field Name	Position	Format	Description
Major Clearing indicator	22-22	X(1)	Signifies that the CBID in the message is the EPID's major clearing firm. A self-clearing firm will always be denoted as major. Valid values: M = Major blank = not a major arrangement
Risk Management Indicator	23-23	X(1)	Designates that the clearing relationship in this message is functionally Active. It also assigns responsibility to the correspondent or the clearing firm for the entry of all T+2 to T+N entries. Valid values for self-clearing firms are A, M, and D. Valid values: A = Active & correspondent cannot enter As of T+2 to T+N trades (except self-clearing) M = Active with Super-Cap Marker & correspondent cannot enter As of T+2 to T+N trades (except self-clearing) Y = Active & correspondent can enter As of T+2 to T+N trades (except self-clearing) N = Active with Super-Cap Marker, correspondent (non-self clearing) can enter As-of T+2 to T+N trades D = Deleted
Clearing Number	24-27	9(4)	Clearing Number
Repeat Pos. Fields 9-27 for Number of Records			Positions 9 to 27 are repeated (Number of records - 1) times

4.4 Reject Message Format

If the application cannot process a message received from the subscriber, it will generate a Status Message for the originator that indicates why the message was rejected. The Status Message will be received by the originator as the text portion of a Standard Switch Output Message.

Line 1: MPID <CR/LF>
 Line 2: 'STATUS' <CR/LF>
 Line 3: 'REJ' - Reject Reason <CR/LF>
 Line 4: BRID SQNO HH:MM:SS <CR/LF>
 Line 5: Text of original input message <CR/LF>

Line	Field	Description	Req'd
1	Originator MPID	This is an optional line that may contain the 4-character MPID of the entering firm, or the EPID of the firm the Service Bureau is acting for. If this option is utilized for multi-station lines, it will equal the 4-character EPID associated with the station (select/poll address).	N
	CR LF	Required line delimiter.	Y
2	Category	This field identifies the message category and will contain "STATUS".	Y
	CR LF	Required line delimiter.	Y
3	'REJ'	This line contains ("REJ - Reason for Rejection"). See following table.	Y
	CR LF	Required line delimiter.	Y
4	Branch Office	1-20 character alphanumeric (A-Z, a-z, 0-9, embedded spaces, left justified, pad with trailing spaces)	Y
	CR LF	Required line delimiter.	Y
5		This line contains an echo of the original input message being rejected.	Y
	CR LF	Required line delimiter.	Y

Trade Reporting Reject Messages

Message	Description
ACT ENTRY SUSPENDED	Nasdaq has suspended trade reporting entry
CANNOT CHANGE TO NON-MEDIA TRADE	A tape only transaction may not be changed to no tape no clearing.
CHANGE NOT ALLOWED - TRADE ALREADY SENT TO CLEARING	Transaction was already submitted as a locked in transaction to the DTCC for clearing.
CONTRA FIRM NOT AUTHORIZED	Contra firm entered is not active in ACT.
IMPROPER FORM T TRADE	The original EP trade has a ".T" trade modifier and or it is not entered within the Form T time (applicable to TRADE REPORTING 1 EP original trade entry).
INVALID AS-OF	The As-Of field entry is other than "Y".
INVALID B/S	The B/S field entry does not contain "B", "S", "X", Z, E, C, K, P A. CP may also receive it if submitting transaction with C, K, P or A.
INVALID BRANCH SEQ #	The branch sequence number field entry is not 1 to 4 alpha (from A-Z) characters, followed by a space and 1 to 4 digit numeric character (from 0-9).
INVALID CLEARANCE ENTRY	The clearing field is entered and the entry is other than "N", "M" or "L"
INVALID CLEARING NUMBER	The EP CLEAR Number field or the CP CLEAR Number field is entered and either entry is other than four numeric characters, or the clearing number does not point to a clearing broker relating to the respective EP or CP in the Risk Management File.
INVALID CONTRA P/A	Contra P/A allowed only on trades where contra MPID is populated.
INVALID MM GIVE-UP	The EP GIVE-UP entry does not have a give-up relationship with the EP. (Note: The actual reject message will continue to contain "MM" which represents "EP".)
INVALID OE GIVE-UP	The CP GIVE-UP entered does not have a give-up relationship with the CP. (Note: The actual reject message will continue to contain "OE" which represents "CP".)
INVALID P/A	The PA field entry is other than "P", "A" or blank.
INVALID PRICE	<ol style="list-style-type: none"> 1. The price field entry has non-numeric or non-decimal characters, or a zero price, or 2. The whole price is greater than 9999, or 3. The period is the first or last character of the price, or 4. The fraction or decimal portion of the price is

Message	Description
	other than numeric.
INVALID PRICE OVERRIDE	The price override entered by the subscriber is other than ".O".
INVALID QSR ENTRY	A relationship between a QSR trade entry firm and the contra side has not been established
INVALID SELLER DAYS	Seller Days field must be set to 00, 01, 03-60.
INVALID SECURITY ID	The entered SECID is not in the trade reporting Security File, or the ACT AUTHORIZATION INDICATOR for the security is not set to "A".
INVALID TIME	The TIME entry is not in HH:MM:SS time format
INVALID TRADE MODIFIER	The entry is an original EP trade and the modifier other than ".SLD", , ".SNN" (where "NN" is between 02, 04 and 60), ".C", ".ND", ".T", PRP, or (applicable to TRADE REPORTING 1 EP entry).
INVALID TRADE REPORT OVERRIDE	The RPT field entry is other than "N", or if "N" is entered and the trade is not original EP trade, or if "N" is entered and a ".SNN", ".C", or ".ND" trade modifier is also entered.
INVALID TRADE-THROUGH EXEMPT	
INVALID TRADING DIGIT	Only A (decimal price) or B (contract amount) allowed.
INVALID VOLUME	The volume field is not in the range of 1 to 99,999,999.
MM NOT ACT AUTHORIZED	The I ₁ I ₂ of the entering device points to the entering EP that is not trade reporting authorized in the trade reporting Authorization Table. (Note: The actual reject message will continue to contain "MM" which represents "EP".)
MMID REQUIRED	An EPID has not been entered. (Note: The actual reject message will continue to contain "MMID" which represents "EPID".)
NO CONTROL NUMBER	The control number parameter is required and must be 10 alphanumeric characters.
NO MODIFIER FOR AS-OF	The trade is an As-Of trade (i.e., "Y" is entered in the As-Of field) and a trade modifier was entered.
NOT AN OPEN TRADE	The control number must point to an Executing Party trade entry with status of U (Unanswered) or T (Trade report only).
NOT CROSS TRADE	The entry in the B/S field is "X" and the CPID is not blank or equal to EPID.
NOT WITHIN ALLOWABLE TIME	1. The trade is entered before trade reporting ENTRY START time, or

Message	Description
	<p>2. The original EP trade is for an Nasdaq-listed issue and is not marked as a Form T trade when it is entered after Nasdaq National Market ENTRY END time (i.e., 4:10), or</p> <p>3. The trade is for a Nasdaq SmallCap security and is entered after REGULAR ENTRY END time.</p>
OE NOT ACT AUTHORIZED	The CPID entered in the CPID field is not authorized in the trade reporting Authorization Table. (Note: The actual reject message will continue to contain "OE" which represents "CP".)
OEID REQUIRED	The CPID was not entered for a trade that is subject to matching and clearing. (Note: The actual reject message will continue to contain "OEID" which represents "CPID".)
ONLY MM MAY CORRECT THIS TRADE	The function must be submitted by the firm designated as the EP side responsible party on a EP trade entry. (Note: The actual reject message will continue to contain "MM" which represents "EP".)
PRICE OUT OF OVERRIDE RANGE	A trade with the ".O" price override is beyond the bounds of the override range.
PRICE OUT OF RANGE	The PRICE fails the price range check.
SECURITY HALTED	The Execution Time is within the timeframe when a trading halt was in effect for the security.
TIME FIELD REQUIRED	A TIME entry has not been entered for an Nasdaq National Market trade marked ".SLD", ".SB" or ".T"; or a TIME entry has not been entered for an As-Of entry
TRADE DETAIL MUST BE UPDATED	At least one field on the trade line, excluding override, must be updated.

Other Trade Reporting Reject Messages

Message
ACCEPT
ACCEPT - CONTRA NOT READY
ACCEPT - NOT CLEARING ELIGIBLE
BLOCKBUSTER EXCEEDS DEFAULT MKT SUPERCAP Blank – may be used
BLOCKBUSTER EXCEEDS MKT SUPERCAP
BLOCKBUSTER LESS THAN SIZEABLE AMT
BRANCH SEQ# REQUIRED
ENTRY REQUIRED
EXCEEDS MAXIMUM CONTRACT AMOUNT
EXECUTION TIME GREATER THAN TRADE REPORT TIME
EXECUTION TIME REQUIRED
FIRM NOT AUTHORIZED
FIRM REQUIRED
INTERNAL ERROR
INVALID ACT ENTRY
INVALID AMOUNT
INVALID B/A INDICATOR
INVALID BLOCKBUSTER ACTION
INVALID BLOCKBUSTER AMOUNT
INVALID CAP MARK
INVALID CLEARING ACCT #
INVALID CONTRA BRANCH SEQUENCE
INVALID CONTRA PARTY
INVALID CONTROL NUMBER
INVALID DATE
INVALID ENTRY
INVALID FIRM
INVALID FORMAT
INVALID FUNCTION CODE
INVALID GIVEUP CODE
INVALID MAKE DEF VALUE
INVALID MARKET ID
INVALID MARKET TYPE
INVALID MEMO FIELD
INVALID OEID
INVALID PRICE/CONTRACT INDICATOR

Message
INVALID REFERENCE NUMBER
INVALID RISK MANAGEMENT
INVALID SECURITY CLASS
INVALID SELECTION
INVALID SELLER DAYS
INVALID SHORT SALE INDICATOR
INVALID SIZEABLE ACTION
INVALID SIZEABLE AMOUNT
INVALID SPECIAL TRADE IND
INVALID STATUS ENTRY
INVALID SUPERCAP AMOUNT
INVALID SYSTEM DESIGNATION
INVALID TIME COMBINATION
INVALID TRADE MODIFIER
INVALID TRADE REPORT FLAG
INVALID TRADE-THOUGH EXEMPT
INVALID TRADE TYPE
INVALID TYPE
INVALID UPDATE
ISSUE NOT ACT AUTHORIZED
LAST SALE OK - CLEARING REJECT
LAST SALE OK - NOT CLEARING ELIGIBLE
LAST SALE OK -NO CLEARING
MEMO FIELD CANNOT BE CHANGED
MKT BLOCKBUSTER EXCEEDS ALL BLOCKBUSTER
MKT BLOCKBUSTER EXCEEDS DEFAULT ALL BLOCKBUSTER
MKT SIZEABLE EXCEEDS ALL SIZEABLE
MKT SIZEABLE EXCEEDS DEFAULT ALL SIZEABLE
MMCLR NOT ACT AUTHORIZED
MMGU NOT ACT AUTHORIZED
MOD SLD REQUIRED
MOD T NOT ALLOWED
MOD T REQUIRED
NO CLEARING RELATION WITH THIS EXECUTION BROKER
NO ENTRY DATA WAS UPDATED
NO MORE DATA FOR SELECTION CRITERIA
NO MORE RECORDS

Message
NO MORE RECORDS FOR CLEARING FIRM
NO NEW DATA ENTERED
NO OTHER UPDATE WHEN STATE IS D
NO RECORDS FOUND
NO STATISTICS AVAILABLE
NO UPDATES AFTER LAST SALE END TIME
NOT A REPORTABLE OPEN TRADE
NOT AUTHORIZED
OECLR NOT ACT AUTHORIZED
OEGU NOT ACT AUTHORIZED
POTENTIAL VOL ERR
POTENTIAL VOLUME ERROR
REVERSAL NOT ALLOWED
SIZEABLE BELOW MINIMUM AMOUNT
SIZEABLE EXCEEDS DEFAULT MKT BLOCKBUSTER AMT
SIZEABLE EXCEEDS MKT BLOCKBUSTER AMT
SUPER CAP STILL EXCEEDED
SUPERCAP EXCEEDS ALL VALUE
SUPERCAP EXCEEDS DEFAULT ALL VALUE
SUPERCAP LESS THAN BLOCKBUSTER
SUPERCAP LESS THAN DEFAULT BLOCKBUSTER
SYSTEM UNAVAILABLE
TEMPORARILY NOT AVAILABLE
TERMINAL NOT AUTHORIZED
TRADE ALREADY CANCELLED, ERRORED, OR CORRECTED
TRADE ALREADY LOCKED-IN
TRADE STATUS INVALID FOR ACTION
TRDE HELD
UPDATE OF FIELD REQUIRED

4.5 Short Sale Reporting

Firms are obligated to include an indication of a short sale transaction as part of the trade entry.

Prior to July 16, 2018, short sale reporting and side information is encoded in the B/S/X field. This single field carries both side and short sell information, employing nine different codes to capture the various combinations of three sides (buy, sell, cross) by three short sale statuses (long, short, short exempt). To report a short sale transaction using CTCI, subscribers use one of the following appropriate side codes:

Z = Sold Short

C = Cross Short (Reporting EP Bought or Crossed, Customer Sold Short)

P = Reporting EP Bought - CP Sold Short, Customer Sold Short to EP

E = Sold-Short Exempt

K = Sell-side customer Sold-Short Exempt

A = Contra side sold short Exempt

As of July 16, 2018, the fields Side and ShortSaleIndicator are available for short sale reporting. The following table defines the supported Trade Entry value combinations for the existing and new fields:

Reporter....	Existing Method	New Method	
	B/S/X (byte 4)	Side (byte 33)	Short Sale Indicator (byte 34)
Buy	B = Bought	B	
Buy	P = Contra Sort	B	S
Buy	A = Contra Short Exempt	B	E
Sell	S = Sold	S	
Sell	Z = Sold Short	S	S
Sell	E = Sold Short Exempt	S	E
Cross	X = Cross	X	
Cross	C = Cross Short	X	S
Cross	K = Cross, seller Short Exempt	X	E

From July 16 to October 15, 2018, Nasdaq TRF will accept either the existing method or the new method. (Note: if both short sale reporting methods are used, the system will use the new reporting method). After October 15, 2018, the existing method using the B/S/X field will be retired.

Historically, it has not possible for firms to indicate short sale status when accepting a match and compare trade. Beginning on July 16, 2018 it will be possible for the seller to provide a ShortSaleIndicator when accepting trades. After October 15, 2018, the buyer will be blocked from submitting short sale status (via trade entry or trade accept) on a match and compare transaction; rather, it will become the seller's responsibility to provide short sale status in this case.

To report a short sale transaction, firms should use one of the following appropriate side codes

in the ShortSaleIndicator field:

S = Sold Short

E = Sold Short Exempt

After October 15, 2018, the seller is indicated in the Side field, where the valid values are:

B = Buy

S = Sell

X= Cross

On the outbound messaging, short selling information is currently provided in B/S/X field. During the transition (from Jul 16 – Oct 15 2018), it will be provided in both B/S/X field and ShortSaleIndicator. After Oct 15, 2018, customers are expected to look for the acknowledgement in the ShortSaleIndicator field. Note that as a short sale is proprietary information, the short sale indicators will be included in an alleged message TTAL only if the firm being alleged is the seller in the transaction.

For more information, please refer to FINRA Trade Reporting FAQs on short sale reporting:
<http://www.finra.org/industry/trade-reporting-faq#407>

4.6 Trade Status Tables

The Control Number, used to identify the trade throughout the trade reporting processing cycles, and Trade Status, used to identify the processing state of the trade, are two important elements in trade reporting.

The two tables on the following pages explain and summarize the processing logic that Nasdaq applies to a trade in the TRADE REPORTING 1 and TRADE REPORTING 2 cycles and the resolutions of the trade at the end of that cycle.

These two tables are read in the following ways:

- On the top of the column is the starting Status of a trade.
- On the left of the row is the process applied to the trade and its resulting Status (equal to process name).
- The intersection between a column and a row is the one that (identified by one character, refer to Note 1 in the table) initiates or triggers the process.
- On the right-most two columns are the clearing or "Go To TRADE REPORTING 2" (applicable to TRADE REPORTING 1 Trade Status Table) resolutions of the trade if it stays on its resulting Status.

TRADE REPORTING 1 STARTING STATUS

ACTION	UNAN	CP ENT	M1 MATCH	ACCEPT	DECLINE	+DECLI NE	BROK EN	ERROR	CANCE L	GONE	EXT LOCK	TRADE RPT	CLEARI NG	FIRM INHIBI T	ENTER ED	CLEARIN G	GO TO
	(U)	(O)	(M)	(A)	(D)	(D)	(B)	(E)	□	(G)	(R)	(T)	HELD (H)	(I)	KILLED (K)		TR 2
R UNAN												M	A(7),C			N	Y(6)
E CP ENTRY													A(7),C			N	Y
S M1 MATCH	A	A														L	N
L ACCEPT	O				O											L	N
T DECLINE	O															N	N
+DECLINE		M														N	N
BROKEN			M/O	M/O							E					N	N
S ERROR	M				M							M				N	N
T CANCEL	M	O			M						E	M				N	N
A NO	M(2)											M(2)				N	N
T GONE	A	A														O	N
U EXT LOCK																L	N
S TRADE RPT																N	N
HELD																N	N
INHIBIT													C			N	N
KILLED													A(8),C			N	N

NOTE 1: Except for the TRADE REPORTING 2 and clearing column, the table shows the permissible changes from Starting Status (across the top) to Result Status (along the left) where: "O" = CP Action, "M" = EP action, "M/O" = EP and CP action, "A" = trade reporting system action, "E" = external system action and "C" = clearing firm action.

NOTE 3: "D" = CP declined EP entered trade, and "D+" = EP declined CP entered trade. Both kinds of declined trades have trades have the "D" status in the trade reporting file. The "+" is for description purpose only.

NOTE 4: Clearing (submission to DTCC at the end of trade reporting I): L = locked-in, N = no submission, O = one-sided submission to clearing. These clearing statuses do not apply to trades that have trade modifier "C", "ND" or "SNN", or overridden by the Clearing Flag (i.e. CLR set to "N" or "M"), these trades will not be forwarded to clearing regardless of their trade statuses. Locked-in trades will be forwarded to DTCC at the end of trade reporting I (i.e. T-day)

NOTE 5: Only "U" and "O" trades (i.e. open trades) will be forwarded to trade reporting II for further trade reconciliation processing as shown by the "GO TO trade reporting II" column Except for locked-in and open trades, all other trades (i.e. declined, CP declined, broken, error, cancel, No) are purged from the trade reconciliation cycle at the end of trade reporting I.

NOTE 6: An unanswered trade or one with "C", "ND", or "SNN" trade modifier will not be forwarded to trade reporting II. These trades and "T" trades will be processed for trade reporting only.

NOTE 7: A Blockbuster Trade will become an Unanswered or CP Entered trade after a 15-minute period.

NOTE 8: A Sizeable Trade will be killed after the 15-minute period.

TRADE REPORTING 2 STARTING STATUS

PROCESS	UNAN	CP	M1							AUTO		EXT	TRADE		CLEARING	FIRM	ENTERED	CLEARING
	(U)	(O)	MATCH (M)	ACCEPT (A)	DECLINE (D)	+DECLINE (D)	BROKEN (B)	ERROR (E)	CANCEL □	LOCK (L)	GONE (G)	LOCK (R)	REPORT (T)	PURGE (X)	HELD (H)	INHIBIT (I)	KILLED (K)	
R UNAN													M		A(7),C			L
E CP ENT															A(7).C			L
S M1 MATCH	A	A																L (O), N (A)
L ACCEPT	O				O													L
T DECLINE	O																	N
+DECLINE		M																N
BROKEN			M/O	M/O								E						N
S ERROR	M				M								M					N
T CANCEL	M	O			M							E	M					N
A AUTO LOCK	A	A																L
T GONE	A	A																O
U EXT LOCK																		L
S TRADE RPT																		N
SPLIT	A	A																L (O), N
PURGE	A(6)	A(6)																N
HELD																		N
INHIBIT															C			N
KILLED															A(8),C			N

NOTE 1: The table shows the permissible changes from Starting Status (across the top) to Result Status (along the left) where: "O" = CP Action, "M" = EP action, "M/O" = EP and CP action, "A" = trade reporting system action, "E" = external system action and "C" = clearing firm action.

NOTE 2: At the beginning of trade reporting II, the trade reporting II file will contain only original open trades from trade reporting I. During the course of trade reconciliation in trade reporting II, As-Of trades will be entered.

NOTE 3: .

NOTE 4: Clearing (submission to DTCC at the end of trade reporting II): L (O) = Automatic locked-in original open trade, N (A) = submission to clearing for As-Of open trades. L = Locked in (by transaction). N = no submission to clearing. Locked-in trades will be forwarded to DTCC at the end of trade reporting II (i.e. T+1 day)

NOTE 5: A Blockbuster Trade will become an Unanswered or CP Entered trade after a 15-minute period.

NOTE 6: A Sizeable Trade will be killed after the 15-minute period.

5 Appendix A: TCP/IP Connection

This appendix describes how a subscriber can submit and receive messages to and from The Nasdaq Stock Market's Computer-to-Computer Interface (CTCI) using the TCP/IP protocol.

The information contained in this appendix is presented in a step-by-step sequence that describes what must be done to setup and to configure a TCP/IP connection with Nasdaq, how to establish a TCP/IP connection, what control messages and associated protocol must be supported for CTCI TCP/IP session management, and ultimately how to send and receive CTCI messages over a TCP/IP connection.

The document is organized as follows:

- The business of contacting Nasdaq and configuring how the subscriber will access Nasdaq through TCP/IP is discussed first under Setup and Testing.
- The basics of establishing a TCP/IP connection with Nasdaq are discussed in **Establishing a TCP/IP Connection**.
- The format of the CTCI TCP/IP Message is presented next in the CTCI TCP/IP Message Format. This format is used for sending and receiving the CTCI message itself and also for sending and receiving control messages necessary for session management.
- A discussion of session management follows in **CTCI TCP/IP Session Management**, followed by detailed descriptions and examples of each control message in Control Messages.
- Finally, the method and format for sending and receiving CTCI messages is described in **Sending a CTCI Message, Receiving a CTCI Message, and CTCI Message Sequence Verification**.

The subscriber should read this appendix in its entirety to ensure that the rules of the protocol and what the subscriber is required to do to use it are clearly understood prior to contacting Nasdaq for Setup.

Setup

Before attempting to establish a connection over TCP/IP, the subscriber must first contact Nasdaq to configure the connection. If necessary, more than one TCP/IP connection can be configured for the same subscriber. For each connection, Nasdaq will provide the subscriber with two pairs of IP Addresses and a Well Known Port to connect to. The same port is used for all four addresses. At the same time, the subscriber must provide Nasdaq with the IP Address that they will be connecting from when they establish the connection.

Please note that the four IP Addresses consist of a Primary address and an Alternate address for use in connecting to Nasdaq and a backup address pair for use in connecting to the Nasdaq Disaster Recovery (D.R.) site. Please see the section **Retrying failed connection attempts** for more details.

For each TCP/IP connection, a client profile must be established. This process involves assigning an agreed upon ten-character logon identifier and assigning meaning to the "logical channels" that the subscriber will use to exchange CTCI messages with Nasdaq. *Note: A method of encryption will be introduced in a future release.*

The logon identifier will be associated with the client's IP Address and the IP Addresses and Well Known Port the client should be connecting to. This information will be verified when the client establishes the connection and sends a Logon control message to Nasdaq.

Over one TCP/IP connection, a subscriber can submit and receive CTCI messages on behalf of up to 63 different users and/or device locations. Messages for each user or device location are kept separated from each other by assigning them each to their own logical channel. Together with Nasdaq, the subscriber assigns a logical channel number from 1 to 63 to each of the users or device locations that the subscriber will be submitting and receiving CTCI messages on behalf of.

Use of a logical channel is up to the subscriber. A logical channel may be used for sending-only, receiving-only or both. This is solely under control of the subscriber.

Please note that a subscriber may establish multiple TCP sessions with Nasdaq over a single line if they choose to use Network Address Translation (NAT). Nasdaq will assign a unique Well Known Port for each session.

Testing

The Customer Subscriber Test System will be available, but the subscriber will have to connect to a different IP Address and Well Known Port from production. The subscriber should contact Nasdaq to obtain an IP Address and Well Known Port to connect to for testing. This means the subscriber must maintain the ability to dynamically connect to different sockets.

Establishing a TCP/IP Connection

The client (the subscriber) establishes a TCP/IP connection with the server (Nasdaq) by connecting to an IP Address and Well Known Port provided by Nasdaq, from the IP Address that the subscriber told Nasdaq they would be connecting from.

Note: The Nasdaq server follows the *Berkley Model* for establishing a socket connection.

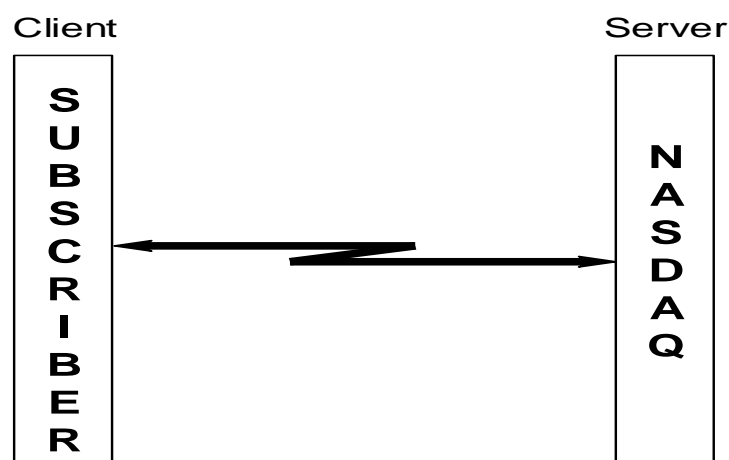


Figure Appendix A- 1 Client-Server TCP/IP Connection

Retrying failed connection attempts

The initial attempt to establish a TCP/IP connection should be to the Nasdaq Primary Address. If this attempt fails, the subscriber should delay briefly (3 seconds is recommended) and then try the Nasdaq Alternate Address. Subsequent attempts should alternate between the Primary and Alternate addresses until at least 30 seconds have elapsed. At that point the subscriber should make one attempt using the Disaster Recovery Primary Address, followed by one attempt to the Disaster Recovery Alternate Address. If a session still cannot be established, the entire cycle should begin again, starting with the Nasdaq Primary Address.

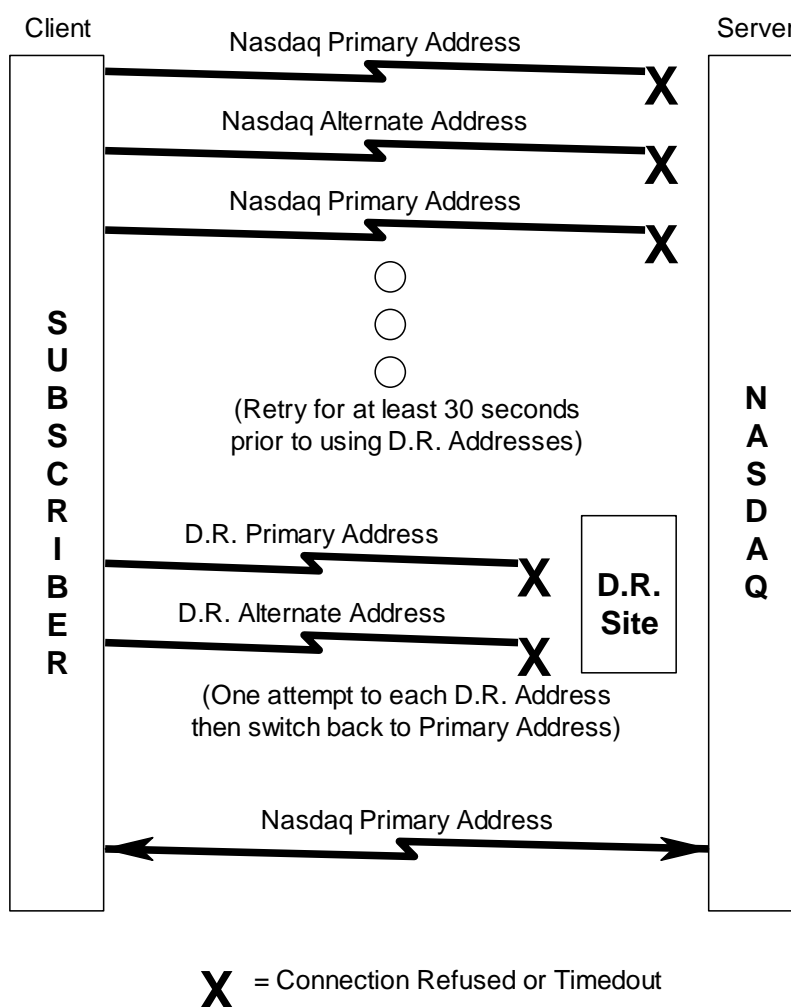


Figure Appendix A- 2 Connection Attempts

CTCI TCP/IP Message Format

The CTCI TCP/IP Message is used for sending and receiving CTCI messages, as well as session management control messages. The CTCI TCP/IP Message consists of a message "envelope" and the CTCI or control message data.

When the CTCI TCP/IP Message contains CTCI message data it is referred to as a CTCI message, and when it contains a control message it is referred to by the name of the control message (Logon, Heartbeat Query, etc.). The format of the CTCI TCP/IP Message is as follows:

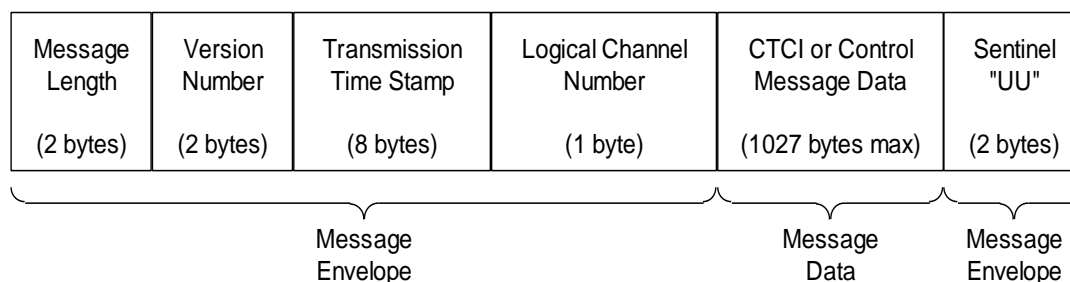


Figure Appendix A- 3 CTCI TCP/IP Message Format

The *Message Length* is a binary field that contains the total length (bytes) of the CTCI TCP/IP Message including the Message Length field at the beginning and the Sentinel field at the end. It is an unsigned integer in network byte order (NBO). Network byte order (NBO), also known as "big endian," is one standard form for transmitting binary values (including integers) in a network message. Since it is used in all TCP/IP headers uniformly, without regard to originating or receiving platform, it is also adopted for use in the CTCI TCP/IP message protocol. Technically, the most arithmetically significant bit of each byte is transmitted first, followed in order of descending significance by the remaining bits; the most significant byte of each multi-byte binary field is transmitted first, followed in order of descending significance by the remaining bytes. If a 32-bit number is to be transmitted, and the bits are numbered 0-31 in order, left to right, where the 0th bit represents 2^{31} , and the 31st bit represents the least significant binary digit, i.e., 0 or 1.

Currently, the largest message that can be sent is 1042 bytes. The Message Length field is the "sentinel boundary" of the message. Data flow must begin on a sentinel boundary whenever a connection is established.

The *Version Number* contains a two-character ASCII string. The first character contains the integer portion of the version number and the second character contains the decimal portion of the version number. This is version 1.0 of the interface, so the value in the first byte will be one and the value in the second byte will be zero.

The *Transmission Time Stamp* is an ASCII numeric field containing the time the CTCI TCP/IP Message was transmitted in HHMMSSCC format.

The *Logical Channel Number* is a binary field that contains a value from zero through 63. If the logical channel number is zero, the CTCI TCP/IP Message is a control message. If the logical channel number is one through 63, the message is a CTCI message, and the logical channel number indicates which user or device location that the CTCI message belongs to.

CTCI or Control Message Data contains the CTCI or control message data. When the logical channel number is one through 63 it contains CTCI message data. When the logical channel number is zero, CTCI or Control Message Data contains the fields of one of the control messages described in the following pages.

The *Sentinel* is an ASCII field that always contains a constant of "UU".

CTCI TCP/IP Session Management

The control messages – Logon, Logon Response, Heartbeat Query, Heartbeat Response, Flow Control, Logical Channel State Query, and Logical Channel State Response – are used for session management and will be sent over logical channel zero exclusively. The format, content, and further details about how each control message should be used is described in the pages that follow the session management discussion.

Once a socket connection is established, the very first thing the client must do is send a Logon control message to the server. The Logon Identifier field tells the server who the client is, the Logical Channel State fields tell the server on which logical channels the client is ready to receive CTCI messages. If the Logon fails, Nasdaq will break the connection. If the Logon is successful the server will send a Logon Response control message back to the client.

On the Logon Response control message the Logical Channel State fields tell the client on which logical channels the server is ready to receive CTCI messages. The client must not send CTCI messages to the server over any logical channel that is in not in a "ready to receive" state. If a logical channel is not in a "ready to receive" state, and the client sends CTCI messages over it to the server, the messages will be discarded.

Note: It is not necessary to verify that logical channel zero is ready to receive. This logical channel must always be in a "ready to receive" state, as there must always be a dedicated path open for control message exchange.

The client can now send CTCI messages over any logical channel that the server has indicated is ready to receive. If the client has no CTCI or control messages to be sent over any logical channel on a connection, or there are no logical channels (1-63) that server is ready to receive them on, the client must send a Heartbeat Query control message on logical channel zero every 10 seconds.

For logical channels that the server has indicated are not ready to receive, the client must wait until the server changes the logical channel state to ready to receive. The server will do this by sending the client a Flow Control message on logical channel zero.

In the event that the volume of CTCI message traffic over a logical channel becomes too much for a message receiver (client or server) to buffer and process, the message receiver can instruct the sender to suspend transmission on the logical channel by sending a Flow Control control message that places the logical channel in a "not ready to receive" state. When the receiver is ready to resume receiving messages on the logical channel again, the receiver sends a Flow Control control message that returns the logical channel to a "ready to receive" state.

At any time during the session, the client (or server) may request the state of a logical channel by sending a Logical Channel State Query Request to the server (or client). The server (or client) must respond with a Logical Channel State Query Response that informs the receiver whether the logical channel is in a "ready to receive", "not ready to receive" or "not configured" state.

The last two bytes of *every* CTCI TCP/IP Message received should always be checked for the sentinel character string of "UU". If the last two bytes are not equal to the sentinel, the TCP/IP connection is considered no longer reliable and should be terminated.

Control Messages

Logon and Logon Response

Once a socket connection is established, the client must first send a Logon control message to the server.

If the server does not recognize the Logon Identifier as being associated with the IP Address the client has connected from or does not recognize the Logon Identifier as being associated the IP Address and Well Known Port the client is connected to, it will terminate the connection. If the Logon is successful a Logon Response control message will be returned.

Here is an example of a *Logon* control message sent on logical channel zero at 9:30 a.m.:

Message Length (2 bytes) Value: 92	Version Number (2 bytes) Value: 10	Transmission Time Stamp (8 bytes) Value: 09300000	Logical Channel Number (1 byte) Value: zero	Control Message Data (77 bytes)	Sentinel (2 bytes) Value: UU
---	---	--	--	------------------------------------	---

Control Message Type (3 bytes) Value: LGQ	Logon Identifier (10 bytes) Value: ABCD	Logical Channel States (64 bytes) Values: 1,2,1,zero,zero...
--	--	---

Figure Appendix A- 4 Logon control message, channel zero, 9:30 a.m.

In this example, the *Logical Channel Number* contains a value of zero, indicating the message is a control message.

The *Control Message Type* is an ASCII field that appears in every control message that indicates which control message is being sent. In this case "LGQ" represents Logon.

The *Logon Identifier* field is an ASCII field that must contain the logon identifier assigned during setup for use with the IP Address and Well Known Port. The value ABCD is shown just as an example.

In the *Logical Channel States* field, each byte contains a binary value that represents the state of a logical channel. The first byte contains the state of logical channel zero, the second the state of logical channel one, the third the state of logical channel three, up to the 64th

byte that contains the state of logical channel 63. If the logical channel is ready to receive the value will be one. If it is not ready to receive the value will be 2. If the logical channel was not configured during Setup, the value will be zero.

In this example the value of the state of logical channel zero and two is one. The value of the state of logical channel one is two. The value of the state of logical channels three through 63 is zero. This means the client is ready to receive control messages on logical channel zero (always the case), not ready to receive CTCI messages on logical channel one, ready to receive CTCI messages on logical channel two, and the remaining logical channels are not configured.

Here is an example of a *Logon Response* control message sent on logical channel zero at 2/100 of a second past 9:30 a.m.:

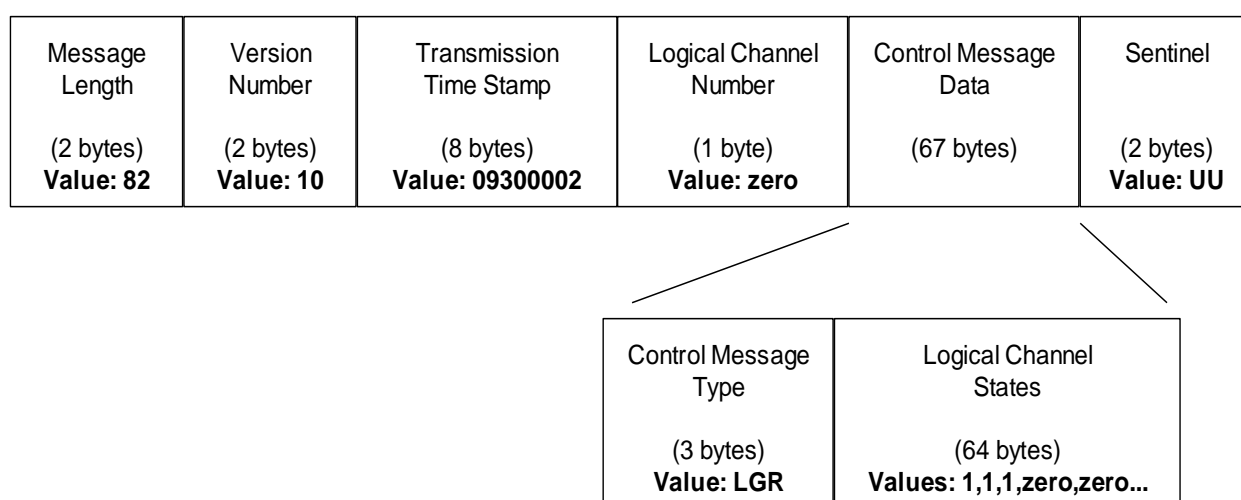


Figure Appendix A- 5 Logon Response control message

In this example, the *Logical Channel Number* contains a value of zero, indicating the message is a control message.

The *Control Message Type* is an ASCII field that appears in every control message that indicates which control message is being sent. In this case "LGR" represents Logon Response.

In the *Logical Channel States* field, each byte contains a binary value that represents the state of a logical channel. The first byte contains the state of logical channel zero, the second the state of logical channel one, the third the state of logical channel three, up to the 64th byte that contains the state of logical channel 63. If the logical channel is ready to receive the value will be one. If it is not ready to receive the value will be 2. If the logical channel was not configured during Setup, the value will be zero.

In this example the value of the state of logical channel zero is one. The value of the state of logical channel one and two is one. The value of the state of logical channels three through 63 is zero. This means the server is ready to receive control messages on logical channel zero

(always the case) and CTCI messages on logical channels one and two. The remaining logical channels are not configured.

Heartbeat Query and Response

The integrity of the data transfer connection must be constantly checked with the periodic exchange of client-issued Heartbeat Query and server-issued Heartbeat Response control messages.

If there are no other messages to be sent the client must send a Heartbeat Query every 10 seconds. The server does not require heartbeat queries during the 10-second interval if any properly formatted message has been received within the last 10 seconds, but will terminate the connection if no message is received for the duration of two, 10-second intervals.

Here is an example of a *Heartbeat Query* control message sent on logical channel zero at 2 seconds past 9:30 a.m.:

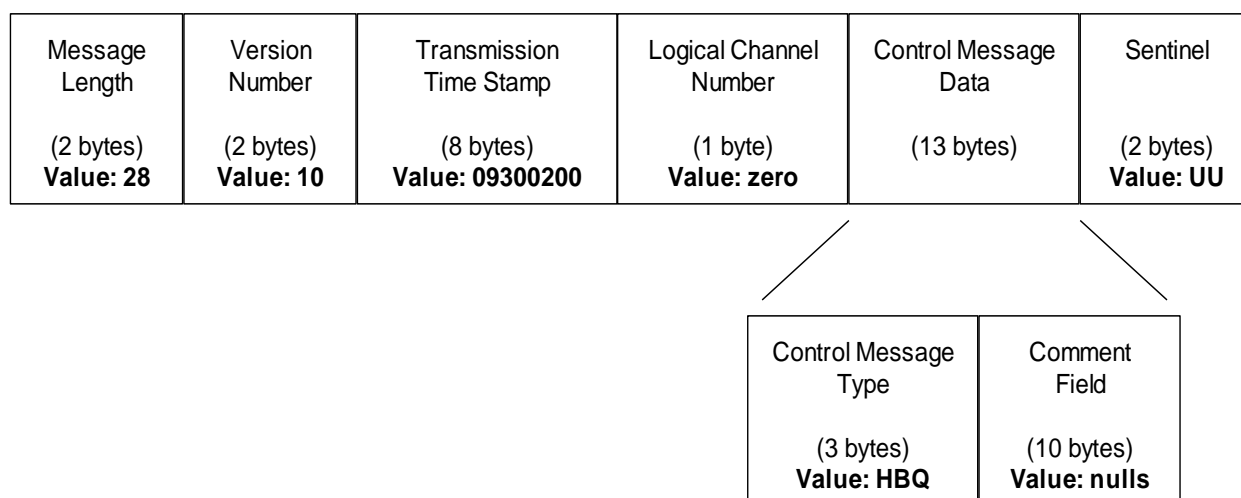


Figure Appendix A- 6 Heartbeat Query control message

In this example, the *Logical Channel Number* contains a value of zero, indicating the message is a control message.

The *Control Message Type* is an ASCII field that appears in every control message that indicates which control message is being sent. In this case "HBQ" represents Heartbeat Query.

The *Comment* field is an ASCII field that the client can use. Any data in it will be echoed back in the Comment field of the Heartbeat Response. The complete ASCII character set can be used. If the field is not used, it should be filled with ASCII nulls (binary zeros). In this example, there is no data in the Comment field, so it is filled with nulls.

Here is an example of a *Heartbeat Response* control message sent on logical channel zero at 2 and 2/100 seconds past 9:36 a.m.:

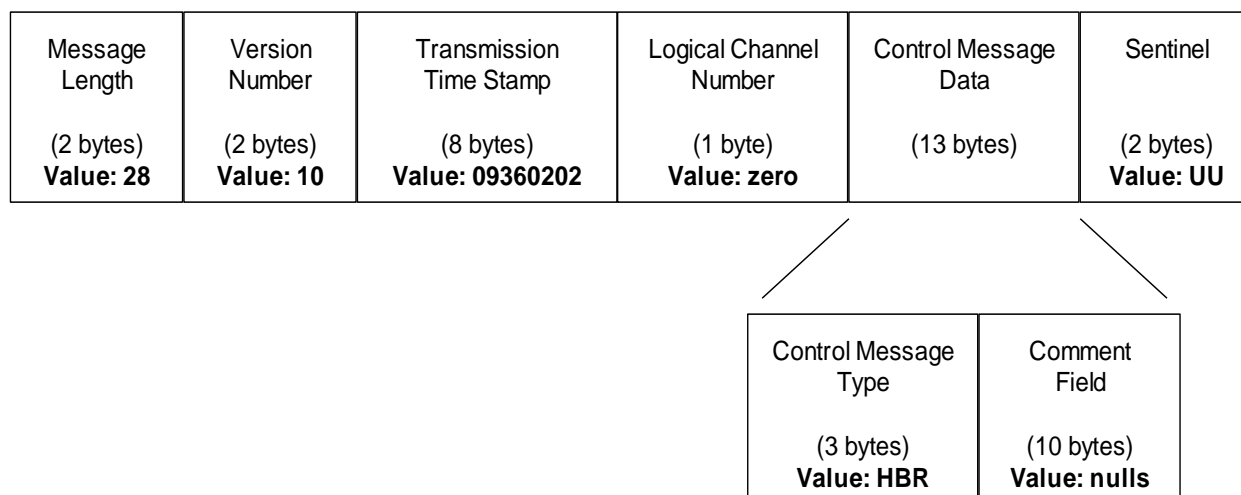


Figure Appendix A- 7 Heartbeat Response control message

In this example, the *Logical Channel Number* contains a value of zero, indicating the message is a control message.

The *Control Message Type* is an ASCII field that appears in every control message that indicates which control message is being sent. In this case "HBR" represents Heartbeat Response.

The *Comment* field is an ASCII field that contains the data sent by the client in the Comment field of the Heartbeat Query. In this example the field contains nulls, echoing this area of the input message.

Flow Control

In the event that the volume of CTCI message traffic over a logical channel becomes too much for a message receiver (client or server) to buffer and process, the message receiver can instruct the sender to suspend transmission on the logical channel by sending a Flow Control message that places the logical channel in a "not ready to receive" state. When the receiver is ready to resume receiving messages on the logical channel again, the receiver sends a Flow Control message that returns the logical channel to a "ready to receive" state.

Note: Flow control of logical channel zero is not allowed, as there must always be a dedicated path open for control message exchange. Client processing of flow control messages from the Nasdaq server is mandatory. It is not mandatory, but strongly advised, that the client be designed with a mechanism to initiate flow control commands. Under no circumstance should the client ever stop reading the connection with a Nasdaq server while at the same time continuing to transmit data to the Nasdaq server.

Here is an example of a *Flow Control* message sent on logical channel zero at 1:30 p.m. that places logical channel one in a “not ready to receive” state:

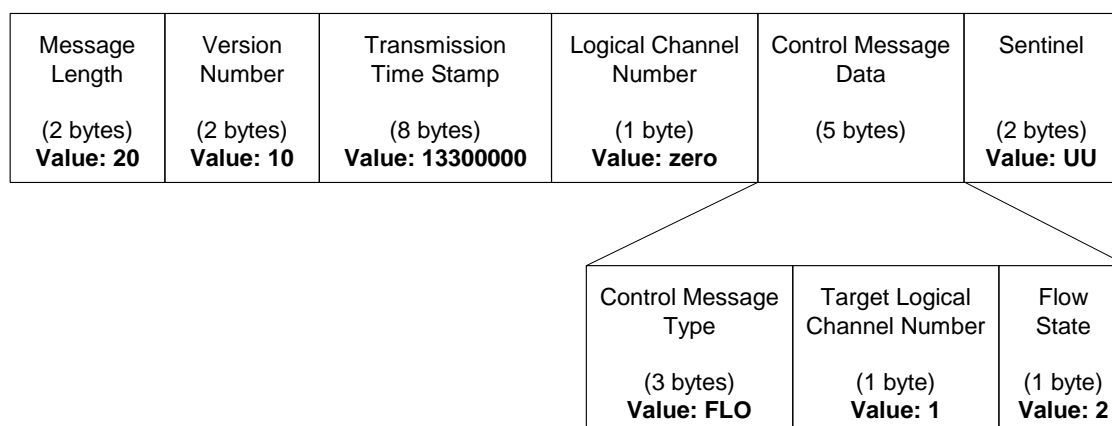


Figure Appendix A- 8 Flow Control message

In this example, the *Logical Channel Number* contains a value of zero, indicating the message is a control message.

The *Control Message Type* is an ASCII field that appears in every control message that indicates which control message is being sent. In this case “FLO” represents Flow Control.

The *Target Logical Channel Number* is a binary field that contains a value from one through 63 and indicates which logical channel should be affected. In this example, logical channel one is being affected.

The *Flow State* field is a binary field that changes the state of a logical channel to ready to receive or not ready to receive CTCI messages. A value of one changes the state to ready to receive. A value of two changes the state to not ready to receive. In this case the value is two, changing the state of the logical channel to “not ready to receive” CTCI messages.

Logical Channel State Query and Response

The client or server can request the state of a particular logical channel by sending a Logical Channel State Query control message over logical channel zero. A Logical Channel State Response must be sent back by the query recipient.

Here is an example of a *Logical Channel State Query* control message requesting the state of logical channel one, sent on logical channel zero at 23 and 85/100 seconds past 1:45 p.m.:

Message Length	Version Number	Transmission Time Stamp	Logical Channel Number	Control Message Data	Sentinel
(2 bytes) Value: 28	(2 bytes) Value: 10	(8 bytes) Value: 13452385	(1 byte) Value: zero	(13 bytes)	(2 bytes) Value: UU

Control Message Type	Target Logical Channel Number	Unused	Comment
(3 bytes) Value: LCQ	(1 byte) Value: 1	(1 byte) Value: nulls	(8 bytes) Value: nulls

Figure Appendix A- 9 Logical Channel State Query control message

In this example, the *Logical Channel Number* contains a value of zero, indicating the message is a control message.

The *Control Message Type* is an ASCII field that appears in every control message that indicates which control message is being sent. In this case "LCQ" represents Logical Channel State Query.

The *Target Logical Channel Number* is a binary field that contains a value from one through 63 and indicates for which logical channel the state is being requested. In this example the state of logical channel one is being requested.

The *Unused* field is an ASCII field that should always be filled with ASCII nulls (binary zeros).

The *Comment* field is an ASCII field that the message initiator can use. Any data present must be echoed back in the Comment field of the Logical Channel State Response. The complete ASCII character set can be used. If the field is not used, it should be filled with ASCII nulls (binary zeros).

Here is an example of a *Logical Channel State Response* control message returning the state of logical channel one, sent on logical channel zero at 24 seconds past 1:45 p.m.:

Message Length	Version Number	Transmission Time Stamp	Logical Channel Number	Control Message Data	Sentinel
(2 bytes) Value: 28	(2 bytes) Value: 10	(8 bytes) Value: 13452400	(1 byte) Value: zero	(13 bytes)	(2 bytes) Value: UU

Control Message Type	Target Logical Channel Number	Logical Channel State	Comment
(3 bytes) Value: LCR	(1 byte) Value: 1	(1 byte) Value: 2	(8 bytes) Value: nulls

Figure Appendix A- 10 Logical Channel State Response control message

In this example, the *Logical Channel Number* contains a value of zero, indicating the message is a control message.

The *Control Message Type* is an ASCII field that appears in every control message that indicates which control message is being sent. In this case "LCR" represents Logical Channel State Response.

The *Target Logical Channel Number* is a binary field that contains a value from one through 63 and indicates for which logical channel the state is being reported. In this example, the state of logical channel one is being reported.

The *Logical Channel State* is a binary field that contains a value that represents the state of the logical channel. If the logical channel is ready to receive, the value will be one. If it is not ready to receive, the value will be 2. If the logical channel was not configured during Setup, the value will be zero. In this example the value is two, indicating logical channel is "not ready to receive" CTCI messages.

The *Comment* field is an ASCII field that must always contain the data sent in the Comment field of the Logical Channel State Query. In this example the field contains nulls because that's what was sent in the query.

Sending a CTCI Message

The client should format a CTCI message as usual (refer to *Subscriber Requirements for Computer to Computer Interface Utilizing the NASDMS Switch*), but to deliver it over a TCP/IP connection it must be imbedded in a CTCI TCP/IP Message "envelope."

Here is an example of a CTCI message 100 bytes long sent on logical channel 31 at 9:31 a.m.:

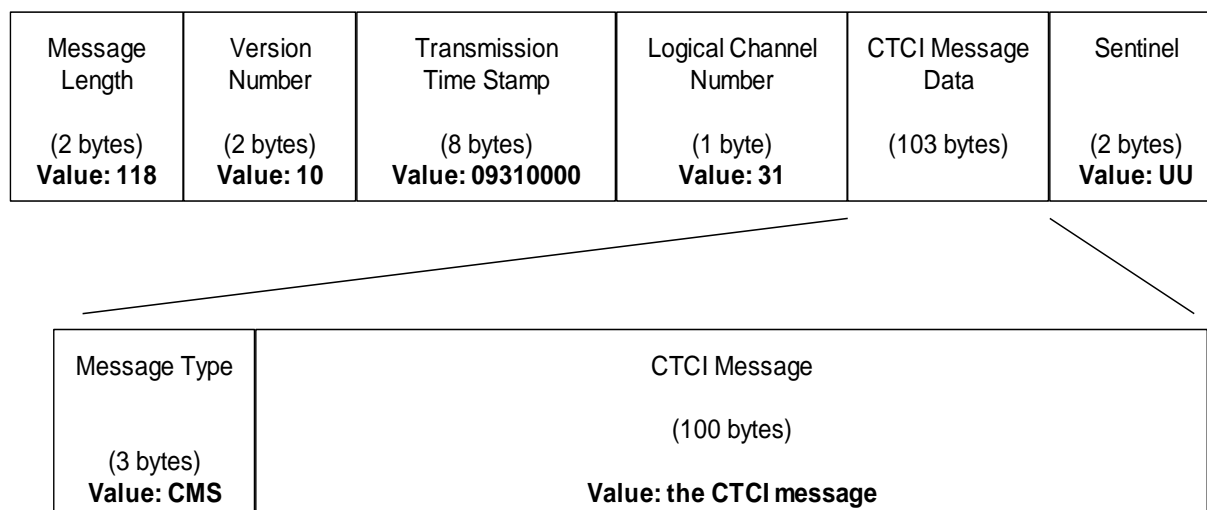


Figure Appendix A- 11 CTCI message

In this example, the *Logical Channel Number* contains a value of 31, in the range of one through 63, indicating that the message is a CTCI message.

The *Message Type* field is an ASCII field that should always have the value "CMS"..

CTCI Message is the actual CTCI message itself, beginning with line zero, line two, etc., as described in *Subscriber Requirements for Computer to Computer Interface Utilizing the NASDMS Switch*. Do not include any control characters other than those specific the composition of the CTCI message (i.e. carriage return and line feed).

Receiving a CTCI Message

Nasdaq will send CTCI messages to subscribers using the same format as described above in Sending a CTCI Message. The *CTCI Message* field will include any user-specified header line(s) followed by line zero, line two, etc., through any user-specified trailer line(s).

CTCI Message Sequence Verification

It is the responsibility of the client to detect and recover lost data by implementing CTCI message sequence number checking and message retrieval processing. It is also the responsibility of the client to respond to gap fill requests from the server for lost or discarded client to server messages. Refer to *Subscriber Requirements for Computer to Computer Interface Utilizing the NASDMS Switch* for a detailed description of these procedures. Message sequence numbers continue to be the last part of the *CTCI Message* in *CTCI Message Data*.

6. Appendix B: IBM WebSphere MQ

The *CTCI WebSphere MQ V1.1 Subscriber Intercommunication Specification* describes how you can submit and receive CTCI messages using the NASDMS (Switch) through IBM WebSphere MQ Middleware using WebSphere MQ API calls over TCP/IP protocol. The document also describes the required CTCI-MQ intercommunication specifications. The CTCI-MQ Interface uses the WebSphere MQ Distributed Queuing technique.

To access the document, select this link:

<http://www.nasdaqtrader.com/content/technicalsupport/specifications/tradingproducts/CTCI MQSpecs.pdf>