Computer to Computer Interface (CTCI) Specifications for the Trade Reporting and Compliance Engine system (TRACE®)

Trade Reporting for Treasury Securities

Version 1.5

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CONFIDENTIAL

1.0 TRACE CTCI INTERFACE

1.1   Introduction

The TRACE System (TRACE) is a service of FINRA that performs two major functions: on-line trade reporting and dissemination. Currently, FINRA members (or their designated third parties) are provided with the capability of submitting trade report information on over the counter corporate bond and agency debt securities through the use of a Computer to Computer Interface (CTCI) linkage. This document describes the format of the message text to be used to interface through the NASDAQ system to the TRACE application for on-line trade reporting of US Treasury securities.

Participants will be able to enter and correct trades through their CTCI interfaces during the TRACE for Treasury reconciliation cycle that consists of T-Day through T-1entries2 entries. Trades that were submitted greater than T-1 2 are not retained in the TRACE system for trade management purposes but may still be modified using special input message formats designated for such trades. CTCI Participants may request retransmission of acknowledgements of any trade or group of trades to update their TRACE image files during the permissible hours by calling NASDAQ Technical Support at (212) 231-5180.

The Eastern Time operating hours of the TRACE system are as follows:

Market/System open: 8:00 A.M.
Market Close: 5:30 P.M. (for TRACE reporting of Treasury Securities)
System Close: 6:30 P.M.

When a trade is entered into TRACE, a control date and number will be assigned to identify the trade throughout its TRACE processing and a status will be assigned to reflect its processing state. As trades are entered into the system, TRACE will validate trade information, forward proper acknowledgment messages to the Reporting Parties (RP) and Allege messages to the Contra Parties (CP) of the trades. Acknowledgment and Allege messages will contain the terms of the trade, the TRACE assigned status, control date and control number which uniquely identifies each trade. These messages will enable the TRACE CTCI participants to build their own TRACE image files. CTCI participants will utilize the combination of TRACE assigned control date and control number to communicate with the TRACE system for subsequent trade report correction processing. Participants may also modify trades using their own assigned reference numbers (Client Trade Identifier). Trade reports of Treasury Securities will be retained in the TRACE system on a rolling 2 3 business day period inclusive of the day the trade is reported (T-1 2) and available for subsequent trade management processing (Cancel or Correction). A Cancel or Correction of a previously reported trade submitted prior to the T+1 2 period is allowed via submission of a Trade Reversal or combination of a Reversal and a new As-of Trade Report. Please see section 3.3 for details concerning the submission of Reversals.

TRACE will forward proper Notification messages to the trading parties as trades are corrected. Each Notification message will contain the control date, control number and the updated status of the corrected trade such that the trading parties will be able to update their TRACE image files.

The above message flow and TRACE image file techniques are applicable to CTCI environments only. A web participant, however, will operate from the Nasdaq TRACE file and will not receive all of the above messages.

The TRACE CTCI specifications are applicable to both the T-day and As-of (T+n) trade reporting process. Any trade executed during or off market hours, which has not been reported during T-day, may be reported to TRACE on T+1 or later on an As-of basis.

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

TRACE Day -   TRACE (T-day or T+1 to T+n day) messages.

Message Type -   Specify if only one type (e.g. TSEN). 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.

Possible Dupe -   Specify if possible duplicates are 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 TRACE Firm profile) for these messages. Note: A specified address may not be for a printer.

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

1.2   CTCI – TCP/IP & MQ Interfaces

A subscriber can submit and receive TRACE *Computer to Computer Interface* (CTCI) messages utilizing NASDAQ Messages through either 1) TCP/IP protocol (preferred method) or 2) IBM *MQSeries* Middleware using *MQSeries* API calls over TCP/IP protocol (Sender/Receiver MQ architecture). For more information on its availability and for general CTCI messaging questions, please contact NASDAQ Technical Support at (212) 231-5180, Option #1 or via email to: tradingservices@nasdaqomx.com.

For questions concerning trade reporting and TRACE, please contact FINRA Product Management at (866) 899-2107 or via email to: FINRAProductManagement@finra.org.

1.3   Document Format

This document has been prepared to facilitate your development of an interface to the TRACE System for Treasury Securities trade reporting. The sections have been divided to easily identify those messages that will be supported.

Section 1 describes the project and its purpose.

Section 2 defines the header and trailer that will be used for all input messages. It also defines all the fields used in TRACE for Treasury Securities.

Section 3 defines the input messages supported for Trade Reporting of Treasury Securities.

Section 4 describes general information for output messages generated by TRACE for Treasury Securities.

Section 5 describes the output message formats generated by TRACE for Treasury Securities.

2.0 INPUT MESSAGE FORMATS

Each TRACE input message format requires the same message "envelope" which is composed of three parts:

I. Header - defines the beginning of the message, origin and destination of the message.

I. Text - data included are TRACE entries which can be a Trade Entry, Cancel or Correction.

III. Trailer - defines the end of the message, date/time of the message, control sequence number.

The following notes apply to all of the message formats:

Note 1: Required fields must be entered, unless otherwise noted.

Note 2: If a field is entered and the field is designated as an alphabetic field, only A-Z can be entered unless otherwise noted. If the field is designated as numeric, only 0-9 can be entered unless otherwise noted. Embedded spaces cannot be entered in alphabetic or numeric fields unless otherwise noted.

Note 3: At the end of each line, a line delimiter is required even if no data has been entered on the line. Where the line delimiter has been specified as CR LF (carriage return, line feed) the use of CR is optional. The LF, however must be entered.

Note 4: The maximum limit of 1024 characters per message block includes the Header and Trailer.

Note 5: Records reported in TRACE for Treasury Securities **cannot** be intermixed with messages pertaining to other NASDAQ or FINRA systems (e.g., TRACE for Securitized Products, ORF, FINRA/NASDAQ TRF, etc.) in the same block.

2.1   Header

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 Branch Sequence Number. The third line is line 1a and contains the category and destination of the message. The fourth line is always a blank line:

Line 0:   [Origin] **<CR/LF>**
Line 1:   [Br Seq Num] **<CR/LF>**
Line 1A: [Category] **space** [Destination] **<CR/LF>**
Blank Line: **<CR/LF>**

Line 0
Entry Originator -   One to six 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 MPID (as assigned by FINRA) of the firm submitted as the Reporting Party (RPID), (i.e., the executing firm entering the Trade Entry, Cancel or Correction).
CR LF -   Required line delimiter- carriage return, line feed.

<u>Line 1</u>

Branch Sequence	1-8 character alphanumeric (A-Z, a-z, 0-9, embedded spaces, left justified)
CR LF -	Required line delimiter.

<u>Line 1A</u>

Category -	This field identifies the message category. Contains the constant "OTHER" for TRACE.
Space -	Required field separator.
Destination -	A required field.
	Destination Code will be "**TS**" for **all Trade Entry, Cancel, Reversal, and Correction input messages for Treasuries.** The destination Code will route CTCI transactions to TRACE for Treasury for processing.

> **Note:** **Wrong assignment of Destination Code will result in an "Invalid Format" reject.**

CR, LF -	
CR, LF -	Required line delimiter

<u>Line 2</u>   *Text of Trade Entry, Cancel or Correction*

2.2 Trailer

The sequence number entered by the user will be validated by NASDAQ to determine if there is a number gap or if the number is equal to or less than a previously received number.

Each station on a service bureau line shall have an individual sequence check. As an example, the first entry for station 1 shall have a sequence number of 0001. Similarly, the first entry from station 2 shall also have a sequence number 0001.

The sequence number provided by the subscriber can be in one of the following formats:

I.   The sequence number immediately precedes the end-of-text code (interposed line feeds are disregarded) and is either: fixed at four digits, zero filled.

<p align="center">Example: 0034</p>

or one to four digits preceded by a "dash"

<p align="center">Example: -34.</p>

II.   The sequence number may appear anywhere on the last line if it is immediately preceded by the letters "OL" (and an optional space).

<p align="center">Example: OL 23 or OL23</p>

A third contiguous alphabetic character is optional.

<p align="center">Example: OLX 23 or OLX23</p>

Fill zeros for high-order digits (e.g., OL 0023) are also optional.

A space is used to separate the sequence number from any following user-defined data.

<p align="center">Example: [user-defined data]OLX 0034[<i>space</i>user-defined data]</p>

III.　A one to four digit sequence number at the beginning of the line, followed by a space and a user-defined character string starting with a <u>non-numeric</u> character. The sequence number can be zero filled if desired.

Example:　　**34<u>*space*</u>AXD**

or:　　**0034<u>*space*</u>/200008041717**

The remainder of the field may also be used to include user identifiers such as date/time group.

Example: 0012 /120179011

2.3　TRACE Transaction Text

Trade Entry　　　　　　　　　**(Function T)**
All original T-day and T+n (As-Of) trades will be entered into the TRACE System using this message format. A Reporting Party (RP) Trade Entry will be processed for trade reporting.

Cancel Entry　　　　　　　　**(Function X) - <u>for cancelling T-day through T-~~1~~2 submissions</u>**
(Function Y) - <u>Reversals - for cancelling trades submitted prior to T-~~1~~2</u>
The RP reports a Cancel entry for a previously entered trade but for whatever reason decides to cancel.

Correction Entry　　　　　　**(Function R) - <u>for correcting T-day through T-~~1~~2 submissions</u>**
The RP reports a Correction to a previously entered trade that was incorrect.

Note: In order to correct a trade submitted prior to T-~~1~~2, firms are required to submit a Reversal (Function Y), followed by a new As-Of Trade Report (Function T) that contains the correct trade details.

2.4　Text Field Definitions

The following contains the general definitions for all fields that are contained within the TRACE for Treasury Securities (TS) Transaction text. Any specific information that is relevant to a particular transaction type can be found in the description of the transaction. In addition, these definitions apply to both TRACE TS Input transactions and TRACE TS Output messages.

Function	This field is required. Valid values are: 　　T = Trade Entry 　　X = Cancel Entry (same day through T-~~1~~2) 　　Y = Reversal Entry (greater than T-~~1~~2) 　　R = Correction Entry (same day through T-~~1~~2)
Special Processing Flag	This field allows a trade to be marked for special processing. Under certain conditions, use of this field for special processing purposes MUST be authorized by FINRA Operations prior to submission of trades. Authorization

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	will be granted on a trade by trade basis. Valid values are:
	
	        Blank = No special processing
	        P = Position Transfer (AUTHORIZATION REQUIRED).
	        A = Affiliate – principal transaction indication
	
	Note: As defined in FINRA Rule 6730 (d)(4)(E), the affiliate principal transaction indication should be used where a member purchases or sells a security and, within the same trading day, engages in a back-to-back trade with its non-member affiliate in the same security at the same price (without a mark-up or commission assessed). This will suppress the trade from dissemination.

B/S Indicator
(aka Buy/Sell Indicator)
	A required one alpha character which shall equal one of the following:
	        B = reporting firm (i.e., RP) bought
	        S = reporting firm sold

Client Trade Identifier *aka User Reference Number*	A twenty alphanumeric character field, left justified, fill unused positions with spaces. Optionally, the subscriber may assign this Reference Number as a unique identifier to each trade. Subscribers may also use the Client Trade Identifier, in lieu of the TRACE Control Number, to Cancel or Correct previously entered trades **within the T-1 2 period (TRACE Control Date is still required if Client Trade Identifier is used)**. The TRACE System **will not** validate this field; therefore firms are required to ensure uniqueness of their own Client Trade Identifiers submitted within a given day. In the event a firm submits duplicate Identifiers on different trade reports within a given day and chooses to modify (Cancel or Correct) a trade using this reference number, TRACE will reject the Cancel/Correct submission and the firm will be required to modify using the TRACE generated Control Number. TRACE will always return the subscriber entered Client Trade Identifier in the acknowledgment message (i.e., TSEN) associated with the trade to the submitter and will space fill this field in the allege message (i.e., TSAL) to the contra party of the trade.
Contra Client Trade Identifier	User defined trade reference number for the Contra side of the trade. Optional, may only be used on **Locked-In trade reports**. **Please note, the Contra Client Trade Identifier cannot be used for cancelling or correcting previously submitted trades**.
Quantity	Dollar (Face Value) amount of the trade. Units (i.e., number of bonds, bills, etc.) are not applicable. Format 11v2. Required field.
Symbol	An optional field. Up to fourteen alphanumeric character security identifier assigned by FINRA. **Each transaction must contain either the Symbol or CUSIP to identify the security**. Left justified. Fill unused positions with spaces. **Please note: Symbol CANNOT be changed on a correction. In order to change the security on a previously submitted trade report, firms must cancel the original trade and submit a new trade with the correct Symbol.**
CUSIP	An optional field. The nine digit alphanumeric code assigned to the security by the CUSIP Service Bureau. **Each transaction must contain either the Symbol or CUSIP to identify the security.** **Please note: CUSIP CANNOT be changed on a correction. In order to change the security on a previously submitted trade report, firms must cancel the original trade and submit a new trade with the correct CUSIP.**
Price	A required field which indicates the reportable price of the trade and reported as decimal price or yield as designated by the Price Type field. Price will be

	reported in a 4v11 format.
Price Override	A one character field that is used to indicate that the entered price is valid although it may fall outside the reasonability check made by the system. The override should not be used on initial submission; only after a trade report has been rejected for having a price that is considered out of range. The alpha character "O" = price override, otherwise the field must be blank on initial submissions.
Seller's Commission	Dollar Amount charged as commission by the seller. Required when commission is charged on a sell trade. Otherwise, the field may be left blank. Format 6v2.
Buyer's Commission	Dollar Amount charged as commission by the buyer. Required when commission is charged on a buy trade. Otherwise, the field may be left blank. Format 6v2.
Trade Modifier 1	This field shall be blank for TRACE trade report input and may be reserved for future use.
Trade Modifier 2	This field shall be blank for TRACE trade report input and may be reserved for future use.
Trade Modifier 3	Extended hours/Late sale conditions. System generated on the outbound acknowledgement. Field must be blank for all input messages. Values: *Blank* = no system generated modifier T = Trades reported after market hours U = Trades reported after market hours and reported late Z = Trades reported during market hours and reported late
Trade Modifier 4	Required indicator if a trade falls under one of the following transaction types: W = Weighted Average Price S = If transaction is part of a series of transactions where one or more transactions are executed at a pre-determined fixed price (e.g. fixed price transaction in an "on-the-run" security) or would otherwise result in the transaction(s) execution away from the current market. B = if the transaction is part of a series of transactions where one or more transactions involve a futures contract (e.g. a basis trade). Otherwise, the field must be blank if none of the above apply.
Contra Party ID (CPID)	Required. A four alpha character field denoting the MPID of the Contra Party to the trade. If the Contra party is a customer, "C " may be reported as a valid entry (left justified, space-fill remaining 3 bytes). Contra of "C" is only valid when the transaction is entered by the reporting party. However, FINRA member firms cannot qualify each other as a customer. If the Contra party is a non-member affiliate, "A "may be reported as a valid entry (left justified, space-fill remaining 3 bytes). An affiliate is a non-member entity that controls, is controlled by or is under common control with a FINRA member, as further defined under FINRA Rule 6710.
Contra Party Give Up (CPGU)	The MPID of the Contra Party Give Up Firm, when applicable. This field can only be filled when the Reporting Firm submits the trade as a Locked-In trade report (RPID = CPID; Locked-In Indicator = Y). On non-Locked-In trade reports, the field must be blank. A TRACE Service Bureau/Executing Broker Supplement (Attachment B of the TRACE Participation Agreement) must be in place in order for firms to submit trade reports on behalf of their give ups. Customer ("C") cannot be entered as a give up.
Contra Clearing Number	Used to identify the clearing broker who will clear this trade for the Contra Party (note: trades reported to TRACE will not be sent to DTCC for clearing). • If a value is entered, TRACE will validate that it is a valid DTCC Clearing ID.

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	• If no value is entered (left blank), TRACE will accept the trade without a Clearing ID. This field can only be filled when the Reporting Firm submits the trade as a Locked-In trade report. On non-Locked-In trade reports, the field must be blank.
Contra Party Capacity	A one character Capacity Indicator field for the contra firm. It denotes whether the firm is acting as "P" for principal or "A" for agent for this trade. This field is required only when the Reporting Firm submits the trade as a Locked-In trade report. On non-Locked-In trade reports, the field must be blank.
Reporting Party ID (RPID)	Required. A four alpha character field denoting the MPID of the Reporting Party of the trade.
Reporting Party Give Up (RPGU)	The MPID of the Reporting Party Give Up Firm, when applicable. Customer ("C") cannot be entered as a give up. A TRACE Service Bureau/Executing Broker Supplement (Attachment B of the TRACE Participation Agreement) must be in place in order for firms to submit trade reports on behalf of their give ups.
Reporting Clearing Number	This field is an optional field. It is used to identify the clearing broker who will clear this trade for the Reporting Party (note: trades reported to TRACE will not be sent to DTCC for clearing). • If a value is entered, TRACE will validate that it is a valid DTCC Clearing ID. • If no value is entered (left blank), TRACE will accept the trade without a Clearing ID.
Reporting Party Capacity	Required field. A one character Capacity Indicator field for the reporting firm. It denotes whether the firm is acting as "P" for principal or "A" for agent for this trade. A value must be submitted in this field.

As-Of Indicator	This field is used to denote whether the trade is an As-Of trade entry, or a cancel or correction of an As-Of trade. Valid values are:
	    Blank = T-Day trade
	    Y = As-Of (T+n) trade
	Note: "Y" is required on all Reversals. "Y" is required on Corrections of T-1 through T~~+1~~-2 submissions and T-day submissions originally submitted as an As-Of trade. For Corrections of non-As-Of T-day submissions, this field must be space-filled.

Execution Date	The date that the transaction was executed (*aka Trade Date*). For an As-of trade (As-Of Indicator = Y), the date must be T-1 or older. The format is MMDDYYYY. For regular trades (not As-of), this field must be blank. To cancel or correct a prior day trade, Execution Date must be submitted. **Note 1: TRACE for Treasury Securities allows reporting trades that were executed on a non-business day (e.g., weekend, holiday). Firms may enter the non-business day date in the Execution Date field and must set the As-Of Indicator to "Y".** **Note 2: On non-As-Of trades, the Execution Date cannot be changed on a Correction submission to a different date than what was originally submitted. Firms would be required to Cancel the original trade and resubmit a new Trade Report with the intended Execution Date.** **On As-Of trades, the Execution Date can be changed only to a date prior to the original execution date. The Execution Date cannot be changed to a date that is subsequent to the original execution date. In the case of the latter, firms would be required to Cancel the original trade and resubmit a new As-Of Trade Report with the intended Execution Date.**
Execution Time	This is a required field. A field denoting the time of execution in military time (HHMMSSsssmmm) format where HH represents hours, MM represents

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	minutes, SS represents seconds, sss = milliseconds and mmm = microseconds. For example, if the trade was executed at 2:03:02p.m., the entry will be 140302. Execution Time must be entered in Eastern Time. **This is a required field for all transactions submitted into TRACE. Please note hours (HH) and minutes (MM) (and seconds (SS) for electronically executed trades) are required, however firms may default seconds (SS), milliseconds (sss) and microseconds (mmm) to zeros (*example 140300*).**
Memo	An optional ten character alphanumeric memo field. Fill unused positions with spaces. This field is not displayed to the Contra party.
Special Price Indicator	This field may contain the following entries: Y = The transaction was intentionally executed at a price not related to the current market. Not to be used for things like long or short settlement or average price trades, rather it is to be used when trading specified. *Blank* = Transaction price not special. If this field is used, the Special Price Reason field must be used. "Y" must be entered in this field if text is entered into the Special Price Reason field.
Special Price Reason	A fifty character alphanumeric subscriber Memo field. This field must be used when the Special Price Indicator has been selected to describe the reason why the trade was executed at a special price. Fill unused positions with spaces. This field may be displayed to the Contra party.
Branch Sequence	An optional eight (8) alphanumeric character field, (A-Z, 0-9 embedded spaces, left justified, pad with trailing spaces), to indicate the reporting firm's branch office. **The Branch Sequence Number entered in this field must be the same as the Branch Sequence Number submitted in Line 1 of the message Header.**
Contra Branch Sequence	An optional eight (8) alphanumeric character field, (A-Z, 0-9 embedded spaces, left justified, pad with trailing spaces), to indicate the contra firm's branch office. This field can only be filled when the Reporting Firm submits the trade as a Locked-In trade report. On non-Locked-In trade reports, the field must be blank.
Settlement Date	Required on all transactions. Date when the trade settles. MMDDYYYY format.
Locked-In Indicator *formerly Automatic Give UP (AGU) Indicator*	Y or blank. Y indicates that the reporting party entering the trade report is reporting for both sides of the trade in a single trade report, thereby satisfying both sides' reporting requirement. Firms may use the Locked-In Indicator when a firm trades with one of its correspondents (one-sided Locked-In trade), or when a firm reports a trade executed between two of its correspondents (two-sided Locked-In trade). A correspondent must be a FINRA member and is entered under one or both Give Up fields (on two-sided Locked-In trades). The reporting party's MPID must be the same on the RPID and CPID fields. A TRACE Service Bureau/Executing Broker Supplement (Attachment B of the TRACE Participation Agreement) must be in place in order for firms to submit trade reports on behalf of their give ups. **Note: On Locked-In trade reports, the RPID must be the same as the CPID. A Locked-In trade report MUST be submitted as a Sell (B/S Indicator = "S"), therefore the trade report must be from the Seller's perspective.**
Preparation Time	Time of Trade submission in HHMMSS format. Denotes the time the submitter prepared the trade report or trade correction (in military Eastern Time format). Optional.

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Control Date	When a trade is submitted to TRACE and accepted, the system will return a Control Date with the trade acknowledgement. The Control Date reflects the date when the system received and processed the trade entry. Control Date, in combination with Control Number, is required in subsequent trade cancel and correction messages to modify a trade report. Firms that elect to use their Client Trade Identifier to Cancel or Correct a trade (within the T-~~1~~ 2 period) must still submit the Control Date assigned to the original trade report. Trade corrections will receive a new Control Date/Control Number trade identifier.
Control Number	When a trade is submitted to TRACE and accepted, the system will assign a Control Number which will be returned on the trade acknowledgement. The Control Number is a 10 digit identifier of the trade, which will be unique throughout the day. Control Date, in combination with Control Number, is required in subsequent trade cancel and correction messages to modify a trade report. Trade corrections will receive a new Control Date/Control Number trade identifier.
No Remuneration Indicator	As outlined in FINRA Rule Filing SR-FINRA-2015-026, this field indicates whether compensation in the form of a mark-up, mark-down or commission is included in the price. N = The transaction does not include remuneration (mark-up/down or commission). b (blank) = indicates the transaction does include remuneration (a mark-up/down or commission). **Note: Use/entry of this field is only supported for Customer and Affiliate trades (CPID = "C" or "A") and is not allowed on Inter-dealer trades. For Inter-dealer the field must always be blank**.
ATS Execution MPID	In FINRA Rule Filing SR-FINRA-2015-055, FINRA Rule 6700 series was amended to provide exemptive relief to Alternative Trading Systems ("ATSs") for the reporting of certain transactions ("exempted transactions") to TRACE, provided the FINRA members that are party to these transactions report them to TRACE and identify the ATSs on which said transactions were executed. To identify the Alternative Trading System (ATS) on which an exempted transaction was executed, the 4-character MPID of the ATS must be entered in this field, otherwise the field must be blank.
When Issued Indicator	Indicates whether the trade was executed before the issuance of the security, i.e., "when issued" trading. Y = When Issued (blank) = regular.
Price Type	Required, indicates the type of price submitted. D = Decimal Y = Yield N = Negative Yield

2.5   TRACE Message Types by Function

TRACE output messages are sent to the Reporting and Contra Party firms as verification for each TRACE transaction. The following table shows the output messages sent to the Reporting and Contra Parties as categorized by Function.

Input Message Type	Function Code	Reporting Party Confirmation Message Sent	Contra Party Confirmation Sent
Trade Entry	T	TSEN	TSAL
Cancel	X	TSCX	TSCX
Reversal	Y	TSHX	TSHX
Correction	R	TSCR	TSCR

Note: on a trade where the contra party (CPID) is subsequently amended to a different contra party via a Correction, the original contra party will receive a Cancel acknowledgement (TSCX or TSHX) and the new contra party will receive a Trade Entry Allege acknowledgement (TSAL).

3.0 TRADE REPORTING INPUT MESSAGES

3.1   RP Treasury Securities Trade Entry

The Reporting Party will use this message to enter an original T Date or an As-Of Trade Entry into the TRACE System. A trade reportable Trade Entry will be processed if it satisfies the trade report requirement.

The RP Trade Entry may generate the following output message flow:

   o   Reject message (refer to Section 4.2)
         If a TRACE Trade Entry is rejected for any reason, the current reject message containing the reject reason and the echo of the trade will be returned to the entering RP. The maximum size of a reject reason is 75 bytes.

   o   TSEN (refer to Section 5.1.1)
         If a TRACE Trade Entry is accepted, a TSEN Acknowledgment message containing the TRACE "T" for trade reporting status, Control Date, Control Number, and the echo of the trade will be returned to the RP.   The entering firm may use this message to build the initial trade record in its image file.

   o   TSAL (refer to Section 5.2.1)
         If a TRACE Trade Entry is accepted, a TSAL Allege message containing the same contents as the TSEN will be forwarded to the contra side of the trade. The contra may use this message to build the initial trade record in its image file.

The following table displays the TRACE Function T Trade Entry message format for Treasury Securities.

TRACE US TREASURY SECURITIES TRADE ENTRY MESSAGE FORMAT

Field Name	Position	Format	Contents/Comments
Line 2			
Function	1-1	X(1)	T = RP Trade Entry. Required.
Special Processing Flag	2-2	X(1)	Used for special processing purposes, authorization required from FINRA prior to submission on trade reports (where noted). ♭ (blank) = no special processing P = Position transfer (authorization required) A = Affiliate – principal transaction indication
B/S Indicator	3-3	X(1)	B = Bought; S = Sold. Required.
Client Trade Identifier	4-23	X(20)	User assigned reference number, not validated for uniqueness by system. Optional.
Contra Client Trade Identifier	24-43	X(20)	User defined trade reference number on the contra side, used on Locked-In trade reports only. Optional.
Quantity	44-56	9(13)	Dollar amount of the trade. Format 11v2. Required.
Symbol	57-70	X(14)	TRACE issue symbol. Optional. Either Symbol or CUSIP must be provided on each transaction.
CUSIP	71-79	X(9)	CUSIP of the security. Optional. Either Symbol or CUSIP must be provided on each transaction.
Price	80-94	9(15)	Numeric Field, Price at which security traded. Format 4v11. Required.
Price Type	95-95	X(1)	Required, indicates the type of price submitted. D = Decimal Y = Yield N = Negative Yield
Price Override	96-96	X(1)	O = Override; ♭ (blank) = No Override
Seller's Commission	97-104	9(8)	Dollar amount charged as commission by the seller. Format 6v2. Required if the Reporting Party charged commission (on a Sell trade), otherwise blank.
Buyer's Commission	105-112	9(8)	Dollar amount charged as commission by the buyer. Format 6v2. Required if the Reporting Party charged commission (on a Buy trade), otherwise blank.
No Remuneration Indicator	113-113	X(1)	Indicates whether compensation in the form of mark-up, mark-down or commission is included in the price. N = The transaction does not include remuneration (mark-up/down or commission). ♭ (blank) = indicates the transaction does include remuneration (a mark-up/down or commission).
ATS Execution MPID	114-117	X(4)	Used to identify the Alternative Trading System (ATS) on which an exempted transaction was executed. In such cases, enter the 4-character MPID of the ATS; otherwise this field must be blank.
Trade Modifier 1	118-118	X(1)	Reserved for future use. Must be blank on input.
Trade Modifier 2	119-119	X(1)	Reserved for future use. Must be blank on input.
Trade Modifier 3	120-120	X(1)	Extended hours/Late sale conditions. System generated on the outbound acknowledgements. Input must be blank.
Trade Modifier 4	121-121	X(1)	Required indicator if a trade falls under one of the following transaction types: W = Weighted Average Price

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Field Name	Position	Format	Contents/Comments
			S = If transaction is part of a series of transactions where one or more transactions are executed at a pre-determined fixed price (e.g. fixed price transaction in an "on-the-run" security) or would otherwise result in the transaction(s) execution away from the current market. B = if the transaction is part of a series of transactions where one or more transactions involve a futures contract (e.g. a basis trade). Otherwise, the field must be blank if none of the above apply.
CPID	122-125	X(4)	MPID of the Contra Party or 'C ' for Customer or 'A ' for Affiliate. Required.
CPGU	126-129	X(4)	MPID of the Contra Party Give Up. Required when there is a give up involved on the contra side of the trade (may only be submitted on a Locked-In trade report).
Contra Clearing Number	130-133	9(4)	Contra Party's clearing number, or ♭ (blank). Optional, may only be submitted on a Locked-In trade report.
Contra Party Capacity	134-134	X(1)	P = Principal, A = Agent. Required only for Locked-In trade reports. Space-fill on non-Locked-In trades.
RPID	135-138	X(4)	MPID of the Reporting Party. Required.
RPGU	139-142	X(4)	MPID of the Reporting Party's Give Up. Required when applicable.
Reporting Clearing Number	143-146	9(4)	Reporting Party clearing number, or ♭(blank). Optional.
Reporting Party Capacity	147-147	X(1)	P = Principal, A = Agent. Required.
When Issued Indicator	148-148	X(1)	Indicates whether the trade was executed before the issuance of the security, i.e., "when issued" trading. Y = When Issued; ♭ (blank) = regular.
As-Of Indicator	149-149	X(1)	Y = As-Of trade (T+n); ♭ (blank) = T-Date entry
Execution Date	150-157	9(8)	MMDDYYYY format. If left blank, this indicates current day trade. If a date other than the current date is entered (and is prior to the current date), the trade must be marked as an As-Of trade (As-Of Indicator = Y).
Execution Time	158-169	9(12)	Execution Time in HHMMSSsssmmm format. HH = Hours; MM = Minutes; SS = Seconds; sss = milliseconds; mmm = microseconds. Required.
Memo	170-179	X(10)	User Memo (Will not be displayed to Contra party) Optional.
Special Price Indicator	180-180	X(1)	Y=Special Price, ♭ (blank) = Not Special Price.
Special Price Reason	181-230	X(50)	User Memo indicating reason for Special Price (may be displayed to Contra party), Required when the Special Price Indicator (Y) is submitted.
Branch Sequence	231-238	X(8)	Optional field, 8 alphanumeric.
Contra Branch Sequence	239-246	X(8)	Optional field, 8 alphanumeric (can only be submitted on Locked-In trade reports).
Settlement Date	247-254	9(8)	MMDDYYYY format; Required for all transactions.
Locked-In Indicator	255-255	X(1)	Y or ♭ (blank). Y indicates that the firm entering the trade is reporting for both sides of the trade. This occurs when two of its give-ups trade with each other or the firm trades with one of its own give-ups. Locked-In trades must be

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Field Name	Position	Format	Contents/Comments
			submitted as Sells (B/S Indicator = "S").
Preparation Time	256-261	9(6)	Time of trade submission in HHMMSS format. Optional.
CR LF			Carriage Return, Line Feed

How to Report Agent Capacity Transactions

In order to capture a complete audit trail for regulatory use, agent capacity transactions need to be reported in the same way that principal capacity transactions are reported. What this means is that if your firm acts as agent for your customer, the trade reports you must submit will "look" like you stood between your customer and the contra party.

For example, Firm XYZ receives an order from a customer to sell $10,000 of a Treasury bond. Acting as the customer's agent, XYZ sells the security to ABC. Although, technically the customer sold the security to ABC with XYZ acting as their agent, the reports from XYZ would be made as follows:

> *Report #1: XYZ BUY 10,000 ABS from C as Agent @ 98 and charged $50 commission*
> *Report #2: XYZ SELL 10,000 ABS to ABC as Agent @98.*

Notice that even though XYZ SOLD the security FOR their customer, they actually reported a BUY FROM the customer, followed by a SELL TO ABC. This is how a principal trade would be reported as well. Be aware that the trade tickets your firm generates for agent trades will most likely be different from the report you must submit. In the example above, you would probably have only a single SELL ticket, showing the customer vs. ABC, yet in TRACE you are reporting a BUY FROM the customer, followed by a SELL TO ABC.

Give-Up Trades and Locked-In Trades

A "Give-Up" trade report is reported by one FINRA Member on behalf of another FINRA Member who had a reporting responsibility. In order to do this, an executed TRACE Service Bureau/Executing Broker Supplement (Attachment B of the TRACE Participation Agreement) is required for every firm for which the reporting firm will submit. A simple example of a Give-Up Trade would be a clearing firm that reports on behalf of its correspondent firms. The clearing firm reports the trade, entering the clearing firm's MPID in the Reporting Party ID (RPID) field, and enters the MPID of the correspondent in the Reporting Party Give Up field (RPGU). The trade report will be considered to have come from the correspondent for regulatory and billing purposes.

Alternative Trading Systems (ATSs) and Electronic Communications Networks (ECNs), and even clearing firms have the ability to match buy and sell orders, and create "locked-in" executions ready for settlement that require no further comparison by the involved parties. TRACE does not forward trade reports to DTCC for settlement, however for the purposes of satisfying the FINRA Rules that require both sides of a trade to report their transaction to TRACE, a "locked-in" feature is provided that allows authorized firms to comply with the Rule.

ATSs and ECNs that are FINRA members (as opposed to those registered as an exchange) have the ability to report on behalf of multiple parties using a single trade report to TRACE and indicate that the trade is "locked-in" by using the Locked-In Indicator and entering both an RPGU and a CPGU. A clearing firm that executes a trade with one of its correspondents can likewise submit a "locked-in" trade, which covers both

sides' reporting requirement. In order to submit locked-in trades, the same TRACE Service Bureau/Executing Broker Supplement agreements are required for every firm for which the ATS/ECN or clearing firm will submit trade reports. Depending on the scenario, a "One-sided" or "Two-sided" Lock-In can be submitted.

See the chart below for an explanation of how to report Give-Up and Locked-In trade reports.

Scenario 1	How To Report
Simple Give-Up Clearing firm just reporting a trade for one of its correspondents.	• The clearing firm enters their own MPID in the RPID field, and the MPID of the correspondent in the "RPGU" field. • The clearing firm enters the MPID of the contra party in the CPID field. • Marks the trade as a Buy or Sell, based on whether the correspondent firm bought or sold. • Marks the P/A indicator as either Principal or Agent, depending on what capacity the correspondent acted. • Enters all other data that applied to the correspondent's trade. • The Locked-In Indicator **must be left blank**.

FINRA will expect the contra party to submit their version of the trade to TRACE, identifying the correspondent as their CPID (unless the correspondent traded with a non-FINRA member, i.e., customer trade).

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Scenario 2	How To Report
One-sided Lock-In A clearing firm executes a trade with one of its correspondents, creating a "locked-in" trade with the correspondent. OR A FINRA member ATS/ECN matches a Buy and a Sell order from FINRA member firms using its system which causes two executions to occur, and creates two "locked-in" trades. Each counterparty knows the ATS/ECN as its contra, i.e., the ATS/ECN provides anonymity through settlement. Two Locked-In trades would be reported.	• The clearing firm (or ATS/ECN) enters its own MPID in both the RPID and the CPID fields (which makes it look like the clearing firm or ATS/ECN is trading with itself). • Marks the trade as a Sell, always reporting the trade information from the Seller's perspective. • Puts the MPID of the correspondent in the proper Give Up field, depending on whether the correspondent is the seller or buyer in the trade (e.g., if the correspondent is the seller, then the correspondent's MPID is entered in the RPGU. If the correspondent is the buyer, then the correspondent's MPID is entered in the CPGU). • Marks the capacity indicators for both itself and the correspondent. Since a Locked-In trade must always be reported as a Sell, if the clearing firm Sold, then the clearing firm marks its capacity in the Reporting Party Capacity field and the correspondent's capacity in the Contra Party Capacity field. • Enters all other trade data. • Sets the Locked-In Indicator to Y.

Although the One-sided Locked-In trade report is submitted as a Sell, it satisfies both sides' trade reporting requirement. Therefore a Buy trade report is not required.

Scenario 3	How To Report
Two-sided Lock-In A clearing firm is reporting on behalf of two fully disclosed correspondent firms that traded with each other. OR A FINRA member ATS/ECN matches a Buy and a Sell order from FINRA member firms using the ATS/ECN system, which causes an execution to occur, and generates a "locked-in" trade in which the two counterparties ARE DISCLOSED TO ONE ANOTHER.	• The clearing firm or ATS/ECN enters its own MPID in both the RPID and the CPID fields. • Marks the trade as Sell. The report is made from the point of view of the correspondent who SOLD. • Puts the MPID of the Selling correspondent in the RPGU field. • Puts the MPID of the Buying correspondent in the CPGU field. • Marks the appropriate capacity indicators for both correspondents in the Reporting Party and Contra Party Capacity fields. • Enters all other trade data. • Sets the Locked-In Indicator to Y.

Although the Two-sided Locked-In trade report is submitted as a Sell, it satisfies both sides' trade reporting requirement. Therefore a Buy trade report is not required. Both correspondents recognize the other as their contra party.

3.2 Trade Cancel Entry

Firms will use this message to cancel a TRACE trade entry which was previously reported. TRACE will forward a TSCX (Cancel confirmation) message to both parties of the trade to advise them that the specified trade is updated to Cancel status. The Cancel function can be used when a trade was submitted on the current or prior two business days (up to and including T-~~1~~2).

CANCEL TRADE MESSAGE FORMAT

Field Name	Position	Format	Contents/Comments
Line 2			
Function	1-1	X(1)	**X** = RP cancels its own trade which it entered previously. Required.
TRACE Control Date	2-9	9(8)	Control Date associated with the trade to be canceled (returned on the TRACE acknowledgement of the original submission). This field is **required** regardless of a firm using either their Client Trade Identifier or the TRACE Control Number. Format = YYYYMMDD.
TRACE Control Number	10-19	9(10)	Control Number associated with the trade to be canceled (returned on the TRACE acknowledgement of the original submission), If the Control Number is used to cancel a trade, the Client Trade Identifier may be space-filled. If both reference numbers are entered, TRACE will process the Cancel based on the Control Number.
Client Trade Identifier	20-39	X(20)	Reference number assigned by the user to the original trade report. Optional. Firms may use their Client Trade Identifier to cancel the original submission. If the Client Trade Identifier is used to cancel a trade, the TRACE Control Number may be space-filled. If both reference numbers are entered, TRACE will process the Cancel based on the Control Number. If duplicate Client Trade Identifiers are found for the same Control Date, the Cancel Entry will be rejected and the TRACE Control Number must then be submitted to effect the cancel.
Symbol	40-53	X(14)	TRACE symbol submitted on the original trade to be canceled. Either CUSIP or Symbol are **required** when a firm uses their Client Trade Identifier to cancel the trade. If a firm uses the Control Number to cancel a trade, this field must be blank.
CUSIP	54-62	X(9)	CUSIP submitted on the original trade to be canceled. Either CUSIP or Symbol are **required** when a firm uses their Client Trade Identifier to cancel the trade. If a firm uses the Control Number to cancel a trade, this field must be blank.
RPID	63-66	X(4)	Reporting Party ID submitted on the original trade to be

			canceled. This field is **required**.
CR LF			Carriage Return, Line Feed

3.3 Trade Reversal Entry

Firms will use this message to cancel a TRACE trade entry which was originally reported prior to the rolling T-~~1~~2 day period. TRACE will forward a TSHX (Reversal confirmation) message to both parties of the trade to advise them that the specified trade is updated to Cancel status. The Reversal function cannot be used when a trade was submitted on the current or prior two business days (T-~~1~~2).

Firms wishing to correct a trade entry which was originally reported prior to the rolling T-~~1~~2 day period must submit the combination of a Reversal, followed by a new As-Of Trade Report (Function T) that contains the correct trade details.

Firms must use TRACE Control Date and Control Number of the original trade report to effect a Reversal. Use of the Client Trade Identifier to effect a Reversal is not supported.

TRADE REVERSAL MESSAGE FORMAT

Field Name	Position	Format	Contents/Comments
Line 2			
Function	1-1	X(1)	**Y** = RP cancels its own trade which it entered previously. Required.
Original TRACE Control Date	2-9	9(8)	Enter the Control Date associated with the trade to be canceled (returned on the TRACE acknowledgement of the original submission), This field is **required.** Format = YYYYMMDD.
Original TRACE Control Number	10-19	9(10)	Enter the Control Number associated with the trade to be canceled (returned on the TRACE acknowledgement of the original submission), This field is **required**.
Special Processing Flag	20-20	X(1)	Enter the value submitted in the original trade report; otherwise the field may be left blank.
B/S Indicator	21-21	X(1)	Enter the value submitted in the original trade report. Required.
Client Trade Identifier	22-41	X(20)	Enter the reference number submitted in the original trade report, if applicable.
Contra Client Trade Identifier	42-61	X(20)	Enter the reference number submitted in the original trade report, if applicable (on Locked-In trade reports).
Quantity	62-74	9(13)	Enter the trade amount submitted in the original trade report, Required.
Symbol	75-88	X(14)	Enter the Symbol submitted in the original trade report, if applicable. Either Symbol or CUSIP must be provided.
CUSIP	89-97	X(9)	Enter the CUSIP submitted in the original trade report, if applicable. Either CUSIP or Symbol must be provided.
Price	98-112	9(15)	Enter the price submitted in the original trade report, Required.
Price Type	113-113	X(1)	Enter the price type submitted in the original trade report, Required.
Price Override	114-114	X(1)	Enter "O" to indicate whether the original trade report was submitted with a price override; otherwise the field may be left blank.
Seller's Commission	115-122	9(8)	Enter the seller's commission submitted in the original trade report, if applicable.
Buyer's Commission	123-130	9(8)	Enter the buyer's commission submitted in the original trade report, if applicable.

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No Remuneration Indicator	131-131	X(1)	Enter the value "N" if submitted in the original trade report, otherwise the field must be blank.
ATS Execution MPID	132-135	X(4)	Enter the 4-character MPID of the ATS if submitted in the original trade report, otherwise the field must be blank.
Trade Modifier 1	136-136	X(1)	Reserved for future use. Must be blank on input.
Trade Modifier 2	137-137	X(1)	Reserved for future use. Must be blank on input.
Trade Modifier 3	138-138	X(1)	MUST BE BLANK ON INPUT. Do not enter the Extended hours/Late sale condition modifier generated by TRACE on the original trade report.
Trade Modifier 4	139-139	X(1)	Enter the modifier value submitted in the original trade report, if applicable, otherwise the field may be left blank.
CPID	140-143	X(4)	Enter the CPID submitted in the original trade report, Required.
CPGU	144-147	X(4)	Enter the CPGU submitted in the original trade report, if applicable (on Locked-In trade reports). Otherwise, the field must be blank.
Contra Clearing Number	148-151	9(4)	Enter the Contra Clearing ID submitted in the original trade report, if applicable (on Locked-In trade reports). Otherwise, the field must be blank.
Contra Party Capacity	152-152	X(1)	Enter the Contra Capacity submitted in the original trade report (on Locked-In trade reports). Otherwise, the field must be blank.
RPID	153-156	X(4)	Enter the RPID submitted in the original trade report, Required.
RPGU	157-160	X(4)	Enter the RPGU submitted in the original trade report, if applicable. Otherwise, the field must be blank.
Reporting Clearing Number	161-164	9(4)	Enter the Reporting Party Clearing ID submitted in the original trade report, if applicable. Otherwise, the field must be blank.
Reporting Party Capacity	165-165	X(1)	Enter the Reporting Party Capacity submitted in the original trade report. Required.
When Issued Indicator	166-166	X(1)	Enter the When Issued Indicator submitted in the original trade report, if applicable. Otherwise, the field must be blank.
As-Of Indicator	167-167	X(1)	Value must always be "**Y**" for all Reversals.
Execution Date	168-175	9(8)	Enter the trade date of the original trade report in MMDDYYYY format. If the original trade report was submitted with a blank execution date to indicate a current day trade on that submission date, Execution Date must be entered for the Reversal. Required.
Execution Time	176-187	9(12)	Enter the Execution Time submitted in the original trade report. Required.
Memo	188-197	X(10)	Enter the Memo submitted in the original trade report, if applicable. Otherwise, the field must be blank.
Special Price Indicator	198-198	X(1)	Enter "Y" to indicate whether the original trade report was submitted with a special price indicator; otherwise the field may be left blank.
Special Price Reason	199-248	X(50)	Enter the Special Price Reason submitted in the original trade report if Special Price Indicator ("Y") was submitted. Otherwise, the field must be blank.
Branch Sequence	249-256	X(8)	Enter the Branch Sequence submitted in the original trade

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			report, if applicable. Otherwise, the field must be blank.
Contra Branch Sequence	257-264	X(8)	Enter the Contra Branch Sequence submitted in the original trade report (on Locked-In trade reports). Otherwise, the field must be blank.
Settlement Date	265-272	9(8)	Enter the Settlement Date submitted in the original trade report. Required.
Locked-In Indicator	273-273	X(1)	Enter the Locked In Indicator submitted in the original trade report, if applicable. Otherwise, the field must be blank.
Preparation Time	274-279	9(6)	Preparation time of this reversal message.
CR LF			Carriage Return, Line Feed

3.4   Trade Correction Entry

Firms will use this message to correct a TRACE trade entry which was previously reported. TRACE will forward a TSCR (Correction confirmation) message to both parties of the trade to advise them that the specified trade is updated to Corrected status. The Correction function can be used when a trade was submitted on the current or prior two business days (up to and including T-~~1~~2).

Firms may correct any field previously submitted in the original trade entry, with the exception of CUSIP or Symbol. If a firm wishes to change the reported security, the original trade must be cancelled, followed with a new trade entry replacing the original trade, containing the corrected CUSIP or Symbol. In addition, Execution Date may only be corrected under certain conditions.

Note: All fields not being changed must be submitted as it was on the original submission, including those whose content is indicated as optional, (blank fields are to be space filled and unused positions are to be space or zero filled wherever applicable).   The TRACE System will assign a new control date and control number to the Correction Entry.

Positions 2-66 of the Correction Entry identify the trade that is being corrected. Positions 67-361 represent the trade details being resubmitted.

TRADE CORRECTION ENTRY FORMAT

Field Name	Position	Format	Contents/Comments
Line 2			
Function	1-1	X(1)	**R** = CORRECTION Trade Entry. Required.
TRACE Control Date	2-9	9(8)	Control Date associated with the trade to be corrected (returned on the TRACE acknowledgement of the original submission), This field is **required** regardless of a firm using either their Client Trade Identifier or the TRACE Control Number. Format = YYYYMMDD.
TRACE Control Number	10-19	9(10)	Control Number associated with the trade to be corrected (returned on the TRACE acknowledgement of the original submission), If the Control Number is used to correct a trade, the Client Trade identifier may be space-filled. If both reference numbers are entered, TRACE will process the Correction based on the Control Number.
Original Client Trade Identifier	20-39	X(20)	Reference number assigned by the user to the original trade report. Optional. Firms may use their Client Trade Identifier to correct the original submission. If the Client Trade Identifier is used to correct a trade, the TRACE Control Number may be space-filled. If both reference numbers are entered, TRACE will process the Correction based on the Control Number. If duplicate Client Trade Identifiers are found for the same Control Date, the Correction Entry will be rejected and the TRACE Control Number must then be submitted to effect the correction.
Original Symbol	40-53	X(14)	TRACE symbol submitted on the original trade being corrected. Either the original Symbol or the original CUSIP is **required** when a firm uses their Client Trade Identifier to correct the trade. If a firm uses the Control Number to correct a trade, this field may be space-filled.
Original CUSIP	54-62	X(9)	CUSIP submitted on the original trade being corrected. Either the original CUSIP or the original Symbol is

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Field Name	Position	Format	Contents/Comments
			required when a firm uses their Client Trade Identifier to correct the trade. If a firm uses the Control Number to correct a trade, this field may be space-filled.
Original RPID	63-66	X(4)	Reporting Party ID submitted on the original trade being corrected. This field is **required** when a firm uses their Client Trade Identifier to correct the trade. If a firm uses the Control Number to correct a trade, this field may be space-filled.
Special Processing Flag	67-67	X(1)	Enter original or corrected value.
B/S Indicator	68-68	X(1)	Enter original or corrected value.
Client Trade Identifier	69-88	X(20)	Enter original or corrected value.
Contra Client Trade Identifier	89-108	X(20)	Enter original or corrected value.
Quantity	109-121	9(13)	Enter original or corrected value.
Symbol	122-135	X(14)	Enter original or corrected value.
CUSIP	136-144	X(9)	Enter original or corrected value.
Price	145-159	9(15)	Enter original or corrected value.
Price Type	160-160	X(1)	Enter original or corrected value.
Price Override	161-161	X(1)	Enter original or corrected value.
Seller's Commission	162-169	9(8)	Enter original or corrected value.
Buyer's Commission	170-177	9(8)	Enter original or corrected value.
No Remuneration Indicator	178-178	X(1)	Enter original or corrected value.
ATS Execution MPID	179-182	X(4)	Enter original or corrected value.
Trade Modifier 1	183-183	X(1)	Enter original or corrected value .
Trade Modifier 2	184-184	X(1)	Enter original or corrected value.
Trade Modifier 3	185-185	X(1)	Enter original or corrected value.
Trade Modifier 4	186-186	X(1)	Enter original or corrected value.
CPID	187-190	X(4)	Enter original or corrected value.
CPGU	191-194	X(4)	Enter original or corrected value.
Contra Clearing Number	195-198	9(4)	Enter original or corrected value.
Contra Party Capacity	199-199	X(1)	Enter original or corrected value.
RPID	200-203	X(4)	Enter original value.
RPGU	204-207	X(4)	Enter original or corrected value.
Reporting Clearing Number	208-211	9(4)	Enter original or corrected value.
Reporting Party Capacity	212-212	X(1)	Enter original or corrected value.
When Issued Indicator	213-213	X(1)	Enter original or corrected value.
As-Of Indicator	214-214	X(1)	Enter original or corrected value.
Execution Date	215-222	9(8)	Enter original or corrected value.
Execution Time	223-234	9(12)	Enter original or corrected value.
Memo	235-244	X(10)	Enter original or corrected value.
Special Price Indicator	245-245	X(1)	Enter original or corrected value.
Special Price Reason	246-295	X(50)	Enter original or corrected value.
Branch Sequence	296-303	X(8)	Enter original or corrected value.
Contra Branch Sequence	304-311	X(8)	Enter original or corrected value.
Settlement Date	312-319	9(8)	Enter original or corrected value.
Locked-In Indicator	320-320	X(1)	Enter original or corrected value.

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Field Name	Position	Format	Contents/Comments
Preparation Time	321-326	9(6)	Enter original or corrected value.
CR LF			Carriage Return, Line Feed

4.0 OUTPUT MESSAGES

Input messages received from TRACE subscribers will be forwarded to the TRACE System for processing through NASDAQ. Identical to currently existing CTCI applications (e.g., TRACE Corporates and Agencies), NASDAQ will perform validations for each TRACE input message received. NASDAQ will always generate a response back to the originator for each input message received. The response can be a positive acknowledgment if the input messages pass the NASDAQ validation or a negative acknowledgment (rejection) if the input messages fail validation.

All output messages (NASDAQ or application output messages) forwarded by NASDAQ to an output destination (i.e., subscriber station) will be contained in the Output Message Envelope format.

4.1 TRACE Application Output Messages

A TRACE input message that successfully passes NASDAQ validations is forwarded to the TRACE 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 TRACE accepts the input message, the TRACE 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 TRACE Application Processor will be forwarded to the subscriber via NASDAQ in Output Message format if the subscriber is employing a CTCI and will be contained in an Output Message Envelope. Note that if the rejected text is too large, the Trailer will overlay the text such that the block does not exceed 1024 characters.

There is no guarantee that TRACE messages will be received in a logical sequence. Subscribers should take this into consideration in their design.

4.2 Reject Message Format

If the TRACE application cannot process a message received from the subscriber, it will generate a Status Message for the originator which indicates why the message was rejected. The Status Message will be received by the originator as the text portion of a Standard NASDAQ Output Message. The text (Status Message) is described below.

Line 1:

Originator	This is an optional line that may contain the
MPID -	four character MPID of the entering firm, or the MPID of the firm the Service Bureau is acting for. If this option is utilized for multistation lines, it will equal the four character MPID associated with the station (select/poll address).
CR LF -	Required line delimiter.

Line 2:

Category -	This field identifies the message category and will contain "STATUS".
CR LF -	Required line delimiter.

Line 3:
This line contains ("REJ - Reason for Rejection"). The maximum reject reason is 75 bytes. If the message is shorter than 75 bytes, the reject reason will be followed by CR LF.

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CR LF -	Required line delimiter.

Line 4:

Branch Office Code and Sequence Number	This line of the Status Message contains the one to eight alphabetic character Branch Office Code Sequence Number which appears on line 1 of the input message, if one was submitted. In addition, a time field (HH:MM:SS) will be sent on this line. If a Branch Office Code Sequence Number were not entered in the input message, Line 4 contains only the time message.
CR LF -	Required line delimiter.

Line 5:

	This line contains an echo of the original input message being rejected.
CR LF -	Required line delimiter.

TRACE REJECT MESSAGE FORMAT

> Line 1: MPID cr lf
> Line 2: STATUS cr lf
> Line 3: REJ - (Reject Reason) cr lf
> Line 4: BRIDSQNO HH:MM:SS cr lf
> Line 5: (Text of original input message) cr lf

4.3   TRACE UM Notification Message

If a TRACE input message (i.e., Trade Entry, Cancel, Reversal or Correction) is accepted by the TRACE application (i.e., it passes all validations), an appropriate UM Notification Message will be forwarded to the proper TRACE subscriber. The TRACE UM Notification Messages contain sufficient data to enable subscribers to build their own TRACE Image Files to perform trade reporting procedures. If the firm selected header options but has not specified customized headers, then the default message header origin will be TSRXXX where XXX represents 1 - 3 alphanumeric characters reserved for Nasdaq's use, 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 NASDAQ Output Message and is described below:

Line 1:

OTHER MPID -	Receiving firm MPID.
CR LF -	Required line delimiter.

Line 2:

TRACE Message Type -	This field identifies the TRACE UM Notification message header and will contain the type of message being sent.

Line 3:

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

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4.4   Message Format Definitions

TSEN -   denotes a TRACE Treasury Securities Entry Acknowledgment Message. When firm enters an original or As-of trade and the trade is accepted by TRACE, this message will be forwarded to the originator.

TSAL -   denotes a TRACE Treasury Securities Entry Allege Notification Message. When a firm enters an original or As-of trade and the trade is accepted by TRACE, this message will be forwarded to the contra party.

Note: If a subscriber chooses to build a TRACE Image File, which contains all trades entered by the firm or trades other firms entered against the firm, then respective TSEN and TSAL messages should be used to build it. Other TRACE UM messages described below will be used to update the statuses and/or contents of these trades.

TSCX -   denotes a TRACE Treasury Securities Cancel UM Notification Message. If a trade submitted on the current or prior business day, this message will be forwarded to both parties.

TSHX -   denotes a TRACE Treasury Securities Reversal UM Notification Message. If a trade submitted on the current or prior business day is canceled (i.e., reversed), this message will be forwarded to both parties.

TSCR-   denotes a TRACE Treasury Securities Correction UM Notification Message. If a trade submitted on the current or prior business day is corrected, this message will be forwarded to both parties.

5.0 TRADE REPORTING OUTPUT MESSAGES

5.1   Acknowledgment Message (TSEN)

TSEN: Denotes a TRACE Treasury Securities Entry Acknowledgment Notification Message. When a firm enters a TRACE trade entry and the entry is accepted by TRACE, this message will be forwarded to the originator. This message is formatted as follows:

LINE 1:	OTHER MPID Cr Lf
LINE 2:	TSEN Cr Lf
LINE 3:	Control Date Control Number (Trade Text) Cr Lf

Where:

MPID -   Receiving firm MPID

Control Date -   The date the TRACE system received and processed the submission. The Control Date is required, in combination with the Control Number, to uniquely identify the record in the TRACE File for subsequent processing (cancels and corrections).

Control Number -   The ten digit control number which the TRACE System had assigned to the TRACE trade when it was accepted by the TRACE System. The Control Number is required, in combination with the Control Date, to uniquely identify the record in the TRACE File for subsequent processing.

Trade Text -   This field contains the TRACE trade and will be formatted as a TRACE Trade Entry Message.

Cr Lf -   Required line delimiter.

Note 1: Valid TRACE statuses are:
T -   Trades entered for Trade Reporting

TRACE Trade Entry Acknowledgment - (TSEN)

Field Name	Position	Format	Contents/Comments
Line 3			
Control Date	1-8	9(8)	Date referencing when the system processed the trade report. YYYYMMDD format.
Control Number	9-18	9(10)	System assigned reference number.
Trade Status	19-19	X(1)	Status of trade. T = accepted trade entry.
Special Processing Flag	20-20	X(1)	Reflects user input: P, A or blank.
B/S Indicator	21-21	X(1)	Reflects user input: B or S.
Client Trade Identifier	22-41	X(20)	Reflects user input: User assigned reference number or blank.
Contra Client Trade Identifier	42-61	X(20)	Reflects user input: User assigned reference number on the contra side (on Locked-In trade reports) or blank.
Quantity	62-74	9(13)	Reflects user input: Dollar amount of the trade.
Symbol	75-88	X(14)	Reflects user input: TRACE issue symbol or blank.
CUSIP	89-97	X(9)	Reflects user input: CUSIP or blank.
Price	98-112	9(15)	Reflects user input: Trade price.
Price Type	113-113	X(1)	Reflects user input: D, Y or N.
Price Override	114-114	X(1)	Reflects user input: O or blank.
Seller's Commission	115-122	9(8)	Reflects user input: Dollar amount or blank.
Buyer's Commission	123-130	9(8)	Reflects user input: Dollar amount or blank.
No Remuneration Indicator	131-131	X(1)	Reflects user input: N or blank.
ATS Execution MPID	132-135	X(4)	Reflects user input: ATS MPID or blank.
Trade Modifier 1	136-136	X(1)	Reserved for future use. Blank on output.
Trade Modifier 2	137-137	X(1)	Reserved for future use. Blank on output.
Trade Modifier 3	138-138	X(1)	Extended hours/Late sale conditions. System generated on the outbound acknowledgements: Blank = no system generated modifier T = Trade reported after market hours U = Trade reported after market hours and reported late Z = Trade reported during market hours and reported late
Trade Modifier 4	139-139	X(1)	Reflects user input: W, S, B or blank.
CPID	140-143	X(4)	Reflects user input: MPID of the Contra Party (or C for Customer or A for Affiliate).
CPGU	144-147	X(4)	Reflects user input: MPID of the Contra Party Give Up or blank (MPID may only be submitted on a Locked-In trade report).
Contra Clearing Number	148-151	9(4)	Reflects user input: Contra Party's clearing number or blank (may only be submitted on a Locked-In trade report).
Contra Party Capacity	152-152	X(1)	Reflects user input: P or A (only for Locked-In trade reports) or blank on non-Locked-In trade reports.
RPID	153-156	X(4)	Reflects user input: MPID of the Reporting Party.
RPGU	157-160	X(4)	Reflects user input: MPID of the Reporting Party's Give Up or blank.
Reporting Clearing Number	161-164	9(4)	Reflects user input: Reporting Party clearing number or blank.
Reporting Party Capacity	165-165	X(1)	Reflects user input: P or A.
When Issued Indicator	166-166	X(1)	Reflects user input: Y or blank.
As-Of Indicator	167-167	X(1)	Reflects user input: Y or blank.
Execution Date	168-175	9(8)	Reflects user input: MMDDYYYY date or blank.

Field Name	Position	Format	Contents/Comments
Execution Time	176-187	9(12)	Reflects user input: Time in HHMMSSsssmmm.
Memo	188-197	X(10)	Reflects user input: User Memo (Will not be displayed to Contra party) or blank.
Special Price Indicator	198-198	X(1)	Reflects user input: Y or blank.
Special Price Reason	199-248	X(50)	Reflects user input: User Memo indicating reason for Special Price (may be displayed to Contra party) or blank.
Branch Sequence	249-256	X(8)	Reflects user input: branch sequence number or blank.
Contra Branch Sequence	257-264	X(8)	Reflects user input: Contra Party's branch sequence number or blank (may only be submitted on a Locked-In trade report).
Settlement Date	265-272	9(8)	Reflects user input: MMDDYYYY date.
Locked-In Indicator	273-273	X(1)	Reflects user input: Y or blank.
Preparation Time	274-279	9(6)	Reflects user input: Time in HHMMSS.
CR LF			Carriage Return, Line Feed

5.2   Allege Messages (TSAL)

TRACE Trade Entry Allege Message (TSAL)

TSAL: Denotes a TRACE Entry Allege Notification Message. When a firm enters a TRACE trade entry and the entry is accepted by TRACE, this message will be forwarded to the contra party. This message is formatted as follows:

LINE 1:   OTHER MPID Cr Lf
LINE 2:   TSAL Cr Lf
LINE 3:   Control Date Control Number (Trade Text) Cr Lf

Where:

MPID -   Receiving firm MPID
Control Date -   The date the TRACE system received and processed the submission.
Control Number -   The ten digit control number which the TRACE System had assigned to the TRACE trade when it was accepted by the TRACE System.
Trade Text -   This field contains the TRACE trade and will be formatted as a TRACE Trade Entry Message.
 Cr Lf -   Required line delimiter.

Note 1: Valid TRACE statuses are:
R -   On a Correction to the contra party (when the Reporting Party has amended the CPID, the new contra party will receive a TSAL with the Status code "R").

T -   On a new Trade report, the alleged contra party will receive a TSAL with the Status code "T".

TRACE Trade Entry Allege Message -   (TSAL)

Field Name	Position	Format	Contents/Comments
Line 3			
Control Date	1-8	9(8)	Date referencing when the system processed the trade report. YYYYMMDD format.
Control Number	9-18	9(10)	System assigned reference number.
Trade Status	19-19	X(1)	Status of trade. T = accepted trade entry.
Special Processing Flag	20-20	X(1)	Reflects user input: P, A or blank.
B/S Indicator	21-21	X(1)	Reflects user input: B or S.
Client Trade Identifier	22-41	X(20)	Reflects user input: User assigned reference number or blank.
Contra Client Trade Identifier	42-61	X(20)	Reflects user input: User assigned reference number on the contra side (on Locked-In trade reports) or blank.
Quantity	62-74	9(13)	Reflects user input: Dollar amount of the trade.
Symbol	75-88	X(14)	Reflects user input: TRACE issue symbol or blank.
CUSIP	89-97	X(9)	Reflects user input: CUSIP or blank.
Price	98-112	9(15)	Reflects user input: Trade price.
Price Type	113-113	X(1)	Reflects user input: D, Y or N.
Price Override	114-114	X(1)	Reflects user input: O or blank.
Seller's Commission	115-122	9(8)	Reflects user input: Dollar amount or blank.
Buyer's Commission	123-130	9(8)	Reflects user input: Dollar amount or blank.
No Remuneration Indicator	131-131	X(1)	Reflects user input: N or blank.
ATS Execution MPID	132-135	X(4)	Reflects user input: ATS MPID or blank.
Trade Modifier 1	136-136	X(1)	Reserved for future use. Blank on output.
Trade Modifier 2	137-137	X(1)	Reserved for future use. Blank on output.
Trade Modifier 3	138-138	X(1)	Extended hours/Late sale conditions. System generated on the outbound acknowledgements: Blank = no system generated modifier T = Trade reported after market hours U = Trade reported after market hours and reported late Z = Trade reported during market hours and reported late
Trade Modifier 4	139-139	X(1)	Reflects user input: W, S, B or blank.
CPID	140-143	X(4)	Reflects user input: MPID of the Contra Party (or C for Customer or A for Affiliate).
CPGU	144-147	X(4)	Reflects user input: MPID of the Contra Party Give Up or blank (MPID may only be submitted on a Locked-In trade report).
Contra Clearing Number	148-151	9(4)	Reflects user input: Contra Party's clearing number or blank (may only be submitted on a Locked-In trade report).
Contra Party Capacity	152-152	X(1)	Reflects user input: P or A (only for Locked-In trade reports) or blank on non-Locked-In trade reports.
RPID	153-156	X(4)	Reflects user input: MPID of the Reporting Party.
RPGU	157-160	X(4)	Reflects user input: MPID of the Reporting Party's Give Up or blank.
Reporting Clearing Number	161-164	9(4)	Reflects user input: Reporting Party clearing number or blank.
Reporting Party Capacity	165-165	X(1)	Reflects user input: P or A.
When Issued Indicator	166-166	X(1)	Reflects user input: Y or blank.
As-Of Indicator	167-167	X(1)	Reflects user input: Y or blank.
Execution Date	168-175	9(8)	Reflects user input: MMDDYYYY date or blank.

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Field Name	Position	Format	Contents/Comments
Execution Time	176-187	9(12)	Reflects user input: Time in HHMMSSsssmmm.
Memo	188-197	X(10)	User Memo will not be displayed to Contra party. Field will be blank.
Special Price Indicator	198-198	X(1)	Reflects user input: Y or blank.
Special Price Reason	199-248	X(50)	Reflects user input: User Memo indicating reason for Special Price (may be displayed to Contra party) or blank.
Branch Sequence	249-256	X(8)	Reflects user input: branch sequence number or blank.
Contra Branch Sequence	257-264	X(8)	Reflects user input: Contra Party's branch sequence number or blank (may only be submitted on a Locked-In trade report).
Settlement Date	265-272	9(8)	Reflects user input: MMDDYYYY date.
Locked-In Indicator	273-273	X(1)	Reflects user input: Y or blank.
Preparation Time	274-279	9(6)	Reflects user input: Time in HHMMSS.
CR LF			Carriage Return, Line Feed

5.3 *Cancel Trade Acknowledgment (TSCX)*

Control Date -   The date the TRACE system received and processed the submission. The Control Date is required, in combination with the Control Number, to uniquely identify the record in the TRACE File for subsequent processing (cancels and corrections).

Control Number -   The ten digit control number which the TRACE System had assigned to the TRACE trade when it was accepted by the TRACE System. The Control Number is required, in combination with the Control Date, to uniquely identify the record in the TRACE File for subsequent processing.

Client Trade Identifier -   The twenty character alphanumeric reference assigned by the user to the original trade report.

CR LF -   Required line delimiter.

TRACE UM NOTIFICATION MESSAGE – TSCX

LINE 1:   OTHER MPID cr lf
LINE 2:   TSCX cr lf
LINE 3:   (Control Date) (Control Number) (Client Trade Identifier) cr lf

Cancel Trade Acknowledgment (TSCX)

Field Name	Position	Format	Contents/Comments
Line 3			
Control Date	1-8	9(8)	Control Date associated with the canceled TRACE record (YYYYMMDD)
Control Number	9-18	9(10)	Control Number associated with the canceled TRACE record
Client Trade Identifier	19-38	X(20)	User assigned Client Trade Identifier associated with the canceled TRACE record
CR LF			Carriage Return, Line Feed

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5.4 *Trade Reversal Acknowledgment (TSHX)*

Control Date - The date the TRACE system received and processed the submission. The Control Date is required, in combination with the Control Number, to uniquely identify the record in the TRACE File for subsequent processing (cancels and corrections).

Control Number - The ten digit control number which the TRACE System had assigned to the TRACE trade when it was accepted by the TRACE System. The Control Number is required, in combination with the Control Date, to uniquely identify the record in the TRACE File for subsequent processing.

CR LF - Required line delimiter.

TRACE UM NOTIFICATION MESSAGE – TSHX

LINE 1:   OTHER MPID cr lf
LINE 2:   TSHX cr lf
LINE 3:   (Control Date) (Control Number) (Trade Text) cr lf

Trade Reversal Acknowledgment (TSHX)

Field Name	Position	Format	Contents/Comments
Line 3			
TRACE Control Date	1-8	9(8)	Control Date assigned to the Reversal entry. (YYYYMMDD).
TRACE Control Number	9-18	9(10)	Control Number assigned to the Reversal entry.
Original TRACE Control Date	19-26	9(8)	Original Control Date submitted on the Reversal Function Y message.
Original TRACE Control Number	27-36	9(10)	Original Control Number submitted on the Reversal Function Y message.
Special Processing Flag	37-37	X(1)	Reflects user input.
B/S Indicator	38-38	X(1)	Reflects user input.
Client Trade Identifier	39-58	X(20)	Reflects user input.
Contra Client Trade Identifier	59-78	X(20)	Reflects user input.
Quantity	79-91	9(13)	Reflects user input.
Symbol	92-105	X(14)	Reflects user input.
CUSIP	106-114	X(9)	Reflects user input.
Price	115-129	9(15)	Reflects user input.
Price Type	130-130	X(1)	Reflects user input.
Price Override	131-131	X(1)	Reflects user input.
Seller's Commission	132-139	9(8)	Reflects user input.
Buyer's Commission	140-147	9(8)	Reflects user input.
No Remuneration Indicator	148-148	X(1)	Reflects user input.
ATS Execution MPID	149-152	X(4)	Reflects user input.
Trade Modifier 1	153-153	X(1)	Blank.
Trade Modifier 2	154-154	X(1)	Blank.

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Trade Modifier 3	155-155	X(1)	Extended hours/Late sale conditions. THIS FIELD WILL BE BLANK.
Trade Modifier 4	156-156	X(1)	Reflects user input.
CPID	157-160	X(4)	Reflects user input.
CPGU	161-164	X(4)	Reflects user input.
Contra Clearing Number	165-168	9(4)	Reflects user input.
Contra Party Capacity	169-169	X(1)	Reflects user input.
RPID	170-173	X(4)	Reflects user input.
RPGU	174-177	X(4)	Reflects user input.
Reporting Clearing Number	178-181	9(4)	Reflects user input.
Reporting Party Capacity	182-182	X(1)	Reflects user input.
When Issued Indicator	183-183	X(1)	Reflects user input.
As-Of Indicator	184-184	X(1)	Reflects user input.
Execution Date	185-192	9(8)	Reflects user input.
Execution Time	193-204	9(12)	Reflects user input.
Memo	205-214	X(10)	Reflects user input.
Special Price Indicator	215-215	X(1)	Reflects user input.
Special Price Reason	216-265	X(50)	Reflects user input.
Branch Sequence	266-273	X(8)	Reflects user input.
Contra Branch Sequence	274-281	X(8)	Reflects user input.
Settlement Date	282-289	9(8)	Reflects user input.
Locked-In Indicator	290-290	X(1)	Reflects user input.
Preparation Time	291-296	9(6)	Reflects user input.
CR LF			Carriage Return, Line Feed

5.5 Correction TRACE UM Notification (TSCR)

Denotes a TRACE Correction UM Notification Message. This message will be forwarded to the trading parties as follows when a firm submits a Correction transaction (on a trade report submitted on the current or prior business day):

1) The TSCR Message will always be forwarded to the updating firm.

2) The TSCR Message will be forwarded to the contra party if the contra in the original trade equals the contra in the corrected trade (i.e., no change in the CPID). If the contra is changed in the corrected trade, the original contra will receive a cancel notification (TSCX) and the new contra will receive a trade allege notification (TSAL).

EXHIBIT 5.5
TRACE UM NOTIFICATION MESSAGE – TSCR

LINE 1:   OTHER MPID cr lf
LINE 2:   TSCR cr lf
LINE 3:   (Original Control Date) (Original Control Number) (Correction Control Date) (Correction Control Number) (Correction Trade Text) cr lf

TRACE Correction UM Notification (TSCR)

Field Name	Position	Format	Contents/Comments
Line 3			
Original Control Date	1-8	9(8)	Control Date associated with the original TRACE record (YYYYMMDD).
Original Control Number	9-18	9(10)	Control Number associated with the original TRACE record.
Correction Control Date	19-26	9(8)	Control Date associated with the new TRACE record (YYYYMMDD).
Correction Control Number	27-36	9(10)	Control Number associated with the new TRACE record.
Special Processing Flag	37-37	X(1)	Reflects user input.
B/S Indicator	38-38	X(1)	Reflects user input.
Client Trade Identifier	39-58	X(20)	Reflects user input.
Contra Client Trade Identifier	59-78	X(20)	Reflects user input.
Quantity	79-91	9(13)	Reflects user input.
Symbol	92-105	X(14)	Reflects user input.
CUSIP	106-114	X(9)	Reflects user input.
Price	115-129	9(15)	Reflects user input.
Price Type	130-130	X(1)	Reflects user input.
Price Override	131-131	X(1)	Reflects user input.
Seller's Commission	132-139	9(8)	Reflects user input.
Buyer's Commission	140-147	9(8)	Reflects user input.
No Remuneration Indicator	148-148	X(1)	Reflects user input.
ATS Execution MPID	149-152	X(4)	Reflects user input.

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Trade Modifier 1	153-153	X(1)	Blank.
Trade Modifier 2	154-154	X(1)	Blank.
Trade Modifier 3	155-155	X(1)	Extended hours/Late sale conditions. System generated on the outbound acknowledgements: Blank = no system generated modifier T = Trade reported after market hours U = Trade reported after market hours and reported late Z = Trade reported during market hours and reported late
Trade Modifier 4	156-156	X(1)	Reflects user input.
CPID	157-160	X(4)	Reflects user input.
CPGU	161-164	X(4)	Reflects user input.
Contra Clearing Number	165-168	9(4)	Reflects user input.
Contra Party Capacity	169-169	X(1)	Reflects user input.
RPID	170-173	X(4)	Reflects user input.
RPGU	174-177	X(4)	Reflects user input.
Reporting Clearing Number	178-181	9(4)	Reflects user input.
Reporting Party Capacity	182-182	X(1)	Reflects user input.
When Issued Indicator	183-183	X(1)	Reflects user input.
As-Of Indicator	184-184	X(1)	Reflects user input.
Execution Date	185-192	9(8)	Reflects user input.
Execution Time	193-204	9(12)	Reflects user input.
Memo	205-214	X(10)	Reflects user input.
Special Price Indicator	215-215	X(1)	Reflects user input.
Special Price Reason	216-265	X(50)	Reflects user input.
Branch Sequence	266-273	X(8)	Reflects user input.
Contra Branch Sequence	274-281	X(8)	Reflects user input.
Settlement Date	282-289	9(8)	Reflects user input.
Locked-In Indicator	290-290	X(1)	Reflects user input.
Preparation Time	291-296	9(6)	Reflects user input.
CR LF			Carriage Return, Line Feed

APPENDIX A --- TCP/IP Connection and IBM WebSphere MQ

For information concerning TCP/IP Connectivity and IBM WebSphere MQ, please refer to the CTCI - MQ Subscriber Resource page published by NASDAQ on http://www.nasdaqtrader.com.

APPENDIX B --- CTCI Rejection Messages

The following is a list of CTCI rejection messages. These messages may occur as a result of invalid data entry, lack of data or invalid action taken on the trade. Please note this is not a complete list and is subject to change over time.

!REJ – FUNCTION NOT ALLOWED
!REJ – SECURITY NOT FOUND
!REJ - INVALID CONTROL DATE
!REJ - INVALID CONTROL ID
!REJ – INVALID FORMAT
!REJ – INVALID STATUS
!REJ – INVALID TYPE
!REJ - INVALID PREP TIME
!REJ - INVALID PRICE TYPE
!REJ - INVALID PRICE FLAG
!REJ - INVALID REVERSAL DATE
!REJ - INVALID REVERSAL ID
!REJ - DUPLICATE CONTROL DATE/ID
!REJ - CLIENT TRADE ID MISMATCH
!REJ - INVALID ORIGINAL CONTROL DATE
!REJ - INVALID ORIGINAL CONTROL DATE
!REJ – INVALID CUSIP
!REJ - INVALID WHEN ISSUE IND
!REJ - INVALID CLEARING NUMBER
!REJ – INVALID RPID
!REJ - RPID MISMATCH
!REJ - RPGU MISMATCH
!REJ - TRADE NOT FOUND
!REJ - INVALID NO REMUNERATION
!REJ - CONTRA TRADE NOT FOUND
!REJ - INVALID RPID GIVE-UP
!REJ - INVALID CP GIVE-UP
!REJ - INVALID ORIGINAL CONTROL NUMBER
!REJ - RPID GIVE-UP NOT AUTHORIZED
!REJ - CPID GIVE-UP NOT AUTHORIZED
!REJ – MUST ENTER SECURITY SYMBOL OR CUSIP
!REJ – SECURITY NOT AUTHORIZED
!REJ - INVALID ATS EXECUTION MPID OR NOT AUTHORIZED
!REJ - INVALID RP/CP USA
!REJ - INVALID CP/CPGU USA
!REJ - INVALID RP/RPGU USA
!REJ - CUSTOMERS/AFFILIATES NOT VALID IN ATS EXECUTION
!REJ - BATCH UPLOAD NOT ALLOWED
!REJ - INVALID MATCH STATUS

!REJ - INVALID REJECT CONTROL NUMBER
!REJ - ALREADY CLOSED OR REPAIRED
!REJ - BUYER COMMISSION EXCEEDS PRICE
!REJ - SELLER COMMISSION EXCEEDS PRICE
!REJ - ISSUE NOT ACTIVE
!REJ - TRADING NOT ALLOWED
!REJ - PRODUCT ENTRY SUSPENDED
!REJ - BILL SUBPRODUCT ENTRY SUSPENDED
!REJ - NOTE SUBPRODUCT ENTRY SUSPENDED
!REJ - STRP SUBPRODUCT ENTRY SUSPENDED
!REJ - TIPS SUBPRODUCT ENTRY SUSPENDED
!REJ - TRADE ENTRY SUSPENDED, EMC HALT
!REJ - INVALID EXECUTION TIME
!REJ - QUANTITY REQUIRED
!REJ - INVALID TRADE MODIFIER 1
!REJ - INVALID TRADE MODIFIER 2
!REJ - INVALID TRADE MODIFIER 3
!REJ - INVALID TRADE MODIFIER 4
!REJ - CONTRA P/A REQUIRED
!REJ - INVALID SETTLEMENT DATE
!REJ - INVALID CONTRA CLIENT TRADE IDENTIFIER
!REJ - INVALID SPECIAL PROCESSING FLAG
!REJ - INVALID LOCKED-IN INDICATOR
!REJ - FIX PROTOCOL ENTRY SUSPENDED
!REJ - CTCI PROTOCOL ENTRY SUSPENDED
!REJ - WEB PROTOCOL ENTRY SUSPENDED
!REJ - INVALID RPID/CPID COMBINATION
!REJ - ENTERING MPID IS HALTED
!REJ - RPID IS HALTED
!REJ - REPORTING PARTY GIVEUP IS HALTED
!REJ - ISSUE NOT ACTIVE OR INACTIVE
!REJ - EXECUTING PARTY NOT AUTHORIZED
!REJ - SECURITY HALTED
!REJ - CORRECTION NOT ALLOWED, CANCEL AND NEW TRADE REQUIRED
!REJ - CAN NOT BE PROCESSED AS SUBMITTED
!REJ – INVALID DATE
!REJ – INVALID PRICE
!REJ – INVALID PRICE OVERRIDE
!REJ – INVALID TIME
!REJ – RPID REQUIRED
!REJ – TRACE ENTRY SUSPENDED
!REJ – INVALID SIDE
!REJ – NOT WITHIN ALLOWABLE TIME
!REJ – PRICE OUT OF RANGE
!REJ – PRICE OUT OF OVERRIDE RANGE
!REJ – TERMINAL NOT AUTHORIZED
!REJ – INVALID MMID

!REJ – INVALID FUNCTION CODE
!REJ – PRICE REQUIRED
!REJ – INVALID BUYER COMMISSION
!REJ – INVALID SYMBOL
!REJ – INVALID VOLUME ENTERED
!REJ – INVALID AS-OF
!REJ – RPID NOT AUTHORIZED

!REJ – CPID NOT AUTHORIZED
!REJ – CANNOT CHANGE CUSIP
!REJ – INVALID SELLER COMMISSION
!REJ – INVALID P/A
!REJ – CPID REQUIRED
!REJ – INVALID REPORT FLAG
!REJ – INVALID SPECIAL TRADE INDICATOR
!REJ – INVALID SPECIAL TRADE INDICATOR/SPECIAL MEMO
!REJ – NO CONTROL NUMBER
!REJ – TRADE ALREADY CANCELED
!REJ – INVALID BRANCH SEQUENCE NUMBER
!REJ – INVALID CONTRA BRANCH SEQUENCE NUMBER
!REJ – INVALID AS-OF DATE
!REJ – NOT AN OPEN TRADE
!REJ – INVALID CPID
!REJ – CORRECTION MAY NOT CHANGE BOND
!REJ – EXECUTION TIME GREATER THAN TRADE REPORT TIME
!REJ – NOT TRADE SUBMITTER
!REJ – CORRECTION MAY NOT CHANGE AS-OF FLAG

Document Revision Log

Version	Revision Date	Description of change
1.0	9/1/16	Initial version.
1.1	12/27/16	Updated definition of "When Issued Transaction"
1.2	2/8/2017	Updated definition of "Execution Time"
1.3	3/16/2017	Modified RPID field on Trade Cancel Entry message layout to reflect a required field (section 3.2, pos. 63-66).
1.4	4/25/17	Updated APPENDIX B CTCI Rejection Messages. Corrected Prior Day reference using T-1.
1.5	12/14/17	Updated T-1 to T-2 to reflect changes being implemented in January 2018.